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NELLORE MANUAL.

CHAPTER I.

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Position.

THE Nellore District lies to the north of Madras, and is 170 miles long from north to south, and 70 miles broad from east to west.

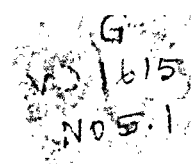
Boundaries.

It is bounded on the south by Madras and North Arcot, on the east by the Bay of Bengal, on the west by Cuddapah and Kurnool, and on the north by the Kistna District. It lies between lat. 13° 25′ and 15° 55′ N., long. 79° 10′ and 80° 15′; the area is 8751·75 square miles approximately. Population 1,168,664.

Area—Population.

Aspect of the country.

The general aspect of the coast is that of a sandy plain with large tracts of jungle interspersed with cocoanut trees and palmyras. The country inland is more hilly, but few eminences have an elevation exceeding 400 feet above the level of the sea. The Udayagiri Droog is an exception, rising to about 2,000 feet. Captain A. O'H. Clay, of the Revenue Survey, in a report of 1868, writes:—"The natural features of the coast taluqs differ widely from those lying under the Eastern Ghauts. In the former there is every evidence of prosperity: the villages are of a fair size, and generally contain several tiled houses; handsome topes are planted in the neighbourhood; land available for cultivation is being eagerly taken up, and the eye ranges with pleasure over the rice plains of Nellore and Gudur (chiefly irrigated by the Pennair Anicut) and the luxuriant crops of cholum growing on the rich red soils of Kandukur and Ongole. But to the west all is changed, large tracts of low scrub jungle, diversified with rocky hills and stony plains, form the distinctive


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features of the country. The villages are poor, topes rarely gladden the eye of the traveller, and pure water is almost an unknown luxury. Small tanks obtaining an uncertain supply of water from local drainage, irrigable land constantly thrown out of cultivation, and the stunted crops reared on a hungry soil mark the difficulties against which the ryot strives to gain a precarious livelihood."

Mountains.

Of the mountain ranges in the district, the Eastern Ghauts run in a north-westerly direction from the south of Venkatagiri to the north of the Kanigiri Taluq, and form the line of demarkation between this district and that of Cuddapah. The highest point, Penchalakonda, has an elevation of about 3,000 feet above the level of the sea. The slopes are covered with low jungle, in some places mixed with bamboos. Towards the north the jungle is dense and heavy. In parts timber is to be found of good size, but no great value. Totally disconnected with this range rises the Udayagiri Droog about 2,000 feet high. This fortified hill was formerly held by a Mahomedan Jaghiredar, and must have been a place of great strength.

Rivers.

The principal rivers in the district are the Pennair, Suvarnamukhi, Maneru, Paleru, Musi, and Gundlakamma. The Pennair rises in the Nundidroog Hills in the Mysore territory, and enters the district through a gorge in the Eastern Ghauts at Somesila, 285 miles from its source. It runs in an irregular easterly course for 70 miles, dividing the district into two unequal portions, and falls into the Bay of Bengal in lat. N. 14° 36′ eighteen miles below the town of Nellore. It receives two unimportant feeders—the Boggeru and Biraperu—in its course through the district. The river receives its first supply of water when the rains of the south-west monsoon fall in the western districts, and is in full or partial flood on an average for 61 days in the year. There is an anicut at Nellore with two main artificial channels to Kristnapatam and to Sarvepalli in the Gudur Taluq, and branches to the numerous tanks in the neighbourhood of their course. There is another irrigation scheme under examination at Sangam, 20 miles to the west of Nellore, which is designed to supply water to the lands on the northern bank of the river. Another anicut has also been designed by the Madras Irrigation Company at Somesila across the gorge in the western hills. From this it was intended to carry an irrigating and navigable canal with branch supplying-channels through the south of the Atmakur and the north of the Rapur Taluqs, and thus bring a large area of land under irrigated rice cultivation, but the scheme is indefinitely postponed. In the lower part of its course the bed of the Pennair is sandy, but higher up rocky, with many deep pools well stocked with fish, which, being swept down the stream during inundations, find their way into the numerous extensive tanks supplied by the river, and form a considerable portion of the diet of the people

of this district. Sea fish also come up the river in flood, and are caught in the deep pools as the waters subside. For nine months annually the bed is in most places nearly dry, but during the north-east monsoon prevailing at the close of the year, in a few days it becomes filled from bank to bank, and at the town of Nellore the volume of water is 500 yards wide and 30 feet deep.

The Suvarnamukhi river rises in the Chittoor Hills and, flowing eastward, holds a course nearly parallel to the Pennair, but veering more to the north-east, and after a course of about 15 miles through the district, it falls into the Bay of Bengal, 34 miles south of the Pennair. The bed of the river is completely dry for the greater part of the year, but during the rainy season it has a large volume of water. Owing, however, to its rapid fall this river is seldom in flood for more than a few days at a time. It crosses the northern trunk road two miles from Naidupett. It has several supplying-channels which replenish the tanks, of which a great number exist in the level part of this district.

The Gundlakamma river rises in Kurnool, its source being the Cumbum tank, which is fed by numerous streams from the Nallamallay Hills.

The other rivers rise in the Eastern Ghauts and are little more than mountain torrents. Their beds lie so low beneath the adjoining lands that their water is seldom available for irrigation purposes. Wells are sunk in the beds of the streams and the water is raised by bullock pecottas at a great expenditure of time and labor.

East Coast Canal.

The East Coast Canal is being extended as far as Kristnapatam, and affords water communication with Madras. The canal is carried along the western border of the island of Sriharikota for a distance of 20 miles, when it debouches into the Pulicat lake. There are several inlets from the sea at different points along the coast, and the waters augmented during the north-east monsoon by the western drainage spread over the adjoining low-lying lands and for six months of the year a series of salt swamps are to be found along different parts of the coast from Kristnapatam northwards. The inlets to the sea being numerous, no engineering difficulties prevent these inlets being easily connected, and were this done there would be uninterrupted water communication through the district. Indeed the canal might be easily carried on to form a junction with the one from Rajahmundry to Bezwara.

Taluq Divisions, Stations of Public Functionaries, Salt Stations, Ports, Post Offices, &c.

The district of Nellore has nine Government and four Zemindari Taluqs shown below, with the stations of public functionaries, police stations, salt stations, ports, post offices, and travellers' bungalows in each:

Taluqs.	Towns.	Remarks.
Ongole ...	Ongole	Head-quarters of Sub-Collector and Joint Magistrate; Station of Tahsildar and Sub-Magistrate; District Munsiff's Court; Police Station; Travellers' Bungalow. Population 5,832. Post Office.
	Adanki	Station of Deputy Tahsildar and Sub-Magistrate; Travellers' Bungalow; Police Station. Population 5,086. Post Office.
	Allur Kottapatnam.	Port. Superintendent of Sea Customs is also a Sub-Magistrate. Police Station. Population 6,512. Post Office.
	Itamukkala ...	Port. Population 3,203. The village belongs to the Venkatagiri Zemindari.
	Tangatur ...	Police Station; Travellers' Bungalow; Population 5,364.
	Kanuparti ...	Salt Station; Police Station. Population 2,504. District Post Office.
	Padarti	District Post Office. Gives name to Salt Station including Devarampad and Biramgunta. Population 2,623.
	Devarampad ...	Salt Station. Population 1,567.
	Biramgunta ...	Do. do. Police Station. Hamlet of Padarti.
	Velampalli ...	Travellers' Bungalow; Police Station. Population 362.
	Chilkalapad ...	Police Station. Population 704.
	Chimakurti ...	Do. Do. 3,148.
	Naguluppalapad.	Do. Do. 1,554.
	Amanabrolu ...	Do. Do. 2,007.
	Dudukur ...	Do.
	Valaparla ...	Do. Do. 1,911.
	Inamana Mellúr.	Population 2,301.
	Karavadi ...	Do. 2,260.
	Karumanchi ...	Do. 2,083.
	Santanutalapad..	Do. 3,461.
	Ponduru ...	Do. 2,474.
	Kanigiri. ...	To be station of Tahsildar and Sub-Magistrate as soon as Cutcherry built. Police Station. Population 2,896.
	Pamur	District Post Office. Police Station. Population 2,527. The village belongs to the Calastri Zemindari.
	Mogullur ...	Present temporary station of Tahsildar and Sub-Magistrate; Police Station. Population 1,710. Post Office.
	Talakondapád ...	Police Station. Population 850.
	Pedda Irlapad ...	Do. Do. 2,884.
	Gogulapalli ...	Do. Do. 1,704.
Kanigiri...	Gummalakara ...	Do. Hamlet of Pandavamagulavaram.
	Nandanavaram...	Do. Population 1,321.
	Bottagudúr ...	Do. Do. 1,006.
	Chandrasekharapuram.	Do. Do. 939.
	Bojamadugu Kotapalli.	Do.
		Do. Do. 551.
	Peddu Cherlopalli.	Population 2,446.
	Garuvajipetta ...	Do. 2,045.
	Kandukur ...	Station of Tahsildar and Sub-Magistrate. Police Station. Population 6,324. Post Office.
	Ramapatnam ...	Police Station; Travellers' Bungalow; District Post Office; Sea Customs' Port. Population 1,133.
	Chandi	Zemindari village. Police Station. Population 3,150.
Kandukur.	Tangella ...	Police Station. Population 1,233.
	China Kandlagunta.	Do. Do. 585.
	Ponnalúru ...	Do. Do. 1,991.
	Davagudur ...	Do. Do. 721.
	Singarayakonda..	Shrotrium village; Police Station; Travellers' Bungalow; Country Post Office. Population 793.

Taluqs.	Towns.	Remarks.
Kandukur. —(*Contd.*)	Chilámchala ...	Police Station. Population 873.
	Chinapavani ...	Zemindari Village. Police Station. Population 693.
	Lingasamudram..	Do. Do. Do. 3,769.
	Pakala	Police Station; District Post Office; Sea Customs' Port. Population 2,217.
	Karédu... ...	Population 3,360.
	Zarugumalli ...	Do. 2,429.
	Pókúru	Do. 2,061.
	Tettu	Branch road to Ramapatam. Hamlet of Mocherla.
	Ullapálem ...	Salt Station. Hamlet of Pakala.
	Binganapalli ...	Do. Population 1,257.
	Udayagiri ...	Station of Tahsildar and Sub-Magistrate. Police Station. Population 3,443. Post Office.
	Lingamnénipalli.	Police Station. Population 235.
	Chinnamáchanúr.	Do. Do. 273.
	Duttalúr ...	Do. Do. 2,727.
	Sítárámpuram ...	Zemindari village. Police Station. Population 3,165.
	Tótala Cheruvupalli.	Police Station. Population 725.
Udayagiri.	Variguntapád ...	Do. Do. 1,197.
	Doranála ...	Do. at Timmanardpalem, three miles from the Dornal Ghaut.
	Padamatinayanapalli.	Police Station. Population 1,523.
	Vinjamúr ...	Zemindari Village. Police Station. Population 5,000.
	Chákalakonda ...	Shrotrium do. Do. Do. 2,434.
	Narraváda ...	Zemindari do. Population 2,430.
	Kavali ...	Station of Tahsildar and Sub-Magistrate; Police Station; Post Office. Population 2,800.
	Chodavaram ...	Zemindari Village. Police Station. Population 417.
	Bramanakreka...	Police Station. Population 2,084.
	Bógavólu ...	Do. Do. 588.
	Juviladinne ...	Do. Do. 2,111.
Kavali ...	Gudladona ...	Zemindari Village. Police Station. Population 1,482.
	Kaligiri ...	Police Station. District Post Office. Population 1,454.
	Gudavalur ...	Do. Population 961..
	Tummalapenta...	Salt Station. Police Station. Population 2,337. District Post Office.
	Chinaannalúr ...	Population 3,452.
	Pedakondúr ...	Zemindari Village. Population 2,278.
	Mamilladoruvu...	Hamlet of Tummalapenta.
	Atmakur ...	To be station of Tahsildar and Sub-Magistrate as soon as Cutcherry is built. Police Station. Population 3,424.
	Devarayapalli ...	Present Station of Tahsildar and Sub-Magistrate. Police Station. Population 358. Post Office.
	Kaluvaya ...	Police Station. Population 3,493.
	AmaniChennvélla	Do. Do. 879.
Atmakur	Somisila ...	Shrotrium Village. Police Station. Population 226.
	Chijerla ...	Police Station. Population 2,266.
	Navuru... ...	Do. Do. 1,577.
	Chiramana ...	Do. Do. 1,407.
	Darmaravuchevùpalli.	Do. Do. 869.
	Mahimalur ...	Population 2,606.
	Anantasagaram..	Do. 2,739.
	Nellore	Station of the Civil and Sessions Judge; Collector and Magistrate; Tahsildar and Sub-Magistrate also Town Sub-Magistrate; District Munsiff's Court; Police Station; Travellers' Bungalow; Post Office; District Post Office; Telegraph Office; Population 22,851.
Nellore ...	Indukurpita ...	Police Station. Population 3,252.
	Mulumudi ...	Do. Do. 902.

Taluqs.	Towns.	Remarks.
Nellore. (*Contd.*)	Idúru ...	Police Station. Population 2,382.
	Gangápatnam ...	Salt Station. District Post Office. Population 1,493.
	Buchireddipalem	Police Station. Population 3,497.
	Dagadarti ...	Do. Do. 543.
	Sangam... ...	Do. District Post Office. Population 1,121.
	Kóvur	Do. Population 3,716.
	Racharlapad ...	Do.
	Allur ...	Station of Deputy Tahsildar and Sub-Magistrate; Travellers' Bungalow; Police Station; District Post Office. Population 3,677.
	Kodavalúr ...	Police Station. Population 685.
	Alaganipad ...	Do. Do. 827.
	Isakapalli ...	Police Station; Salt Station; District Post Office. Sea Customs' Port. Population 1,649.
	Gogulapalli ...	Police Station. Salt Station. Population 835.
	Varini ...	Population 1,055.
	Utúkurú ...	Do. 2,245.
	Léburú ...	Do. 2,847.
	Kódurú ...	Do. 2,457.
	Yellayapálem ...	Do. 2,583.
	Duvvóru ...	Do. 2,477.
	Vavvóru ...	Do. 3,467.
Rápur ...	Rápur ...	Station of Tahsildar and Sub-Magistrate; Police Station; District Post Office. Population 2,809.
	Akilivalasa ...	Police Station. Population 309.
	Togacherla ...	Do. Do. 408.
	Dásúr ...	Do. Do. 1,037.
	Marlapúdi ...	Do. Do. 448.
	Saidapuram ...	Do. Do. 1,147.
	Tummalatalapúru.	Do. Do. 943.
	Podalabar ...	Police Station.
Gúdúr ...	Gúdúr ...	Station of Tahsildar and Sub-Magistrate; District Munsiff's Court; Police Station; Travellers' Bungalow; Post Office. Population 5,123.
	Kadivédu ...	Police Station. Population 1,158.
	Ojili ...	Zemindari Village; Police Station; Travellers' Bungalow. Population 1,487.
	Vendódu ...	Police Station. Population 1,268.
	Venkata Chalam Chatram.	Do. Travellers' Bungalow. Hamlet of Kanupur.
	Kristnapatnam...	Police Station; Salt Station; District Post Office; Sea Customs' Port. Population 1,475.
	Brahmadivam ...	Police Station. Population 961.
	Kóta ...	Do. Do. 5,265.
	Jupili ...	Zemindari Village. Police Station. Population 2,473.
	Yérúr ...	Police Station. Population 1,076.
	Dugarazupatam..	Do. Salt Station; Sea Customs' Port; Travellers' Bungalow; Country Post Office. Population 1,076. District Post Office.
	Srihariköta ...	Station of Deputy Tahsildar and Sub-Magistrate; Police Station; District Post Office. Population 969.
	Reddipálem ...	Police Station. Population 1,626.
	Sarvépalli ...	Population 4,619.
	Ipúru ...	Do. 2,662.
	Chennúr ...	Do. 3,395.
	Irakam ...	Do. 2,095.
	Manubolu ...	Zemindari Village. Population 2,467.
	Arungamor Monapalem.	Light-house.
Darsi (Zemindari.)	Darsi ...	Station of Deputy Tahsildar and Sub-Magistrate; Police Station; District Post Office; Population 1,831.

Taluqs.	Towns.	Remarks.
Darsi (Zemindari) (*Contd.*)	Indlacheruvu ...	Police Station. Population 432.
	Polavaram ...	Do. Do. 840.
	Púrimetla ...	Do. Do. 485.
	Kurichódu ...	Do. Do. 2,051.
	Chandalúru ...	Do. Do. 2,036.
	Kottapalli ...	Do. Do. 655.
	Potakamúru ...	Do. Do. 3,162.
	Kócherlakóta ...	Do. Do. 941.
	Náyudupálem ...	Do. Do. 279.
	Pállúru ...	Population 2,198.
	Podile ...	Station of Deputy Tahsildar and Sub-Magistrate; Police Station; Post Office; Population 3,067.
Podile (Zemindari.)	Tadivaripalli ...	Police Station. Population 634.
	Talamalla ...	Do. Do. 459.
	Chimmata ...	Do. Do. 1,672.
	Garlapéta ...	Do. Do. 1,168.
	Pedárikatla ...	Do. Do. 1,781.
	Konakanametta..	Do. Do. 763.
	Tárlapád ...	Do. Do. 1,209.
	Marripúdi ...	Population 2,426.
	Kalujuvvalapád..	Police Station. Population 901.
	Ráyavaram ...	Do. do. 448.
Venkatagiri (Zemindari.)	Venkatagiri ...	Station of Deputy Tahsildar and Sub-Magistrate; Police Station; Post Office. Population 6,989.
	Vembalúr ...	Police Station. Population 1,335.
	Kadagunta ...	Do. Do. 369.
	Attivaram ...	Do. Do. 576.
Polur or Sulurpeta (Zemindari.)	Sulurpétt ...	Station of Deputy Tahsildar and Sub-Magistrate; Travellers' Bungalow; Police Station; Post Office. Population 637.
	Naidupétt ...	Head-quarters of the Deputy Collector and Magistrate; Police Station; Post Office. Population 1,019.
	Naiduchatram ...	Police Station. Attached to Madras District except for salt.
	Aururu ...	Police Station. Population 414.
	Tada ...	Do. Salt Station; Post Office. Population 305.
	Bódilingampád ..	Police Station. Population 180.
	Sunnapugunta ...	Police Station; Salt Station; District Post Office, Attached to Madras District except for salt.
	Nelaballi ...	Travellers' Bungalow. Population 495.
	Arambákam ...	Do. Attached to Madras District.

Physical description of Taluqs.

For the following account of the physical peculiarities of each taluq we are chiefly indebted to a paper by Captain A. O'H. Clay.

Sriharikota.—Sriharikota, the southernmost portion of the Gudur Taluq, was transferred from the Madras District in 1865, and is a long low island. The portion belonging to Nellore is about 35 miles long and six miles broad in its widest part. It is covered with dense jungle and forms one of the chief sources of supply of firewood for the Madras market. The trees grow here with a luxuriance unknown in any other part of the district. There is but little land cultivated, and that little almost entirely with the aid of water, for the soil is almost pure sand. Along the side of the Pulicat lake a narrow strip of land is under rice

cultivation; each field contains a never failing spring of brackish water, which is, when low, raised by pecottas into the fields. Round the scattered huts of the ryots and the fishermen scanty crops of raggi and cheyroot are raised and the necessary supply of water obtained by scooping out pits in the sand or sinking chatty or earthenware wells. The climate is considered unhealthy by the natives of the other parts of the district, and a large proportion of the population is afflicted with elephantiasis. A dam has recently been thrown across the Pulicat lake from Kipakam of Atakanadibba and Venad and on to the main land, thus turning the upper portion of the lake into a sandy desert; the chief object of this has been to check the natural salt-producing tendencies of this tract, which hitherto afforded great facilities for the smuggling of salt. During the prevalence of the land wind the aspect of this salt plain is most forbidding, the air is filled with burning particles of sand, and the sun shines horridly through a dense mist. Whether the bund has answered the purpose for which it was intended or not, it is a question whether depriving the jungles on the northern portion of the island of the moist atmosphere which they enjoyed during the hottest months of the year, will not eventually conduce to their deterioration and injuriously affect the springs on which the ryots depend for the cultivation of their lands. The surface of the upper portion of the lake being now dry in the hot season the people complain that the land wind carries the fine particles of dust which form on the surface of the saltish soil on to their cultivable lands and deteriorates them at least in this way. There are several islands in the Pulicat lake, the most important of which are Venad and Irakam. From these there is a considerable export of sub-fossil chunam shells, the contract for digging which is put up to auction each year. The soil of Sriharikota is pure sand, and the island is covered with jungle. From here most of the firewood of the Presidency town is exported by boats along the canal. The jungle is divided into eight sections, and one is let out by contract to the highest bidder each year, or the wood is cut on account of Government and sold by auction.

The trees are pollarded, and to a great measure recover themselves in seven years. There is a settlement of Yanadies at this place, who number about 500. They collect the jungle produce—honey, bees' wax, gum, &c.,—for Government. The whole is sold, and one-third of the amount realized credited to Government, while two-thirds are given back to the tribe in the shape of grain and cloths. The individuals who bring in the produce are paid according to the quantity they bring in and the rest of their two-third share is divided equally among all once in six months. Government have established a school for the Yanadi youths, who attend in number about 50. They learn here to read and write and make baskets of rattan which they collect in the

jungles. The baskets are sent to Madras and sold, and the amount realized is laid out on grain and cloths, and given to the boys attending the school, a larger share to each according to merit, but all get something. An attempt has also been made to induce the Yenadies to take to agriculture. One acre of land has been assigned for the purpose. Government defray the expenses of cultivation. The crops are sold and, after deducting the expenses and paying the laborers, the profits are credited to Government, but the experiment has not been very successful.

Gudur and Nellore.—The rest of the Gudur Taluq and the Nellore Taluq are very similar in appearance. There is comparatively but little jungle and little cultivation in the eastern villages, but a good deal on the whole in the western. Two supplying-channels from the south side of the Nellore Anicut, one to Kristnapatam and one to Sarvepalli with numerous feeders to the different tanks, bring a large area of land under rice cultivation. All land that can be irrigated is being rapidly taken up, and the wealth and prosperity of the ryots is yearly increasing. Nellore, the chief town of the district, is situated on the south side of the Pennair, about 20 miles from its mouth. There is a very fine tank to the west of the town, and to the east are extensive rice fields. Towards the south the ground is high and covered with brushwood. Large quantities of laterite are quarried in the neighbourhood of Nellore and extensively used for building purposes and the repair of roads. There is an excellent description of building stone found at Buchireddipalem, about eight miles to the west of Nellore, which is commonly considered to be granite, but which is in reality gneiss.

Kavali.—The greater portion of this taluq and the adjacent portion of Kandukur, south of the river Maneru, is very similar. It has numerous tanks except to the west and north-west, but they receive their water from local drainage, and the supply is, therefore, uncertain, and there is not the same amount of rice cultivation as in the more favored taluqs already mentioned. In the uplands there is a large area of land under dry cultivation, and indigo is grown to a considerable extent by the ryots, but the soil is generally poor, and large beds of laterite are frequently met with. To the west and north-west of Kavali are extensive low jungles, in some places very dense.

Kandukur—Ongole.—The natural features of these taluqs are very similar, as regards the tract to the north of the Maneru. There are very few tanks and but little jungle, and the extensive plains are devoted to unirrigated cultivation, and in consequence of the superior quality of the soil very fine crops are raised. Every village boasts of handsome topes. Garden lands extend along the banks of the rivers, and the

water is obtained from wells sunk in the beds. The cattle in these two taluqs are finer than those in any other part of the district, and are famed throughout the Presidency. In the western part of the taluq lies the Zemindari of Chundi, separated from the Kanigiri Taluq by a range of hills running north and south for about 15 miles. They are of very considerable elevation and the slopes are covered with dense jungle, and some fine trees are occasionally to be met with in the villages.

Rapur.—This is the most southerly of the inlying Government taluqs. It is watered by two small streams—the Kandleru and the Kolleru—which receive the drainage from the Eastern Ghauts, and uniting in the Manubolu valley flow into the Kristnapatam backwater. These rivers supply a few tanks in their course through the Gudur Taluq, but the area of irrigated land in the Rapur Taluq is very small. When, however, the Irrigation Company's canal, the line of which passes through the north-east of this taluq, is completed, a marked increase in this respect is to be expected. The soil is generally tolerably good in the northern part, chiefly black, and in the south red. Towards the south the face of the country is studded with low rocky hills, chiefly trap, on which garnets and other crystals are frequently found. All along the west of the taluq are dense low jungles extending from the slope of the ghauts for an average breadth of six miles. Some fine timber and bamboos of a fair size are occasionally to be met with here.

Atmakur.—This taluq is divided into two unequal portions by the river Pennair. The northern portion is watered by the Boggeru, which falls into the Pennair near Atmakur. There are several very fine tanks in this taluq, that of Anantasagaram being specially worthy of mention for its great depth. About a twentieth of the area of the taluq is under rice cultivation, principally to the south of the Pennair. There is a considerable amount of low jungle scattered over the taluq; the soil is generally fair except to the north-west, where it is of a much inferior character. In the villages near the Pennair a considerable quantity of indigo is grown, especially at the wealthy village of Kalavaya, on the south bank. In this, as in other taluqs, tracts of barren land are occasionally to be met with. The soil is impregnated with salt, which at certain seasons covers the surface with a white efflorescence.

Udayagiri.—The jungle already alluded to in the Rapur Taluq extends northwards through Atmakur, Udayagiri, and Kanigiri. In the north-west of this taluq is a detached range of hills, and the intervening country between them and the Veligondas is of a very wild and unhealthy character, which it maintains till the termination of the ghauts. The eastern portion of this taluq is, with the exception

of the proprietary lands of Chakalakonda, &c., entirely Zemindari. This is by far the most fertile portion of the taluq. The rest, except in the vicinity of Dutalur, Udayagiri, Garimanapenta, and a few other large villages, is of a barren, uninviting description. The northern portion is stony to a degree, and seems only capable of producing Mimosa bushes and Euphorbia. In the plains hardly a tree is to be seen, and an occasional stunted tope near a village site bears further evidence to the sterile nature of the soil. There is a large indigo factory at Garimanapenta, and copper was formerly found to a small extent in the neighbourhood. In former years a very large reservoir existed in the Zemindari villages near Gandipalem. It was formed by damming the waters of the Pillaperu, an affluent of the Maneru, where it runs between two low hills, but it was breached shortly after its completion, and has never been restored. The restoration of the Gandipalem reservoir is one of the irrigation projects at present under examination. There is a very numerous Mahomedan population at Udayagiri, descendants of hangers about the court of former Nàwabs and now in a state of abject poverty.

Kanigiri.—This is by far the most barren and unproductive taluq in this district. Although intersected by two streams, the Maneru and Paleru, except in the immediate neighbourhood of each village, where gardens are irrigated from very deep wells and a small area is under unirrigated cultivation, no attempt has been made to till the land, and indeed such is the rocky nature of a great portion of the tract that the task would be fruitless. The plains are covered for miles with thin scrub jungle, affording a scanty subsistence to herds of goats, and are intersected by low rocky hills frequently destitute of verdure. The villages are generally mean, and the inhabitants appear in a state of chronic starvation, and furnish a large contingent to the criminal population of the district. There are but few villages where pure water is to be obtained, and there only at a great depth below the surface. Frequently a green stagnant pool of water serves equally for the purpose of ablution or consumption. In the north-west corner of the taluq near Nandanavaram are some remarkable sand hills from 20 to 30 feet in height and spread over a considerable area. They are probably formed of detritus from the neighbouring hills drifted by the force of the fierce land wind. Nothing similar is to be found along the range of the Eastern Ghauts. Palmyra trees are very abundant here, and drunkenness is very prevalent among all classes in all the westerly villages of the inland taluqs.

Villages, Area, Population, and Revenue.

The following statement shows the number of villages, area, population, and revenue of each of the taluqs:—

	Taluqs.	Before Survey. No. of Villages.	No. of Hamlets.	No. of Survey clubbed Villages.	No. of Zemindari Villages.	No. of Shrotrium Villages.	Area in Square Miles.	Population as per Census of Fusli 1276 (1866-67).	Revenue for Fusli 1280 (1870-71).
									Rs.
1	Gudur	124	137	81	43	45	817·79	119,721	3,58,863
2	Rapur	90	47	52	...	72	518·36	52,268	1,33,316
3	Nellore	128	101	101	...	47	638·32	147,606	5,59,51[illegible]
4	Atmakur	102	67	74	14	26	618·04	9[illegible],771	2,53,171
5	Kavali	51	79	38	24	18	548·46	6[illegible],336	1,83,472
6	Udayagiri	62	55	34	81	19	625·39	9[illegible],583	79,738
7	Kandukur ...	119	92	85	53	54	781·08	1[illegible],070	3,16,968
8	Kanigiri	78	115	34	147	23	744·40	1[illegible],065	62,957
9	Ongole	114	106	96	59	22	835·07	1,0[illegible],030	3,50,516
	Venkatagiri ...	...	...	...	166	...	456·25	[illegible],000	...
	Polur	...	...	...	126	...	442	43,012	...
	Darsi	...	...	...	136	...	588	60,857	...
	Podela	...	...	...	123	...	631	53,040	...
	Unsurveyed tracts near Eastern Ghauts in Rapur, Udayagiri, and Kanigiri...	...	...	...	...	...	553·09	...	...
							8751·75	1,168,664	...

The area of the several taluqs and the Zemindari tracts cannot be given accurately. In a statement furnished by the Superintendent of the Revenue Survey, recorded in Board's Proceedings dated 15th April 1868, the total area of the district, including the estate of Venkatagiri, is given at 8,084·4 square miles. This area is said to be computed from the Sheet Atlas of India, but the details of Ryotwar, Zemindari, Shrotrium, &c., are not given.

On 24th June 1868, Major Barber, Deputy Superintendent of Revenue Survey, furnished a statement showing the area by survey in the several taluqs of the district in square miles. The total area according to this statement is 6,081·41 square miles, but this does not represent the whole area of the district, as certain jungle portions near the Eastern Ghauts and certain Zemindari tracts have not been included—(see Appendix, Statistics, 3).

In G. O. dated 23rd June 1861, No. 1[illegible]41, sanctioning the final distribution of the taluqs, the total area of the district, including the Venkatagiri Estate, is entered at 8,605·2[illegible] square miles. The Revenue Survey operations here having been extended to the whole district, there is no alternative but to assume the area as correct. Adding to this 146·50 square miles of the Sriharikota Division, which was transferred to this district from Madras subsequently, the total area of the district, as at present constituted, has been returned at 8,751·75 square miles, or 56,100,120 acres.

The area of the Venkatagiri Estate, exclusive of the villages scattered

in the Government taluqs, is given at 2,117·25 square miles. The area of the remaining villages of this estate, as also the area of the Mutyalapad and Chundi Zemindaries and of the Pamur Taluq, belonging to the Zemindar of Calastri, is included in the area shown for the taluqs in whose limits they are included. The Shrotrium villages and other inams are also included in the area of the taluqs in which they are situated. The area of certain Inam villages according to the registers of the Inam Department is recorded at 209,645 acres, but according to Major Barber's statement the area is given at 329,197 acres, or 514 square miles. The taluqwar details of both these statements are given below:—

Taluqs.	As per Inam Registers.	As per Traverse.	Minor.	Extent of Minor Inams in Shrotrium Villages not included in the area of Shrotrium as per Inam Register.
	Acres.	Acres.	Acres.	
Gudur	36,678	44,125	7,447	1,532
Rapur	39,607	59,489	19,552	589
Nellore	27,250	57,815	30,565	386
Atmakur	19,443	27,551	8,108	343
Kavali	21,361	33,161	11,800	581
Udayagiri	15,619	30,323	14,704	837
Kandukur	24,413	29,877	5,464	2,085
Kanigiri	11,571	23,120	11,549	3,448
Ongole	13,703	23,737	10,033	1,263
Total ...	209,645	329,197	119,552	11,114

In the Shrotrium villages certain minor inams have been recognized by the Inam Commission and separate title deeds issued for them. The 284,510 acres given by the Inam Commission as the area of the Shrotriums is exclusive of those minor inams, but the traverse area of 329,197 of the Revenue Survey includes them. The extent of the minor inams in Shrotrium villages appears from the Inam Registers to be 11,114 acres. The total extent of minor inams, including Village Service Inams, is roughly given at 273,396 acres, but this is exclusive of the 11,114 acres of minor inams within the limits of Shrotrium villages. The area, 273,396, does not give the exact area, because the area according to survey is only available for the taluqs of Atmakur, Nellore, and a portion of Gudur, where the new survey areas have been introduced. For the other taluqs the area had to be entered according to old accounts as regards Service Inams, and by the Inam Registers as regards other inams. The operations of the Inam Commission have not been extended to Service Inams.

ZEMINDARIES.

Zemindaries.

There are four Zemindaries in this district: I., Venkatagiri; II., part of the Calastri Zemindari; III., Chundi; and IV., Mutyalapad.

I. *Venkatagiri.*—This Zemindari consists of two divisions in the south of the district, Venkatagiri and Polur, and two divisions in the north, Darsi and Podela. It also includes a number of villages scattered about in different taluqs. Thus the total number of villages is shown below :—

In four divisions	... ...	554 villages.
In Gudur Taluq	... ...	42 do.
In Kanigiri	... ...	75 do.
In Ongole	... ...	59 do.
		730, besides 617 hamlets.

There is also the village of Swarna, in the Kistna District, which belongs to the Rajah.

The extent of the four divisions is 2,117¼ square miles = 1,354,040 acres, but the extent of the villages scattered in the taluqs is unknown, as they have been excluded from the Revenue Survey.

The population is shown below :—

—	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
In four divisions	70,349	66,955	35,042	30,868	203,214
In Government taluqs ...	34,024	32,178	16,663	14,541	97,406
In Zemindari villages ...	...	...	...	...	...
					300,620

The beriz of the Venkatagiri Estate has been estimated at Rupees 7,80,457, on which a road cess of Rupees 24,389 was calculated, but a composition was entered into for Rupees 20,000 (Board's Proceedings dated 2nd October 1868, No. 6,989). The annual peishcush paid by the Rajah is Rupees 4,03,901-7-1.

II. *Calastri Zemindari.*—The Pamur Taluq of this Zemindari has its villages scattered in five revenue taluqs :—

In Atmakur,	7 villages.	In Kandukur,	7 villages.
In Kavali,	24 do.	In Kanigiri,	71 do.
In Udayagiri,	81 do.	Total ...	190 do.

The Zemindar gives the extent of the taluq at 415 square miles = 265,600 acres. Cultivation 121,327 acres. Waste 144,273 acres.

	Population.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
	32,313	29,346	14,609	12,783	89,051

The beriz of Pamur is given as Rupees 1,69,384-7-9, on which a road cess of Rupees 4,700 has been imposed. The peishcush of the Zemindar of Calastri is Rupees 1,89,999, paid in North Arcot on his whole estate.

III. *Chundi.*—This Zemindari consists of 44 villages and 40 hamlets in Kandukur Taluq. Extent 124⅜ miles = 79,600 acres. Cultivation 13,126 acres. Waste 66,474 acres, of which 13,126 are described as cultivable.

	Population.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
	7,121	6,670	3,244	2,929	19,964

The beriz of the cultivated lands is given as Rupees 54,444, on which a road cess of Rupees 1,531-5-0 per acre has been imposed.

The peishcush of the Zemindar is Rupees 18,722 per annum.

The sunnud was confirmed by Lord Elphinstone in 1842.

IV. *Mutyalapad.*—This Zemindari consists of three villages and 10 hamlets in the Kandukur Taluq. The extent is about 20 miles = 12,800 acres. Cultivation 7,725 acres. Waste 5,075 acres, of which 350 are said to be cultivable.

	Population.				
	Adults.		Children.		Total.
	Males.	Females.	Males.	Females.	
	1,291	1,195	658	580	3,724

The beriz of the estate is given at Rupees 11,907, on which a road cess of Rupees 334-14-3 has been imposed.

The annual peishcush of the Zemindari is Rupees 2,000 (*vide* G. O., No. 3,403, dated 17th December 1866), but a sunnud has not yet been granted.

There are 326 shrotriums or rent-free villages in the district, as well as many kandrigas or rent-free portions of villages. These have all been enfranchised by the Inam Commission, and an annual quit-rent fixed upon them.

Shrotriums.

PORTS, ESTUARIES, AND LIGHT-HOUSES.

(Contributed by Mr. CHARLES E. PLUNKETT.)

By a Notification published in the *Fort Saint George Gazette* of the 7th September 1865, the under-mentioned places were declared, under Section 10 of Act No. VI. of 1863, by His Excellency the Governor in Council, to be the only places for the shipment and landing of goods in the Nellore District:—

Ports.

—	North Latitude.	East Longitude.	Officer in charge of Sea Customs.
1. *Kottapatnam*	15° 24′ 45″	80° 14′ 42″ ...	Superintendent.
2. Itamukkala	15° 22′ 28″	80° 11′ ...	Asst. Superintendent.
3. *Pakala*	15° 16′ 50″	80° 8′ 40″ ...	Do.
4. *Ramapatam*	15° 2′ 30″	80° 5′ 42″ ...	Do.
5. Chennayapalem	.....	....	
6. Tummalapenta	.....	....	
7. Zuvvuludinne	.....	....	Do.
8. *Isakapalli*	14° 44′ 27″	80° 10′ 35″ ...	
9. Ponnapudi	.....	....	
10. Mayipadu	.....	....	Do.
11. *Kristnapatnam*	14° 15′ 55″	80° 12′ ...	
12. Pamanji	.....	....	
13. Pupili	.....	....	Do.
14. *Dugarazupatnam*	13° 58′ 48″	80° 13′ 40″ ...	
15. Pudi	.....	....	

Of the 15 places above mentioned those italicised are recognized as principal, and the others as subordinate, ports. The brackets in the last column signify to which principal port each subordinate one is attached, and the Officer in charge of the Sea Customs is, as a rule, located at the principal port and is designated as the Superintendent or Assistant Superintendent of Sea Customs of the principal port under his charge, but of course he is bound to visit and have as much regard with the trade of the subordinate ports under him as for the principal one.

The port of Itamukkala is, however, treated exceptionally, and though, as indicated in the foregoing list, it is recognized as subordinate to Kottapatnam, owing to the rising trade and growing importance of the port, an Assistant Superintendent has recently been located there with power to grant ships' papers, which hitherto had to be sent to Kottapatnam for the Superintendent's signature and often caused much delay and inconvenience to vessels. Its subordination, however, to the port of Kottapatnam is still maintained.

The amended Boat Rules of the 30th September 1867 were originally extended to the ports of Kottapatnam, Itamukkala, and Isakapalli, but, by order of Government of the 8th February 1868, their introduction at present at Isakapalli was interdicted. At Kottapatnam and Itamukkala the Superintendent and Assistant Superintendent of Sea Customs, respectively, are Registrars of Boats also.

Subjoined is a brief account of the ports, estuaries, and the light-house in this district, arranged in order from the northern boundary of the district southward, and it may be added here, once for all, that none of the ports are under the operation of Act No. XXII. of 1855, an Act for the regulation of ports and port dues.

Estuaries and Light-houses.

Peddarevu Channel.—This, the northernmost arm of the sea in this district, is an unimportant channel, and disembogues to the north of the village of Kanuparti and not far from the No. 1, or Uttarapu platform of the Kanuparti salt station. It is stated to be open only for about a month during the monsoons, when it is about 25 yards wide and two deep at high tide on special occasions, such as the new moon, &c.; the ordinary depth is ¾ yard. When the flood waters are dammed up by the bar of this channel, the bar is sometimes cut open by the villagers, and, in the event of a deficiency of salt water for making salt, the bar is sometimes cut also in the hot season to carry sea water to the pans. No change in the course of the channel has of late years been observed.

Gundlakamma River.—This is a river of some importance, and the mouth is stated to have altered of late years, and to have considerably increased both in width and depth. The old mouth, or as it is locally termed "Pata Gundlakamma," is about two miles south of the Peddarevu channel; it is stated to be open only during the monsoons, and to be then a hundred yards wide and two yards deep at the bar.

The present mouth of the river is always open, and its width is given as 602 yards during the monsoons and 256 in the hot season, the depth at the two seasons being respectively four and two yards. At high tide the depth of water in the bar is 1½ yards, and the river may be used for navigation for about two miles inland. The mouth is stated to shift in the hot weather a little northward of its position during the monsoons. The present mouth is about a mile to the south of the old mouth, or "Pata Gundlakamma," and not far from the villages of Gundayapalem and Nakkavaripalem, hamlets of Devarampadu.

Gundamorla Bar.—This opening into the sea is on the north side of the village of Gundamorla, whence it takes its name, and about two miles south of the mouth of the Gundlakamma river. It is stated to be open throughout the year, but to have considerably diminished in size of late years. Vessels used to resort to it in former years as an anchorage during the monsoons. The present dimensions of the channel are said to be during the monsoons 325 yards wide and 2½ yards

deep, and in the hot season 227 yards wide and 1⅛ deep. At high tide the depth of water in the bar is given as 2¼ yards. It is supposed to be the same channel as that mentioned by Mr. Elton in 1859 in his report on the estuaries as the "Tonderu" channel.

Kottapatnam.—This, the northernmost port in the district, is also the largest port and carries an extensive trade by sea in grain, oil seeds, and other produce of the Cumbum and Doopaud tracts. It is connected with the town of Ongole and thence on to Cumbum by a good road, and has a population of more than 5,000 souls, chiefly of the Komate or merchant class. This port is under the charge of a Superintendent of Sea Customs on Rupees 70 per mensem, who is also invested with the powers of a Subordinate Magistrate of the second class. It is a large emporium of trade, and is resorted to by both English and native sailing vessels. The erection of a flagstaff would be a great advantage.

Itamukkala.—This port is six or seven miles to the south, and is subordinate to Kottapatnam. It is a place of some importance and stands second to Kottapatnam among the ports of the district in point of trade. It is resorted to chiefly by native craft and dhonies, and the anchorage is good.

Paleru and Yinagalera Rivers.—These two streams unite close to the coast and discharge into the sea by one mouth, which is generally open throughout the year, but, in the event of the failure of the monsoons or in seasons of drought, the mouth is sometimes closed in the months of April and May. The width is given at 900 cubits, and the depth when the tide flows five cubits, and when it ebbs 2½ cubits. At high tide the depth of the bar at new moon, &c., special occasions, is six cubits. During the monsoons the two rivers sometimes divide when the floods are high, and each finds its own mouth, but they unite again as the water subsides. This mouth is about three miles north of Pakala.

Pakala Parra.—This is a backwater, about half a mile north of Pakala. There is no mouth generally, and the bar between the surf and the backwater is 120 cubits wide. In the monsoons when the backwater fills by the surplus water from the Pakala tank calingulah, a small channel is opened across the bar, which silts up again as soon as the floods subside. This channel has, however, not been opened for the last five years, and the ordinary period at which it does remain open in any year is said to be about a month.

Pakala.—This is comparatively a small port, and the trade consists chiefly of exports in grain. It is not frequented by large vessels, though some years ago a small quantity of salt was shipped from this port. It is connected with the interior by a good metalled road. The anchorage is supposed to be good. Its being treated as a principal port is owing to its distance from any other port, or it might with advantage have been attached as a subordinate port of Ramapatam, the port next south of it, and fourteen miles distant.

Pakala Otiravu Kalava.—This is an unimportant channel, about a mile south of Pakala port, and it is closed for the greater part of the year. The bar is 116 cubits wide, and is cut every year by the ryots in October or November to form an outlet for the land floods and keep their fields from submersion. The mouth thus cut annually remains open for about two months and silts up again.

Vullapalem Parra and Binginapalli Parra.—These two swamps which join near the shore and ordinarily flow into the Maneru form a mouth for themselves east of the village of Binginapalli during the monsoons and run into the sea. The mouth thus formed is at times of heavy flood five to six feet deep, and remains open for about two months and silts up again as soon as the south wind turns.

Maneru River.—This river forks into two mouths; the larger or northern mouth of which is close to the village of Binginapalli and is open throughout the year, and may be used by boats; the smaller mouth is a mile south of the large one, and is not open the whole year, but closes up generally from April or May till the rains set in. The large mouth at the entrance is 121 cubits wide and three cubits deep when the tide ebbs and 5½ deep when the tide flows. At high tide, new moon, &c., the depth is seven cubits. During the hot months the width and depth decrease.

The small mouth is 100 cubits wide; depth when the tide ebbs 1½ cubits, when it flows three cubits. At high tide four cubits. It is sometimes wider and deeper after rain.

Tiya Vagu.—This is an unimportant channel, about five miles south of the smaller mouth of the Maneru. It is open during the monsoons only when they have been heavy. It remains open two or three months and silts up again about March. The channel mouth is said to be 17 yards wide and one deep.

Yelikeru.—This river disembogues about two miles north of Ramapatam, and the entrance is open only during the rains when the bar is cut by the ryots to prevent submersion of their fields, and the channel thus formed is at the mouth 30 yards wide and three deep; at high tide the depth is four yards. It is three miles south of the Tiya Vagu.

Ramapatam.—This is itself a small fishing village, but at the port there used in former years to be a fair coasting trade in grain and firewood. It is not resorted to by large vessels, but dhonies and native craft frequent it. The trade latterly has gone down considerably since the imposition of a duty on firewood and the restriction to the indiscriminate cutting of the jungles recently introduced. The trade of the port now hardly warrants its being regarded as a principal port. There are some granaries standing on the beach.

Ramapatam Pedda Yeru.—This backwater is immediately south of the port of Ramapatam and is supposed to be the same as the "Chilla-

lakalava" mentioned by Mr. Elton in 1859. It is open only during the rains when the bar is cut, and the channel thus formed is 47 yards wide and 2½ deep. At high tide the depth is 3½ yards.

Chennayapalem.—This is a subordinate port to Ramapatam and about five miles south of it. The chief export used to be firewood, but for the reasons given for Ramapatam the trade at this port also has dwindled down of late years to almost nothing. It is only resorted to by dhonies and native craft.

Tummalapenta.—This is a subordinate port of Isakapalli, and there is hardly any trade now carried on here. There was a small export depôt for salt formerly, but this has been abolished.

Chippileru.—This is a stream of some importance, and is generally open throughout the year, but occasionally it has been known to fill up in May and June and become deep again during the rains. The width of the mouth is 200 yards and the depth during the rains four yards, when boats pass up and down. In the hot months the depth at the bar is ordinarily one yard. It is close to the port of Zuvvaladinne.

Zuvvaladinne.—This is also a subordinate port to Isakapalli, and is of little importance as a place of trade. The chief export is grain, and it is only resorted to by dhonies and native craft.

Isakapalli.—This port had formerly a very large trade in salt, but during the last few years, or since salt has been made in Chittagong and the other agencies at the head of the Bay, the trade in salt has rapidly fallen, and is now next to nothing. The quantity exported in 1867 was only 1,800 maunds. Grain and other produce is also largely exported here, and there are some granaries and godowns on the beach. There is also a bungalow maintained by Government for the accommodation of captains of ships. The port is frequented by large sailing vessels and occasionally by steamers; the anchorage is good, and boats are easily procurable. It is connected with the interior and with Nellore, from which it is 23 miles distant, by a good metalled road. There was a flagstaff formerly, but it was broken down in 1854, and only the mast was standing for some years, when it also was taken down and sold.

Isakapalli Salt Water Channel.—The bar of this channel is in the middle of the port. The granaries stand, and exports of grain, &c., are made on the north side of the bar, and the bungalow for ship captains and shipment of salt on the south side. The bar has been closed since 1863, and there is consequently some difficulty in getting pure salt water for the salt manufacture. In 1867 the surf washed over into the channel a little, but the bar was not opened. When it does open the mouth of the channel is said to be 300 yards wide and three deep. Boats pass upon it.

Ponnapudi Salt Water Channel.—This channel disembogues into the sea near Currupalem, and is not open throughout the year. It silts up

in the months of May and June, and is cleared again by the freshes during the rains. It is about two miles south of the Isakapalli bar, and the mouth when open is ordinarily 200 yards wide and 2½ deep; at high tide the depth is three yards.

Ponnapudi Port.—This is also a subordinate port attached to Isakapalli and carries on a large coasting trade principally in grain. There are some granaries on the beach, and it is resorted to only by native craft and dhonies.

Ramatirtam Bar.—This is the mouth of the stream which is known more inland as the Payideru river. It is called the Ramatirtam bar, because on the north bank of the channel on the beach there is a pagoda known as the "Ramatirtam Temple." The mouth silts up generally in May and June, and is cleared again by the freshes during the rains. The ordinary width is 100 yards and depth two yards. It is five miles south of the mouth of the Ponnapudi salt water channel.

Vutukuru Salt Water Channel.—This is a branch of the Pennair river, and is closed during the hot season. The position of the mouth shifts, and the ordinary breadth is stated to be ten yards and depth one yard; at high tide the depth is four feet. There is a fork to this branch channel, but it is so small as to be of but trifling importance; it is seldom open except in cases of heavy freshes, when it is seven yards wide. At present it is closed.

Pennair River.—This is the largest river in the district, which it enters near Someswaram through the Eastern Ghauts. The Madras Irrigation Company undertook to build an anicut across the river at the gorge, but work has been stopped. It passes close by the town of Nellore on the north side, where there is an anicut across it. There are several irrigation channels along the whole length of the river from Someswaram to the anicut at Nellore, and the benefits conferred by them is extensive. An attempt was made to navigate the river some years ago, and a steamer brought up the mouth as far as Nellore, but the result was a failure. The mouth of the main channel into the sea is 200 yards wide and seven feet deep; at high tide the depth is nine feet, and this mouth is open throughout the year, and it might be used for trade, but the river is not navigable to any great distance. In the freshes the width and depth of the mouths are considerably larger and the dimensions here given are for the channel ordinarily open throughout the year.

Gaddala Kalava.—This is an unimportant channel near Gangapatnam and it is only open during the rains, when it is stated to be 88 yards wide. It is six miles south of the mouth of the Pennair river.

Mayipadu Gadala Kalava.—This is also a minor channel, open only during the rains, and the breadth is stated to be five yards. It as well as the previous channel are mouths of the Gangapatnam backwater, and form the vents for the land floods of that neighbourhood.

Mayipadu Port.—This is a subordinate port attached to Kristnapatnam, which is about 18 miles to the south. Formerly there used to be a great trade in cloths, &c., at this port, but grain is the chief article of export at present. It is the market for grain grown in the Pennair delta. It is about 15 miles from Nellore, with which it is connected by a good road.

Mayipadu and Koraturu Salt Water Channels.—These are two unimportant channels, about 1½ miles apart from one another, and they form the outlets for the surplus water of the tanks in that neighbourhood. Their width is given at 12 and 20 yards respectively at their mouths, and ordinary depth of each one foot; at high tide the depth is stated to be one yard. They are closed except during the rains and when the tanks overflow.

Koraturu, Venkanapalem, and Koduru Surplus Water Channels.—These are small channels forming the outlets for the drainage of that part of the country, and as their name implies, they have neither course nor mouth except after heavy rains and floods when their dimensions vary, but are never of importance.

Koduru Salt Water Channel.—This is a small stream and the mouth fills up in the hot season and is cleared again during the rains. The breadth is stated to be 12 yards and depth two feet; at high tide the depth is four feet.

Nelaturu Salt Water Channel.—This is similar to the Koduru channel, and the breadth is stated to be 10 yards and ordinary depth a foot; at high tide the depth is two feet.

Kristnapatnam Port and Backwater.—The anchorage at this port outside the bar is deemed to be unsafe, not being a good holding ground; but within the bar there is a fine backwater, with great depth of water, where there are many advantages for forming an excellent harbour and place of refuge for ships of moderate tonnage. The entrance to the backwater is always open and the channel by which ships come in is stated to be 40 yards wide, and on the bar ordinarily nine feet deep at mean tide; at high tide the depth is eleven feet. The whole width of the mouth is five or six hundred yards, but the depth is less on either side of the channel, which shifts its position in accordance with the season of the year, but is always available. It is now a place of shelter for dhonies and native craft during the monsoons and in the stormy months of April and May. Dhonies are sometimes taken into dock and repaired at this port, and it is capable of being considerably improved and rendered available for ships in distress. There used to be a large trade in salt from this port when large English vessels resorted to it, but this has ceased with the abolition of the salt export depôt, and the chief trade now is in grain, for the export of which from its position it is particularly convenient. It is connected with Nellore, from which it is 17 miles distant, by a good metalled road, and it is proposed to make the present irrigation canal from Nellore to Kristnapatnam navigable. Boats drawing nine feet of water can go up the stream, which is navigable for 18 miles, to a distance of 10 miles, and those drawing six feet of water can go eight miles further inland, and it is proposed to extend this navigation eight or 10 miles more, or up to near Guduru on trunk road No. 6. The East Coast canal from Madras is now being extended from Dugarazupatnam to this port.

Suvarnamukhi River.—This, though a considerable river in point of size, does not appear capable of being much used, as there is no great depth of water at the mouth. In the vicinity of Kota, or about 12 or 14 miles up the river from the sea, there is a small dam or anicut across it, from which one or two important irrigation channels take off and afford much benefit to the rice cultivation in that locality. The fall in the river is very considerable, and the highest fresh seldom lasts more than 24 or 48 hours. The East Coast canal crosses the river within the influence of tidal water and about five or six furlongs from the beach. During the rains and in heavy freshes the river has two mouths, but at other times only one, the ordinary width of which is 240 yards and depth one yard. This mouth is sometimes closed in the hot season. It is about 12 miles south of the Kristnapatnam backwater.

Pamanji Yeru.—This is an unimportant channel, about two miles south of the Suvarnamukhi river and close to the port of Pamanji. It is closed during the hot weather and opens again during the rains or in times of heavy flood. The ordinary width of the mouth at such times is 50 yards and depth one yard. In extraordinary flood the dimensions increase, and the depth is sometimes three or four yards.

Pamanji Port.—This is comparatively an important port, and, though attached to Dugarazupatnam as a subordinate port, it is in point of trade the chief port of the four forming the group to which it belongs. It exports native ornaments (bangles, &c.,) and grain in large quantities, but is not resorted to by large vessels. A road to the port is much needed.

Tupili Port.—This is a port of little importance and also attached to Dugarazupatnam as a subordinate port. The trade is scanty and of the same nature as at Pamanji, but the Madras trade of this port, as well as of the two next south of it—Dugarazupatnam and Pudi—is now chiefly taken by the East Coast canal, which was hitherto up to Dugarazupatnam, but is now under extension to Kristnapatnam.

Kondurupalem Bar.—This mouth or bar is opposite to the Dugarazupatnam travellers' bungalow, and is the southernmost entrance from the sea in the coast of this district. It shifts its position according to the time of the year, and the current in a length of about five or six furlongs. The mouth is closed in the hot season

and opens again during the rains or in times of heavy fresh, when the ordinary width is stated to be a hundred yards and depth one yard. When the floods are heavy the size of the mouth is proportionately larger.

Dugarazupatnam Port.—This place is of but little importance as a port, though noted as the principal port of the group to which it belongs. The chief export was grain, and since the opening in 1858-59 of the East Coast canal as far as this place, the trade by sea has rapidly gone down and the entire trade with Madras is now carried on by boats on the canal, and consists almost wholly of grain and firewood and sometimes cured fish. Dhonies and native craft do not resort to the port now for the reasons given. The canal is under extension as far as Kristnapatnam, and it is hoped eventually to connect it with Nellore and with the Kistna canals, which now come as far as the northern boundaries of this district. It is connected by a metalled road through Guduru on the northern trunk road with Nellore from which it is 48 miles by the road and 40 *vid* Kristnapatnam. It is 72 miles to Madras by the canal. There is a fine bungalow maintained by Government for the accommodation of travellers at the terminus of the canal, and the Armeghon light-house is about five or six miles south of it. There is a salt depôt about a mile south of the village, which is now chiefly occupied by salt manufacturers, and is often mentioned by the early historians of British India, as Armeghon being our first settlement on the Coromandel Coast. At present it is seldom heard of except in connexion with the Armeghon light-house and shoal. Reference is made to the place in the political history of the district. There is but little left of the old fort.

Armeghon Light-house.—This is the only light-house in the district. It is situated close to the fishing village of Monapalem and about five or six miles south of Dugarazupatnam in north latitude 13° 58′ 48″ and east longitude 80° 16′ 28″. The object of the light is to keep vessels clear of the Armeghon shoal, whence it takes its name, and, being 95 feet high, the light is visible from the poop of a 700 tons ship 15 miles out at sea. The light is a fixed one and does not revolve, and the light-house itself is close to the shore. It is in charge of a Superintendent with three lascars or light-keepers, whose chief business it is to keep the lantern clean and the flame bright and steady nightly from 6 P.M. to 6 A.M.

The Armeghon shoal is about 10 miles long; the shallowest part is $1\frac{3}{4}$ fathoms; and it lies from $3\frac{1}{2}$ to $5\frac{1}{2}$ miles E. by N. of the light-house.

About the beginning of this century Colonel de Haviland, an able Engineer, drew attention to the extensive anchorage at the rear of the Armeghon shoal, and suggested a scheme for improving it and converting it into a harbour for ships resorting to Madras and the Coromandel Coast. At the southern part of the shoal the entrance passage between it and the mainland is a mile broad of deep water caused by the set of the current past Pudi spit, which juts into the sea and is formed of stiff tenacious clay. The entrance in the north is three miles broad, and the shoal itself is of great length. Sir Henry Blackwood, then Admiral on the station, had a complete chart of the whole harbour's soundings prepared, showing that a large number of vessels of large tonnage could lie there securely. During the time he was there, there were ten days on which the surf was so high at Madras that communication from the shore with the shipping could not be carried on even by Masula boats, and yet inside the backwater of the Armeghon shoal the frigate boats were able to land on the beach without difficulty. The boats in ordinary use here are much weaker and lighter than those employed on other parts of the coast.

Colonel de Haviland's proposals were first to erect a light-house at Pudi spit; secondly, to have a beam light at the end of the shoal to guide vessels entering from the southward; and, thirdly, to raise the height of the shoal by stones thrown upon it, so as even more effectually to stay any action of the waves upon the still-water behind. The present light-house is about the middle of the shoal and 65 miles from Madras, and this shoal presents a natural harbour which might be made exceedingly beneficial at a small outlay. The East Coast canal passes about half a mile west of the present light-house, and there is water communication by it and the Pulicat lake to Madras.

Pudi spit is about three miles wide, and a railway might easily be constructed running down the spit and crossing the upper part of the Pulicat lake a little above Sriharikota, where an annual bund is now raised to keep out the salt water from the upper and shallower portions of the lake and so prevent the formation of spontaneous salt. The maintenance of the present bund costs about Rupees 1,000 a year, and a permanent bund is estimated to cost from Rupees 65,000 to Rupees 80,000.

Pudi Port.—This is also a small port of little importance attached to Dugarazupatnam as a subordinate port, and its trade has likewise gone down considerably since the opening out of the East Coast canal. The anchorage is about four miles south of the Armeghon light-house and opposite the village of Royadoruvu, so that the port is better known among the natives of the neighbourhood as "Pudi Royadoruvu." There is a chuttrum on the beach built for the convenience of travellers and people resorting to the port by a wealthy Brahmin, and the Zemindar of Venkatagiri has a small hall or building on the beach, which he sometimes makes a place of resort in the hot season, or at other times when the Hindu doctrines require ablutions of sea water and such like religious ceremonies.

CHAPTER II.

CLIMATE AND DISEASES.

(Contributed by Mr. E. Eyre Lloyd, *Zillah Surgeon.)*

Climate.—Temperature.—Winds.—Monsoons.—Rainfall.—Births.—Deaths.—Deaths from Cholera.—Deaths from Small-pox.—Dispensaries.—Diseases.—Fever.—Rheumatism.—Beri-beri.—Leprosy.—Diarrhœa and Dysentery.—Cancer.—Caries.—Venereal Diseases.—Guinea-worm.—Elephantiasis or Cochin-leg.—Small-pox.—Cholera.—Births and Deaths Registers, 1869.—Births and Deaths Registers, 1870.

Climate.

The climate of the Nellore District is generally dry and salubrious, being subject to no sudden transition from extreme heat to cold; but to the European constitution it is trying and exhausting, more especially during the latter end of April to September, when the westerly or land wind prevails, for the first eight or ten weeks of which it is accompanied by a fierce burning heat like a blast from a furnace: these hot winds last generally to the end of June, though in 1866 they continued night and day till nearly the beginning of October—a very unusual occurrence. The period, though somewhat enervating and exhausting during the time it lasts, is not what may be considered unhealthy.

Temperature.

The average temperature of each month in the year may be put down thus:—

In January	76	In July	84
„ February	77	„ August	83
„ March	80	„ September... ...	82
„ April	84	„ October	81
„ May	90	„ November	77
„ June	89	„ December	74

The usual difference in the temperature in each month varies about 20 degrees.

Winds.

The winds prevailing during each month may generally be put down as follows:—

January	North-east and east.
February	Do. do.
March	North-east and east, south-east.
April	South-east and east, and south-west.
May	South-east, and south-west, and west.
June	South-west and west, south-east and east.
July	Do. do. do. do.
August	South-east and west, and north-west.
September	Do. do. do.
October	South-west, north-west, and north and east.
November	Do. do. do. do.
December	North-west, north-east and east.

Monsoons.

The monsoons are generally looked for in June and October: the south-west setting in about the middle of June and the north-east about the same time in October; but latterly they have been very irregular, the south-west almost failing entirely. The northern part of the district is chiefly dependent on the north-east monsoon, but it also gets the tail-end of the south-west, while the southern portion gets the burst of the south-west and a portion of the north-east.

Rainfall.

The accompanying table gives the downfall of rain for the whole of the various taluqs of the district during the last 19 years, from which it will be seen that for the last ten the average has been only 25·51 inches, whereas during the preceding nine it ranged 31·97—a great difference, though even this is said to have been a smaller average than obtained in former years, when 35 inches were said to be the usual amount expected; but, as the measurement by gauges was only introduced in 1852, the former measurements were only conjectural, and, therefore, most probably incorrect. I am inclined to account for this great change from the felling of the trees and jungle in the district, which have not until very recently been replaced by fresh growths. Much more care and attention are now being bestowed upon the growth and protection of the jungles and forests throughout the district, large tracts having been taken up as Government jungle reserve.

The downpour during the past year, viz., 1870, has greatly exceeded any since 1859, the general average in the district having been 35·45; the greatest quantity fell in Kavali, viz., 48·90, and the smallest, viz., 17·85, in the Udayagiri Taluq.

Table of Rainfall for the past 19 *years.*

Years.	Gudur.	Rapur.	Nellore.	Atmakur.	Kavali.	Udayagiri.	Kandukur.	Kanigiri.	Ongole.	Total.	Average.
1852 ...	63·75	59·43	59·48	58·19	62·53	54·34	44·38	...	42·34	444·44	49·38
1853 ...	33·90	27·28	31·92	21·65	23·09	31·71	24·30	...	17·43	211·28	23·47
1854 ...	23·09	25·35	27·23	30·85	21·60	24·14	31·19	...	28·75	212·20	25·57
1855 ...	21·60	31·05	38·38	25·67	54·42	26·56	18·94	...	30·81	247·43	27·49
1856 ...	27·18	37·61	49·85	27·78	39·41	26·62	28·92	...	29·56	266·93	29·65
1857 ...	24·16	31·04	44·93	33·78	39·84	30·70	35·46	...	35·82	285·73	31·74
1858 ...	42·48	30·58	40·34	38·35	41·01	36·30	43·64	...	32·71	305·41	33·93
1859 ...	61·11	55·44	62·71	51·36	45·14	66·01	48·36	...	28·45	418·58	46·50
1860 ...	25·53	27·04	28·04	21·28	24·02	25·07	26·12	...	21·56	198·66	22·07
1861 ...	19·65	21·42	23·13	20·12	25·72	22·37	22·86	14·39	25·92	195·58	21·73
1862 ...	26·52	26·55	29·25	20·96	18·19	27·21	23·08	15·15	13·35	200·26	22·25
1863 ...	33·72	27·03	31·99	21·75	22·41	18·80	20·04	12·59	12·68	201·01	22·33
1864 ...	32·68	27·65	34·21	17·03	23·52	26·16	22·30	8·73	13·43	205·71	33·96
1865 ...	24·65	22·46	20·15	25·03	16·60	25·90	23·97	20·30	7·74	186·89	20·75
1866 ...	32·17	38·77	34·66	27·69	27·45	33·14	28·27	22·05	11·62	255·82	28·43
1867 ...	23·45	16·91	23·29	12·22	26·41	12·55	32·78	13·77	14·20	175·58	19·51
1868 ...	23·83	28·0	29·82	30·75	25·16	23·45	23·76	9·25	13·20	205·22	22·80
1869 ...	31·19	32·64	25·63	30·97	37·35	18·0	30·30	26·30	19·50	251·88	27·98
1870 ...	33·80	40·70	43·77	30·60	48·90	17·85	37·85	24·75	40·90	319·12	35·45

It will be observed that during this period the rainfall in Nellore has been, as a rule, greater than in any of the other taluqs; the former averaging during the 19 years 35·72 inches, the latter 27·99; but, if this period of time be divided as above, the downfall in the principal taluq for the first nine years will be seen to have averaged 42·54 inches, and for the last 10 years 29·59, as compared with the district 33·21 and 24·18 respectively.

The district, in the registering of the rain, is sub-divided into inland taluqs, coast taluqs, and the line of coast as follows:—

- Inland Taluqs.
  - North.
    - Darsi.
    - Kanigiri.
    - Udayagiri.
  - South.
    - Atmakur.
    - Rapur.
    - Venkatagiri.
- Coast Taluqs.
  - North.
    - Ongole.
    - Kandukur.
    - Kavali.
  - South.
    - Nellore.
    - Gudur.
    - Tada.
- Line of Coast.
  - North.
    - Padarti.
    - Pakala.
    - Ramayapatam.
  - South.
    - Isakapalli.
    - Krishnapatam.
    - Monapalem.

The coast taluqs, as a rule, receive the largest quantity of rain. The difference in the fall of rain as noted between the district generally and the town of Nellore may be worthy of mention.

Years.	District. Inches.	Town of Nellore. Inches.	Years.	District. Inches.	Town of Nellore. Inches.
1852	49·38	59·48	1862	22·25	29·25
1853	23·47	31·92	1863	22·33	31·99
1854	23·57	27·23	1864	33·96	34·21
1855	27·49	38·38	1865	20·75	20·15
1856	29·65	49·85	1866	28·43	34·66
1857	31·74	44·93	1867	19·51	23·29
1858	33·93	40·34	1868	22·80	29·82
1859	46·50	62·71	1869	27·98	25·63
1860	22·07	28·04	1870	35·45	43·77
1861	21·73	23·13			

The rains occur principally in the months of June, July, October, November, and December; at other seasons light showers may fall, and some are usually looked for in the months of April, August, and September. From the above statement it will be seen that the largest fall

of rain in that series of years took place in 1852, the first year of the introduction of the present system, and 1859, viz., 49·38 and 46·50 respectively, and the smallest in 1867, when only 19·51 inches were marked off, not including Kanigiri, the measurements in this taluq not having been taken till 1861. It will be seen that the smallest quantity of rain fell in Ongole, though one of the coast taluqs, which only averaged 23·15 inches.

Births.

A register of births was commenced in the middle of 1868, so I am able to give particulars so far as they are to be considered trustworthy for the two following years, viz., 1869 and 1870. On reference to the register it will be observed that from the last census taken in July 1867 the population of the whole district amounted to 1,168,664, of which number 562,051 were females, or 480·93 per 1,000. The different classes are numbered as follows:—

1,110,941 Hindus, or 950·60 per 1,000 of population.
56,419 Mahomedans, or 48·27 per do.
1,304 Christians, or 1·11 per do.

The number of births amounted in 1869 to 17,145, or 14·67 per 1,000 of population, the proportion of girls to boys being 482·70 per 1,000. Of the different classes there were 9·17 births per 1,000 among the Hindus, 10·22 among the Mahomedans, and 1·53 among the Christians.

In 1870 the number of births amounted to 14,146, or 12·1 per 1,000. The proportion of girls to boys 478·10. Of the different castes there were 12·29 births per 1,000 among the Hindus, 8·47 among the Mahomedans, and 11·50 among the Christians.

	1869.	1870.
Births	17,145	14,146
Proportion of boys to girls per 1,000	482·70	478·10
Proportion of Hindus per 1,000	9·17	12·29
Proportion of Mahomedans per 1,000 ...	10·22	8·47
Proportion of Christians per 1,000	1·53	11·50
Ratio of births per 1,000 of population ...	14·67	12·1

Deaths.

A register of deaths having been kept in this district for a longer period than that of births, I am able to go back a year or two more. It appears that for the last five years, viz., from 1866 to 1870, the deaths from all causes have been thus:—

Years.	Deaths.	Ratio per 1000.
1866...	16,234	16·56
1867...	25,581	20·07
1868...	18,682	15·98
1869...	21,246	18·18
1870...	15,564	13·31

From the above it will be seen that the mortality was highest in 1867 (when as many as 7,337 deaths occurred from cholera alone), being

26·07 per 1,000 of population. For the same period is annexed a table showing the deaths of each sex and the proportion of females to males.*

Years.	Males.	Females.	Proportion of Females to Males per 1,000.
1866	16,651	7,583	467·10
1867	13,776	11,775	460·84
1868	9,958	8,744	467·04
1869	11,333	9,913	466·58

The next point to bring forward is the ratio of deaths among the different classes, which I find to be as follows :—

—	Hindus per 1,000 of Total Deaths.	Mahomedans per 1,000 of Total Deaths.	Christians per 1,000 of Total Deaths.
1869	964·13	35·006	·144
1870	965·49	33·47	1·02

The principal diseases in which deaths have occurred are cholera, small-pox, and fever. I will not further allude to the latter, beyond saying that whatever may be the nature of the illness among the natives, if fever form, however, a small portion, death is put down to that and that alone, which shows the fallacy of this heading. The same might almost be said of cholera, for many natives are under the impression they are suffering from cholera when they have diarrhœa or dyspepsia more or less aggravated.

Deaths from Cholera.

Years.	Total Deaths.	Ratio per 1,000 to Deaths of all Causes.	Ratio per 1,000 to Population.
1866	1,535	94·55	1·56
1867	7,337	287·15	7·48
1868	6	·32	·005
1869	1,054	49·60	·900
1870	610	39·19	·530

Deaths from Small-pox.

Years.	Total Deaths.	Ratio per 1,000 to Deaths of all Causes.	Ratio per 1,000 to Population.
1866	539	33·20	·550
1867	631	24·69	·664
1868	2,164	115·77	1·84
1869	1,715	80·72	1·46
1870	1,020	65·53	·87

* That for 1870 cannot be given. A change having been made in the working of the returns, the males and females are not given separately.

From the above two tables it will be seen that the district has within the four last years suffered much, and in the year 1868 when cholera very slightly affected the inhabitants they suffered all the more from small-pox. A District Superintendent, with his staff of 10 vaccinators, has been at work for the last three or four years, but it seems that they still have no little work before them. A vaccinator is also employed by the Municipal Commissioners to work within the Municipal limits of the town of Nellore. He seems to be an active man, but his exertions do not appear to have shown much fruit, for Nellore still has a very large number of deaths against it from small-pox. Two others are retained by the Rajah of Venkatagiri. A glance at the deaths from violence shows that there are many both from accident and suicide, particularly from the former, when drowning and death from snake-bite greatly preponderate.

In comparing the births with the deaths of the years 1869 and 1870, it will be seen that the total number of births registered in 1869 amounted to 17,145, or 14·67 per 1,000 of population, and in 1870 the number of births was 14,146, or 12·1 per 1,000. The total number of deaths for the same period amounted to 21,246, or 18·18 per 1,000 in 1869, and 15,564, or 13·31 in 1870, being 3·51 in 1869 and 1·21 in 1870 in excess of the births, which does not show a very satisfactory state of things if the returns for the district giving these statements are to be depended upon.

Dispensaries.

There are three Government dispensaries in the district—a civil and branch dispensary in Nellore town; the former in charge of the Zillah Surgeon, the latter in charge of a Sub-Assistant Surgeon, and one at Ongole opened in 1867 under the charge of an Hospital Assistant. The number of patients treated in the two institutions in Nellore itself amounts to almost 12,000 per annum. The civil dispensary at Nellore is situated north-west of the town, standing on a piece of ground isolated as it were, being some distance from any bazaar or populated part, facing the south, being bounded on the north by the river Pennair. It was rebuilt in 1850 on the site of an old building used for that purpose since 1844. It is a well constructed solid brick and chunam building with a pent-roof and a ridge ventilator running its whole length: it has two large wards, one for males having a superficial area of 828 square feet, giving accommodation at 60 square feet to each patient to fourteen, and one for females of 432 square feet, giving accommodation to seven patients. In addition to these there are two small wards for patients requiring segregation. There is also a surgery or dispensing-room and office. An operating theatre and the requisite out-offices adjoining, the whole enclosed by a suitable wall, the front part of which is more ornamental, being of solid masonry, at either extremity of which there is a handsome iron gateway entrance.

Diseases. The principal diseases to be met with in the district are :—

Fever. *Intermittent Fever.*—This is generally mild in character and readily amenable to treatment.

Rheumatism. *Rheumatism.*—This is commonly met with more often in the chronic than acute form; the cases generally remain long under treatment, and are very subject to relapse.

Beri-beri. *Beri-beri.*—Though this is occasionally met with in this, it is not of so frequent occurrence as in the neighbouring districts; but when met with a change of climate is generally looked upon as the best treatment.

Leprosy. *Leprosy.*—This seems very common, but whether inherited or acquired in this district is not ascertained. There are the same symptoms to be met with as in other districts, and of course little to be expected from treatment, more especially in cases of long standing.

Diarrhœa and Dysentery. *Diarrhœa and Dysentery.*—Both of these diseases are of common occurrence both in the acute and chronic form, but both stages yield generally to treatment.

Cancer. *Cancer.*—Especially that affecting the face is not at all an unfrequent disease, and on questioning those affected it generally turns out that they have been victims to mercury in large quantities; the treatment, as a rule, can only be palliative.

Caries. *Caries.*—This is a disease of the bones of the foot having various synonyms; it has been named differently by different medical officers who have met with this peculiar disease, Morbus Eutophyticus pedis, &c. Dr. Carter has written on this disease in Bombay, and Dr. Bidie in this Presidency when Civil Surgeon of Guntur, where he frequently saw such cases. The cases that generally come to Nellore for treatment for the most part are from the northern taluqs and adjoining the district from which Dr. Bidie wrote. It in most cases attacks the foot, but about six years ago a case was admitted into the dispensary with the disease presenting the very same symptoms in the hand and arm, the only case recorded. The patients seldom appear until after three or four years' suffering, when they are seldom able to give much account of the commencement of the disease. The affected limb is always more or less swollen, and enlarged sometimes to three or four times the size of the healthy one; the toes are generally proportionately increased in size, and in some are found quite out of their natural position.

The skin is thickened, hard and indurated, spotted over with numerous warty-like eminences of a higher color than the surrounding

cuticle, which exude a glairy viscous discharge, and small black granules at the top of these eminences are patulous orifices burrowing beneath the skin and leading to neighbouring bones which are in a state of necrosis, soft and spongy. The only treatment for this is amputation, which is readily acceded to, for, besides the inconvenience of carrying about such a heavy diseased mass, there is a good deal of pain which sometimes reduces the patients very considerably. On examination of the diseased parts after amputation, there is generally found a carious state of the bones, the bone hollowed out and the cavities filled up with a cheesy matter of soft material.

Venereal diseases. *Venereal Diseases.*—This abounds in both varieties, together with the other consecutive diseases arising therefrom. A native official reporting on some of the villages of Atmakur Taluq some few years back stated that it was almost unsafe to send men of the Police there; for, as certain as any single man went, so sure was he to return diseased, and a late Superintendent took the precaution of sending to that range none but married men, and with a good result; for the women there are said to be the most demoralized and unfaithful of any in the district.

Guinea-worm. *Guinea-worm.*—There appear to be seasons when cases of this are more frequently to be met with than at others. Many cases may be under treatment at one particular time, generally speaking during the hot season, and then it altogether disappears for some months, when others will appear. The lower extremities are the parts most frequently affected, or in other words the parasite most frequently makes its exit there. They have been known also to appear in various parts of the body, such as in the upper extremities and trunk, in the eye, mouth, cheeks, and below the tongue; also from the nose, ears, and eyelids, and from beneath the scalp; but for the most part these latter are of very rare occurrence. The average length of these worms is 25 inches. The period of incubation after the embryo has entered the system is generally fixed at about 12 months. The worm is to be met with in certain conditions of moist earth and stagnant water. The germ becomes deposited beneath the skin, working its way into one of the many sudoriparous ducts of its victim while standing or bathing in the water stirring up the mud as they do so, and consequently putting these little animals into activity, and there they remain until they have attained maturity.

Elephantiasis. Elephantiasis, or "Cochin-leg" as it is often termed, is frequently to be met with in this as in other districts, more especially in the southern part of Sriharikota, where almost one in every three people one meets appears to be a victim to it. There do not appear to be any symptoms peculiar to this part. It begins with fever and pain in the leg, extending as high up as

the thigh, which gradually subside, but leave a thickening of the cuticle, which remains and continues to increase in size and in induration with every attack of this peculiar fever. Placing a permanent ligature round the artery of the thigh is said to be of much benefit in the treatment of this disease, but this is doubtful.

Small-pox.

Small-pox.—This disease has for many years past been prevalent in most of the taluqs of the district. A Superintendent of Vaccination, with his staff of vaccinators, pays visits to the various taluqs as their services are required.

Cholera.

Cholera.—This district has of late suffered severely from the visitation, from time to time, of this disease, more especially within the last three or four years. On referring to mortuary registers, 10,542 deaths will be seen to have taken place from cholera alone since 1866.

It always seems to make its appearance when the rains have failed, and consequently when it is very dry, crops deficient, and supplies bad and high priced, when many of the poorer classes are much pinched for food and are in a half-starved condition, consequently just in the state to imbibe the poison of cholera or any other infectious disorder they may be predisposed to. It generally puts on a very virulent type, and, unless the cases are seen and attended to at the first approach of the disorder, collapse quickly sets in and the sufferers die. No special treatment has succeeded in this district; what may have been considered to answer in one season has altogether failed the next. The average mortality is little under 50 per cent. of those attacked.

Register of Births in the District of Nellore for 1869.

No.	Names of Taluqs.	Population. Hindus. Males.	Hindus. Females.	Mahomedans. Males.	Mahomedans. Females.	Christians. Males.	Christians. Females.	Total.	Total Births. Hindus. Males.	Hindus. Females.	Mahomedans. Males.	Mahomedans. Females.	Christians. Males.	Christians. Females.	Total Males.	Total Females.	Grand Total.	Ratio per 1,000 calculated on Columns 9 and 18.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Gudur	46,838	43,810	2,125	2,011	...	...	94,784	460	447	19	7	...	...	479	454	933	9·84
2	Rapur	26,417	23,786	1,049	1,016	...	...	52,268	531	494	35	25	...	...	566	519	1,085	20·75
3	Nellore	59,163	55,510	2,037	2,409	19	17	119,755	882	802	49	45	...	...	931	847	1,778	14·84
4	Atmakur	42,157	38,894	2,909	2,596	154	134	86,844	693	648	47	38	2	...	742	686	1,428	16·44
5	Kavali	26,107	24,039	1,121	977	...	1	52,245	258	285	9	9	...	...	267	294	561	10·73
6	Udayagiri	23,619	21,350	1,987	1,729	4	5	48,694	440	364	30	26	...	...	470	390	860	17·66
7	Kandukur	46,568	43,638	1,738	1,720	15	14	93,753	692	635	9	11	...	...	701	649	1,147	12·23
8	Kunigiri	25,935	22,434	1,273	1,124	5	7	50,778	313	255	11	6	...	...	324	261	585	11·52
9	Cuddapah	66,101	62,931	2,493	2,169	126	113	133,333	1,128	1,067	29	36	...	...	1,157	1,103	2,260	16·95
	Total ...	362,905	335,792	17,392	15,751	323	291	732,454	5,297	4,897	238	203	2	...	5,537	5,100	10,637	14·52
10	Nellore Town Municipality ...	7,901	8,445	2,662	3,596	115	132	22,851	33	24	2	2	...	...	35	26	61	2·66
11	Venkatagiri Zemindari	149,698	138,670	6,171	5,669	211	201	300,620	2,455	2,404	98	79	...	...	2,553	2,483	5,036	16·75
12	Toundi do.	9,947	9,186	416	413	...	...	19,964	114	111	5	1	...	...	119	112	231	11·57
13	Mutyalpad do.	1,823	1,654	126	121	...	...	3,724	11	14	...	...	...	...	11	14	25	6·71
14	Portion of Calastri do.	44,752	40,168	2,152	1,948	18	13	89,051	582	524	32	17	...	...	614	541	1,155	12·97
	Grand Total ...	577,026	533,915	28,921	27,498	667	637	1,169,664	8,492	7,974	375	302	2	...	8,869	8,278	17,145	14·67

Mortuary Register for 1869, *from January* 1*st to December* 31*st.*

No.	Names of Taluqs.	Population.							Total Deaths.								
		Hindus.		Mahomedans.		Christians.			Hindus.		Mahomedans.		Christians.				
		Males.	Females.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Total Males.	Total Females.	Grand Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Gudur	46,838	43,810	2,125	2,011	...	...	94,784	874	754	20	17	...	...	894	771	1,665
2	Rapur	26,417	23,786	1,049	1,016	...	...	52,268	554	464	26	26	...	...	580	490	1,070
3	Nellore	59,163	55,510	2,637	2,409	19	17	119,755	1,386	1,234	48	38	...	...	1,434	1,272	2,706
4	Atmakur	42,157	38,894	2,909	2,596	154	134	86,844	1,083	929	61	44	1	1	1,145	974	2,119
5	Kavali	26,107	24,039	1,121	977	...	1	52,245	395	377	15	7	...	...	410	377	787
6	Udayagiri...	23,619	21,350	1,987	1,729	4	5	48,694	392	333	31	18	...	...	423	351	774
7	Kandukur...	46,568	43,638	1,798	1,720	15	14	93,753	828	687	29	12	...	...	857	699	1,556
8	Kanigiri	25,935	22,434	1,273	1,124	5	7	50,778	322	308	10	11	...	...	332	319	651
9	Ongole	66,101	62,331	2,493	2,169	126	113	133,333	1,276	1,182	35	38	...	...	1,311	1,220	2,531
	Total ...	362,905	335,792	17,392	15,751	323	291	732,454	7,110	6,261	275	211	1	1	7,386	6,473	13,859
10	Nellore Town Municipality ...	7,901	8,145	2,662	3,596	115	132	22,851	145	84	21	17	...	1	166	102	268
11	Venkatagiri Zemindari	149,698	138,670	6,171	5,669	211	201	300,620	2,823	2,569	112	73	...	...	2,935	2,642	5,577
12	Toundi do.	9,947	9,186	418	413	...	...	19,964	136	111	2	3	...	...	138	114	252
13	Mutyalpad do.	1,823	1,654	126	121	...	...	3,724	25	19	1	...	...	...	26	19	45
14	Portion of Calastri Zemindari ...	44,752	40,168	2,152	1,948	18	13	89,051	655	546	26	17	1	...	682	563	1,245
	Grand Total ...	577,026	533,915	28,921	27,498	667	637	1,168,664	10,894	9,590	437	321	2	2	11,333	9,913	21,246

Mortuary Register for 1869, *from January* 1*st to December* 31*st.*—(Continued.)

No.	Names of Taluqs.	Details of Deaths.																	
		From Disease.					From Violence.												
							Accidents.				Suicides.								
		Cholera.	Small-pox.	Fever.	Age.	Other Diseases.	Drowning	Snake-bite.	Wild Beasts.	Other Accidents.	Hanging.	Drowning	Poison.	Other Suicides.	Murders.	Ratio of Deaths per 1,000 from all Causes, calculated on Columns 9 and 18.	Ratio of Deaths per 1,000 from Cholera, calculated on Columns 9 and 19.	Ratio of Deaths per 1,000 from Small-pox, calculated on Columns 9 and 20.	Ratio of Deaths per 1,000 of Males to Total Deaths, calculated on Columns 16 and 18.	Ratio of Deaths per 1,000 of Females to Total Deaths, calculated on Columns 17 and 18.
		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
1	Gudur	180	112	245	351	723	33	8	1	6	2	4	...	...	...	17·56	1·89	1·18	537·93	463·06
2	Rapur	34	19	145	161	680	13	6	3	6	...	3	...	...	1	20·47	·65	·36	542·05	484·11
3	Nellore	248	299	186	466	1,441	43	17	...	4	...	...	...	...	2	22·59	2·7	2·49	529·96	470·06
4	Atmakur	321	183	235	254	1,091	23	5	...	4	...	2	...	...	1	24·40	3·69	2·1	540·34	459·65
5	Kavali	6	53	80	160	464	17	6	...	1	...	...	...	...	...	15·06	·11	1·01	520·96	479·03
6	Udayagiri...	58	14	117	120	443	10	6	1	3	...	2	...	...	...	15·89	1·19	·28	546·48	453·48
7	Kandukur...	2	138	174	283	920	23	10	...	3	1	2	...	...	...	16·59	·02	1·47	550·77	449·22
8	Kanigiri	1	71	56	126	380	8	3	4	1	...	...	...	1	...	12·82	·01	1·39	509·98	490·01
9	Ongole	1	302	193	371	1,622	20	11	1	5	2	...	...	...	3	18·98	...	2·26	517·97	482·02
	Total ...	851	1,191	1,431	2,292	7,764	190	72	10	32	5	13	...	1	7	18·92	1·62	·1·62	532·95	467·06
10	Nellore Town Municipality ...	64	10	44	10	124	11	...	...	3	...	...	...	...	2	11·72	2·8	·43	619·4	380·59
11	Venkatagiri Zemindari	112	413	549	756	3,635	66	25	2	15	1	1	...	...	2	18·55	·37	1·37	526·26	473·73
12	Toundi do. ...	...	8	30	42	163	6	2	...	...	1	...	...	...	...	12·62	...	·4	547·61	455·5
13	Mutyalpad do. ...	...	2	...	9	30	2	...	2	...	...	...	...	...	...	12·08	...	·53	577·7	422·2
14	Portion of Calastri Zemindari ...	27	91	264	203	629	18	6	3	3	1	...	...	...	...	13·98	·3	1·02	547·79	452·21
	Grand Total ...	1,054	1,715	2,318	3,312	12,345	293	105	17	53	8	14	...	1	11	18·18	·94	1·46	533·41	466·58

Register of Births in the District of Nellore for 1870.

No.	Names of Taluqs.	Population.							Total Births.							Ratio per 1,000 calculated on Columns 9 and 16.
		Hindus.		Mahomedans.		Christians.			Hindus.		Mahomedans.		Christians.			
		Males.	Females.	Males.	Females.	Males.	Females.	Total.	Males.	Females.	Males.	Females.	Males.	Females.	Grand Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Gudur	46,838	43,810	2,125	2,011	...	...	94,784	367	315	7	9	...	...	698	7·36
2	Rapur	26,417	23,786	1,049	1,016	..	...	52,268	458	418	19	19	...	...	914	17·48
3	Nellore	59,163	55,510	2,637	2,409	19	17	119,755	747	689	34	30	1	1	1,502	12·54
4	Atmakur	42,157	38,894	2,909	2,596	154	134	86,844	572	527	54	28	4	...	1,185	13·64
5	Kavali	26,107	24,039	1,121	977	...	1	52,245	239	237	5	5	...	...	486	9·3
6	Udayagiri...	23,619	21,350	1,987	1,729	4	5	48,694	335	359	21	28	...	...	743	15·25
7	Kandukur...	46,568	43,638	1,798	1,720	15	14	93,753	531	495	12	12	...	...	1,050	11·19
8	Kanigiri	25,935	22,434	1,273	1,124	5	7	50,778	279	241	11	9	1	1	542	10·67
9	Ongole	66,101	62,331	2,493	2,169	126	113	133,333	1,068	1,004	28	13	...	1	2,114	15·85
	Total ...	362,905	335,792	17,392	15,751	323	291	732,454	4,596	4,285	191	153	6	3	9,234	12·6
10	Nellore Municipality ...	7,901	8,445	2,662	3,596	115	132	22,851	25	16	3	...	...	...	44	1·92
11	Venkatagiri Zemindari ...	149,698	138,670	6,171	5,669	211	201	300,620	1,889	1,722	49	46	4	1	3,711	12·34
12	Toundi do. ...	9,947	9,186	418	413	...	...	19,964	100	84	3	1	...	...	188	9·41
13	Mutyalpad do. ...	1,823	1,654	126	121	...	...	3,724	17	13	...	...	...	...	30	8·05
14	Portion of Calastri do. ...	44,752	40,168	2,152	1,948	18	13	89,051	495	412	14	17	1	...	939	10·54
	Grand Total ...	577,026	533,915	28,921	27,498	667	637	1,168,664	7,122	6,532	260	217	11	4	14,146	12·1

Mortuary Register for 1870, *from January* 1*st to December* 31*st.*

No.	Names of Taluqs.	Population.							Total Deaths.				Details of Deaths.							Grand Total.	Ratio of Deaths per 1,000 from all Causes, calculated on Columns 9 and 13.	Ratio of Deaths per 1,000 from Cholera, calculated on Columns 9 and 14.	Ratio of Deaths per 1,000 from Small-pox, calculated on Columns 9 and 15.
		Hindus.		Mahomedans.		Christians.							From Disease.				From Violence.						
		Males.	Females.	Males.	Females.	Males.	Females.	Total.	Hindus.	Mahomedans.	Christians.	Total.	Cholera.	Small-pox.	Fever.	Other Diseases.	Accidental.	Suicides.	Other Causes.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	Gudur	46,838	43,810	2,125	2,011	...	...	94,784	967	31	3	1,001	141	22	298	343	43	3	151	1,001	10·56	1·48	·23
2	Rapur	26,417	23,786	1,049	1,016	...	...	52,268	841	27	...	868	8	16	237	464	39	2	102	868	16·6	·15	·3
3	Nellore	59,163	55,510	2,637	2,409	19	17	119,755	1,785	43	2	1,830	59	100	429	751	54	15	422	1,830	15·28	·49	·83
4	Atmakur	42,157	38,894	2,909	2,596	154	134	86,844	1,352	77	...	1,429	107	56	354	593	40	7	272	1,429	16·45	1·23	·64
5	Kavali	26,107	24,039	1,121	977	...	1	52,245	681	12	...	693	24	114	136	252	25	...	142	693	13·26	·45	2·18
6	Udayagiri	23,619	21,350	1,987	1,729	4	5	48,694	575	42	...	617	8	17	193	214	13	...	172	617	12·67	·16	·34
7	Kandukur	46,568	43,638	1,798	1,720	15	14	93,753	1,369	26	2	1,397	10	178	387	515	43	13	251	1,397	14·9	·1	1·89
8	Kanigiri	25,935	22,434	1,273	1,124	5	7	50,778	486	17	...	503	7	31	148	235	9	5	68	503	9·9	·13	·61
9	Ongole	66,101	62,331	2,493	2,169	126	113	133,333	2,120	54	1	2,175	68	315	425	775	43	11	538	2,175	16·31	·51	2·36
	Total ...	362,905	335,792	17,392	15,751	323	291	732,454	10,176	329	8	10,513	432	849	2,607	4,142	309	56	2,118	10,513	14·35	·58	1·15
10	Nellore Town ...	7,901	8,445	2,662	3,596	115	132	22,851	149	31	1	181	64	3	30	43	14	3	24	181	7·92	2·8	·13
11	Venkatagiri Zemindari.	149,698	138,670	6,171	5,669	211	201	300,620	3,526	112	7	3,645	93	127	1,037	1,634	123	30	601	3,645	12·12	·3	·42
12	Toundi do....	9,947	9,186	418	413	...	...	19,964	232	6	...	238	...	23	73	87	5	2	48	238	11·92	...	1·15
13	Mutyalpad do....	1,823	1,654	126	121	...	...	3,724	33	1	...	34	...	2	8	18	...	2	4	34	9·13	...	·53
14	Portion of Calastri Zemindari ...	44,752	40,168	2,152	1,948	18	13	89,051	911	42	...	953	21	16	378	327	41	8	162	953	10·7	·23	·17
	Grand Total ...	577,026	533,915	28,921	27,498	667	637	1,168,664	15,027	521	16	15,564	610	1,020	4,133	6,251	492	101	2,957	15,564	13·31	·52	·87

CHAPTER III.

GEOLOGY AND SOILS.

(Compiled by Mr. J. A. Boyle, C.S., *from Notes furnished by* Mr. Charles Oldham, *of the Geological Survey : Soils by* Mr. Charles Rundall.)

Geology.—Stratification.—Metamorphic rocks.—Gneissose and Quartzose.—Hornblende Schist.—Micaceous and Talcose Schists.—Granite.—Quartzite and altered Sand-stones.—Cuddapah Group.—Laterite.—Alluvium.—Sriharikota.—Gudur.—Nellore.—Kavali.—Kandukur.—Ongole.—Darsi.—Podile.—Kanigiri.—Udayagiri.—Atmakur.—Rapur.—Venkatagiri.—Polur.—Rocks.—Igneous, Metamorphic, Aqueous, and Alluvial.—Organic remains. Soils.—River System.—Ongole.—Darsi.—Podile.—Kandukur.—Kanigiri.—Udayagiri.—Atmakur.—Rapur.—Kavali.—Nellore.—Gudur.—Sriharikota.—Table of Classification of soils.

Stratification.

To the general observer the geological and mineralogical features of the district do not present much of special interest. Generally speaking the district of Nellore, like the greater part of Southern India, may be said to be one of which the underlying rocks are of the class called by geologists the metamorphic or gneissose rocks. Of these, however, there is a great variety: gneiss properly so called in one place, and in others various forms of the different schistose rocks, which constitute the other varieties of the metamorphic rocks, such as hornblende schist, micaceous and talcose schists, and not unfrequently bands of almost purely quartzose composition which may be called quartz-rock. These varieties alternate in bands, very frequently narrow bands, and with many alternations; but more commonly one or other variety prevails over a considerable area, giving to it its general character, and thus roughly the district may be divided into geological areas or broad longitudinal bands, characterised by the variety of rock more prevalent, as bands of hornblendic gneiss, of hornblende schist, micaceous schist, and so on, the bands or beds of quartz-rock being generally very subordinate to the other types, and occurring only as narrow belts in them, not giving a general character to any wide area. Much of the gneiss, and particularly in the southern parts of the district, is very granite like; and in small masses could scarcely be called anything else but granite, although, even then, a tendency to lamination or a general arrangement of its constituent mineral in lines more or less distinctly marked is commonly traceable. The schistose varieties exhibit this much more distinctly, and indeed present exactly the appearance of having been definitely bedded rocks,

Metamorphic rocks.

Gneissose and quartzose.

Hornblende schist—Micaceous and talcose schists.

Granite.

the intensely quartzose bands in particular often showing as well defined beds lying between others of different composition and character.

All these rocks are locally intersected by veins and dykes of quartz and of volcanic rocks. While, however, as I have said, the district generally may be called one of metamorphic rocks, these are by no means the only class of rocks represented.

Among the lines of hills which form the western boundary of the district, where it adjoins Cuddapah, we find a very different series of rocks evidently of sedimentary origin. These are the quartzites (or altered sand-stones) and slates which cap this range of hills and exhibit the fine precipitous cliffs or scarps facing eastwards towards the sea, which cannot fail to strike any one travelling in the western parts of the district. Some few outlying hills in the Nellore District, as for example Udayagiri hill and some others, are also capped by some of these beds. No traveller by the road from Nellore to Cuddapah can fail to be struck by the remarkably fine bold bluffs and steep cliffs.

Quartzite and altered sand-stone.

Shown on some of these outliers, and on some of the projecting spurs of the hills, near where the road crosses the range; this series of quartzites and slates which is very largely seen in the Cuddapah District has been called by the Geological Survey the "Cuddapah group." No fossil remains have as yet been discovered in any of them, and their geological age is thus undecided; and as these cannot, therefore, as yet, be referred with any certainty to any of the recognized divisions of European geology, they have been provisionally named after the district, Cuddapah, in which they are best seen. The district, however, is not entirely devoid of rocks containing organic remains, as a series of slates and sand-stones containing rather poorly preserved remains of fern-like plants has been found in several places. These were first noticed by Mr. Oldham, District Superintendent, in the neighbourhood of some villages north of Nellore about 30 to 40 miles, and were afterwards found to appear in other localities further north. These beds are supposed to be of the same age as somewhat similar sand-stones and slates containing similar plant remains, which have been found in the Trichinopoly, South and North Arcot, and the Madras Districts; and Mr. Oldham tells me he has noticed similar beds locally between Ongole and Guntur, which he has little doubt are the same, and thinks it probable that hereafter these may be found to extend at intervals much further north than they have yet been traced.

Cuddapah group.

Laterite is very abundant in the district and extends almost all along the sea coast, commonly a few miles from the coast in a broad band, varying greatly in width. This band is not continuous, but broken through in many places by denu-

Laterite.

dation; it is largely quarried, being a convenient and useful building stone, hardening on exposure. It is evidently a sedimentary deposit containing pebbles of quartz, &c.

Alluvium.

Large tracts near the coast are covered by the alluvium of the various streams and rivers, of which the most noticeable is the Pennair. On the coast there is much blown sand, in ridges or dunes in two and three parallel lines.

The above remarks furnish a clear and almost exhaustive summary of the rock formations in the district. But on examining the district in detail it will be found a help if we consider it under two heads corresponding to the two great physical divisions which will strike the most superficial observer of the scenery of the district. This division is based on the contrast to be noticed between the taluqs fringing the coast line and those which have the Veligonda hills for their western boundary.

The former, the littoral taluqs, are remarkable for the tameness of their scenery, unrelieved for the most part by hills of any size, while the upland taluqs are, with little exception, distinguished throughout by the bold character of the ranges which form their western boundary, and the number of single outliers which break their surface. Starting from the south-east limits of the district and keeping along the coast line, we pass the long low island of Sriharikota, washed on the east by the sea and on the west side by the Pulicat lake. This is nothing more than a bank of alluvial and marine deposits rising only some few feet above the water level throughout. It stretches from Coromandel on the south to Dugarazupatnam on the north, where it is separated from the mainland by a narrow channel. On the opposite side of the Pulicat lake to Sriharikota the same alluvial soil stretches away from Tada nearly to the foot of the range of Veligonda hills, which at this extreme end of the district lose their former bold and striking character and trend away in two divergent lines south and south-west.

Sriharikota.

Along the coast line north of Dugarazupatnam and throughout the Gudur Taluq the low-lying alluvial lands stretch inland for an average distance of 10 or 15 miles, broken only by the sandy bed of the Suvarnamukhi river and the backwaters which, as at Kristnapatam, fringe the coast line.

Gudur.

Little or no rising ground breaks this dead level until crossing the high road to Madras we find ourselves among low conical hills of quartzite and felspathic rock; thickly wooded, but for the most part quite isolated. But within the range of the alluvial belt which fringes the coast, the only eminences that break the level are a conical hill at Kota near Dugarazupatnam (which is mainly composed of gneiss, but is capped by a thin bed of laterite—evidence of the denudation of

the latter rock far over the surrounding plain,) and a table-land of laterite, which rises between Gudur and Sarvepalli; at a varying depth however below the surface of the alluvial soil laterite is the rock most commonly met with, and to this may be attributed the red tinge which is so prevalent in the soil. The immediate coast line is throughout the district marked by dunes of blown and shifting sand, which sometimes stretch inland for the distance of more than a mile. Of the west side of the Gudur Taluq there is little to be said. As the level gradually rises the ground becomes more broken and stony: the fragments which strew the surface being very generally quartz pebbles, or *débris* of gneiss and felspathic rock, more or less water-worn. On the road between Gudur and Ojili the character of the soil for some distance changes. The prevalent laterite is replaced by a band of granitic rock, the *débris* of felspar, quartz, and mica strewing the surface, and here, as elsewhere, the change seems to be marked by a more vigorous growth of trees and all hardy vegetation. The Nellore Taluq is marked more than any other part of the district by the prevalence of alluvial deposits. The whole stretch of country between the town and the sea is the delta of the Pennair river, and has been gradually formed by the successive deposits of the river in time of flood. An arc of slightly raised ground may be observed to extend from Iskapalli, having Nellore for its centre and touching the old coast line again near Gudur; the Pennair has gradually reclaimed from the sea the whole area included within this semicircle. But it is not only at its mouth that the river has formed this alluvial deposit: all along its banks, as far as the Somes-waram ghaut, successive accumulations have covered the surface of the country for a breadth varying from 5 to 10 miles. Thus at Sangam, where the junction of the Pennair with the Boggeru takes place, the alluvial soil spreads over a wide area on each bank, lapping the Sangam hill on the north side.

Nellore.

The high ground which stands east of the Nellore tank is a plateau of laterite, but a section carried below that formation gives a succession of older metamorphic rocks, with occasional dykes of granite, which have been now and again excavated for the sake of the large plates of mica found there.

To the west of Nellore town extensive denudation has removed all traces of the laterite or more recent formations, leaving the inferior rocks exposed. Gneiss is throughout the most prevalent rock, and from the termination of the belt of laterite on which Nellore stands, this series stretches away to the west as far as the spurs and base of the Veligonda hills. Gneiss is the constituent rock of Narasimhakonda: it is also found in compact beds at Buchireddipalem, and is quarried for building purposes; and the highly granitic character of the strata

makes the distinction of the rock from pure granite a matter of great difficulty, unless examined *in situ* and on a large scale.

The Sangam hill in the Nellore Taluq is a very typical representative of what has been called the newer metamorphic series in the district. The most conspicuous formation is that of compact beds of quartzite, but mica is very prevalent in bands of varying extent, and seams of chlorite and felspar are common.

Kavali.

The Kavali Taluq is so essentially similar to the other littoral districts already described, that there is little call for remark.

The coast line is fringed throughout by the same line of backwaters that mark the taluq already mentioned, and the only other noteworthy feature is a belt of rich alluvial soil stretching for a breadth of some five miles over the low-lying tract known as the Musunur valley. On the north side of this valley the ground rises at a considerable slope to the plateau on which stands the village of Kavali, and from thence to the limits of Kandukur Taluq laterite is the prevalent superficial rock formation.

Kandukur.

The taluq of Kandukur sees the end of the backwater system which is not continued to the north of Ramapatnam, but with this slight difference the country in appearance and in rock formation remains unchanged. Laterite is still the constituent of the low hills or plateau which immediately succeed the coast, amongst which the steeply scarped rock, on which stands the pagoda at Singarayakonda, is of remarkable prominence; and only in the western extremity of the taluq is the surface varied, as at Chundi, by the presence of larger hills and of older rock formations. The taluq is intersected by the Paleru and Maneru rivers and other smaller streams, and these so far differ in character from the rivers of the more southern taluqs that they are confined by steep and solid banks within more or less narrow channels.

Crossing from the Kandukur into the Ongole Taluq no changes in the surface of the country present themselves until we pass Ongole and its girdle of laterite hills, behind which towers the peak of Kanigiri, and keeping along the northern road over the Gundlakamma we find ourselves, as we approach Adanki, among a low and irregular range of hills differing from the laterite plateaux of the more southern taluqs both in character and formation. They belong to a series of slates and sand-stones, which make their appearance at great intervals from Trichinopoly on the south to Guntur (and are believed to extend still further) on the north. This formation is remarkable as the only beds which have been found, within the Nellore District, to contain organic remains, traces of fern-like plants having been found in several instances in these strata. On the sea side Ongole is as fully

provided as any taluq with sand dunes and low plains of arenaceous formation, extensively devoted to the manufacture of salt, as at Padurti, near Kottapatnam, and Kanuparti on the north bank of the Gundlakamma.

Ongole—Darsi.

The limits of Ongole Taluq are the limits of the Nellore District on the north, and here we leave the littoral taluqs, and turning westwards into the Zemindari tracts of Darsi and Podile, travel southward along the line of the Veligonda hills. This range does not spread as far north as Darsi, and this division is not marked by any prominent geological feature, although series of the metamorphic rocks which constitute the Veligonda hills crop up very generally above the surface. But as we continue southwards the country is soon changed in the Podile division by the first spurs of the Eastern Ghauts, of which the northern extremity trends much to the east and lacks to a great extent the bold character which distinguishes the range further south. At this point the constituent rocks of the group are not so much the compact beds of gneiss, quartzite, and hornblendic gneiss which are so plentiful in the southern taluqs, as contorted strata of talcose and micaceous schists, intersected, however, very generally by dykes and veins of the more compact rocks.

Podile.

Kanigiri.

The taluq of Kanigiri, lying south of Podile and south-west of Ongole, is remarkable for its rocky and consequently barren character. Not only do the Eastern Ghauts fringe the taluq on the west side, and repeat the prevalent characteristics found in Podile, but here we meet the first of those great outliers which, as again at Chundi, at Udayagiri, and at Sangam, point to a time long since when the beds which form the outliers ran uninterruptedly westwards to the Veligondas, and to a process by which denudation has taken place over the whole of the intervening district. Kanigiri droog, the first of these peaks, rises to a height of some 2,000 feet out of a rocky plain: the rocks of which it is composed are remarkably colored by abundant presence of iron, but the droog is very similar in composition to the main range of the Eastern Ghauts, beds of gneiss and quartzite with seams of highly granitic rock being the typical beds, while a granular dark colored lime-stone is also found.

Udayagiri.

The whole taluq with little exception, and only along the courses of the intersecting streams, is rocky and barren; but no other hills of any size require separate mention. Udayagiri Taluq repeats on its north and western sides the wild and sterile characteristics of Kanigiri; it is flanked on its western side by the ghauts and thickly dotted with hills, amongst which rises conspicuously the lofty Udayagiri droog, the second of the series of great outliers from the Veligonda range.

As that range has been fully described as a whole in a former passage, we may safely confine ourselves at present to some notice of the other geological features of the country; amongst these Udayagiri droog stands conspicuous. It rises to a height of 3,000 feet; at the south-west end the face of the droog is abrupt and steeply scarped, but the main portion of the hill has not this precipitous character, and its height is far less than at the south-west end. Though separated by a distance of about eight miles from its parent chain, its constituent rocks are essentially the same in formation and character with those of the western hills. As we found further north, so in Udayagiri droog the shales and schists are the most typical rock formation, and in this group many varieties will be noticed. Talcose schists are perhaps the most prevalent; but in the regularity or contortions of the strata, in the compactness or fissility of the rocks, in the proportion of talc present in a given specimen, a thousand variations present themselves over a very small area. Some specimens of this group are so regularly stratified on the one hand, and so fissile on the other, as to be found available for use in roofing houses, while others will be either curved in stratification or so highly talcose in composition (and consequently soft) as to be useless. This group, however, does not monopolize the droog, beds of compact gneiss and bands of quartz of varying thickness and purity break up into the softer schistose strata.

As a whole the Udayagiri Taluq is only less barren and rocky than the Kanigiri District: water is scarce, and the Boggeru is the only stream of any size which irrigates the taluq.

It is in these mica and talcose schists that garnets are plentifully found; but for the most part they are impure and valueless.

It is conjectured also that Udayagiri would be found to contain diamonds, as it is partly composed of similar rocks to those in the Cuddapah District, from which diamonds are gleaned, but their value would probably not suffice to remunerate labor expended on the search.

Atmakur.

The taluq of Atmakur is more varied in character than perhaps any other division of the district. Flanked by the range of the Eastern Ghauts, which here present the geological peculiarities of formation which have earned for the group to which the constituent rocks belong the name of the Cuddapah group, the western portion of the taluq is remarkable for the bold and picturesque nature of its scenery.

Among the more noteworthy peaks in the range should be mentioned that of Penchalakonda, which towers over the village of Kaluvaya on the south bank of the Pennair marked by a curious furrow down its scarped face (the lasting evidence of the might of Deva Penchelu); it is also distinguished geologically as the site of some

interesting ripple marks, or indentations denoting the line of an ancient sea beach which were noticed by Mr. King of the G. S. in the semi-metamorphosed quartzite near the summit.

As we recede eastwards from the range the country quickly changes; on either bank of the river Pennair a belt of alluvial soil stretches away, often for a distance of some miles from the sandy river bed, either covering the level ground to a great depth, or rising in a gentle slope over the low hills which run from the river, or where it meets some steeper incline, lopping round the base and sides of a hill and leaving the rest exposed.

Beyond the reach of this river deposit in the north-east and south-west corners of the district low hills are irregularly dotted over the country, the rocks of which belong for the most part to the quartzites of the newer metamorphic series. On the right bank of the river Pennair, near Kaluvaya, an inferior range of hills, separated from the Eastern Ghauts by a narrow valley of alluvial soil trends away in a south-easterly direction into the taluq of Rapur. These hills are of little height, and for the most part so rounded as to present no picturesque outlines. So many are the breaks in the chain that the secondary line of hills may be rather considered as a succession of outliers than a continuous range; but they are interesting for the reason that their internal evidence points to a time when their rock beds were continuous throughout the tract which now separates them from the loftier Veligondas, their constituent rocks belonging to the group of quartzite or metamorphosed sand-stones which form the base of the Eastern Ghauts.

Rapur.

Of the taluq of Rapur and the Zemindari tract of Venkatagiri the geological features are closely similar; the surface of the country immediately below the Veligonda hills is throughout rocky with hardly a superficial sprinkling of soil. Even where the rock strata do not actually crop above the surface, the ground is strewed with the *débris* of subjacent beds. The result is that the cultivable area is very small, and the tracts of unreclaimed jungle are broad and dense. In Rapur the strata most commonly exposed at the surface are compact hornblendic gneiss and hornblende schists, the latter especially being very frequent and always in a vertical position. Through the taluq of Rapur runs the continuation of the range, or rather succession of outlying hills, which takes its start near Kaluvaya, and this line with constant breaks may be traced in a south-easterly direction through Rapur, Venkatagiri, and the Polur divisions at varying distances from, but practically in a parallel line with, the main range of the Eastern Ghauts. As has been before stated quartzite and gneiss are the most commonly constituent rocks of this group of hills.

The Venkatagiri division is intersected by the Suvarnamukhi and the river of Venkatagiri. Rapur has no streams of any consequence. The Polur division, which contains the termination of the Eastern Ghauts, shares the characteristics of the littoral districts on its eastern side, while on the west it repeats the geological features of Venkatagiri and Rapur, almost the only noteworthy formation being the beds of felspathic rock, which occur very commonly and are often superficially visible.

Venkatagiri—Polur.

This account of Nellore geology may thus be epitomised.

The district exhibits four distinct series of rock formation:—I. *Igneous*, represented sparsely by granite as at Ojili, and by trap found in dykes among the Velikonda hills; II. *Metamorphic*, the series which includes the whole of the range of the Eastern Ghauts in the gneiss, hornblende, and quartzite, which are so prevalent in that range and throughout the succession of lofty outliers which form a supplementary range throughout the whole length of the district; III. *Aqueous* rocks as represented by the laterite of the secondary period which succeeds, and is usually superimposed on the metamorphic rocks; IV. The *alluvial* beds of soil formed by fluviatile and lacustrine deposits along the course of the various rivers and in their deltas, and along the line of backwaters which fringe the coast line. These successive formations are seldom found together; more commonly they are arranged in parallel belts of varying breadth; thus the immediate coast line is occupied by alluvial deposits: to this succeeds a belt of laterite of varying thickness, and the laterite having been denuded over almost the whole of the western half of the district, the older metamorphic rocks are everywhere superficially visible.

Rocks—Igneous, Metamorphic.

Aqueous.

Alluvial.

Organic remains have hardly anywhere been detected, a fact which makes the assimilation of the rocky formations of Nellore to those of other districts a matter of much difficulty. The shell beds found in the post-tertiary alluvial soil on the shores of the Pulicat lake and indications of vegetable remains detected in some metamorphosed sand-stones mentioned by Mr. Oldham are the only fossil remains that have been met with; but the information collected and the search made cannot as yet be considered complete and satisfactory.

Organic remains.

Soils.

The following account of the soils of the Nellore District has been furnished by Mr. Charles Rundall, Deputy Director of Revenue Settlement:—

Soils—River System.

The soils of the different taluqs of the district vary according to the geological formation and position with reference to the coast-board and

the Eastern Ghauts, which respectively form the eastern and western boundaries of the district; likewise in respect to proximity to hills and rivers, &c. To the north, or in the Ongole Taluq, the same heavy regada soils that form the distinguishing feature of the Guntur Taluqs of the Kistna District prevail and extend throughout some portion of the taluq adjoining thereto (Kandukur) as well. The soils of both the Ongole and the Kandukur Taluqs may be described as consisting of the several varieties of the regada and tuvva soils for the most part, and likewise of the red series of soils, but in respect only to the more westerly villages of both taluqs.

The Ongole Taluq is intersected by the Gundlakamma and the Musi rivers and by several minor and local streams, viz., the "Koniki Vagu," Mudigondi, and Inagaleru. Throughout the centre and eastern portion of the taluq the soil is, therefore, more or less of an alluvial description, and stretches away from the southern bank of the Gundlakamma to the Musi, which borders the taluq for a considerable distance along its southern extremity. In parts of this tract the regada soil is very superior and rich. To the north of the Gundlakamma, regada of a more ordinary quality predominates; and to the east thereof, and of the tract above described, soils of a littoral nature are met with and prevail along the line of sea coast, the breadth of the tract varying considerably; for, whilst to the north and south of the coast line of the taluq the regada soils abut within a line of little more than a mile from the beach, the salt swamps about Kottapatnam, Biramgunta, and Allur extend some four or five miles in from the coast. In the western part of the taluq the red and stony soils crop up between breaks in the poorer descriptions of the regada soils; more particularly so towards the Chimmakurti hill in the extreme west. The western part of the taluq is rather hilly, some of the hills being of fair size. The Zemindari divisions of Darsi and Podile form the western limit of the taluq. The streams above referred to are not made use of for purposes of irrigation, and, save on the banks and in the vicinity of them, there are but few wells throughout the taluq. The water-supply of the taluq in the hot season is scanty in the extreme, the wells being, as a rule, indifferent, soon fail, and in times of drought the people at a distance from the rivers suffer much from scarcity of water, both for themselves and for their cattle.

Ongole.

Darsi—Podile.

The Kandukur Taluq is similarly intersected by the Paleru and Maneru rivers and by a minor stream, the Yelikeru, to the south of the latter river, falling into the sea just north of Ramapatam. The tract lying between the lower reach of the Musi and Paleru rivers, in the centre of the taluq, exhibits but little variation of soil, being principally regada of an alluvial nature and superior description. To the east, in the villages along the

Kandukur.

fine of the coast, the soil resembles that of the more northerly coast villages of the Ongole Taluq. Westward the soil deteriorates in quality, the farther removed inland, and in the north-west and extreme west it is in a great measure stony and sterile, and very different from the most part of the taluq, assimilating very closely with the soil of the adjoining villages of the Kanigiri Taluq. Large tracts of cavati and unprofitable soil are met with. South of the Maneru, and in the villages separated thereby from the other portion of the taluq, there is a marked change of soil. The heavy regada is hardly met with, and laterite forming the sub-soil, the red or ferruginous series of soils predominate. Along the banks of the rivers and minor streams, and in tracts adjoining thereto, tuvva soil of a very fine description exists as in the Ongole Taluq. The Chundi Zemindari estate occupies the west and south-west part of the taluq, the prevailing soils of which are tuvva of a light description, and others belonging to the red series. To the south of Kandukur lies the Kavali Taluq.

The Paleru is not made use of for irrigation, but the Maneru is to a slight extent. Wells exist along the banks of each, and they are more numerous throughout the Kandukur than the Ongole Taluq. Water may be said to be pretty readily met with in Kandukur.

Kanigiri.

Kanigiri is separated from the Kandukur Taluq by the Chundi range of hills along the greater portion of the line of boundary, and from the Cumbum Taluq of the Kurnool District by the Veligonda range or extreme northern end of the line of the Eastern Ghauts. The Zemindari Taluq of Podile, belonging to the Venkatagiri estate, skirts the taluq on its northern boundary, and to the south it is bordered by the Government Taluq of Udayagiri. The Paleru and Maneru, and their affluents rising amongst the ranges of hills and the ghauts to the west of the taluq, form the drainages thereof. The beds of these streams are deep, and are of no avail for irrigation, save as regards wells along their course, which are influenced thereby considerably.

The north-west corner of the taluq may be described as somewhat fertile, and very ordinary regada soil is met with throughout the northern part of the same. With some few exceptions the red and stony soils predominate everywhere. In parts no depth of soil whatever is apparent, only stones. It needs to be generally described, for the most part, as a very sterile and unprofitable tract of country. Water is struck at a great depth; the wells are fair, though not very numerous, but the quality of the water is indifferent. Hills from the Durgam at Kanigiri to those of the smallest size somewhat diversify the appearance of the country; but the hills ever being bare in the extreme, there is consequently no approach to grandeur, and but little that is imposing in the general appearance of the taluq.

The preponderance, almost everywhere, of rock and stone, and the apparent absence of soil to a great degree in so many parts is certainly its most noticeable characteristic. The soil here and there of the watershed, and that along the banks of the streams, may be set down as the most favorable.

A very extensive portion of the taluq belongs to the Zemindari estates of Venkatagiri and Calastri, respectively, and the villages thereof are interspersed throughout all parts and directions of the taluq.

Udayagiri.

The Udayagiri Taluq lies to the south of Kanigiri, and is similarly bordered by the Eastern Ghauts on its western limits. It is skirted by Atmakur to the south and by Kavali to the east. The northern part of the taluq very strongly resembles Kanigiri; is intersected by an affluent of the Maneru; and is of the same stony and sterile description of soil for the most part. It is equally as unpromising and unprofitable in appearance. Vegetation is perhaps not quite so sparse. A great portion of the villages similarly belong to the Calastri estate, and are in like manner interspersed amongst the tracts of Government villages. The extreme north-west corner is exclusively part of the above Zemindari. The soil of the western villages, or those in the valley between the Udayagiri Durgam and Eastern Ghauts, may be described as approaching very closely to that of the northern part of the taluq; likewise the tract of villages immediately adjoining the Durgam and the Eastern Ghauts. The northern part, or tract of country to the north of the Durgam, is drained by the Maneru and its affluents. The other river of the taluq is Boggeru, which, rising amongst the ghauts at Bogu Venkatapuram, drains the country west and south of the Durgam, and east as well by means of minor streams, influents thereof, that carry off the rainfall of the centre part of the taluq, which, having joined the Boggeru, flow on through Atmakur into the Pennair. Though rock and stony deposits are met with throughout the taluq in the eastern, centre, and southern portions, extensive plains of regada of a fair depth of soil and quality exist. Hills being prevalent in all parts of the taluq, the red soils crop up and vary the nature of the soil. In many parts iron is met with and smelted, but the operation is not carried on to any great extent. Works of irrigation are slight, shallow, and small. The beds of the rivers are deep. It is, therefore, a dry and parched land, depending in the hot weather almost entirely on the wells which are numerous in most villages, and, as a rule, of considerable magnitude and depth. The cost of these is often excessive, and many unprofitable and unsuccessful attempts in useless or abandoned wells are to be observed. The wells are, however, the main stay of the ryots in that locality in most seasons.

On the whole the soils of the taluq generally may be deemed of varying descriptions, part being decidedly unfavorable, part being fair.

More jungle is met with in the centre, southern, and western parts of the taluq than in the other portions or the Kanigiri Taluq. It is equally diversified with hills, which, for the most part being fairly covered with wood, often present an appearance that is pleasing to behold and contrasting strongly with those of Kanigiri.

Atmakur.

The Atmakur Taluq lies south of Udayagiri, and is similarly bordered by the Eastern Ghauts to the westward. Rapur bounds the taluq on the southern side, and Nellore and Kavali on the east and the north-east side respectively. There is considerable variety of soil in this taluq, the course of the Pennair through the length of the same changing the condition and appearance of the country from the more northerly taluq last described. The country undulates much more. Irrigation is more plentiful throughout: there are two tanks of considerable magnitude—Anantasagaram and Kaluvaya—and several certain sources of supply in the river-fed channels. North of the Pennair the Kodamaneru throws the drainage of the valley under the ghauts into the Anantasagaram tank; the Boggeru flows on through the centre of the taluq, supplying some of the tanks in its course, and enters the Pennair near the eastern limit of the taluq. Another stream, the Biraperu, carries off the rainfall of the north-east portion of the taluq, and of a small part of the Udayagiri and Kavali Taluqs as well, and falls into the Pennair just within the limits of the Nellore Taluq. South of the Pennair there is only one drainage of any extent, the Nalla Vagu. Another, the Luddum Vagu, is of slight capacity, but of much use for irrigation along its course. It carries off the surplus of many tanks, and consequently is soon in heavy flood and forms one of the sources of supply to the Nellore tank, the surplus water only flowing into the Pennair. Being thus so variously intersected, the soils of the taluq are extremely heterogeneous. The northern part resembles closely the adjoining tract of the Udayagiri villages. There is a good deal of regada land, that is poor and indifferent for the most part, especially towards the centre and north-east corner of the taluq. In the extreme east the red series is principally met with, and of its kind is a poor description of soil. Westward much jungle prevails in parts, and in the valley under the ghauts the soil is almost entirely of the red series. Nearer and along both banks of the Pennair the regada soil is heavy and fairly productive, and within the influence of the rivers and streams falling into the Pennair it is rich and of a superior quality. The portion of the taluq south of the Pennair is even more favorable and productive than that to the north. The area under cultivation is proportionately larger, and the regada predominates to some extent over the red soil. A stony soil is, however, the rule, and otherwise the exception throughout the whole taluq; but the north-western portion is the worst in this respect, being excessively

stony in parts. There are as well throughout the taluq tracts of the worst of the chavati soils, particularly in the centre of the taluq about Atmakur. In most villages there are ordinary or minor tanks, and wells are numerous, and fairly supplied in most parts.

Rapur.

Rapur bounds the Atmakur Taluq on its southern limit, and, like it, has the Eastern Ghauts for its western boundary. On the southern side it is bordered by the Venkatagiri Zemindari division, and on the eastern side has the Gudur Taluq for its limit, the Nellore Taluq abutting as well on the north-eastern portion of the taluq boundary. The Kandleru drains almost the whole of the taluq; and, running through the centre, passes on through Gudur and flows into the sea at Kristnapatam, being joined by the Venkatagiri river about the centre of its course through Gudur. This latter river drains the south-west corner of the Rapur Taluq, the only other important drainage being the Potelu Kalava which leads drainage of the north-eastern corner of the taluq into the tanks of the adjoining villages of Gudur.

In villages north of the main branch of the Kandleru the open tracts are chiefly regada, corresponding to the soil of the villages of Atmakur south of the Pennair, the description being heavy and favorable for the most part. Near the hills and in parts red soil is met with. Almost everywhere it is a stony description of soil, and there are considerable tracts of waste and jungle. Along the banks of the Kandleru and its affluent, the Maleru, there is a considerable extent of tuvva soil.

In the centre and southern part of the taluq the red and stony soils are mostly met with, and form exclusively the soil of the western tract of villages. In the latter tract cultivation is very sparse, and the jungle extensive, dense, and heavy all along under the line of ghauts. The greater proportion of each of the southern villages is jungle waste, and the extent of cultivation is inconsiderable. The depth of the red soil in many parts of the tract is but slight, and the soil unpromising. Tracts of chavati soil are met with throughout the taluq, and are often extensive. The area under irrigation is inconsiderable on the whole taluq; there are only a few ordinary sized tanks, and numerous petty ones of slight capacity; these are more numerous in the southern villages. There are a fair number of wells, but many of a really good supply are not met with; the water of the taluq is of an indifferent quality.

Kavali.

The Kavali Taluq lies to the south of Kandukur; has Udayagiri as its western limit, Nellore as its southern, and is bordered by the sea to the east. The Kanigiri Taluq abuts on the north-west corner of its boundary, and the Atmakur on the south-west corner. The north-west corner is drained by the Upputeru, an affluent of the Maneru. Ubbale Vagu, with its numerous feeders, forms the drainage of the rest of the taluq and passes

into the sea through the salt creek at Zuvvaladinne. The north-east corner of the taluq assimilates very closely with the adjoining part of the Kandukur Taluq, the sub-soil being laterite, and the whole appertaining to that description of soil for the most part. As far as this extends, there is a considerable proportion under jungle waste, which mostly grows vigorously and well. In the north-west and western part of the taluq the laterite soil almost entirely disappears, regada soils prevailing on the watershed between the various streams, and red soils mostly in other parts. The western part is a more open country, and less jungle is met with. In parts of the north-west tracts the soils are heavy and of good quality; but the best are met with along the course of Ubbale Vagu drainages through the centre of the taluq, some of the tracts being of a very superior and fine quality of regada. Along the southern extremity of the taluq laterite is again struck, and much of the area is of the same description of jungle waste as particularized for the north-east portion of the taluq. The tract of country along the coast comprizes the ordinary soils of the arenaceous series. Irrigation abounds throughout the taluq, especially in the western and central parts. There are many tanks of fair size and capacity, and the drainages above specified are to some extent utilized for their supply. The laterite sub-soil is favorable for wells; they exist in fair numbers throught the taluq, and are mostly well supplied. There are a few very small hills towards the southern and western parts of the taluq.

Nellore.

The Nellore Taluq is bounded by Kavali to the north, Atmakur to the west, Gudur to the south, and has the sea coast as its eastern limit. It abuts as well on the Rapur Taluq at the south-west corner of its boundary. The laterite soils particularized for the southern extremity of Kavali stretch into the Nellore Taluq for some distance, and run right across the central part and north-west corner of the taluq. As the Pennair is approached a great change of soil is apparent; for the most part in the eastern portion of the taluq sandy sub-soil exists, the nature of which is often more or less changed by deposits from floods and irrigation. Extensive tracts of heavy regada and tūvva soils have been deposited along the course of the river, and streams emptying themselves thereinto, and the channels leading the water off for irrigation purposes therefrom. Laterite predominates along the south and west extremities of the taluq: and in the extreme east the usual arenaceous soils exist all along the line of coast.

The Pennair separates the taluq into two portions, and there are besides the Paideru and the Maldevi local drainages for the northern or larger portion of the taluq. South of the Pennair the drainage of the western part is conveyed into the Pennair by the Luddum; that of the eastern tract either finds its way into the backwaters along the coast,

or else into the river opening into the sea at Kristnapatam in the Gudur Taluq. The cultivation of the eastern villages is mostly wet, and a good proportion of that of the more westerly villages also. Tanks of all sizes abound in every part of the taluq, being chiefly fed from the river. Water, therefore, is generally very plentiful throughout the taluq, and there are numerous wells in the sandy and laterite soils.

Both north and south of the river there are a few hills of moderate size.

Gudur.

The Gudur Taluq lies to the south of the Nellore and to the east of the Rapur Taluq. With it is incorporated the villages of the Sriharikota division formerly appertaining to the Madras District. The Venkatagiri Zemindari division abuts on the south-west corner of Gudur, and it is bounded to the south in part by the Polur Zemindari division, which also forms the eastern boundary of the Sriharikota portion thereof. The extreme south borders with the Madras District.

The laterite soils specified in Nellore are met with in the northern and north-western part of the taluq. They crop up as well between the Kandleru and Suvarnamukhi, the two chief rivers of the taluq, and again in the southern part, south of the latter river. Quartz as well is met with in the central and western part of the taluq.

The soil in the eastern part runs much the same as through the Nellore Taluq; a sandy sub-soil with more or less clay or regada in the surface soil, according to the influence of floods and irrigation, being the ordinary description of soil observable. Where the deposit has been extensive very heavy regada soils exist. The two rivers mentioned above with the Venkatagiri or Sydapur river which falls into and joins the first named river, or Kandleru, in its course through the taluq; together with the Mamidi Kalava which falls into the Suvarnamukhi and the Salla Kalava, a separate branch of the latter river, form the chief drainages of the taluq. Along the course of these heavy and light tuvva soils and heavy regada soils are met with of very fair and good quality in many parts. The western part of the taluq is for the most part greatly influenced by these streams, the floods of which are ordinarily excessive; the same description of soil appertains principally to that part of the taluq, but red soils occasionally crop up to a fair extent. The extreme south-west of the taluq is chiefly red soil or regada of an ordinary and stony description, and it is rather a hilly tract of country. The Kandleru being influenced by the tide for several miles up, the low-lying land or parras in that direction are often swamped and flooded. In the centre of the taluqs as well, large tracts of heavy soil, strongly impregnated with saline matter, are met with, and are of a very inferior description.

Along the coast line of the taluq, and throughout the Sriharikota villages in the Pulicat lake, soils of the arenaceous Sriharikota. series exist.

The ordinary nomenclature of the natural soils of the district, as ascertained and recorded during general classifi- Classification of soils. cation operations, are given in the annexed statement, together with the particulars of their classification according to the system of the Revenue Settlement Department; a brief description of their nature and characteristics; and finally, details as to the extent to which generally prevalent, and the taluqs in which observed.

Table of General Nomenclature of Soils in ordinary use, as ascertained and recorded during the General Classification Operations of the Nellore District.	Classification appertaining to the several Soils according to the System of the Revenue Settlement Department.	Brief Description of the Nature and Characteristics of the Soils.	Details of the Taluqs in which the Soils exist, and extent to which prevalent.
1. Nalla regada ...	Pure regar, Class III....	A black, heavy, strong clay	Ongole and Kandukur to a fair extent; very slight in all other taluqs.
2. Tella do. ...	Do. do. ...	A lightish colored free clay	All eastern taluqs and Atmakur; a slight extent except in Ongole.
3. Masara do. ...	Do. do. ...	A strong mixed soil of a light or red tinge, blended with black.	All eastern and western taluqs to a slight extent.
4. Tuvva banka regada.	Do. do. ...	A strong clay soil with admixture of tuvva loam ...	All eastern taluqs and Atmakur; Rapur to a small extent.
5. Vandali regada ...	Do. do. ...	An alluvial soil or deposit of pure heavy clay ...	All eastern taluqs and Atmakur; Rapur to a small extent.
6. Gulla do. ...	Do. do. ...	A dark, heavy, spongy clay	To all taluqs, but very little extent, save in Ongole and Kandukur.
7. Banka do. ...	Do. do. ...	A darkish stiff set and tenacious clayey soil ...	In eastern and western taluqs to a fair extent.
8. Guvva mukka regada.	Do. do. ...	A dark colored heavy close soil, with fine minute	Chiefly in the Ongole and Kandukur Taluqs, and to no great extent.
	Loamy regar, do. IV.	round stones and gravel prevalent throughout.	
9. Gulaka regada ...	Puro regar, do. III.	A soil of dark dull color with stones or gravel more or	In all taluqs to a great extent in the black soils, save Kandukur and Ongole.
	Loamy regar, do. IV.	less prevalent throughout. Often a loamy description of soil.	
10. Chavati banka regada.	Pure regar, do. III.	A dull stiff close clay, having a considerable admix-	In coast taluqs to a considerable, and western taluqs to a slight extent.
	Arenaceous, loamy, Class XII.	ture of chavudu.	
11. Chavati tuvva banka regada,	Pure regar, Class III.	A loamy clay of lightish color with tuvva prevalent	In Kavali, Nellore, and Gudur mostly to a large extent, and in other taluqs to a slight extent.
	Loamy do. do. IV.	and strongly impregnated with chavudu.	
12. Chavati banka nela.	Pure do. do. III.	A dull close slushy soil, having its saline properties	In all taluqs, but only in the coast taluqs to a considerable extent.
	Loamy do. do. IV.	strongly developed.	
	Arenaceous, loamy, Class XII.		
13. Tuvva regada ...	Loamy regar, Class IV.	A free loamy clay of light color	In most taluqs to a considerable extent.
14. Palachavati regada.	Do. do. ...	A free clay, rather loamy and white on the surface, palachavudu being very prevalent.	To slight extent, and in the eastern taluqs mostly.
15. Isuka regada ...	Do. do. ...	A rather stiff clayey soil, having a fair amount of coarse sand mixed throughout.	In Ongole, Kandukur, and Kavali to a slight extent.
16. Garapa do. ...	Do. do. ...	A brownish dull colored free clay, having a good quantity of sand or gravel.	To a slight extent only, and mostly in Ongole, Kandukur, and Kavali.

Table of General Nomenclature of Soils in ordinary use, as ascertained and recorded during the General Classification Operations of the Nellore District.	Classification appertaining to the several Soils according to the System of the Revenue Settlement Department.	Brief Description of the Nature and Characteristics of the Soils.	Details of the Taluqs in which the Soils exist, and extent to which prevalent.
17. Morasa regada ...	Loamy regar, Class IV.	A light colored poor clay of slight depth of soil, and stone always very prevalent.	To a slight extent only, and mostly in Ongole, Kandukur, and Kanigiri.
18. Tuvva banka nela...	Do. do. ...	A free loamy clay of dark color	In the eastern taluqs to a fair, and western taluqs to a slight extent.
19. Isuka do. do...	Do. do. ...	A dark colored free loamy clay with a fair admixture of sand.	In the eastern taluqs to a fair, and western taluqs to a slight extent.
20. Tuvva banka tella nela.	Do. do. ...	A light loamy soil of very light color, with a slight admixture of alluvium.	In the eastern taluqs and Atmakur to a slight extent.
21. Palachavati nela...	Do. do. ...	A light colored loamy hard setting soil, white on the surface, palachavudu being strongly developed.	In all to a slight extent, but mostly in the eastern taluqs.
22. Chavati isuka banka nela.	Loamy regar, Class IV. Arenaceous, loamy, Class XII. Arenaceous, sandy, Class XIII.	A slightly stiff and tenacious loamy clay with much chavudu and a good deal of coarse sand.	In Kavali, Nellore, and Gudur to a fair, and other taluqs to a slight extent.
23. Chavati tuvva banka nela.	Loamy regar, Class IV.	A slightly stiff and hard setting loamy clay with much fine sand of a palachavati description.	In the Kavali, Nellore, and Gudur Taluqs to a considerable, and other taluqs to a slight extent.
24. Tuvva tella nela ...	Do. do. Sandy regar, do. V.	A slight loamy or sandy loam soil with slight admixture of alluvium.	In all taluqs to a slight extent.
25. Chavati tuvva nela.	Loamy do. do. IV. Sandy do. do. V. Arenaceous, sandy, Class XIII.	A fine firm setting sandy loam of white color due to the presence of palachavudu.	In Kavali, Nellore, and Gudur to a large extent, and slight in other taluqs.
26. Isuka tella nela ...	Sandy regar, Class V...	A light sandy loam of light color with slight admixture of alluvium.	In all taluqs to a slight extent.
27. Tuvva nela ...	Do. do. ...	A very fine light sandy loam	In all taluqs to a fair extent.
28. Chavati isuka nela..	Do. do. ... Arenaceous sandy, Class XIII.	A firm setting coarse sandy loam of light color due to the palachavati ingredients.	In Kavali, Nellore, and Gudur to a large extent, and slightly in other taluqs.
29. Tuvva isuka nela...	Sandy regar, Class V...	A rather fine drifting sandy soil	More or less in all taluqs, but mostly in the eastern taluqs.
30. Gulaka rati nela ...	Do. do. ...	A very stony unprofitable soil	In slight patches in all taluqs, mostly in the western.
31. Gulaka rati garuvu.	Do. do. ...	A very stony and sandy poor soil	In eastern taluqs to a slight, and western to a moderate extent.

32. Kallu isuka ...	Sandy regar, Class V... Arenaceous, heavy, sandy, Class XIV.	Rather coarse sand	Along the course of rivers in all taluqs and on the coast.
33. Yerra regada ...	Pure red clay, Class VI.	A strong heavy red clay	Mostly in the western taluqs, and to a slight extent only.
34. Yerra banka nela..	Do. do. ...	A stiff dense red clay	In the western taluqs; Kavali, Nellore, and Gudur to a slight extent.
35. Yerra chavati banka nela.	Do. do. ... Loamy red clay, Class VII.	A stiff tenacious clayey red soil, having much chavudu.	In all taluqs, and to a moderate extent.
36. Yerra nela ...	Loamy red clay, Class VII.	A red loamy soil with more or less sand and stone prevailing.	In all taluqs, and in the western there is an extensive area.
37. Tuvva yerra nela...	Loamy red clay, Class VII. Sandy red clay, Class VIII.	A red loamy soil of very fine sand and with a little stone.	In all, but mostly in the western taluqs.
38. Gulaka rati yerra nela.	Loamy red clay, Class VII.	A red loamy soil with stone and gravel very prevalent.	To a considerable extent in western, but slight in eastern taluqs.
39. Yerra isuka banka nela.	Loamy red clay, Class VII.	A light loamy red clay with strong admixture of sand.	To a fair extent in western, and slight in eastern taluqs.
40. Bonta rati morapa nela.	Loamy red clay, Class VII. Sandy red clay, Class VIII.	A gravelly loam of laterite	Principally in Kandukur, Kavali, Nellore, and Gudur, and to a fair extent.
41. Morasa yerra nela.	Loamy red clay, Class VII. Sandy red clay, Class VIII.	A red loamy and stony soil of light depth	Mostly in the western taluqs, and chiefly in Kanigiri.
42. Yerra chavati tuvva nela.	Loamy red clay, Class VII. Sandy red clay, Class VIII.	A very fine red sandy loam set firmly with chavudu..	In all the southern and western, but mostly in the latter taluqs.
43. Yerra garuvu ...	Sandy red clay, Class VIII.	A coarse red sandy soil	In the eastern taluqs to a slight, and western to a fair extent.
44. Gulaka rati yerra garuvu.	Sandy red clay, Class VIII.	A coarse red sandy soil with an admixture of gravel and stones.	In eastern taluqs to a slight, and western to a good extent.
45. Kondu rati yerra garuvu.	Sandy red clay, Class VIII.	A coarse red sandy soil of slight depth, and stony sub-soil met with at the foot of hills.	Mostly in the western taluqs, and to a slight extent only.
46. Yerra isuka nela...	Sandy red clay, Class VIII.	Ordinary fine red sand	Mostly in the western taluqs, and to a slight extent only.
47. Sanna isuka ...	Arenaceous, heavy, sandy, Class XIV.	Ordinary fine sand	On the coast to a considerable extent.
48. Gandu isuka ...	Arenaceous, heavy, sandy, Class XIV.	Very coarse coast sand	On the coast to a considerable extent.

CHAPTER IV.

MINERALOGY.

Copper ore.—Mr. Travers' Report.—Leased out by Government.—Description of localities.—Mr. Simpson's Memorandum of successive experiments and failures.—Mr. Campbell's last proposal.—Terms on which Government will grant leave for mining operations.—Iron ore.—Mr. Elton's Report.—Mr. Dykes' Report.—Manufacture of iron ore relieved from taxation.—Salt and Saltpetre.—Mr. Whish's Report.—Mr. Dykes' Report.—Manufacture of saltpetre not to be taxed.—Nellore minerals in Government Central Museum.—Minerals of Madras Exhibition of 1857.—Dr. Hunter's list of sundry minerals.

Copper ore—Mr. Travers' Report.

In 1801 copper ore was discovered in this district. Mr. J. B. Travers, Collector, in letter to Board, dated 7th January 1803, submitted proposals from Captain Ashton for working the copper ore then lately discovered in the western pollums. The vein first discovered was near a village (Yerrapilly), and appeared to have been exhausted from excavations in the vicinity. The inhabitants said that copper had been made there in former times, they knew from tradition, but nothing more.

Subsequently very extensive veins were found in the neighbourhood of Gurmanipenta, four miles west of Yerrapilly. Mr. Travers opened two veins, which he followed about 20 or 30 feet. The openings were about four feet in diameter, and ran into the earth at about an angle of 45 degrees. The ore was found in masses, breaking off for two or three feet and again appearing. The veins ran obliquely towards the beds of the deep rivulets. The ore found at Gurmanipenta had a different appearance from that found at Yerrapilly, the latter not being so blended with spar as the former. Among the specimens were some very beautiful and perfect crystallizations and some pieces of a very dark iron appearance and a very black green, which two descriptions upon experiment with the blow pipe and a piece of charcoal were found to yield 75 per cent. of copper without the aid of any flux. Other specimens of ore by experiment by fire and acids were found to yield from 20 to 70 per cent. of metal. Specimens of the copper were sent home and assayed. Although not equally rich in the metal, they were found to be remarkably fusible, very free from iron, and consequently well adapted for sheathing. These mines were in consequence leased to a contractor for five years by the Government. It was thought that the direct interests of a speculator would naturally stimulate to greater exertion and a more economical expenditure in effecting the object than could be expected

Leased out by Government.

from the employment of a Government agent, the latter having an immediate reward for his labor in a competent salary, whatever his success might be, whereas the speculator would be compelled to complete his purpose on the most prudent plan and least loss of time, as he would depend on its accomplishment for his reimbursement. One specimen of the ore weighing 20 cwt. yielded nine cwt. one quarter (Madras Road Book, 1839).

Description of localities.

The principal places where the copper ore was found were about 50 miles north-west from Nellore, 30 from the sea, and about 40 north-east from Cuddapah. Several streams traverse this portion of country on their way to the sea, and the junction of two of them forms a considerable river at Gurmanipenta, although not navigable. The general aspect of the country is barren, large trees being only found near large villages, while the wide-extending plains on both sides of the river present nothing to the eye but an occasional thorny shrub. The grass, which during the rainy season everywhere else covers the country, is here scanty and of the poorest kind and mere compound of long beards and bristles, and on the surface much salt is spontaneously generated. To the eastward the country is only partially open, and a few low hills are to be seen; but to the westward are ranges of hills, the nearest being about 10 miles due west. The Udayagiri mountains are to the south-west, distant about ten miles and of great elevation, the highest point having been estimated at 3,000 feet above the level of the low country. Among the valleys wood of a large size grows abundantly, and in the direction of Ramapatam there are extensive jungles.

Geologically the country is of a primary formation, and the general rock formation is a mica slate of different colors and consistency.

Mr. Simpson's memorandum of successive experiments and failures.

We have been favored by Mr. A. M. Simpson, a long resident in the district, with the following memorandum on the attempts that have been made hitherto to work the copper ore:—

"In and about the jaghire of Gurmanipenta, which lies about 15 miles to the north-east of Udayagiri, copper ore in abundance is to be found on or near the surface of the ground.

"The ore is rich in metal, some specimens having yielded 75 per cent., but imbedded in a very hard matrix difficult to be worked. It is found in large and small masses of quartz, and, so far as I have been informed, no continuous vein has ever been discovered. All the specimens that I have seen have had a more or less rounded surface, indicating their having been subjected to the action of water, and rolled possibly in former times from a considerable distance. Possibly a careful examination by excavations of the country to the west of Gurmanipenta and towards the range of mountains which run from south to north from

Udayagiri, the source from whence the specimens now lying on or near the surface might be discovered, and then mining operations, if carried on under skilful superintendence, might be attended with success.

"Deceived by the abundance of the ore lying on or near the surface, and by old excavations and the traditions of natives that at some former period copper mines had been worked, several enterprizing individuals during the first half of the present century expended a great deal of money in preliminary mining operations, but do not seem to have carried them on on a very extensive scale, or to have brought much scientific knowledge to bear upon them. Mr. Ashton, Captain Kerr, and Mr. Fondclair, I believe, ruined themselves in their vain search, and Mr. Hart at a later date expended upwards of a lakh of rupees with a similar result. Mr. James Ouchterlony in or about the year 1840, under the superintendence of an experienced Cornish miner, whom he brought out to the country for the purpose, sank one or more shafts near the river at Gurmanipenta, but he met with no more success than his predecessors. Mr. Ouchterlony's brother (the late Colonel Ouchterlony of the Madras Engineers) in 1841 or 1842 printed for private circulation a pamphlet illustrated by drawings of various specimens of ore that have been found. In it he gave a detailed account of what had been done by his brother and his predecessors, and I believe he arrived at the conclusion that further explorations would be a vain waste of money and inevitably lead to disappointment. Since then Mr. Wall, the Government Mineral Surveyor, and Mr. King, the Geological Surveyor, with other scientific individuals have visited the district, and, without an exception, they have all expressed themselves to the same effect."

Mr. Campbell's last proposal.

In 1867 Mr. J. Campbell presented a petition to the Madras Government, stating that in 1834 a lease of certain waste land in the districts of Cuddapah and Nellore for the purposes of working some ground supposed to contain copper ore had been granted to himself, Mr. Kove, Mr. Moorat, and Mr. Faure de Fondclair; that the other three parties being now dead, he, the survivor, was desirous of obtaining a lease of the said lands and working the said mines.

Terms on which Government will grant leave for mining operations.

In G. O., dated 23rd January 1868, No. 195, Government declined to entertain any application based on terms offered 30 or 34 years ago in a resolution which was allowed to become inoperative, and stated that they were not now disposed to concede to any individual or body of individuals the exclusive privilege of working the copper ores in Government waste throughout an *extended* range, but that they would be prepared to consider any definite application to raise and smelt the ores *in a particular limited locality* on being satisfied of the competency of the

applicants to bring the scheme to a successful issue, so far as sufficient capital will insure success.

Government do not undertake to oust any occupying ryots to make way for mining operations; any such removal must be matter of private arrangements between the parties.

Iron ore.

Iron ore is found in several localities in this district, and is smelted and worked up into tools to some extent, but steel is not manufactured. The following is extracted from a report of Mr. F. B. Elton, late Collector, dated 27th March 1856:—

Mr. Elton's Report.

"*Ongole Taluq.*—There is no place in the Ongole Taluq in which iron sand is found, but mines of iron ore exist north of the village of Kandulur and south of the hill of the same name. The site covers an area of about 150 acres of land, but the ore exists only in particular spots. One man can dig about four maunds of ore a day; six persons are generally employed on the work, and these can collect about 40 candies of ore in the space of a month and a half. The ore is extracted by crowbars, and is sent to be smelted to Tadivaripalli in Kucherla Kota and to other places in the Nellore and Cuddapah Districts. Iron ore used to be brought here from Kandulur and smelted, but steel was never made. The cost of working is stated to have been about 53 rupees a month. None of these furnaces are, however, at present in blast, and iron is brought into this part of the Nellore District from villages beyond Cumbum and sold at from 2 to 2½ rupees a maund. It is generally made into ploughs, &c. While the furnaces were in blast, charcoal was brought from a short distance and sold at Rupees 12 the tum, but the jungles are not extensive now, having diminished considerably. The blacksmiths prefer Indian iron. The English does not answer their purpose well. The daily wages of a smith varies from 2 to 8 annas.

"The iron imported into Madras and Masulipatam from Europe and America finds its way into this part of the district, and is used for bars, for windows, and other articles. Bolts, hinges, &c., are also imported. The merchants sell the iron, &c., at the rate of Rupees 2 to 2½ per maund. Implements of husbandry are also stated to be imported from other places in India and sold at the rate of 1¾ or 2½ rupees per maund.

"*Udayagiri Taluq.*—Iron ore has been mined in a village called Yerkollu in this taluq in the vicinity of Palampati Kondu, where the process of collecting it is simply by digging, sifting, and washing. There were 14 villages in this taluq where furnaces were reported to be in blast. The estimate for erecting a furnace is about 3½ rupees. These furnaces produce about 5,000 maunds of iron a year, selling at the rate of about 24 viss a pagoda. Steel is not manufactured here, and iron is not imported. The iron manufactured is

used for making agricultural implements only: jungles are extensive and near to the villages where the ore is smelted; they soon spring up after being cut down, and one man can make about 2 tums of charcoal a day. The blacksmiths prefer Indian iron, as they are able with facility to make it up into the tools used among them. The wages of a smith is about 4 annas a day. In making bar iron the loss is about half of the entire quantity employed.

"*Kavali Taluq.*—Iron ore or iron sand is not found in the Kavali Taluq, the people of which purchase their iron in the Kanigiri Taluq at the rate of from 16 to 20 viss per pagoda, and make it up into ploughs, hatchets, &c. The country iron is liked, because the tools made of it are supposed to be more lasting than those made of the softer English iron. Four annas are paid to a blacksmith a day.

"*Kanigiri Taluq.*—There are no places in the Kanigiri Taluq where iron ore is known to exist, but there are two villages in it where iron is occasionally manufactured, the parties erecting furnaces once every three or four years. The cost of working them for a year is estimated at about Rupees 333, and the produce amounts to about 14¾ candies, which is sold at 40 rupees the candy, and is all bought up by the neighbouring villagers. Iron was always manufactured to some extent here, and the practice is still continued. The jungles are not extensive, for those that did exist have been mostly cut down for fuel. One man can make a basket of 2½ tums of charcoal per day, which he sells for two annas the tum. The blacksmiths prefer Indian iron, finding it easy to work and more suitable for tools. The wages of a smith are from 2 to 4 annas per day. 22 lbs. of iron are produced from 100 lbs. of ore, and there is a loss of 4 lbs. on every 10 lbs. in preparing bar iron.

"A hill formed of sand stone impregnated with iron has, however, recently, I understand, been discovered.

"Iron ore is said to exist, or to be smelted also in the following divisions in the estate of the Rajah of Venkatagiri:—

"*Tada Division.*—Tada is the southern extremity of the Venkatagiri Rajah's property, and embraces a considerable extent of country round Sulurpett and extending towards Madras. Iron ore is procured from a place called Vamibank Konda in the Naidupett Division noticed below and at Serasinamaty in the Calastri Zemindari, but is smelted in this division. There is one furnace in the village of Yakulu and two in the village of Vudipudy. The estimate for erecting a furnace is one rupee, and the cost for working each is about 75 rupees a year. One furnace will contain about 40 seers of ore. The iron produced is suitable for making ploughs, &c. About three bandy loads of the first quality are produced of the value of five

pagodas for 20 maunds, and about six bandy loads of the second quality which sells at 15 pagodas for 20 maunds. Iron is exported to other markets, but about 400 maunds of iron are brought from Madras in bars, &c., and sold at the rate of 20 maunds for Rupees 21-2-8. The tools and implements sell according to weight. Charcoal is brought from a distance of four or five miles, and is sold at 8 pice the basket. The jungles are small, and are diminishing in extent. One man can, however, make about three baskets of charcoal a day.

"The blacksmiths prefer Indian iron, not knowing how to work the English. The daily wages of a blacksmith varies from 4 to 8 annas.

"From 40 to 60 lbs. of iron are obtained from every 100 lbs. of ore. In the process of preparing bar iron, the loss in every 100 lbs. is estimated at about half.

"*Naidupett Division.*—There is a hillock within the limits of this division called Vanubanka Konda in the vicinity of the village of Rasanur, which contains iron stone in great abundance. Three furnaces are said to be in blast in different villages and produce a quantity of about 216 candies of iron during eight months in the year.

"*Chundi Division.*—In the Chundi Police Division (which comprises a tract of land on the western frontier of the Nellore Collectorate and west of the taluq of Buddepudi in the sub-division) there are two villages—Ramalingapuram and Iyavaripalli—where iron ore exists, though it is not supposed to be abundant. One man by taking a quantity of the sand and washing it repeatedly could collect about a tum of ore in a day. It used to be smelted in those villages, and was sometimes also taken to a distance, but the work is now altogether stopped: the expenses for erecting a furnace amounted to 6 rupees, and the cost of work to about 60 rupees for a year. The furnaces alluded to produced about 800 maunds of iron, selling for about 1 rupee 6 annas the maund, and it was exported to Cuddapah, where it was worked up into agricultural implements. Any iron now imported is brought from the Gogulapalli Division. Charcoal is brought from the jungles in the neighbourhood, but they are not so extensive now as they formerly were. The blacksmiths, whose wages are 4 annas a day, prefer Indian iron, not knowing how to work that of English manufacture.

"*Gogulapalli Division.*—There is only one spot within the limits of this division where a small quantity of iron ore is known to be procurable. The manufacture of iron was carried on sometime since in four different villages, the ore being brought from other places at a considerable cost; but, owing to the difficulty experienced in procuring charcoal, the work is said to have been discontinued.

"*Pamur Division.*—The following is given as the process of manufacturing iron at Guttipalli and Ayenakota in the Rajah of Venkatagiri's property and at Matlavarinalem adjoining Irlapad:—

"The ore is procurable near a hill south of Vutukur in the Pamur Division. When the miners have been paid in advance it costs about 4 rupees a candy, but in cash transactions 5 or 6 rupees are paid, and it is brought to the furnaces on bullocks for Rupees 1-10-8 per candy. It is cleaned at the furnace, and in this process the impurities, which form about a fourth part, are removed. The smelters form a party of 6 or 12 men; arrange themselves into two sets, exclusive of two ironsmiths; and the whole are paid in shares, the headman of the set getting two shares, and one share being allotted to each of the others and to each of the smiths, though these last also receive two additional shares each for their tools. The usual proceeds from each share amount to about Rupees 32, and, as the preparation for the work begins in November and the whole process ends in August, the receipts on each share are about Rupees 3¼ a month. This amount, however, is clear, because the shares are allotted after deducting the expenses and repaying with interest the money borrowed. Of the ten months in which they are employed, the first five are occupied in making charcoal and the remainder in smelting. The manufacturers have a house to hold their tools in, with a thatched building adjoining it for the forge. About four baskets of charcoal are required to smelt half a ton of ore, and from this quantity about eight viss of iron is produced, which is sold for Rupees 1-5-4. Thirty such lumps are obtained from one candy of ore."

Mr. Dykes' Report.

Mr. J. W. B. Dykes, Collector, writing 17th January 1863, thus describes the general process adopted in this district of working iron sand:—

"The iron sand is washed in large troughs or *jadis*, and thence lifted into store places called '*banams*,' where it is kept till sold to the smelters at present at the rate of Rupees 5 the putti, or four Wudder carts full. The sand is carried in these carts to the villages where charcoal can be got conveniently, and there smelted in furnaces or *kolimis*. Under the old moturpha rules there was a tax of Rupees 12 and upwards on *jadis* and Rupees 4 and upwards on *kolimis*, without reference to the quantity of sand washed, or the quantity of ore smelted, or the quantity of wood used for charcoal in smelting."

Mr. J. W. B. Dykes, in a letter to the Board of Revenue, dated 22nd May 1863, gives the following particulars with regard to this branch of industry:—In the taluq of Gudur there were originally seven forges that paid at the rate of Rupees 4 each for moturpha, and, when the moturpha was abolished, ceased to work. The iron ore they used was brought from a hill in the Venkatagiri Zemindari. In the Atmakur Taluq there were two forges rated according to the number of men employed. Twelve men and an overlooker paid Rupees 12 for fire-

wood and Rupee 1 for the forge, whilst half that number of men paid Rupees 7. These forges were used to smelt sand brought from the Calastri Zemindari. Smelting was carried on in a couple of villages in the Kavali Taluq, where the rate was Rupees 12 for wood and Rupees 4 for the forge, or Rupees 16 in all, while half a forge paid Rupees 8.

In the taluq of Udayagiri the iron sand is found in the sides of the hills and in the villages of Yerrukollu and Gundemadakala brought down by floods. In Yerrukollu there used to be 12 men attached to the washing troughs; in Gundemadakala 14. It is reported that 60 or 70 *putties* of sand were prepared at each trough and sold to the proprietors of the forges at Rupees 5 per *putti*. The troughs were assessed at Rupees 12 and Rupees 14 respectively, whilst on the forges a tax was levied according to the number of workmen employed, Rupees 12 for wood and Rupees 4 on the forge. These taxes were all entered as moturpha. In the taluq of Ongole there were no forges, but there was ore found, and up to 1859-60 applications used to be received for this ore at the rate of Rupees 4 per putti to be worked in a forge in the Podile Division of the Venkatagiri Zemindari.

Relieved from taxation.

The Collector proposed to receive offers to wash sand as for other farms, but the Board of Revenue in Proceedings, No. 3,528, dated 16th June 1863, decided that it was undesirable to tax this petty branch of industry.

Salt.

Culinary salt is extracted either from the soil or from the salt water. Its manufacture is a Government monopoly, and the history and statistics of this source of revenue will be treated of elsewhere.

Saltpetre.

With regard to the manufacture of saltpetre, Mr. J. C. Whish, Collector of Nellore, in a letter to the Military Secretary to Government, dated 24th July 1833, gives the following particulars:—

Mr. Whish's Report.

"Nitrous earth from which saltpetre is extracted is gathered in the months of January and February. It is then thrown into a deep vat built on a high mound having a vent below. Water being poured on the earth it washes the nitre from the earth and runs through into certain shallow pans made on purpose to receive it, where it is left to evaporate by the sun. The nitre thus formed is what is called crude saltpetre, which is then refined by boiling, an operation performed once and sometimes twice, the latter being called the double-refined and the best description of the article produced in this district. A quantity of 200 candies of double-refined saltpetre can be made in the whole of this district. The price paid to the manufacturers for single-refined saltpetre is Rupees 24 per

candy, and, inclusive of the hire of conveyance from the interior to the coast, it amounts to Rupees 26. The cost of a candy of double-refined saltpetre is ascertained as Rupees 32."

Saltpetre of a superior quality is manufactured at Itamukula, and specimens of it exhibited at the Guntur and Nellore Exhibitions obtained prizes.

Mr. Dykes' Report.

With regard to the manufacture of saltpetre in this district, Mr. J. W. B. Dykes furnished the following particulars in his letter to the Board of Revenue, dated 24th June 1863:—In Gudur Taluq it was made in seven villages; no tax was paid to Government, but the manufacturers contributed a small portion of their manufacture for the use of the village temples as a sort of fee to the villagers for scraping the salt mud in the streets. In Rapur Taluq the manufacture was only carried on in one village. In Nellore Taluq no collections appeared to have been made on this account under moturpha during the previous ten years, the manufacture being confined to four villages. In Atmakur Taluq it is stated to have been carried on in three villages and formerly in two others also. No tax was collected upon it in the village of Atmakur, but the manufacturers paid an assessment in 1858-59 and 1859-60 for half a gorru of land occupied by the pans. In the village of Vassili a tax of Rupees 8 was collected in Fuslies 1260-61 and 1261-62. In Virur Rupees 6 were charged on the dowle in 1862-63, but remitted, and in Mahimalur Rupees 4 were collected in 1860-61. In Kavali Taluq saltpetre was made in three villages, but no charge was made on account of moturpha. In Kandukur Taluq it was manufactured in six villages without being taxed. In Ongole Taluq the manufacture was not regular, but occasional, and not taxed. In Udayagiri and Kanigiri Taluqs no saltpetre was manufactured. Mr. Dykes estimated that 556 maunds or 13,544 lbs. avoirdupois might be the quantity that could be manufactured in the district within one year. As a rule he stated that the pans where saltpetre is manufactured would not be liable for assessment in respect to land-tax, being among the Asalminaha lands as village sites, and that, when assessed lands were so occupied, the occupant would be liable to assessment in the same way as if he built a house thereon. With regard to the source from which saltpetre is drawn, he added that it is generally from the streets and immediate neighbourhood of the villages where the manufacture is carried on.

Saltpetre not to be taxed.

The Board of Revenue, in their Proceedings, dated 14th September, No. 5,772, decided that this manufacture should not be taxed in future.

The present selling price of saltpetre is for single-refined 3 rupees a maund and for double-refined 4 rupees a maund.

Nellore minerals in Government Central Museum.

In the Catalogue of the Indian Geographical Collection of Rocks in the Government Central Museum, Madras, published 1867, appear the following specimens from Nellore:—

No. of Specimens.	Rock.	Locality.	Donor.
	Igneous Rocks and their Associates.		
...	.....	.....	.....
	Aqueous Rocks and their Associates.		
241	Calcareous grit (with recent shells) ...	Hydur Shikarkota ...	Captain Collyer, R.E.
	Metamorphic Rocks and their Associates.		
242	Quartzite sand-stone	Nellore District, west...	Rev. S. S. Day.
243	Quartzite sand-stone (with strings of specular iron ore).	Udayagiri	.....
244	Quartzite sand-stone	Revur Taluq	D. White, Esq.
245	Do. do.	Darsi Division... ...	Do.
246	Shaley quartzite (talcose)	Nellore	Rev. S. S. Day.
247	Quartz rock (with laminæ of silvery mica).	Do. District ...	.....
248	Quartz rock (approaching quartzose gneiss).	Venkatagiri Division ...	.....
249	Quartzose gneiss (with laminæ of specular iron ore).	Revur Taluq	D. White, Esq.
250	Gneiss (of quartz, felspar, and mica)...	Darsi Division ...	Do.
251	Do. (schorlaceous)	Singarayakonda ...	H. Young, Esq.
252	Hornblende schist (with garnets) ...	Probably from Gudur Taluq.	H. Newill, Esq.
253	Do. do. (with chlorite and mica).	Nellore District ...	.....
254	Chloritic schist	Revur Taluq	D. White, Esq.
255	Talcose schist	Nellore District ...	Do.
256	Do.	Udayagiri	Do.
257	Quartz schist (with mica)	Nellore District ...	Do.
258	Do. do.	Do.	Do.
259	Quartz schist (granular approaching quartzose gneiss with mica).	Do.	Do.
260	Quartz schist (perhaps weathered quartzite).	Darsi Division.	Do.
261, 262, 263	Copper ore (green carbonate and grey copper ore).	Nellore District.	.....

Minerals at Madras Exhibition of 1857.

In the Classified Catalogue of the Raw Produce exhibited at the Madras Exhibition of 1857 appear the following lists of minerals from Nellore District:—

Sent by Mr. F. H. Crozer.

Yellow and red ochre ... ... Durgarajapatam.
Red ochre ... ... Udayagiri.
Lavender colored ochre ... ... Do.

Dodecahedral garnet	Udayagiri droog.
Chert	Do. hills.
Pot-stone, a coarse soap-stone from ...	Sydapur.
Dodecahedral garnet in large crystals from ...	Do.
Heavy spar or sulphate of baryta	Yanamadala, Revur.
Brown heavy spar do.	Do.
Horn-stone, a very useful grind-stone ...	Varuguntapad, Revur.
Aplome garnet used as emery	Kaligiri.
Dark grey chert	Sangam.
Calcareous or rhombs spar	Darsi, Chendalur.
Compact chlorite	Narasimha Kondah.
Dark greenstone	——
Granular emery of good quality	Sydapur.
Yellow calcareous spar	Udayagiri.
Heavy spar containing copper	Yenamudula.
Black chert from	Bandarapalli.
Sand-stone containing emery	Kaligiri.
Chlorite traversed by a vein of quartz ...	——
Pink felspar	Ambapur channel.
Dull yellow ochre	Yenamudula.
Calcareous spar in large crystals	Duttalur, Udayagiri.
Hornblende in quartz	——
Green stone containing garnets	Sydapur.

Sent by Mr. G. Powell.

Compact sand-stone	Nellore.

Black mica and grey quartz.
Decaying sienite, improperly called sand-stone.
Chlorite and mica schist.
Pitch stone found with laterite.
Decaying mica or abracum with aplome garnet.
Green earth called fuller's earth.
Coarse yellow earthy kaolin or decaying granite.
Grey micaceous sand containing hæmatite in small nodules.
Massive and tabular schorl, called first-class coal.
Massive schorl in crystals embedded in grey quartz.
Schorl and decaying hornblende, called second-class coal.
Foliated hornblende.
Decaying hornblende resembling coal.
Do. schorl with lime, called coal in powder third-class coal.
Do. do. in large masses amongst quartz, felspar, and mica, called first-class coal.
Micaceous sand-stone, called seam coal.
Fossil silicified wood.
Coarse sand-stone with black bands of iron.
Red conglomerate like the plum pudding stone of the old red sand-stone series.
Micaceous sand-stone.

Nodular lime-stone or kunkur of three kinds.
Decaying felspar with mica.
Iron ore and mica.
Do. glance rich in the metal apparently containing antimony.

Dr. Hunter's list of sundry minerals.

Dr. Alexander Hunter, in a letter to the Chief Secretary to Government, dated 1st November 1856, No. 347, published in the correspondence on the subject of the Geological Map of India, gives the following list of minerals as sent from Nellore by Mr. F. H. Crozer :—

Red ochrey micaceous earth used as a varnish with wood-oil.
Mica schist.
Limpid quartz, amethystine do., rock crystal.
Buff or cream colored ochre.
Tripoli, red and lavender colored sand-stone.
Polier slate resembles the sand-stone from Alum Bay, Isle of Wight.
Fine grained green sand-stone, a whetstone that accompanies corrundum.
Kaolin.
Nodular blue lime-stone (hydraulic).
Decaying granites.
Earthy lime-stone and coarse concrete.
Crystalline agate.
Calcareous spar.
Garnet aplome spar.
Emery crystalline and tabular.
Iron ore, specular do.
Schorl massive.
Grey steel sand.
Black sand-stone impregnated with iron, makes good steel.
Jet black sand containing iron and manganese.
Granites pale grey or sienite, composed of quartz, felspar, and mica.
Do. yellowish pegmatite, composed of quartz and felspar.
Lepidolite, composed of mica and quartz, of quartz, felspar, mica, and hornblende.
Lepidolite gneiss.
Heavy spar.
Fibrous gypsum.
Chert or horn-stone from Sydapur.
Mica slate and schist from Udayagiri.
Earthy chlorite.
Chlorite slate.
Compact sand-stone.
Copper ore from Tada.

Dr. A. Hunter also enumerates the following specimens sent by Mr. D. White from Podile in the Nellore District:—

Sand-stones.	Slaty black shale.
Fireclay.	Black sand-stone.
Clay iron stone.	

Also the following minerals sent by Mr. F. Nelson from Ongole:—

Iron ore magnetic.
Brown hæmatite.

Dr. A. Hunter sums up as follows:—

Locality.	Class of Formation.	Remarks.
Nellore	Primitive	Materials for porcelain.
	Decaying do.	Sand-stone.
	Transition	Whet stones and polishing slates.
	Alluvial deposits ...	Emery and garnets.
		Colored granites.
		Iron and copper ores.
Ongole	Do. do.	Do. ores and hæmatites.

CHAPTER V.

FAUNA.

DOMESTIC ANIMALS.—Nellore breed of cattle.—Early celebrity.—Annual Cattle Show at Addanki, Nellore Exhibition.—Average price of stock.—Pasturage. WILD ANIMALS.—Game.—Deaths by wild beasts.—List of mammals.—List of birds.—List of reptiles.—Animal productions that form objects of commerce.

DOMESTIC ANIMALS.

THE Nellore breed of cattle have a wide reputation throughout India, but they are to be found in perfection only in the Ongole and Kandukur Taluqs of this district, and the Rajapett and Vinukonda Taluqs of Kistna. These cattle are found to degenerate very rapidly when removed to other parts of the country unless particularly well fed.

Nellore breed of cattle.

It has been remarked that cattle breeding generally receives most attention in those countries where circumstances of one kind or another are adverse to the extensive prosecution of agriculture. Mr. Travers in the first settlement report of this district for fusli 1211 (1801-2) remarks the superior quality of the cattle and thus accounts for it:—

"Having been repeatedly deprived of their cultivation when brought to maturity, experience pointed out to the inhabitants of these districts the want of security for the fruits of their labor: as a substitute affording them this advantage, their attention and labor has been given to the rearing of large herds of black cattle of a superior breed much in demand, which they secured from the grasp of renters by moving them from their villages to those neighbouring; that from the system of petty renters were generally under a separate authority.

Early celebrity.

"From this cause a large portion of their cultivated lands have been appropriated to pasture, and the fear of my interference therein is one cause to which I ascribe their anxiety to keep me ignorant of their extent, as also a supposition that by my immediately forming rents upon such accounts I could obtain, they would embrace this favorite pursuit with other advantages resulting from my ignorance in this respect."

From a return sent by Mr. Travers to the Board of Revenue on 16th June 1803 the number of horned cattle were stated to be:—

Nellore	237,931
Ongole	54,474
	292,405

Used for Tillage.

Nellore	60,789
Ongole	11,192
	71,981

Employed in carrying grains, &c.

Nellore	1,789
Ongole	318
	2,107

Of the remaining—

Nellore	175,353
Ongole	42,964
	218,317

There were—

	Bulls.	Cows.	Bullocks.	Calves.
Nellore ...	488	161,432	302	13,081
Ongole ...	63	39,567	47	3,287
	551	201,049	349	16,338

Total cattle fit for draught or carriage (*i.e.*, grain carriers, bulls, and bullocks)—

Nellore	2,579
Ongole	428
	3,007

The great apparent preponderance of female stock is probably to be accounted for by supposing the villagers to have given false returns of ploughing cattle and bullocks, in order to conceal their resources for cultivation. In fact, all the totals are probably under the mark.

Cattle Show at Addanki.

With the view to encourage the breeding of good stock an annual cattle show has been established by Government, held every year in January at Addanki, though one year it was removed to Ongole. There is also another cattle show with an exhibition of district products, such as indigo, salt, cotton, saltpetre, and agricultural implements held about a month later at Nellore.

The Addanki cattle show was established in 1859 when Mr. Elton was Collector, but the uniform success of the shows as observed by Government (G. O., 19th March 1869, No. 765,) has been chiefly owing to the personal energy and attention of Mr. Dykes, who lost no opportunity of rendering the exhibitions as attractive as possible to the ryots of his own and the neighbouring district. In 1859 prizes were given to the amount of Rupees 665, and the committee drew attention to the fact that, though the appearance of the animals showed that the people had generally produced the finest specimens of the breed of the two districts (Nellore and Kistna), there was an exception in the case of cows, and the full prize allotted in the programme was withheld, as no specimens of "the old breed of heavy cows for which both districts were once celebrated had been brought forward." There was, in fact, "some doubt whether this class of animals is still to be found among the people, owing partly to fine cows being so generally purchased to send away from the district, and partly, as stated by the ryots, to a succession of bad grazing seasons in recent years."

In 1860 the prize list, with other expenses, amounted to Rupees 900, and it was remarked that the finest animals shown were "among the two year old, which had certainly been bred since these shows commenced."

In 1861 Mr. Dykes brought to notice various superstitions in relation to the evil eye (*drishti*), which made the ryots unwilling to exhibit their best cows, expressing his opinion that the heavy cows for which the district was once famous were still in existence.

In 1862 steps having been taken, calculated to overcome the scruples of the ryots in exhibiting their cows, a recommendation was submitted for additional prizes for heifers. The committee who adjudged the prizes this year remarked on the progress that had been made in breaking through prejudices that had hitherto interfered with the show, and they observed that it was "a fundamental principle with the breeders of stock that the improvement of cattle depends as much, if not more, in the amount of care bestowed on the rearing of the cows as of the bulls." In forwarding to Government a recommendation on the part of the committee that an additional sum of Rupees 200 should be granted as prizes for the furtherance of this important object, Mr. Dykes brought to notice that the Nellore cow is usually four years old when she gives her first calf.

In 1863 Rupees 1,250 were allotted for prizes, and a gold ring was given by the Governor, Sir William Denison. A true direction was marked out for the efforts of the exhibitors, and in 1864 good progress was made.

In 1865 Sir William Denison himself attended the show at Addanki. It was remarked that the number of cows and heifers was particularly satisfactory, though relatively they were greatly inferior in size and appearance to bulls of all ages. Special encouragement, it was, therefore, determined by Government, should be given to the rearing and feeding of cows and heifers (G. O., 1st March 1865, No. 531).

In 1866 the prize list was raised to Rupees 1,600, of which nearly one half was for cows and heifers, Rupees 700 against Rupees 200 previously, and in this year so satisfactorily were the prejudices of the ryots overcome, that the cows and heifers formed the greater proportion of the animals exhibited.

In 1867 the committee remarked on the four year old heifers being a remarkably fine show.

In 1868, though there was a falling off in the total number of animals exhibited, the committee commented on the marked increase in the number of the younger stock brought forward to compete, and the progressive improvement of the heifers.

The show of 1869 was particularly good. The following remarks of the Board of Revenue in Proceedings, dated 11th February 1869, were made upon the report of the committee :—"The display of cattle, especially of young stock, was very good, and the exhibition, like its predecessors, was eminently successful. It is especially gratifying to find that these exhibitions are exercising a permanent influence in the district. Every year has shown increasing attention devoted to the care of breeding cattle, and whereas at first but few cows, and these of inferior description, were brought forward, the main feature of the exhibition now is the superior well-fed and well-cared for cows, heifers, and calves. Till recently the attention of the local breeders seems to have been concentrated on their male stock, and the contrast at the early shows between the magnificent bulls of all ages and the puny cows from which they sprung was most striking. One most important result of the care which since the institution of these shows has been taken of breeding stock is the earlier age at which the cows begin to bear."

In 1870 the cattle show was held experimentally at Ongole instead of Addanki. In consequence of the change fewer cattle than usual were brought from the Kistna District to compete. The committee stated in their report their belief that the show of cows and heifers was superior to any previous collection. A special prize of Rupees 50 was offered by Mr. Dykes, who had left the district, for the youngest well-bred cow under four years of age with calf at heel, but no *cows* of three and four years old were exhibited, though there were 27 heifers of this age brought to the show stated to be in calf. The committee remarked: "In the number and quality of young bulls there has also been a marked improvement year by year. In the classes of full grown bulls and four and five year old bulls, if there has been any change within the last two or three years, it would seem to be a falling off. The committee have also doubts as to whether there has been a great improvement in the class of working bullocks. With regard to the number of cattle exhibited of all kinds, there has been a gradual increase annually, and this year upwards of 300 were on the ground—a total much in excess of any previous gathering." The sum expended in prizes was Rupees 1,650, the chief change in the prize list being that ponies are excluded and three and four years old heifers included.

In 1871 the cattle show was again held at Addanki, but the committee did not consider the show altogether a successful one. The prize animals, indeed, they considered to be quite up to the mark of the previous year, and in the quality generally of the cattle on the ground

no falling off was noticeable, but there were only some 250 head against 300 in 1870. A most encouraging feature of this show was the class of four year old cows. There was, however, no cows under four years old with calf at heel to compete for Mr. Dykes' prize, which was awarded to the best cow in the four year old class. Mr. G. VansAgnew, the present Collector, in sending up his report, offered these remarks with regard to the effects of this annual cattle show :—

"My experience of Indian agriculturists renders me altogether sceptical in regard to the possibility within any definite period of influencing them either by precept or example appreciably beyond their customary grooves of action. In breeding and rearing fine cattle with more care than obtains in most other parts of the country the ryots of the sub-division are simply continuing to do what they and their ancestors have always comparatively excelled in. If it could be shown that a greater *general* degree of excellence either has been or is likely to be manifested as the result of the Addanki and Ongole cattle shows, then no argument will be needed in justification of the annual expenditure thereon, but I greatly doubt whether any such result either has been or is likely to be produced. As far as I have been able to gather, competition at these shows is restricted to a narrow circle of particular villages and individuals. Some of these individuals are capitalists and large breeders, while the rest are men of no mark or substance, who buy and rear a good beast or two with a single eye to speculating therewith for the prizes at the show. The former treat a few of their beasts exceptionally well with precisely the same limited object. The great bulk of their cattle, together with all the cattle not owned by this small clique, remains exactly what they would have been, had no shows been instituted. In the end a good deal of public money is very easily obtained by a few individuals, and any thing like general improvement in the breed of cattle is, in my opinion, neither effected nor to be expected."

The Board of Revenue, however, took a more hopeful view of the effect of these shows. "It is impossible," they write, "to estimate the amount of good that may have been done by these exhibitions, but it is equally impossible to doubt that the great publicity that has been given to them has already had a considerable effect in raising the prices and spreading the fame of the Nellore breed, (Mr. Boswell in 1868); and it would be contrary to reason to suppose that high prices and a widely extended market have had no effect in increasing the numbers and improving the breed of northern cattle. It is true that competition has been confined to a comparatively narrow circle of villages, and it is likely enough that animals are put up with the express object of gaining prizes; but these conditions are equally in force at all agricultural exhibitions, and it cannot be contended that they have had no effect in England in improving the breed of cattle. It is the

commonest practice there to buy a good beast a few months before a show for the express purpose of gaining a prize, and it is quite open to question whether the rule (which the Board believe obtains both at Addanki and Nellore), excluding all cattle not *bonâ fide* bred or possessed for a specified period by the exhibitor, is not an injudicious one. It was of course never considered of importance that the ryots of this country should take an interest in exhibitions merely *as* exhibitions, and it is even probable that the actual number of exhibitors may continually decrease as the reputation of particular individuals becomes more widely known; but this again is a matter of no consequence whatever. Very few of the owners of cattle even in England breed with the object of improving cattle *generally*, but simply to get prizes first; and thus, in consequence, high prices for their cattle, and the number of exhibitors, as compared with the total number of breeders, is extremely limited even there ..... The period of twelve years, during which these shows have been in existence, is far from sufficient to decide what effect they may have ultimately."

The following statement shows the cost of the cattle show each year:—

	Rs.	A.	P.
1858-59	690	3	8
1859-60	905	0	0
1860-61	947	6	0
1861-62	963	9	0
1862-63	1,161	10	0
1863-64	1,218	10	6
1864-65	2,112	1	2
1865-66	1,595	1	2
1866-67	1,574	12	0
1867-68	1,596	10	6
1868-69	1,615	11	8
1869-70	1,675	3	2
1870-71	2,145	1	6
	18,201	0	4

The following is a list of the prizes awarded at the show of 1871:—

Full grown bulls	...	Rs. 75, 50.
Five year old bulls	...	„ 70, 45.
Four year old bulls	...	„ 60, 40, 20, 15.
Three year old bulls	...	„ 50, 35, 15, 12.
Two year old bulls	...	„ 40, 24, 12, 10.
Yearling bulls ...	...	„ 30, 20, 10; 2 special.
Bull calves ...	...	„ 25, 15, 8.
Full grown cows	...	„ 80, 50, 40, 30.
Four year old cows	...	„ 70, 40, 30.
Four year old heifers	...	„ 70, 40, 30, 20.
Three year old heifers	...	„ 60, 30, 20, 15.

Two year old heifers	...	Rs. 50, 25, 20, 15.
Yearling heifers ...	...	„ 40, 20, 15; 3 special, each Rs. 10.
Heifer calves ...	...	„ 30, 20, 15, 10; special Rs. 10.
Working cattle ...	...	„ 70, 45, 20.
	Country Ponies.	
Full grown stallions	...	Rs. 40, 30.
Four year old colts	...	No entries.
Two year old colts	...	No entries.
Yearling colts ...	...	Rs. 20, 10.
Full grown mares	...	„ 35, 30, 25.
Fillies	...	„ 25, 20, 15.

The great breeding country stretches from the rivers Palair and Musi in the Nellore District to the Ogeru in the Kistna District, and the reputation of the Nellore breed has been established, so that applications are received for bulls to be sent to the Central Provinces, Kandeish, &c.

The agricultural exhibition of Nellore, which includes a cattle show, admits also agricultural produce of certain specified sorts and agricultural implements; held about a month later than the Addanki show, the northern cattle have been allowed to compete again.

The Exhibition of 1869 was honored by the presence of the Governor, Lord Napier, and proved an unusually successful one. Including working cattle there were 287 head of horned cattle exhibited, 93 country ponies, 46 rams, and a flock of sheep and 28 goats. The cattle of the northern taluqs are much superior to those of the rest of the district; country ponies could scarcely be worse, but it cannot be doubted that the breed is capable of improvement if the same care were given to this class of animals that is bestowed on horned cattle. Sheep and goats are bred largely, but more with a view to profit on the land than for mutton or wool. A ram is estimated by his fighting powers.

Mr. Dykes proposed, as a mode of improving the breed of country ponies, to offer prizes for pony races at both the Nellore and Addanki Exhibitions. "Many efforts have been made," he wrote, "to improve the breed of horses in this country ..... Now horses of any size, it is known, are difficult to breed in India. We on the other hand in Nellore simply want to breed *ponies* and ask for public money to improve the breed for ordinary riding purposes, draught, &c. It is not height that is wanted, but strength and activity." The proposal, however, did not meet with the approval of Government (G. O., 17th May 1869, No. 1,369). There was no exhibition in Nellore in 1870. The following is the prize list for 1871:—

Full grown bulls	...	Rs. 75, 50.
Five year old bulls	...	„ 60, 40.
Four year old bulls	...	„ 60, 40, 20.
Three year old bulls	...	„ 50, 35, 15.
Two year old bulls	...	„ 40, 24, 12; 2 special prizes of Rs. 10.

Yearling bulls	Rs. 30, 20, 10; 2 special prizes of Rs. 10.
Bull calves	„ 25, 15, 8; 2 special prizes of Rs. 10.
Five year old or aged cows.	„ 80, 50, 40, 30.
Four year old cows ...	„ 70, 40, 30; special Rs. 20.
Three year old cows ...	„ 60, 30, 20.
Four year old heifers ...	„ 70, 40, 30, 20.
Three year old heifers ...	„ 60, 30, 20; 2 special prizes of Rs. 15.
Two year old heifers ...	„ 50, 25, 20; special Rs. 20.
Yearling heifers	„ 40, 20, 15; special prizes Rs. 20, 15; 2 of Rs. 10.
Heifer calves	„ 30, 20, 15, 10; special Rs. 15
Working cattle	„ 70, 45, 20.

Horses.

Full grown stallions ...	Rs. 40, 30.
Four year old colts ...	„ 35, 25.
Three year old colts ...	„ 30, 20.
Two year old colts ...	„ 25, 15.
Yearling colts	„ 20, 10.
Full grown mares ...	„ 35, 30, 25.
Fillies	„ 25, 20, 15.

Sheep.

Rams	Rs. 30, 15, 10.
Flock of ewes	„ 30, 20, 10.
He goats	„ 15, 13, 10.
She goats	„ 15, 12, 10.

Agricultural Products.

Cotton	Rs. 200, 100, 50.
Indigo	„ 100, 50, 25.
Saltpetre	„ 50, 25, 10.
Salt	„ 100, 50, 25.

Agricultural Implements.

Cotton gins	Special Rs. 10.
Country carts	Special Rs. 15, 10.
Drills	No prize.
Rollers	No prize.
Oil mill	None exhibited.
Plough	Rs. 5.
Harrow	„ 10.
Pickaxe	„ 5.
Mamcoty	„ 2.
Turf-cutter	„ 3.
Sickle	„ 3.
Earthen pail	„ 2.

The committee considered the results of the show discouraging. "The horned stock of the Southern Division," they write, "were, with almost a single exception, unworthy of exhibition, notwithstanding that for the first time of the show the competition of the sub-division cattle were restricted to the first prizes only. The show of sheep and goats was miserable. As to ponies no sign of improvement in the breed was perceptible. In regard to agricultural produce, with the exception of saltpetre and salt, there was a falling off in comparison with previous exhibitions, and in agricultural implements no attempt whatever at improvement was observable, but rather the contrary." The committee considered (1) that in future the northern cattle should be altogether excluded from competing for any prizes at Nellore; (2) that the rule restricting competition to cattle bred and raised in the southern portion of the district should be modified, so as to admit of the exhibition by southern owners of all cattle that may have been in their *bonâ fide* possession, to be so certified for a period of nine months; (3) in regard to cotton they considered that the specimens exhibited should be the produce of a minimum area of five acres cultivated by the exhibitors, who should produce the Tahsildar's certificate to that effect.

Government in G. O., dated 13th May 1871, No. 850, concurred with the Board in thinking the results attained by these shows to be by no means so discouraging. They considered that the shows and prizes probably exercised a much wider influence in improving the breeds than is readily apparent. The modifications of the prize list and conditions for competition proposed by the committee and Collector were sanctioned.

Average price of stock.

In the taluqs of Ongole and Kandukur the prices of well-bred bulls range from Rupees 300 to Rupees 70; bullocks from Rupees 200 to Rupees 70; cows from Rupees 150 to Rupees 50. In other parts of the district bulls and bullocks from Rupees 80 to Rupees 20; cows from Rupees 30 to Rupees 15. The prices of buffaloes range from Rupees 30 to Rupees 5, a higher price being usually fetched by she buffaloes; ponies from Rupees 30 to Rupees 10; asses from Rupees 20 to Rupees 2; goats and sheep from Rupees 4 to Rupee 1.

Pasturage.

The pullary or pasture tax, one peculiar to the Nellore District, was found in existence here when the district came under British rule under four different forms:—

I.—*Mukta Pullary.*—A grass money assessment levied on the total common pasturage of a village and modified with reference to occupation out of the waste land for cultivation.

II.—*Amanat Pullary.*—An addition made to the so modified tax on

account of additions to the waste by lands thrown out of occupation, but within the original maximum.

III.—*Alaga Pullary.*—The proportion of the makta pullary charged on cattle owners in a village not being occupiers of land on puttah.

IV.—*Yenika Pullary.*—A capitation tax on the cattle of a village, in fact the levy of the makta pullary by distribution on a different principle when any of the payers in the latter form made default.

By Government Order, dated 13th November 1867, No. 2,676, Land Revenue Department, the pullary tax of Nellore was abolished and a principle laid down for the future that out of the waste of each village an extent equal to 30 per cent. of the area occupied for cultivation should in future be reserved for common grazing, free of charge, and that the surplus waste if sufficient in extent to make it worth while to adopt the system be leased out for one or two years at a time to the highest bidder, it being of course understood that no land will be kept waste for grazing if sought for occupation on full assessment. The common reserve is to consist of fair average grazing ground, and is to be equally enjoyed by all the villagers. The kanchas or extensive grazing tracts, which have always been let out in lots, are not affected by these orders. The abolition of the pullary tax has been regarded as a great boon to the district, because cattle breeding on a superior scale and system is here a special industry.

Wild Animals.

Nellore on the whole presents little attraction for the sportsman.

Game.

There is a great scarcity of large game in the district. A tiger occasionally wanders over the ghauts and, having sated his hunger, returns to more congenial haunts among the Cuddapah hills. Bears exist in the Kanigiri durgam, on the Podile and adjoining hills and on the ghauts. Chetas are occasionally to be met with in the jungles of Chundi and along the slopes of the ghauts, in the north of the Kavali and the south of the Gudur Taluq. There are bison in the Kavali Taluq. Samber are found in the jungles of Rapur, and pig, spotted deer, and antelope generally over the district, but not in any abundance. Bustard are occasionally met with in Atmakur and Kavali, and snipe and wild fowl are tolerably plentiful all over the district. In March and April florikin are very abundant in the immediate neighbourhood of Nellore.

The following statement shows the number of deaths reported by wild beasts, snake bites, and scorpion stings during two years, and the amount paid during that time as rewards for killing wild beasts :—

Deaths by wild beasts.

Years.	No. of Deaths by Wild Beasts.	No. of Deaths from Snake Bite.	No. of Deaths from Scorpion Stings.	Rewards paid for killing Wild Beasts.
				Rs. A. P.
1865	10	76	18	522 0 0
1866	10	101	26	634 8 0
1867	3	59	14	1,048 12 0
1868	5	69	10	382 7 0
1869	3	77	18	179 15 0
1870	4	24	6	260 10 0

One of the best antidotes for a scorpion sting is the external application of the leaves of a plant commonly found growing everywhere, *Achyranthes aspera*, Telugu *Uttareni*.

The following is a list of the mammals which are found in the Nellore District, with the names of each as identified by Dr. Jerdon :—

List of mammals.

No. in Jerdon's Mammals	Zoological Name.	English Name.	Telugu Name.
3	Presbytis priamus ...	Madras langur	Gandangi.
6	Inuus silenus	Lion monkey	Konda munchu.
9	Macacus radiatus ...	Madras monkey ...	Koti.
11	Loris gracilis	Slender lemur... ...	Devangu pilli.
12	Pteropus Edwardsi ...	Large fox bat	Chikurayi or gabbidayi.
15	Megaderma lyra ...	Larger-eared vampire bat.	Gabbidayi or gabbilam.
26	Hipposideros speoris ...	Indian horse-shoe bat ...	
31	Taphozous longimanus...	Long-armed bat ...	
38	Scotophilus Coromandelianus.	Coromandel bat ...	
69	Sorex cærulescens ...	Common musk shrew ...	Chunchu yeluka.
79	Sorex Perroteti... ...	Neilgherry pigmy-shrew?	.....
91	Ursus labiatus	Indian black bear ...	Yellugoldu or velugubanti.
100	Lutra nair	Common Indian otter...	Nirupilli or niru kukka.
104	Felis tigris	Tiger	Peddapuli or ibbandigandu.
110	Felis Bengalensis ...	Leopard cat	Akuchirata.
113	Felis rubiginosa ...	Rusty-spotted cat ...	Namali pilli.
115	Felis chaus	Common jungle cat ...	Jangu pilli.
117	Felis jubata	Hunting leopard ...	Chirutapuli or mekachirata.
118	Hyæna striata	Striped hyæna ...	Kormagandu or kornasigandu.
121	Viverra Malaccensis ...	Lesser civet cat ...	Punugu pilli.
123	Paradoxarus musanga ...	Common tree cat ...	Manu pilli.
127	Herpestes griseus ...	Madras mungoos ...	Meatava or mungisu.
129	Herpestes monticolus ...	Long-tailed mungoos ...	Konda meniava or mungisu.
135	Canis pallipes	Indian wolf	Todelu.
136	Canis aureus	Jackal	Nakka.
137	Cuon rutilans	Wild dog	Rechukukka.
138	Vulpes Bengalensis ...	Indian fox	Korka-nakka or guntanakka.
149	Sciurus maximus ...	Central Indian red squirrel.	Betta...

No. in Jerdon's Mammals.	Zoological Name.	English Name.	Telugu Name.
155	Sciurus palmarum ...	Common striped squirrel.	Udata.
170	Gerbillus Indicus ...	Indian jerboa rat ...	Yeru yeluka.
172	Nesokia Indica	Indian mole-rat ...	Golatta koku.
174	Mus bandicota	Bandicoot rat... ...	Pandi koka.
184	Mus oleraceus	Long-tailed tree mouse.	Meju yeluka.
194	Leggada platythrix ...	Brown spiny mouse ...	Gilli gadu.
196	Leggada lepida... ...	Small spiny mouse ...	Chi yeluka.
199	Golunda Gilliotti ...	Bush rat	Sona-panji gadu.
200	Golunda meltada ...	Soft-furred field rat ...	Mutta yeluka.
204	Hystrix leucura... ...	Indian porcupine ...	Yerripandi.
208	Lepus nigricollis ...	Black-naped hare ...	Kondelu or chevulapilli.
215	Sus Indicus	Indian wild boar ...	Adavi pandi.
220	Rusa Aristotelis ...	Samber stag	Kanji.
221	Axis maculatus... ...	Spotted deer	Dappi or podaduppi.
223	Cervulus aureus ...	Rib-faced or barking deer.	Konda meka.
227	Tetraceros quadricornis..	Four-horned antelope...	Kondagorre or adavigorre.
228	Antilope bezoartica ...	Indian antelope ...	Irra the male, and ledi the female, but also applied to both; also jinka.
229	Gazella Bennettii ...	Indian gazelle	Burra jinka.
238	Gaveus gaurus... ...	Gaur or wild bull ...	Adavigoru or aru.
241	Manis pentadactyla ...	Indian scaly ant-eater.	Alavi.

The following is a list of the birds in the Nellore District, as identified by Dr. Jerdon in his Birds of India :—

List of birds.

No. in Jerdon's Birds.	Scientific Name.	English Name.o	Telugu Name.
	RAPTORES.—*Birds of Prey.*		
2	Otogyps calva, Scopoli...	Black vulture ...	Nalla borava.
5	Gyps Bengalensis, Gmelin.	Common brown vulture or white-backed vulture.	Guligadu, i.e. corpse fellow; maruputadu, i.e., cattle-eater; also borava.
6	Neophron percnopterus, Linnæus.	White scavenger vulture.	Tella borava.
8	Falco peregrinus, Gmel..	Peregrine falcon ...	Bhyri dega.
9	Falco peregrinator, Sundevall.	Shahin falcon ...	Javolam.
11	Falco jugger, Gray ...	Lagger falcon ...	Lagadu.
16	Hypotriorchis chiquera, Dand.	Turumti or red-headed merlin.	Turumtari or jallaganta or jelgadda.
17	Tinnunculus alaudarius, Briss.	Kestril	Tondala mucki gadu, i.e., lizard-killing kite, also tondala dosigadu.
22	Astur (lophospiza) trivirgatus, Temminck.	Crested goshawk ...	Kokila dega, i.e., cuckoo hawk (from the resemblance of the lower plumage to that of the eudynamys orientalis).
23	Micronisus badius, Gmel.	Shikra	Jali dega.
24	Accipiter nisus, Linnæus..	European sparrow-hawk.	Warannpu dega.
25	Accipiter virgatus, Tem..	Besra sparrow-hawk..	Vaishtapa dega.
28	Aquila [illegible]a, Gmelin ...	Spotted eagle ...	Naliagadda, i.e., black kite.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
29	Aquila fulvescens, Gray..	Tawny eagle ...	Alava or salava.
31	Aquila pennata, Gmelin.	Dwarf eagle	Udata gadda, i.e., squirrel-kite.
32	Neopus Malaiensis, Reinwardt.	Black eagle	Adavinalla gadda, i.e., jungle black kite.
33	Nisaetus Bonelli, Tem. ...	Crestless hawk-eagle.	Kundeti salava, i.e., hare-eagle.
35	Limnaetus [illegible]ista[illegible]lus, Temminck.	Crested hawk-eagle...	Zuttu bairi.
38	Circaetus Gallicus, Gmel..	Common serpent eagle.	Pamula gadda.
39	Spilornis cheela, Dand...	Crested serpent eagle.	Naila pamula gadda, i.e., the dark serpent kite.
40	Pandion haliaetus, Lin. ...	Osprey	Koramin gadda.
43	Haliaetus leucogaster, Gmelin.	Grey-backed sea eagle.	Ala.
48	Poliornis teesa, Frankl.	White-eyed buzzard.	Buda-mali gadda.
51	Circus Swainsoni, A. Smith.	Pale harrier	Tella chapa gadda.
53	Circus melanoleucos, Gmelin.	Pied harrier	.....
55	Haliastur Indus, Bodd.	Maroon-backed kite.	Garutalvar or garudamantudu.
56	Milvus Govinda, Sykes...	Common Pariah kite.	Mala gadda.
57	Perhis cristata, Cuvier...	Crested honey buzzard.	Tene gadda.
58	Baza lophotes, Cuvier ...	Crested black kite ...	.....
59	Elanus melanopterus, Dand.	Black-winged kite ...	Adavi ramadasu.
60	Strix Javanica, De Wurmb	Indian screech-owl ...	Charupitta, i.e., death bird.
61	Strix candida, Tickell ...	Grass-owl	.....
68	Otus brachyotus, Gmelin.	Short-eared owl ...	Chinna gudla guba.
68	Urrua Bengalensis, Franklin.	Rock-horned owl ...	Yerragudla guba.
70	Urrua Coromanda, Latham.	Dusky-horned owl ...	Nalla gudla guba.
74	Ephialtes pennatus, Hodgson.	Indian scops-owl ...	Chitta guba and yerra chitta guba.
75	Ephialtes lempiji, Horsf.	Large scops-owl ...	Pedda chitta guba.
76	Athene Brama, Tem. ...	Spotted owlet ...	Paidiganta, i.e., gold-eye.
77	Athene radiata, Tickell.	Jungle owlet ...	Adavipaidi ganta.
81	Ninox scutellatus, Raffl.	Brown hawk owl ...	Paidiganta vestam.
	INSESSORES.—*Tigor's Perching Birds.*		
82	Hirundo rustica, Lin. ...	Common swallow ...	Vana kovila.
85	Hirundo daurica, Lin.	Red-rumped swallow.	.....
100	Cypselus affinis, Gray ...	Common Indian swift.	.....
102	Cypselus batassiensis, Gray.	Palm swift	.....
104	Dendrochelidon coronatus, Tickell.	Indian crested swift.	.....
111	Caprimulgus atripennis, Jerdon.	Ghât night-jar ...	.....
112	Caprimulgus Asiaticus, Latham.	Common Indian night-jar.	.....
114	Caprimulgus monticolus, Franklin.	Franklin's night-jar...	.....
117	Merops viridis, Lin. ...	Common Indian bee-eater.	Chinna pasirike, i.e., small green bird.
118	Merops Philippensis, Lin.	Blue-tailed bee-eater.	Komma pasirike.
123	Coracias Indica, Lin. ...	Indian roller ...	Palapitta, i.e., milk-bird.
129	Halcyon fuscus, Bodd ...	White-breasted kingfisher.	Lakmuku, also buchigadu.
134	Alcedo Bengalensis, Gmelin.	Common Indian kingfisher.	Nila buchigadu.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
136	Ceryle rudis, Linnæus ...	Pied king-fisher ...	Chapala potugadu.
144	Meniceros bicornis, Scop.	Common grey hornbill.	Rendu mukkula guruva, *i.e.*, two-billed pigeon.
147	Palæornis Alexandri, Lin.	Alexandrine parrakeet.	Pedda chiluka.
148	Palæornis torquatus, Bodd.	Rose-ringed parrakeet.	Chiluka or chilaka.
149	Palæornis rosa, Bodd ...	Rose-headed parrakeet.	Ramachiluka.
157	Picus Macei, Vieillot ...	Indian spotted woodpecker.	Sukapu manu tolasi.
160	Picus Mahrattensis, Latham.	Yellow-fronted woodpecker.	Pasupu manu tolasi.
164	Yungipicus Hardwickii, Jerdon.	Southern pigmy woodpecker.	Chitta gruti pakshi.
166	Chrysocolaptes sultaneus, Hodgson.	Golden-backed woodpecker.	Manubachi.
188	Yunx torquilla, Linnæus.	Common wry-neck ...	Medamulingadu.
193	Megalaima caniceps, Franklin.	Common green barbet.	Gandu varuvu.
197	Xantholæma Indica, Latham.	Crimson-breasted barbet.	Tokoji.
201	Cuculus poliocephalus, Latham.	Small cuckoo ...	Chinna kovila.
202	Cuculus Sonneratii, Latham.	Banded bay-cuckoo...	Basha katti pitta.
203	Cuculus micropterus, Gould.	Indian cuckoo ...	Kovile.
205	Hierococcyx varius, Vahl.	Common hawk cuckoo.	Katti pitta.
208	Polyphasia nigra, apud Blyth.	Indian plaintive cuckoo.	Chinna katti pitta.
212	Coccystes melanoleucos, Gmelin.	Pied crested cuckoo.	Golla kokila, *i.e.*, milkman cuckoo.
213	Coccystes Coromandus, Linnæus.	Red-winged crested cuckoo.	Yerra golla kokila.
214	Eudynamys orientalis, Linnæus.	Indian koel	Kokila; the male being called *nalla*, and the female *pada*.
216	Zanclostomus viridirostris, Jerdon.	Small green-billed malkoha.	Vamanakai, *i.e.*, dwarf crow.
217	Centropus rufipennis, Illiger.	Common coucal ...	Jemudu-kaki, *i.e.*, "Euphorbia hedge-crow."
219	Taccocua Leschenaultii, Lesson.	Southern sirkeer ...	Adavi chiluka and patta chiluka, *i.e.*, jungle parrakeet and ant-hill parrakeet. .....
235	Arachnechthra lotenia, Linnæus.	Large purple honey-sucker.	
239	Dicæum concolor, Jerdon.	Neilgherry flowerpecker.	Chittu pitta.
240	Piprisoma agile, Tickell.	Thick-billed flowerpecker.	Do.
255	Upupa nigripennis, Gould.	Indian hoopoe ...	Kondepitta, *i.e.*, "crested-bird," also Kukkuguva from its call.
256	Lanius lahtora, Sykes ...	Indian grey shrike ...	Chinna bellinchi, also pedda kiriti-gadu.
257	Lanius erythronotus, Vigors.	Rufous-backed shrike.	Yerra-bellinchi.
260	Lanius Hardwickii, Vigors.	Bay-backed shrike ...	Chinna bellinchi, *i.e.*, small shrike; sometimes called vanna-doga.
261	Lanius cristatus, Linnæus.	Brown shrike ...	Batti-gadu, valuga battiki-ritigadu.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
265	Tephodornis Pondicerianus, Gmelin.	Common wood shrike.	Ulapitta, *i.e.*, whistling bird, sometimes vodambal pitta.
268	Volvocivora Sykesii, Strickland.	Black-headed cuckoo shrike.	China akuruyi, *i.e.*, "Lesser file-bird."
269	Volvocivora melaschistos, Hodgson.	Dark-grey cuckoo shrike.	.....
270	Graucalus Macei, Lesson.	Large cuckoo shrike...	Pedda akuruyi, *i.e.*, large file-bird.
276	Pericrocotus peregrinus, Linnæus.	Small minivet ...	Kunkampu pitta.
278	Dicrurus macrocercus, Vieillot.	Common drongo shrike.	Bharadwajam; popularly pasulapoligadu, *i.e.*, "cattle lou-bird."
281	Dicrurus cœrulescens, Linnæus.	White-bellied drongo.	Nela or konda pasalapoligadu.
284	Edolius paradiseus, Linnæus.	Large racket-tailed drongo.	Tinka-pasala-polugadu, *i.e.*, "long-tailed drongo."
287	Artamus fuscus, Vieillot.	Ashy swallow shrike..	Tati pitta
288	Tchitrea paradisi, Lin.	Paradise fly-catcher...	Toka pigili pittah.
299	Alseonax ferrugineus, Hodgson.	Ferruginous fly-catcher.	.....
305	Cyornis banyumas, Horsfield.	Horsfield's blue redbreast.	.....
323	Erythrosterna leucura, Gmelin.	White-tailed robin fly-catcher.	.....
345	Pitta Bengalensis, Gmel.	Yellow-breasted ground-thrush.	Ponnangi.
351	Petro-cossyphus cyaneus, Linnæus.	Blue rock-thrush. ...	Poda kachi pitta.
354	Geocichla cyanotus, J. and S.	White-winged ground-thrush.	Yerra ponnangi.
356	Geocichla unicolor, Tickell.	Dusky ground-thrush.	Poda palisa.
357	Turdulus Wardii, Jerdon.	Ward's pied blackbird.	.....
359	Merula nigropileus, Lafr.	Black-capped blackbird.	Poda palisa.
385	Pycnorhis Sinensis, Gmel.	Yellow-eyed babbler..	Yerra kali pitta.
399	Pellorneum ruficeps, Swainson.	Spotted wren babbler.	Adavi liku pitta.
404	Pomatorhinus Horsfieldii, Sykes.	Southern scimitar babbler.	Dasari pitta.
433	Malacocircus griseus, Gmelin.	White-headed babbler.	Chinda or sida.
434	Malacocircus Malabaricus, Jerdon.	Jungle babbler ...	Pedda sida.
436	Malacocircus, Malcolmi, Sykes.	Large grey babbler...	Verri chinda, *i.e.*, mad babbler, also gova sida.
438	Cinclorhœa caudata, Dumeril.	Striated bush babbler.	China sida.
441	Chætornis striatus, Jerdon.	Grass-babbler ...	Gadapitta, *i.e.*, grass bird.
452	Ixos luteolus, Lesson.	White-browned bush bul-bul.	Poda-pigili.
453	Ixos xantholæmus, Jerdon.	Yellow-throated bush bul-bul.	Konda-poda pigili.
460	Otocompsa jocosa, Lin.	Red-whiskered bulbul.	Turaka pigili pitta.
462	Pycnonotus hæmorrhous, Gmelin.	Common Madras bul-bul.	Pigili pitta.
463	Phyllornis Jerdoni, Blyth.	Common green bul-bul.	Tota bojanam, *i.e.*, ornament of the forest.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
467	Iora Zeylonica, Gmelin.	Black-headed green bul-bul.	Patcha pitta, *i.e.*, green bird.
470	Oriolus kundoo, Sykes...	Indian oriole ...	Vanga-paudu.
473	Oriolus Ceylonensis, Bonaparte.	Southern black-headed oriole.	Konda vanga-paudu.
475	Copsychus saularis, Lin.	Magpie robin ...	Pedda nallanchi.
476	Kittacincla macroura, Gmelin.	Shama	Poda nallanchi.
479	Thamnobia fulicata, Lin.	Indian black robin ...	Nallanchi.
481	Pratincola caprata, Linnæus.	White-winged black robin.	Kampa nallanchi, *i.e.*, bush robin.
483	Pratincola Indica, Blyth.	Indian bush-chat ...	Adavi kampa nallanchi, *i.e.*, jungle bush-robin and adavi kampa pitta, *i.e.*, jungle bramble bird.
497	Rutipilla rufiventris, Vieillot.	Indian redstart ...	Nane buddi-gadu, *i.e.*, oil-bottle bird.
507	Larvivora cyana, Hodgson.	Blue wood-chat ...	.....
514	Cyanecula suecica, Lin.	Indian blue-throat ...	.....
515	Acrocephalus brunnescens, Jerdon.	Large reed-warbler...	Bora pitta.
516	Acrocephalus dumetorum, Blyth.	Lesser reed-warbler...	Kampa pitta.
517	Acrocephalus agricolus, Jerdon.	Paddy field warbler...	Yerra kampa pitta.
518	Arundinax olivaceus, Blyth.	Thick-billed reed-warbler.	.....
530	Orthotomus longicauda, Gmelin.	Indian tailor bird ...	Likku pitta.
534	Prinia socialis, Sykes ...	Dark ashy wren warbler.	Bela pitta.
539	Cisticola schœnicola, Bonaparte.	Rufous grass warbler.	Yeduru pitta.
543	Drymoipus inornatus, Sykes.	Common wren warbler.	Lotta kanna pitta.
545	Drymoipus sylvaticus, Jerdon.	Jungle wren warbler.	Konda lotta kanna pitta.
553	Phyllopneuste rama, Sykes.	Sykes' warbler ...	Chinna kampa pitta.
556	Phylloscopus magnirostris, Blyth.	Large-billed tree warbler.	.....
553	Phylloscopus luguòris, Blyth.	Dull-green tree warbler.	.....
561	Phylloscopus affinis, Tickell.	Tickell's tree warbler.	.....
563	Reguloides occipitalis, Jerdon.	Large-crowned warbler.	.....
565	Reguloides proregulus, Pallas.	Crowned tree warbler.	.....
581	Sylvia orphea, Temminck.	Large black-capped warbler.	Pedda nalla kampa pitta.
582	Do. affinis, Blyth ...	Allied grey warbler...	Nalla kampa pitta.
583	Do. curruca, Gmelin...	Lesser white-throat...	Chinna nalla kampa pitta.
589	Motacilla Maderaspatana, Brisson.	Pied wagtail	Sakala sarela gadu.
592	Calobates sulphurea, Bechstein.	Grey and yellow wagtail.	Muddi thippudu pitta.
595	Nemoricola Indica, Gmelin.	Black-breasted wagtail.	Uzhalla-pitta.
596	Pipastes agilis, Lin. ...	Indian tree pipit ...	Liku-pitta, *i.e.*, blind bird.
600	Corydalla rufula, Vieillot.	Indian titlark ...	Gurapa madi pitta.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
601	Corydalla striolata, Blyth.	Large titlark. ...	.....
646	Parus nuchalis, Jerdon.	White-winged black tit.	Nalla patcha pitta.
660	Corvus culminatus, Sykes.	Indian corby ...	Kaki.
663	Corvus splendens, Vieillot.	Common Indian crow.	Manchi kaki.
674	Dendrocitta rufa, Scopoli.	Common Indian magpie.	Gokurayi, also kondakati gadu.
683	Sturnopastor contra, Lin.	Pied starling ...	Venda gorinki.
684	Acridotheres tristis, Lin.	Common myna ...	Goranki.
687	Temenuchus pagodarum, Gmelin.	Black-headed myna...	Papata goranki.
690	Pastor roseus, Linnæus.	Rose-colored starling.	Parika pitta, also palisa.
692	Eulabes religiosa, do ...	Southern hill myna...	Konda goranki.
694	Ploceus baya, Blyth ...	Common weaver bird.	Pasupu pitta or gegigadu.
697	Munia Malacca, Linnæus.	Black-headed munia.	Nalla jinuvayi.
699	Munia undulata, Latham.	Spotted munia ...	Kukkara jinuvayi.
703	Munia Malabarica, Linnæus.	Plain brown munia...	Jinuvayi.
704	Estrelda amandava, Lin.	Red wax-bill ...	Yerra jinuvayi.
706	Passer Indicus, Jerdon and Selby.	Indian house sparrow.	Ura pichika.
711	Passer flavicollis, Franklin.	Yellow-necked sparrow.	Adavi pichika, also konda pichika and cheruku pichika.
738	Carpodacus erythrinus, Pallas.	Common rose finch ...	Eduru pichika or eduru jinuvayi.
755	Mirafra affinis, Jerdon.	Madras bush-lark ...	Eli pitta.
756	Do. erythroptera, Jerdon.	Red-winged bush-lark.	Chinna eli pitta.
757	Do. cantillans, Jerdon.	Singing bush-lark ...	Bharata pitta.
758	Ammomanes phœnicura, Franklin.	Rufous-tailed finch-lark.	Ambali-jori gadu, sometimes dova pitta, *i.e.*, road bird.
760	Pyrrhulanda grisea, Scopoli.	Black-bellied finch-lark.	Potti pichika or parida pichika, *i.e.*, short sparrow or ground sparrow.
765	Spizalauda deva, Sykes.	Small crested lark ...	Chinna charanda.
767	Alauda gulgula, Franklin.	Indian sky-lark ...	Bharata pitta, also nela pichika, or ground sparrow.
769	Galerida cristata, Linnæus.	Large crested lark ...	Chendal, also called jittu pitta, *i.e.*, the crested bird.
	GEMITORES.—*Pigeons.*		
773	Crocopus chlorigaster, Blyth.	Southern green pigeon.	Pacha guva.
774	Osmotreron bicincta, Jerdon.	Orange-breasted green pigeon.	Chinna pacha guva.
775	Osmotreron Malabarica, Jerdon.	Grey-fronted green pigeon.	Poda pacha guva.
780	Carpophaga sylvatica, Tickell.	imperial pi-	Kakireni guva.
788	Columba intermedia, Strickland.	B k-pigeon ...	Godipavarai, *i.e.*, pagoda pigeon.
793	Turtur meena, Sykes ...	Ru s turtle-dove ...	Vedurupoda guva.
794	Do. Cambayensis, Gmelin.	Litt. brown dove ...	Ghatti bella guva.
795	Turtur Suratensis, Gmelin.	Spotted dove ...	Poda bella guva.
796	Turtur risoria, Linnæus.	Common ring-dove ...	Pedda bella guva.
797	Do. humilis, Temminck.	Red turtle-d ...	Ilah guva, *i.e.*, tile-colored dove, sometimes periaripu guva.
798	Chalcophaps Indicus, Linnæus.	Bronze-winged dove..	Andi bella guva.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
		RASORES.—*Game Birds.*	
800	Pterocles fasciatus, Scopoli.	Painted sand-grouse..	Sunda polanka.
802	Pterocles exustus, Temminck.	Common sand-grouse.	Jam polanka.
803	Pavo cristatus, Linnæus.	Common peacock ...	Nemali nevali.
813	Gallus Sonneratii, Temminck.	Grey jungle-fowl ...	Adavi kodi.
814	Galloperdix spadicens, Gmelin.	Red spur-fowl ...	Yerra kodi and gitta kodi.
815	Galloperdix lunulosus, Valenc.	Painted spur-fowl ...	Gitta kodi.
819	Francolinus pictus, Jerdon and Selby.	Painted partridge ...	Kakkera kodi.
822	Ortygornis Ponticeriana, Gmelin.	Grey partridge ...	Kavunzu.
826	Perdicula Cambayensis, Latham.	Jungle bush quail ...	Gerja pitta.
827	Perdicula Asiatica. Latham.	Rock bush quail ...	Lavunka or lavaku pitta.
829	Coturnix communis, Bonnaterre.	Large grey quail ...	Gogari yellichi.
830	Coturnix Coromandelica, Gmelin.	Black-breasted quail.	Chinna yellichi.
832	Turnix taigoor, Sykes ...	Black-breasted bustard quail.	Puredi, i.e., the bold one (the female) koladu, i.e., of no spirit.
834	Turnix Dussumierii, Tem.	Larger button quail...	Pedda daba gundlu.
835	Turnix Sykesii, A. Smith.	Button quail ...	Chinna (or tilla) daba gundlu.
		GRALLATORES.—*Wading Birds.*	
836	Eupodotis Edwardsii, Gray.	Indian bustard ...	Burra chirata in some parts, Mattameka or bat-nosed.
839	Sypheotides auritus, Latham.	Lesser florikin ...	Nela navali.
840	Cursorius Coromandelicus, Gmelin.	Indian courier plover.	Yerra chitava, also duravayi.
841	Rhinoptilus bitorquatus, Jerdon.	Double-banded plover.	Adavisutta-titti, i.e., jungle empty purse.
842	Glareola orientalis, Leach.	Large swallow plover.	Pedda vutta-titti.
843	Do. lactea, Temminck.	Small swallow plover.	Chinna vutta-titti.
846	Ægialitis Geoffroyi, Wagler.	Large sand plover ...	.....
849	Ægialitis Philippensis, Scopoli.	Indian ringed-plover.	Bitu-vullanka, also reva.
850	Ægialitis minutus, Pallas.	Lesser ringed-plover.	.....
855	Lobivanellus Goensis, Gmelin.	Red-wattled lapwing.	Yennapa chitawa.
856	Sarciophorus bilobus, Gmelin.	Yellow-wattled lapwing.	Chitawa.
858	Esacus recurvirostris, Cuvier.	Large stone-plover ...	.....
859	Œdicnemus crepitans, Temminck.	Stone-plover ...	Kalleydu.
861	Dromas ardeola, Paykull.	Crab-plover	.....
862	Hæmatopus ostralegus, Linnæus.	Oyster-catcher ...	Yerra kali vullanki.
865	Grus cinerea, Bechstein.	Common crane ...	Kulangi.
866	Anthropoides virgo, Linnæus.	Demoiselle crane ...	Wada-koraka.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
871	Gallinago scolopacinus, Bonaparte.	Common snipe ...	Mukku puredi, i.e., the long-bill turnix.
872	Gallinago gallinula, Linnæus.	Jack snipe	Pedda mukku puredi.
875	Limosa ægocephala, Linnæus.	Small godwit ...	Tondu vullanki.
877	Numenius arquata, Linnæus.	Curlew	.....
878	Numenius phæopus, Linnæus.	Whimbrel	.....
880	Philomachus pugnax, Linnæus.	Ruff	.....
884	Tringa minuta, Leisler...	Little stint	.....
888	Calidris arenaria, Temminck.	Sanderling	.....
891	Actitis glareola, Gmelin.	Spotted sand-piper ...	Chinna vullanki.
892	Do. ochropus, Linnæus.	Green sand-piper ...	Nalla vullanki.
893	Do. hypoleucos, Linnæus.	Common sand-piper...	Potti vullanki.
894	Totanus glottis, Linnæus.	Green shanks ...	.....
896	Do. fuscus, do.	Spotted red shanks...	Yerra kalu vullanki.
897	Do. calidris, do.	Red shanks	.....
898	Himantopus candidus, Bonnaterre.	Stilt or long-legs ...	.....
899	Recurvirostra avocette, Linnæus.	Avoset	.....
900	Metopidius indicus, Latham.	Bronze-winged jacana.	.....
901	Hydrophasianus chirurgus, Scopoli.	Pheasant-tailed jacana.	.....
902	Porphyrio poliocephalus, Latham.	Purple coot	Nila boli kodi.
903	Fulica atra, Linnæus ...	Bala coot	Boli kodi.
904	Gallicrex cristatus, Latham.	Water-cock	Nila kodi.
[illegible]	Gallinula chloropus, Lin.	Water-hen	Jammukodi or boli kodi.
908	Do. phœnicura, Pennant.	White-breasted water-hen.	Tellarommu boli kodi.
909	Porzana maruetta, Brisson.	Spotted rail	Venna muddi kodi.
910	Porzana pygmæa, Naumann.	Pigmy rail	.....
913	Rallus striatus, Linnæus.	Blue-breasted rail ...	Vada kodi.
915	Leptoptilos argala, do.	Gigantic stork ...	Pinigala konga.
916	Do. Javanica, Horsfield.	Hair-crested stork ...	Dodla konga and dodla gattigadu.
917	Mycteria australis, Shaw.	Black-necked stork...	Tolla vodimu.
918	Ciconia nigra, Linnæus...	Black stork	Nella vodimu.
919	Do. alba, Bebn ...	Whire stork	Wadumu konga.
920	Do. leucocephala, Gmelin.	White-necked stork...	Sanka-budi konga and tellameda konga.
923	Ardea cinerea, Linnæus.	Blue heron	Nara Cana patchi.
924	Ardea purpurea, Linnæus.	Purple heron ...	Pamula narigadu and pamula nagadu.
925	Herodias alba, Linnæus.	Large egret.... ...	Pedda Cella konga.
927	Do. garzetta, do.	Little egret	Nalla mukku konga.
929	Buphus coromandus, Boddt.	Cattle egret	Sati konga.
930	Ardeola leucoptera, Boddt.	Pond heron	Guddi konga, i.e., blind heron.
931	Butorides Javanica, Horsfield.	Little green heron ...	Doshi konga.

No. in Jerdon's Birds.	Scientific Name.	English Name.	Telugu Name.
933	Ardetta cinnamomea, Gmelin.	Chesnut bittern ...	Dosi konga.
937	Nycticorax griseus, Linnæus.	Night heron	Chinta vakku or chintokku.
938	Tantalus leucocephalus, Gmelin.	Pelican ibis	Yerra kali konga.
939	Platalea leucorodia, Linnæus.	Spoon-bill	Jantanukku konga or teddu muti konga.
940	Anastomus oscitans, Boddœrt.	Shell ibis	Gulla konga, or natta. kutti.
941	Threskiornis melanocephalus, Linnæus.	White ibis	Tella kankanaya.
942	Geronticus papillosus, Temminck.	Warty-headed or black ibis.	Nalla kankanaya.
943	Falcinellus igneus, Gmelin.	Glossy ibis	Tati kankanaya, or niti kankanaya.
	NATATORES.—*Swimming Birds.*		
944	Phœnicopterus roseus, Pallas.	Flamingo	Pu-konga, also samudrapu, chilaka, *i.e.*, sea parrot.
949	Anser Indicus, Gmelin...	Barred-headed goose.	Pedda batu.
950	Sarkidiornis melanonotus, Pennant.	Black-backed goose...	Juttu batu, *i.e.*, comb goose.
951	Nettapus Coromandelianus, Gmelin.	White-bodied goose-teal or cotton-teal.	Chinna juttu batu, or petta batu.
952	Dendrocygna awsuree, Sykes.	Whistling-teal ...	Yerra chilava.
953	Dendrocygna major, Jerdon.	Large whistling-teal..	Pedda yerra chilava.
954	Casarca rutila, Pallas ...	Ruddy shieldrake ...	Bapana chilava, or bapana kodi, *i.e.*, Brahminy duck.
957	Spatula clypeata, Lin. ...	Shoveller	.....
964	Querquedula crecca, Lin.	Common teal ...	Chilava.
965	Do. Circia, Linnæus.	Blue-winged teal ...	Nilavarnapa rekka chilava.
967	Branta rufina, Pallas ...	Red-crested pochard.	Yerra juttu chilava.
968	Aythya ferina, Linnæus.	Red-headed pochard..	Yerra tala chilava.
969	Aythya nyroca, Guldenstadt.	White-eyed duck ...	Dasari chilava.
971	Fuligula cristata, Ray ...	Tufted duck	Nalla chilava.
975	Podiceps Philippensis, Gmelin.	Little grebe	Munu gudu kodi.
980	Xema brunnicephala, Jerdon.	Brown-headed gull ...	.....
982	Sylochelidon Caspius, Latham.	Largest tern ...	Adeti batu.
983	Gelochelidon Anglicus, Montagu.	Gull-billed tern ...	.....
984	Hydrochelidon Indica, Stephens.	Small marsh tern ...	Potti chilava.
985	Seena aurantia, Gray ...	Large river tern ...	.....
987	Sterna Javanica, Horsfield.	Black-bellied tern ...	Nalla batta chilava.
990	Thalasseus Bengalensis, Lesson.	Smaller sea tern ...	.....
995	Rhynchops albicollis, Swainson.	Indian skimmer ...	.....
996	Phaëton rubricauda, Boddt.	Red-tailed tropic bird.	.....
1005	Graculus carbo, Linnæus.	Large cormorant ...	Bonta niru kaki.
1006	Graculus Sinensis, Shaw.	Lesser cormorant ...	Chinna niru kaki.
1007	Graculus Javanicus, Hors.	Little cormorant ...	Niru kaki, or niru kodi.
1008	Plotus melanogaster, Gmelin.	Indian snake-bird ...	Kaliki pitta or kakikitora.

List of reptiles.

The following is a very imperfect list of the reptiles to be found in this district according to the Telugu names :—

No.	Telugu Name.	Zoological Name.	Remarks.
1	Dasari tambelu... ...	Testudo geometrica...	Land tortoise.
2	Tanbelu	Cryptopus punctata...	Water tortoise.
3	Musali	Crocodilus porosus ...	Indian crocodile.
4	Ulumu	Iguana delicatissima..	Guana.
5	Usaralli	Chamelio vulgaris ...	Green blood-sucker chameleon.
6	Tonda	Agama colonorum ...	Blood-sucker.
7	Chinna tonda	Agama	Small blood-sucker.
8	Balli	Gecko Ægypticus ...	Lizard.
9	Pala balli	Gecko	White lizard.
10	Mala balli	Do.	Mottled lizard.
11	Chinta balli	Do.	Speckled lizard.
12	Nalu kisu	Lacerta interpunctata.	The polished shining greenish house lizard.
13	Pedda nalukisu	.....	The polished shining greenish house lizard, big.
14	Chitti kappa	Rana	Frog.
15	Niti kappa	Rana temporaria ...	Water frog.
16	Goduru kappa	Bufo scaber	Large toad.
17	Vudugu kappa	.....	.....
18	Manti kappa	Hyperodon marmoratum.	Toad.
19	Bonta kappa	.....	Green frog.
		Serpents.	
20	Bokka birada.		
21	Budda penjara.		
22	Chetturiki pamu ...	Leptophis pictus ...	
23	Dasari pamu.		
24	Dasari penjara.		
25	Irutala sikhandi.		
26	Jerri potu	Coluber mucosus ...	Whip snake.
27	Kallu pamu.		
28	Katteda.		
29	Katla pamu.		
30	Kanda sila.		
31	Konda chelama.		
32	Korivi katteda.		
33	Minnagu.		
34	Mondi sikhandi.		
35	Naga katteda.		
36	Nagu pamu	Nai lutescens ...	Cobra.
37	Nalikandla pamu.		
38	Nalla tachu.		
39	Nane katteda.		
40	Paschika pamu	Colober myoterizans..	Green snake.
41	Penjara.		
42	Penu katteda.		
43	Poda penjara.		
44	Potta penjara.		
45	Pudu pamu.		
46	Pula penjara.		
47	Puli penjara.		
48	Rakta penjara.		
49	Sikhandi.		
50	Tachu pamu.		
51	Tati balugu.		
52	Tati katteda	Dipsas trigonata.	
53	Tussu katteda.		
54	Tutte purugu.		

No.	Telugu Name.	Zoological Name.	Remarks.
55	Vana kovela.		
56	Vibu kodi.		
57	Yaggolu.		
58	Yeti bakka parada.		
		Water Serpents.	
59	Niru kuttu pamu.		
60	Nilagiri pamu.		
61	Niruthutta pamu.		
62	Niru nagu.		
93	Niti pamu.		
64	Valagiri pamu.		

Productions.

The following is a brief list of the chief animal productions of the district that form objects of commerce :—

No.	Telugu Name.	Scientific Name.	Remarks.
1	Barro charmamu ...	.....	Buffalo skins.
2	Barro kommu	Bubalus buffelus ...	Buffalo horns.
3	Chiratapuli charmamu...	Felis jubata	Cheeta skins.
4	Dantamu	Elephas Indicus ...	Ivory.
5	Duppi charmamu ...	Axis maculatus ...	Spotted deer skins.
6	Duppi kommu	Do. ...	Spotted deer horns.
7	Gorojanam	Calculus cisticus (Bovis.)	Intestinal concretion of a cow.
8	Gorre charmamu ...	.....	Sheep skins.
9	Gullalu	.....	Shells of different kinds for lime.
10	Jinka charmamu ...	Antilope bezoartica...	Indian antelope skins.
11	Koranaganda charmamu.	Hyæna striata ...	Striped hyæna skin.
12	Lakka	Coccus laca... ...	Stick lac.
13	Mayinamu	Apis mellifica ...	Bees' wax.
14	Meka charmamu ...	.....	Goat skins.
15	Nemali kuncha	Pavo cristatus ...	Peacocks' feathers. A decoction of these is used to suppress vomiting.
16	Pandi ventrukalu ...	.....	Hogs' bristles.
17	Puli charmamu	Felis tigris	Tiger skins.
18	Sora pi	.....	Intestinal concretion of a fish.
19	Tambelu penku... ...	.....	Turtles' shell used in children's diseases with other decoctions.
20	Tene	Apis mellifica ...	Honey.
21	Velugoddu charmamu ...	Ursus labiatus ...	Bear skins.
22	Vemukalu	.....	Bones of different animals.
23	Yedda charmamu and avu charmamu.	.....	Bullock and cow skins.
24	Yedupandi mullu ...	Hystrix leucura ...	Indian porcupine spines.

CHAPTER VI.

FLORA.

General aspect.—Timber and other forest trees.—Sriharikota jungles.—System of lease.—Memorandum by Dr. Cleghorn.—Firewood reserves.—Planting and reserve experiments in Nellore.—Pasturage.—List of jungle trees.—Government topes.—Nurseries.—Avenues.—Village topes.—Private topes.—Agricultural products.—Gram, oil seeds, pulses.—Horticulture.—Horticultural Society of Nellore.—European horticulture.—Native flowers, vegetables, fruits.—Dyes.—Fibres.—Medicinal drugs.—Miscellaneous vegetable products.

General aspect.

THE general aspect of the Nellore District is barren and uninteresting, large trees being only found near villages, while there are immense tracts which present to the eye nothing but stunted jungle. The Veligonda range of hills separates the district on the western side from Cuddapah and Kurnool, where wood of a large size grows abundantly. Throughout the district the margosa (*Azadirachta Indica*) flourishes peculiarly well on the laterite soil, and with the different species of the ficus (*Indica Tsiela, Religiosa*), the tamarind (*Tamarindus Indica*), the acacias (*Arabica speciosa*), and the mango (*Mangifera Indica*) form the principal trees we find in village topes and now selected for planting as avenues along the sides of the public roads. The price of timber in the district is high. It has been proposed to establish a Government timber depôt at Nellore, bringing the wood down the river Pennair from the Nallamaddis at the time of the freshes. The price of teak chiefly brought from Madras is about Rupees 2-2-0 per square foot in logs and other woods about Annas 12 a square foot. (Large jungle wood posts 16 for Rupees 4, small jungle wood posts 20 for Rupee 1.)

Timber & other trees.

The following is a list of the principal timber trees to be found in the district :—

No.	Telugu Name.	Botanical Name.	Remarks.
1	Adavinimma ...	Atalantia monophylla.	*Wild lime.*—Small tree; wood hard, heavy, close-grained, yellow, and suitable for cabinet work.
2	Adaviteku... ...	Tectona grandis ...	*Country teak.*—Wood very hard; never attacked by white-ants; easily worked; very durable.
3	Alli	Memecilon capitellatum.	Extreme height 25 feet; circumference of trunk 2 feet; height from ground to first branch 8 feet; used for building purposes.
4	Anduga	Boswellia glabra	.....
5	Are or Ari ...	Bauhinia racemosa ...	The wood is small, of white color; the heart wood is exceedingly hard and fine, and adapted for fancy work and cabinet making.

No.	Telugu Name.	Botanical Name.	Remarks.
6	Asoka	Gualteria longifolia...	*Mast tree.*—A handsome large tree, but wood soft and useless.
7	Atti	Ficus glomerata racemosa.	*Glomerous fig tree.*—A large tree; grows to a height of 40 feet, with a circumference of 4½ feet; used for bandy wheels.
8	Badam	Terminalia cattapa ...	*Indian almond tree.*—A beautiful tree common in gardens; it attains a large size; the wood is much esteemed, and is said to be very strong, but not in ordinary use.
9	Badissapu or Badise.	Erythrina Indica ...	*Indian coral tree, or Muchi wood tree.*—Attains an extreme height of 30 feet; circumference 2 feet; a soft white wood. It is the wood commonly used by the muchies for making light boxes, scabbards, children's toys, &c.
10	Betta ganapa ...	Nauclea cardifolia ...	A large tree, not used for timber.
11	Bikki	Gardenia latifolia ...	A small tree, close-grained, and promises well for turning.
12	Billu or Billudu ...	Chloroxylon swietenia.	*Satin wood.*—Attains an extreme height of 40 feet; circumference 3 feet; a most serviceable hard wood well suited for naves of wheels. The wood is very close-grained and durable, of a light orange color.
13	Bira	Elæodendron Roxburghii.	This tree is more remarkable for its fine form than the length and thickness of its bole; the wood, if good, can only be used for small articles.
14	Bottava	Nauclea parvifolia	Common wood.
15	Bullakaya... ...	.....	Common wood.
16	Buraga	Eriodendron anfractuosum.	Tree cotton.
17	Chandanapu ...	Pterocarpus santalinus.	*Red sandal wood.*—A large tree; the wood is of a reddish color, and is used for furniture and house-building.
18	Chandra	Acacia Sundra ...	This wood is of a dark color, very hard, heavy, and very strong; the natives regard it as the most durable wood for posts in house-building.
19	Chara	Buchanania latifolia.	Broad-leaved Buchanania tree, a useful wood; kernels used as a substitute for almonds; bark used in tanning; from the seeds cheruujie oil is extracted.
20	Chavuku or Sara...	Casuarina muricata...	Introduced into this district about six or seven years ago; grows well on the coast.
21	Chikireni	.....	The wood is chiefly used for yokes; its root and leaf are used as soap.
22	Chinduva or Sinduva or Chinduga.	Alpizzia stipulacea ...	Common wood for beams and cots.
23	Chilakadurti ...	.....	Common wood.
24	Chilakarudra ...	.....	Common wood.
25	Chilla or Induba ...	Strychnos potatorum.	*Clearing-nut tree.*—Grows to moderate size; the wood is hard and durable; the seeds have the property of purifying muddy water.
26	Chinta	Tamarindus Indica ...	*Tamarind tree.*—The wood is hard, dark-colored, but not used as timber here. Tamarind, the pulp of the pods.

No.	Telugu Name.	Botanical Name.	Remarks.
27	Chirumamidi ...	...	Strong wood for timber.
28	Chitikeswaiapu ...	Poinciana elata ...	A common tree; its wood might be used for basket-boats.
29	Devadari	Erythroxylon arcolatum.	A small tree; the wood is used in lieu of sandal wood by natives; its leaves used as greens.
30	Dirise or dirisana...	Acacia speciosa or flexuosa.	*Sirissa tree.*—A tree of large size and rapid growth; the wood is used for bandy wheels; planks for boats, but never for houses, owing to native prejudices; a strong, hard, and durable wood.
31	Gangiravi or gangirani.	Thespesia populnea...	*Portia tree.*—A common avenue tree; the wood is close-grained and tough. It makes good gun-stocks.
32	Gara	Balanites Ægyptiaca.	A small thorny tree; grows on black soil; the wood is not here used as timber.
33	Gitlangi	.....	The wood is used for beams, cots, hand-sticks, and boxes.
34	Gotti	Zizyphus xylopyrus...	This wood is used for implements; its fruit is used by shoe-makers to blacken leather.
35	Guggilipu	Boswellia glabra ...	The wood is hard, heavy, and durable; yields a fragrant resin.
36	Gummadi... ...	Gmelina arborea ...	A small tree; the wood of a light yellow color; it is very durable under water; it is used for making carriage and palanquin pannels, venetian blinds, and picture frames.
37	Gumpena	Odina wodier ...	A large tree; quick-growing, without leaves till June; the heart wood is red and used for oil presses and rice pounders; the wood for beams.
38	Ippa (konda) ...	Bassia latifolia ...	*Mahwa tree.*—This tree reaches a height of 40 feet, and is pretty common, producing an immense number of flowers, from which a kind of spirit is distilled. The seeds yield a useful concrete oil. The wood is hard and strong.
39	Iriki	Cordia myxa... ...	*Sepistan plum tree.*—The trunk of this tree will be 12 or 15 feet high, generally crooked; the wood is soft and little used.
40	Isakapala	.....	Common wood for beams, &c.
41	Ivamaddi or inamaddi.	.....	A strong durable wood, used for beams, posts, rafters, &c.
42	Itta	Elate sylvestris ...	*Wild date.*—The fruit is small and sweet; the leaves and stalks are made into baskets, boxes, mats, &c.; the leaves are twisted into ropes.
43	Jama	Psidium pyriferum ...	*Guava.*—Besides yielding fruit, the wood of this tree is used for handles of tools, mallets, pegs, &c.; it is very hard, but small, and has been used for wood engraving.
44	Jammi	Prosopis spicigera ...	A thorny tree which attains a considerable size; the timber is straight-grained, strong and hard, easily worked, and used for bandy wheels and other common purposes.

No.	Telugu Name.	Botanical Name.	Remarks.
45	Jana	Grewia Bothii ...	A light, ash-colored wood, with a straight grain, hard and strong.
46	Jigidi or jidi ...	Semecarpus anacardium.	*Marking-nut tree.*—This is a large tree, but the timber cannot be worked on account of the highly acrid juice that it contains. The nuts are used as a mordant.
47	Jilaga	.....	.....
48	Kaluzuvoi ...	.....	.....
49	Kanuga	Pongamia glabra ...	This tree attains a considerable size and delights in sandy soil; its wood is white, light, and firm.
50	Karakkaya ...	Terminalia chebula...	*Pilla murdah tree.*—A very common tree in the western part of the district; it attains a height of 40 feet, and its fruit is extensively used as a substitute for gall-nuts in dyeing, &c.; wood is hard and durable.
51	Kicchili	Citrus aurantium ...	*Orange tree.*—Wood is hard, but is not available of any size, and seldom in any quantity.
52	Kondaravi ...	Ficus vagans ...	.....
53	Kondatiki ...	.....	A durable wood for beams, &c.
54	Kodavatikku or gurrapagalli.	.....	The wood is used for beams, &c.
55	Kondamanga ...	Gardenia latifolia ...	A small tree; the wood is close-grained, and promises well for turning.
56	Kovi	.....	Common wood for posts; the wood being very resinous, is used as fire-sticks.
57	Koyi	.....	.....
58	Kunkudu... ...	Sapindus emarginatus.	*Soap-nut tree.*—Common tree; grows to about 18 inches in diameter and 20 feet long; the fruit is sold in all bazaars as soap-nut; the wood is white.
59	Maddi	Terminalia glabra ...	*Indian mulberry tree.*—A tree of small size, with fragrant flowers; a scarlet dye is produced from the roots; the wood is yellow and easily worked.
60	Mamidi	Mangifera Indica ...	*Mango tree.*—Large tree; the wood of a dull grey color, but durable; used for packing cases and other rough work.
61	Mandara	Bauhinia albida ...	The flowers yield an excellent vegetable; it reaches a fair size, and gives a wood of a good quality.
62	Maredu	Ægle Marmelos ...	A handsome tree; wood light-colored and variegated, but of no great value.
63	Marri	Ficus Indica ...	*Indian fig tree, or banyan.*—Very common avenue trees; wood soft and useless; drops sometimes used for tent poles.
64	Marrigadapa ...	.....	.....
65	Moduga	Butea frondosa ...	*Bastard teak.*—A common tree, not of any great size; its scarlet flowers dye cotton yellow; wood of no great value.
66	Movi	Eugenia alternifolia...	Very common tree.
67	Moyi	.....	.....

No.	Telugu Name.	Botanical Name.	Remarks.
68	Mulugudu... ...	Hibiscus Surattensis..	.....
69	Mushti or musidi...	Strychnos nux vomica.	*Snake-wood tree, or poison-nut tree.*—This tree yields the poisonous fruit nux vomica. Its wood is white and very hard.
70	Muntamamidi ...	Anacardium occidentale.	*Cashew nut tree.*—A large tree, very ornamental when in leaf; the wood is dark brown, and is not used in carpentry.
71	Munukudu ...	.....	Common tree; the wood is used for rafters, &c., for houses.
72	Nagari	.....	The wood is used for beams and other implements.
73	Nakkera	Cordia myxa ...	The trunk is from 12 to 15 feet in height, generally crooked. The wood is soft and of little use.
74	Nallabalusu ...	.....	.....
75	Nallatumma ...	Acacia Arabica ...	*Babul tree.*—A tree of from 30 to 40 feet in height, of rapid growth; yields a well known gum; the wood is small and often crooked, but very hard.
76	Nallavaludu ...	Sinapis glauca ...	Common wood for beams, &c.; the bark for medicines.
77	Narudu	.....	.....
78	Niredu	Syzygium jambolanum.	A large tree; the wood is tough and close-grained, and much used for common purposes.
79	Nerdi	.....	The wood is used for beams, &c.
80	Neridi	.....	Do. do.
81	Nevaliadugu ...	Vitex altissima ...	*Chaste tree.*—A large tree; its wood is very hard and durable, of a yellowish brown color.
82	Nirudi	.....	.....
83	Nona or toguru ...	Morinda citrifolia ...	*Indian mulberry.*—A small tree; the wood is of a deep brownish yellow, and the roots are used in dyeing. The wood is easily worked and used for common purposes.
84	Padiri or goddatipalusu.	Bignonia suaveolens..	An ordinary sized tree, with a circumference of 1½ feet; the height from the ground to the nearest branch is 12 feet. Its wood is very similar to *B. Chelonoidas*, but of a reddish hue.
85	Pala	Mimusops hexandrus.	This tree yields a strong wood, much used for sugar-mill rollers. It is used for rulers, knobs, handles of tools, &c.; the fruit is edible.
86	Palabariga or reppala.	.....	The wood is used for beams, &c.; the leaf and bark for medicine.
87	Panasa	Artocarpus integrifolia.	*Jack tree.*—A large tree, much prized by natives for its fruit. Its wood, when new, is of a yellow color, but it afterwards assumes a mahogany tint, and is highly esteemed for making furniture.
88	Patchabotikeri ...	Cordia polygama ...	A strong close-grained wood, small and crooked.
89	Patchari	Dalbergia paniculata.	This tree attains a considerable size. The wood is light, yellow, and strong.
90	Peddaregu or regu.	Zizyphus jujuba ...	*Jujuba tree.*—An ordinary sized tree; the wood is dark brown, fine-grained, strong, and hard.

No.	Telugu Name.	Botanical Name.	Remarks.
91	Poliki	.....	.....
92	Poniki	.....	Ordinary sized tree; the wood is soft and light.
93	Pogada	Mimusops elengi ...	*Ape-faced flower tree.*—An ornamental tree; the berries are eaten by the poor; it yields a serviceable wood for houses.
94	Ponna	Calophyllum inophyllum.	*Alexandrian laurel tree.*—A beautiful tree; the wood is coarse-grained, but very strong and durable.
95	Punugndu	.....	.....
96	Ragi or ravi ...	Ficus religiosa ...	*Pippal tree.*—A handsome tree and easily propagated like the banyan.
97	Rela	Cassia fistula ...	Middle sized tree; the wood is close-grained.
98	Rudragadapa ...	.....	The wood is used for beams, &c.
99	Sandanapu ...	Pterocarpus santalinus.	*Red sandal wood tree.*—A large tree; yields the red sandal wood of commerce, used for dyeing. It is dark red in color with black veins, heavier than water, and takes a fine polish.
100	Sambrani ...	Parkia biglandulosa.	An elegant tree.
101	Somi	Soymida febrifuga ...	*Red-wood tree.*—A large tree; it attains a height of 60 feet; the wood is light and easily worked, and is reckoned durable and strong.
102	Sunkeswara ...	Poinciana elata ...	A common tree; its wood might be used for basket-boats.
103	Tada	Grewia tiliæfolia ...	A large tree, and the wood is soft and easily worked.
104	Tadi	Terminalia Bolerica...	*Belleric myrobalan tree.*—A tree of large size and very handsome; the wood is white and soft, but durable, and is employed in house and ship-building.
105	Tandra	.....	A large tree; the wood is not used as timber; the seed used for medicine.
106	Tamba	.....	The root is used for beams, &c.
107	Tati	Borassus flabelliformis.	*Palmyra palm tree.*—Most common along the coast taluqs; yields toddy, and its leaves afford a coarse fibre. The trunk is easily split in the direction of its length for making rafters and joists.
108	Tellatumma ...	Acacia leucophlœa ...	*Panicled Acacia tree.*—A tree of no great size; its whitish bark is used for making arrack; its wood is dark-colored and hard.
109	Tuki or tumiki ...	Embryopteris glutinifera.	*Wild mangosteen tree.*—A tree of small size with wood of indifferent quality. The viscid juice of the fruit is used for paying boats' seams and preparing nets and lines.
110	Vaddi ...	.....	.....
111	Veduru	Bambusa arundinacea.	The wood is used for yokes, &c.
112	Velidabba... ...	.....	Bamboo tree.
113	Velaga	Feronia elephantum...	The wood is used for rafters, &c.

No.	Telugu Name.	Botanical Name.	Remarks.
114	Vepa	Azadirachta Indica...	*Margosa tree.*—A common, large, quick-growing, and very handsome tree, putting forth its leaves in the hot season. Its seeds yield a useful oil; the wood is finely mottled, hard, heavy, and deserving of attention for ornamental works.
115	Voddi	.....	.....
116	Vudaga or uduga.	Alangium hexapetalum.	The timber of this tree is considered valuable.
117	Vusiriko	Emblica officinalis ...	*Emblic myrobalan tree.*—A middle sized tree. Its fruit is about the size of a gooseberry, and is much prized by natives; wood is hard and useful.
118	Yeddi	Heteropogon contortus.	.....
119	Yege or yegisa ...	Pterocarpus marsupium.	*Kino tree.*—This is a large and handsome tree; the wood is heavy and difficult to work, but it stands exposure well. It is much used in house-building.
120	Yellari or kolamukki.	Wrightia antidysenterica.	*Conessi bark tree.*—A small tree; the wood is of little value, but its medicinal virtues are worthy of attention.
121	Yemukabira ...	.....	The wood is used for beams, &c.
122	Yepi	Banhinia diphylla ...	A large tree; the wood of a black color, very hard and durable.
123	Yerraponiki ...	Cavallium urens ...	.....
124	Yerravaludu ...	.....	The wood is not used, but the bark is used for medicine.
125	Yinumaddi ...	.....	A strong durable wood used for beams, posts, rafters, &c.
126	Zuvvi	Ficus Tsiela	A large tree; the people use the wood for common purposes. It is often planted for avenues.

Sriharikota jungles—System of lease.

The jungles of Sriharikota have long formed the principal firewood supply for the market of Madras. The most important of these jungles is situated on the island of Sriharikota on the Pulicat lake, and was transferred to this district from Madras in 1862. This jungle is divided into eight khandams or sections, and one of these is put up to auction each year, or cut on behalf of Government. It is wonderful the extent to which the jungle renews itself in eight years. This is probably due to the fact that the firewood contractors are entirely dependent on the residents of that tract to cut wood for them; they do not import labor. The woodmen, whose living is dependent on the perpetuation of the jungles, are very careful to cut the branches in such a way as not to injure the trees, and, so as to encourage future growth, the stems are pollarded to a certain extent, but some of the larger branches are always left. The large trees are not touched, and they afford shelter for the undergrowth, so necessary in the case of jungle. Still, in spite of all precautions, many of the bushes cut down die off,

and the seedlings that newly come up are few, so that in course of years there is deterioration going on.

Dr. Cleghorn's memorandum.

The following is an extract from a memorandum by Dr. Cleghorn on the Sriharikota jungle in his "Forests and Gardens of South India":—"The banks of Cochrane's canal are clothed with saline plants (*Salsola*, *Salicornia*, and *Suæda*) which, with their succulent cylindric leaves, may be seen in great abundance wherever the salt water or marsh extends; their ashes afford soda by incineration. The canal is lined by rows of young trees (*Casuarina muricata*, *Melia azadirach*, and *Pongamia glabra*): and there is a hedge of *Parkinsonia aculeata* on both sides, thriving as well as can be expected in an exposed situation and on a sterile soil. These valuable improvements have been effected since I last travelled by this canal in 1851. The palmyra palm (*Borassus flabelliformis*) grows spontaneously in vast abundance along the narrow strip of land between Pulicat lake and the sea. Other trees begin to appear at some distance beyond Coromandel (properly Karamannil), where the tract of jungle under consideration increases in breadth; but the trees are nowhere of large size, and there is no part which can be designated forest, the general appearance being that of a dense scrubby jungle.

"The length of this belt is under 40 miles, varying in width from half a mile to eight miles .... The fine, loose sand blown by the wind along the flats has a tendency to collect round every obstacle, even a blade of grass, and a succession of mounds are formed along the coast. . . . . The sub-soil is indurated clay; and at the edge, where there is a considerable depth of loose sand, the caldera bush (*Pandanus odoratissimus*) grows in abundance and fringes the line of sand hills. There are some lower portions in which the waters of the monsoon have collected, and given to the sand an admixture of mould which so far fertilizes the soil that millets may be cultivated. I only saw one or two small patches of paddy (*Oryza sativa*). The prospect of converting the waste tract into cultivated land is very distant, and for reasons submitted I think it should be allowed to remain a jungle tract, bearing underwood for fuel and beams for house-building, and thereby of extensive and important use to the community . . . . .

"It appears to me that, while conserving Sriharikota, it would be important, also, to commence the systematic planting and reclaiming of the sandy flats or downs which lie along the coast between the canal and the sea. There is no apparent obstacle to this being effected. What has been done by nature at Sriharikota indicates the process by which similar waste tracts may be made productive. An undulating surface must first be formed, and then a few clumps of bushes may be laid down; this is the beginning of a jungle. When a belt of trees or bushes is once established in such a situation, it should be kept

undisturbed as long as it will serve the purpose of protecting the trees within, though it may be of no other value. I remember Pulicat 15 years ago, when the old Dutch station was almost without a tree; but now there are avenues and ornamental shrubs round the fort and on both sides of the backwater."

Firewood reserves—Planting experiment.

The question of providing large jungle reserves for the future wants of the population was taken up a few years ago by Mr. J. W. B. Dykes, the Collector. His experiments embraced both planting and also simple conservancy. A tract of 30 acres near Nellore was devoted to experimental planting; the ground was cleared and ploughed up and divided into half-acre patches or khandams. In each patch the seeds of different species of jungle trees were put down; some being sown broad-cast and some planted by stippling. Gardeners were also engaged to water the seedlings, but after all the results were not satisfactory: comparatively few plants came up. The cause of the failure may probably be attributed to the want of shade. The ground had been cleared before putting down the seed. When a forest or jungle sows itself, the young seedlings have the shade of the larger trees or shrubs, which to a certain extent keeps the soil moist, and the deposit of fallen leaves, grass, &c., protects also the young plants gradually decaying and becoming rich mould. When, however, we take a barren plain, remove all the existing jungle, and then plant out tree seeds, we find the rainfall insufficient to bring the seedlings on without artificial watering, and the young plants, if they germinate, quickly perish for lack of shade and moisture.

Reserve experiment.

Mr. Dykes' second experiment was to select a tract of low brushwood and strictly conserve it for a term of years. Here nature was simply left to take her own course, and the results have been most satisfactory. Watchers only have been appointed and cattle kept out; the young jungle has in consequence rapidly developed. In a few years, when the stems have attained a certain thickness, the trees may be pollarded, when they will throw out new branches, and thus keep up a continual supply of firewood on the same system as has been already brought into practice in the jungles of Sriharikota. So promising has this experiment of jungle reserves proved that upwards of 50,000 acres have since been taken up and converted into jungle reserves throughout this district.

Abstract showing the Taluqwar Particulars

	Taluqs.	Jungles.			Fuel Reserve.			Casuarina Plantation.			Palmyra Plantation.		
		Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.
			A. C.	Rs.		A. C.	Rs.		A. C.	Rs.		A. C.	Rs.
	South Pennair												
1	Gudur ...	...	... ...	...	36	21,129 0	816	3	15 21	...	12	205 82	235
2	Rapur ...	8	57,894 0	600	43	46,418 0	1,824	...	... ...	...	3	110 71	307
3	Nellore ...	...	... ...	...	8	7,056 2	312	1	18 74	1,094	6	73 32	65
4	Atmakur...	...	... ...	...	4	7,947 0	252	2	11 8	542	2	78 51	107
	Total ...	8	57,894 0	600	91	82,550 2	3,204	6	45 3	1,546	23	468 36	714
	North Pennair												
1	Nellore ...	...	... ...	...	17	16,925 62	336	1	19 48	576	5	116 82	174
2	Atmakur...	4	10,123 0	412	4	5,336 0	252	...	... ...	...	3	116 82	15
3	Kavali ...	...	... ...	...	21	24,744 10	924	...	... ...	...	13	39 64	971
4	Udayagiri.	6	30,000 0	824	14	16,523 9	888	...	... ...	...	...	700 65	...
	Total ...	10	40,128 0	1,236	56	63,528 81	2,400	1	19 48	576	21	857 11	1,160
	Sub-												
1	Kandukur.	...	... ...	...	13	15,000 0	624	2	16 0	462	6	163 80	...
2	Kanigiri ...	...	... ...	...	...	... ...	...	...	... ...	...	3	84 60	...
3	Ongole ...	...	... ...	...	...	... ...	...	1	20 0	384	2	100 0	200
	Total ...	...	... ...	...	13	15,000 0	624	3	36 0	846	11	348 40	200
	Grand Total	18	98,022 0	1,836	160	161,078 83	6,228	10	100 51	2,968	55	1,673 87	2,074

Jungle Conservancy Fund for 1871-72.

	Plantation on Channel Banks.			Village Topes.			Experimental Plantation.			Timber and Fuel Plantation.			Commission for Collection.	Inspecting Establishment.	Miscellaneous Charges.	Total Allotment.
	Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.	Number.	Extent in Acres.	Allotment of the year.				
		A. C.	Rs.		A. C.	Rs.		A. C.	Rs.		A. C.	Rs.	Rs.	Rs.	Rs.	Rs.
	Division.															
	... ...			2	25	50	372	... ...	...	1	500	0 180				1,603
	... ...			...	...	...	...	... ...	...	1	500	0 180				2,911
	2	110	3 12 12	...	...	...	...	150 0	146	...	...	... ...	100	1,992	1,550	3,642
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,667
																901
	2	140	5 27 62	372	130	0 146	2	1,000	0 360	100	1,992	1,550	10,724			
	Division.															
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,086
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				679
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...	100	1,632	40	1,772
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,895
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,712
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...	100	1,632	40	7,144
	Division.															
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,086
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...				1,367
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...	100	1,332	35	584
	... ...	...	... ...	...	...	...	...	... ...	...	...	...	... ...	100	1,332	35	3,137
	2	140	5 37 62	372	130	0 146	2	1,000	0 360	300	4,956	1,625	21,065			

In selecting such reserves the chief points to be kept in view are, 1st, to take up sufficiently large compact tracts as can be easily watched, composed of the contiguous waste of several adjoining villages; 2nd, important as it is to preserve certain proportion of jungle for fuel, it is equally important that the maintenance of agricultural stock notoriously deficient generally in this Presidency should not be lost sight of, and, therefore, due provision should be made for the area required by the villagers for pasturage as well as to the supply of fuel to which the ryots are entitled by usage free of tax.

Pasturage.

In Nellore in 1867 (G. O., 13th November 1867, No. 2,676, Land Revenue), at the recommendation of the Board of Revenue, Government sanctioned the abolition of the Pullery or grazing-tax, and laid down the following principle in regard to pasturage tracts and forest reserves:—1st, that every village be allowed for a common village pasturage ground and jungle an extent equal to 30 per cent. of the area under occupation; that common village reserve is to consist of fair average pasturage land; and when the village is a large one including several hamlets, that it is to be divided into conveniently situated blocks according to the wants of the people; 2nd, that out of the overplus, if there be sufficient to make it worth while, tracts may be taken up for jungle reserves and other tracts be annually or biennially rented out to the highest bidder in suitable lots for pasturage, care being taken that the lots put up to auction are not unduly monopolized by one man or a clique in the village; 3rd, it is provided that, if a ryot wishes to take up any portion of the surplus waste at full assessment, he is to be free to do so.

Jungle, when preserved from the ravages of cattle, grows rapidly; and, after the trees have attained a certain stage, they will not be liable to be damaged by the grazing of cattle among them. Thus, as the trees in reserved jungle tracts grow up and get beyond the risk of being injured, even these lands may be leased out as grazing grounds and new tracts of the present pasturage lands of the village be taken up to be in turn strictly conserved for a few years. The following is a list of the trees, bushes, and shrubs most commonly used as firewood in the Nellore District and generally found in its jungles:—

List of jungle trees.

List of Firewood Trees, &c., found in the District of Nellore.

No.	Telugu Name.	Botanical Name.	No.	Telugu Name.	Botanical Name.
1	Adavi Inguva..	Ferula assafœtida.	57	Nallapalugudu.	Anisonema multiflora
2	Akujemudu ...	Euphorbia nivulia.		Nallapurudu ...	
3	Alatiga.			Nallatumma...	Acacia Arabica.†
4	Balusu ...	Canthium parviflorum.	58	Nalli	Grewia pilosa.
5	Bandari or Bandedu.	Hymenodyction excelsum.	59	Narikipiriki.	
			60	Nerini.	
6	Billudu ...	Chloroxylon swietenia.	61	Nimma ...	Citrus Bergamia.
7	Bontajemudu...	Euphorbia antiquorum	62	Pakke ...	Tamarix Gallica.
8	Bobbara.		63	Palabariga.	
9	Brammamedi...	Ficus oppositifolia.	64	Palachura.	
10	Chaga ...	Sanseviera Roxburghiana.	65	Palayi.	
			66	Pallemirapa.	
11	Chendrayi or chendra.	Acacia Sundra.	67	Papata ...	Taretta Indica.
			68	Pariga.	
12	Chittiregu.		69	Parika.	
13	Danda.		70	Pasupudadi.	
14	Danti ...	Celastrus montana.	71	Patchabottava.	
15	Dundi.		72	Peddamalle.	
16	Gabbutumma..	Vachellia Farnesiana.	73	Peddajampe.	
17	Gonji ...	Glycosmis pentaphylla	74	Pichikabira.	
18	Goranti ...	Lawsonia alba.	75	Pidata.	
19	Gotti ...	Zizyphus xylopyrus.	76	Pikajala.	
20	Gotte chippa.		77	Pitinta.	
21	Gubathada.		78	Pitrinta.	
22	Gummudu ...	Gmelina Asiatica.	79	Pullaregu.	
23	Gundangi.		80	Pullariga.	
24	Gunnangi ...	Pettandra.	81	Pulluda.	
25	Hanumantabira	Leonotis nepetœfolia.	82	Puli	Crinum pratense.
26	Jala	Acacia.	83	Puli	Do.
27	Jumpi.		84	Pulichinta ...	Oxalis corniculata.
28	Kadapa ...	Nauclea cadamba.	85	Pulinda.	
29	Kakibira.		86	Pulivelaga ...	Feronia elephantum.
30	Kalava ...	Nymphœa.	87	Pupidi.	
31	Kalive ...	Carissa diffusa.	88	Purugudapu-velaga.	
32	Kaliya.				
33	Kanuturu.		89	Sannajemudu.	Euphorbia tirucalli.
34	Karepaku or karivepa.	Bergera Kœnigii.	90	Shima chinta.	Inga dulcis.‡
			91	Shena Plagu...	Parkinsonia aculeata.‡
35	Kattinji.		92	Sitapalam ...	Anona squamosa.
36	Katti.		93	Sovinda.	
37	Kommi ...	Stylocoryne Webera.	94	Tadinta.	
38	Kondapatti.		95	Tangedu ...	Cassia auriculata.
39	Kondiniredi.		96	Toga.	
40	Kodara.		97	Tegalli.	
41	Kondavusirika.		98	Tellapalugudu.	Plugga leucopyrus.
42	Kotti or gotti...	Zizyphus xylopyrus.	99	Tellapurudu.	
43	Korinda ...	Acacia intsia.	100	Tengali.	
44	Kundaniredu.		101	Torinta.	
45	Kukkaregu.		102	Ulinda ...	Diospyros chloroxylon.
46	Mada	Avicennia tomentosa*	103	Undra ...	Mimosa rubicaulis.
47	Manga ...	Randi dumetorum.	104	Usta or usti...	Solanum trilobatum.
48	Manukudu.		105	Uti	Ferriola buxifolia.
49	Mavalinga.		106	Valadu or valudu.	
50	Munaga ...	Moringa pterygosperma.	107	Vandra.	
			108	Vunnaturu.	
51	Murikomma.		109	Vavili ...	Vitex trifolia.
52	Murugunni.		110	Velnturi ...	Dichrostachys cinerea.
53	Nakkinda.		111	Vidata.	
54	Nakkeri ...	Cordia myxa.	112	Vuda.	
55	Nakkanayi.				
56	Nallabuchi.				

* Grows on salt soil, Mangrove. † Grows in salt soil. ‡ Grows well on salt soil.

Government Topes.

By recent returns out of 718,558 palmyras planted out, 143,508 were reported to have come up, and out of 106,475 casuarina trees, 86,912 were reported to be living. Planting operations should be conducted on system, and an establishment should be entertained for looking after the topes. The cause of so few palmyras coming up out of such a large number put down is that, unless the operation of planting is closely supervised, the seeds are often placed in dry sand at an insufficient depth to secure moisture. A charge of 12 annas per tree is made on all palmyras cut in Government land, and the feller is required to put down ten palmyra seeds for each tree. The casuarina grows very well in this district. The system pursued has been to encourage a few ryots to raise large number of young plants in nursery beds which, when they attain a proper size for planting out, Government buy from them at the rate of Rupees 20 or 15 per thousand. A site is selected and so many thousands put down as a plantation, and coolies employed for watering during the first three years. The finest plantations are at Iskapalli and Krishnapatam.

Nurseries.

The Board have sanctioned the establishment of eight tree-nurseries in this district at Sarvepalli, Narainreddipett, Leburu, Buchireddipalem, Atmakur, Kodavalur, Allur, and Tettu. These are under the management of the Public Works Department. The cost is debited to Jungle Conservancy Funds. These nurseries are intended to furnish trees for avenues, channel banks, Government topes, or any other purposes.

Avenues.

Avenues are being gradually planted along the sides of the chief roads, chiefly by contract. As the soil is for the most part laterite, the plan pursued is usually to have circular pits dug six feet deep and six feet in diameter, which are filled with fresh soil; round these mud walls are raised three feet high to protect the young plants from cattle, and the parties who undertake the contract bind themselves to water and look after the trees for five years. This is probably a cheaper plan than to employ establishments to plant and look after the trees.

Village Topes.

Most of the villages in this district have good topes. Where there are none the planting of such is encouraged by the offer of a grant-in-aid from the Jungle Conservancy Fund equal in amount to the sum raised by the villagers, or the value of the labor contributed. The land on which such a village tope is planted with the permission of the authorities is registered in the name of the village community and a Samudayam Putta granted for the same. The villages are entitled to the usufruct of the trees.

Private Topes.

A good many topes have been planted during the last few years by private individuals under the Tope Rules. Any person may apply for land on which to plant a tope; and, if the land has been waste for ten years, a cowle is granted him by which he holds the land exempt from taxation for 20 years, whether the land is cultivated or not. The grantees of land are required to plant out one-fifth at least of the whole extent in each year subsequent to the grant, so that the whole may be planted within the fifth year under penalty of resumption of the unplanted portion of the grant. Several casuarina plantations on the coast have been commenced under these liberal rules.

Agricultural Products.

Not more than half the district is cultivated. Most of the remainder is either irreclaimably barren or overgrown with jungle. The rates of assessment have also been very high in some places. With the survey revision of assessment and an equalization of rates there will doubtless be much land brought under cultivation. In the southern and eastern parts of the district much rice is raised in the vicinity of tanks and streams, or wherever water can be brought, but on the higher lands to the westward, from an insufficiency of water, dry grains are chiefly grown, such as jonna, raggi, grams, gingelly seeds, the castor oil plant, and tobacco. Indigo is grown to some extent and chay root (a dye) is cultivated on the coast. Cotton is only produced to a small extent. The soil is not considered favorable for it. Sugar-cane is not grown in this district. A fuller account of the agricultural products of this district will be found under the head of agriculture.

Grains, Oil Seeds, Pulses.

It will be sufficient here to give a list of the different grains, oil seeds, and pulses usually cultivated.

The following is a list of grains:—

No.	Telugu Name.	Botanical Name.	Remarks.
1	Allu	Paspalum. Scrobiculatum ...	Small valuable grain.
2	Aruga	Paspalum. Frumentaceum ...	Small valuable grain.
3	Giddajonna or Gittajonna.	Sorghum vulgare ...	Brown Jawari.
4	Godumulu	Triticum sativum ...	Wheat.
5	Iswara korra	.....	Black paddy.
6	Kesari or Kesarlu ...	.....	A reddish sort of rice.
7	Korralu	Panicum Italicum ...	Seeds, small, roundish, straw colored, but gives a heavy disagreeable bread.
8	Mokkajonnalu	Zea mays	Indian corn.
9	Mosanam	.....	Black paddy.
10	Payirajonna	Sorghum vulgare ...	White Jawari.
11	Palapu jonna	Do.	Red do.
12	Pedda jonna	Do.	Jawasi or yellow Jawari.
13	Pedda ragulu	Eleusine corocana ...	Raggi.
14	Pishanam	Oryza sativa	The best white paddy.
15	Pottikesari	.....	Small black paddy.
16	Pottinallavari	.....	Small black paddy.
17	Punasa Sazza ... ... Puni Sazza	Penicillaria spicata ...	Kambu or spiked millet.

No.	Telugu Name.	Botanical Name.	Remarks.
18	Ragulu or Tavidalu ...	Eleusine corocana ...	Raggi.
19	Rameswarapu Pishanam.	.....	One of the superior qualities of white paddy.
20	Samalu	Panicum miliaceum ...	Millet.
21	Sannavadlu	.....	White paddy.
22	Tiruvarangalu	.....	Coarse white paddy.
23	Vadasambavu	.....	White paddy.
24	Varigalu	Panicum miliaceum ...	.....
	List of Oil Seeds.		
1	Amudalu	Ricinus communis ...	Castor oil seed.
2	Avalu	Sinapis ramosa	Mustard seed.
3	Avisalu	Linum usitatissimum ...	Linseed.
4	Chitti Amudalu ...	Ricinus communis ...	Castor oil seed.
5	Dosavittu	Bryonia	.....
6	Gobbera	Cocos nucifera	Cocoanut.
7	Ippavittu	Bassia latifolia	Indian oil seed.
8	Kanugavittu	Pongamia glabra	Indian beech seed.
9	Kusumavittu	Carthamus tinctorius ...	Safflower seed.
10	Nepalapu vittu ...	Croton Tiglium	Croton seed.
11	Nuvvulu	Sesamum Indicum ...	Gingelly oil seed.
12	Patti vittu	Gossypium Indicum ...	Cotton seed.
13	Pedda amudalu ...	Ricinus communis ...	Castor oil seed.
14	Ponnakaya	Calophyllum inophyllum ...	Laurel seed.
15	Vepa vittu	Azadirachta Indica ...	Margosa seed.
	List of Pulses.		
1	Alacandalu	Dolichos Sinensis ...	Asparagus bean.
2	Kandulu	Cajanus Indicus	Pigeon pea.
3	Karamallu	Dolichos Catiang	.....
4	Minumulu	Phaseolus Mungo ...	Black gram.
5	Nallapesalu	Phaseolus Mungo ...	Black gram.
6	Paccapesalu	Phaseolus radiatus ...	Green gram.
7	Senagalu	Cicer arietinum	Common chick pea, Bengal gram.
8	Vulavalu	Dolichos uniflorus ...	Horse gram.

Horticulture.

Native fruits, vegetables, and flowers are not cultivated to any great extent in this district, although the ordinary species of native garden products when irrigated with water from wells flourish well.

Horticultural Society of Nellore.

The Horticultural Society of Nellore was established in 1865 with the following objects :—

1*st*.—To procure seeds both European and Native from the best sources.

2*nd*.—To encourage and aid the introduction among the natives of European and other foreign varieties of flowers, vegetables, and fruits, as also to improve the native indigenous products.

3*rd*.—To infuse a spirit of emulation and competition among the producers as well as being a source of interest and amusement to them.

4*th*.—To hold an annual exhibition and to award prizes for the best collections shown in each class.

The Society has been recognized by the Agri-Horticultural Society of Madras as Corresponding Society.

Members subscribe Rupee one a month, in return for which they receive a supply of flower and vegetable seeds, and a list for donations to a prize fund is annually circulated.

The following statement shows the amount raised for prizes each year :—

	Rs.
1866	121
1867	173
1868	154
1869	241
1870	168

European Horticulture.

A large variety of European flowers are raised in the gardens of the English community in Nellore, chiefly from seed procured from England and Bangalore.

The following list is furnished by Assistant Surgeon E. Eyre Lloyd:—

Annuals.

Ageratum.	Convolvulus, many varieties.	Maurandya.
Asters.	Cornflower.	Mignonette.
Balsams.	Cosmidium.	Nasturtium.
Cacalia.	Cuphæa.	Penstimon.
Calliopsis.	Didiscus.	Passiflora.
Candy tuft.	Heartsease.	Phlox.
Catch-fly.	Hollyhocks.	Portulaca.
Centranthus.	Larkspur.	Stock.
Clarkia.	Martynia.	Thumberjia.
Corcopsis.	Marygold.	Zumia.

Perennials.

Antirrhineum.	Meyenia.	Salvia.
Cannæ.	Petunia.	Sweet briar.
Chrysanthemum.	Piccotees.	Verbena.
Geranium.	Poinsettia.	——Sweet Saulata.
Heliotrope.	Roses.	Wall flower.

Foliage Plants.

Amaranthus.	Cineraria maritima.	Salvia argentea.
Arum.	Coleus.	Pelargonium, zonal var, &c.
Caladium.	Iresive.	

Bulbous Plants.

Achimenes.	Gloxinia.	Polyanthus,
Dahlia.	Lilies, many varieties.	Tuberose, &c.
Gladiolus.		

List of English Vegetables under general Cultivation in the Gardens of European Residents.

Asparagus.	Jerusalem Artichokes.	Tomatoes.
Beet-root.	Knol-kohl.	Turnip.
Cabbage.	Lettuce.	Vegetable marrow, and most of the Pot-herbs.
Cabbage, red.	Mustard.	Basil.
Carrots.	Onions.	Marjoram.
Celery.	Parsley.	Sage.
Cress.	Peas.	Thyme, &c.
Cucumber.	Potatoes.	
Endive.	Radish.	
French Beans.	Rhubarb.	

The garden rhubarb of Europe, with a little care, thrives well here; it does not do out in the open altogether, unless protected by much shade; but when put out in large pots, large plants may be raised with leaf stems of great length and thickness; but as the hot weather approaches the plants require more water and complete shelter during most part of the day, to be exposed again as the evening approaches and during the night.

Of English fruits there is but one specimen which is known to grow here, and this is the strawberry, which when properly cared for does well, the fruit being of very fair average size and the flavor excellent. It comes into season just at the end of the cold weather, too late, consequently, for the annual exhibitions. In the hot season the plants require protection, as they are unable to bear the hot burning winds from the west; but, if well shaded and regularly watered, many will survive through the hot weather, and, as the season changes and the rains set in, the plants put on a vigorous action, sending out healthy shoots which form new plants.

Native flowers.

Native flowers are chiefly grown in gardens attached as inams to pagodas, and are employed for presentation on feast days, decorating the images and adorning the dancing girls.

The following is a list of those generally grown in Nellore:—

No.	Telugu Name.	Botanical Name.	Remarks.
1	Dásani puva	Hibiscus rosa Sinensis ...	Shoe-flower, or China rose.
2	Davanam	Artemisia vulgaris ...	A fragrant leaf like bolus.
3	Gadangireku	Pandanus odoratissimus...	Caldera bush, fragrant screw-pine.
4	Gullazam or kasiratnalu.	Quamoclit phœniceum ...	Balsam.
5	Gandumalli or boddumalli.	Jasminum Sambac ...	Double jasmine.
6	Mallipuvvu	Do. ...	Jasmine.
7	Manoranjanam ...	Artabotrys odoratissima...	A flower with a rank smell.

No.	Telugu Name.	Botanical Name.	Remarks.
8	Maruvu	Majoranum hortense ...	Marjoram.
9	Mogili	Pandanus odoratissima ...	Caldera bush, fragrant screw-pine.
10	Muddabanti	Tagetes patula	French marigold.
11	Nandivardanalu ...	Tabernæmontana coronasia.	.....
12	Nelasampenga... ...	Polyanthes tuberosa ...	Tuber rose.
13	Pannera puvu	Guettarda speciosa ...	.....
14	Parijatam	Nyctanthes arbor tristis...	.....
15	Paccachamanti ...	Chrysanthemum Indicum.	Christmas flower.
16	Poddupodu puvu ...	Helianthus annuus ...	Sun flower.
17	Pogada...	Mimusops elengi	Ape-faced flower.
18	Ponna	Calophyllum inophyllum..	Alexandrian laurel flower.
19	Roja	.....	Rose flower.
20	Sannazazulu	Jasminum auriculatum ...	Auriculated jasmine.
21	Tellaganneru (white)...	Nerium odorum	Oleander.
22	Tellachamanti...	Chrysanthemum carinatum.	White Christmas flower.
23	Telladamara (white) ..,	Nelumbium speciosum ...	Egyptian lotus.
24	Thiga sampangi ...	.....	.....
25	Vontirekka banti (single).	Tagetes patula	French marigold.
26	Yerra damara (red)	Nelumbium speciosum ...	Egyptian lotus.
27	Yerra ganneru (red) ...	Nerium odorum	Oleander.

Native Vegetables.

Considering that Brahmins are pure vegetarians, it is strange that more attention is not paid to the cultivation of native vegetables; that they are not more generally grown in the villages; and that efforts are not made to secure greater variety with superior quality. The following are lists of native vegetables and fruits:—

List of Country Vegetables.

No.	Telugu Name.	Botanical Name.	Common Name.
1	Allam	Zingibera officinale ...	Ginger (green).
2	Atti kaya	Ficus glomerata	Glomerous fig.
3	Atikamamidikura ...	Boerhavia procumbens ...	Spreading hog-weed.
4	Ariti	Musa paradisiaca ...	Plantain (unripe).
5	Avisikura	Agati grandiflora ...	The leaves are used as vegetable.
6	Baccalakura	Portulaca oleracea ...	Common purslane.
7	Bendakaya	Abelmoschus esculentus...	Vendikai or esculent okro.
8	Bera kaya	Luffa acutangula... ...	.....
9	Budidegummadi ...	Benincasa cerefera ...	White gourd.
10	Budamadoss	Bryonia callosa	The fruit is used as pickle.
11	Chamagadda and chamakura.	Colocasia antiquorum ...	The roots and leaves are used as vegetable.
12	Chikkudukayalu ...	Lablab cultratus	A sort of round bean.
13	Chintakaya	Tamarindus Indicus ...	Tamarind.
14	Chiragadam	Batatas edulis	A sort of edible root.
15	Chirikura	Amaranthus campestris...	The leaves are eaten as a vegetable.
16	Devadarikura	Erythroxylon (Sethia) Indica.	The leaves are eaten as a vegetable.
17	Dosakaya	Cucumis utilissimus ...	Field cucumber.
18	Duradakanda	Arum campanulatum ...	A bulbous esculent root.

No.	Telugu Name.	Botanical Name.	Common Name.
19	Genusugadda	Batatas edulis	Sweet potatoes.
20	Gittigadda	Isoetes Coromandelina ...	The tender white shoots are a favorite article of diet.
21	Gogukura	Hibiscus cannabinus ...	Deckanee hemp.
22	Goruchikkudu	Cyamopsis psoraloides ...	The legumes are delicate and are much relished as vegetable.
23	Goruchittigadda ...	Eulophia virens	The tender black shoots are a favorite article of food.
24	Gummadikaya	Cucurbita maxima ...	Squash gourds.
25	Kakarakaya	Momordica	The fruit is bitter, but wholesome, and is eaten in curries.
26	Karivepaku	Bergera Koenigii ...	Curry-leaf tree.
27	Karparapu vankaya ...	Solanum melongena ...	Brinjalls.
28	Karugogu	Hibiscus cannabinus ...	Deckanee hemp.
29	Kondavusirikaya ...	.....	.....
30	Mamidi	Mangifera Indica ...	Mango (unripe).
31	Manupendalam ...	Janipha Manihot ...	Bitter cassava, Tapioca, or Mandioc plant.
32	Mentikura	Trigonella fœnum Græcum.	Fenugreek.
33	Mirapakaya	Capsicum annuum ...	Chillies.
34	Mullangi	Raphanus sativus ...	Country radish.
35	Munakkaya and munakkura.	Moringa pterygosperma ...	Drumstick vegetable, and the leaves also used as a vegetable.
36	Neti bira	Luffa pentandra	A species of gourd.
37	Panditivankaya ...	Calonyction Roxburghii ...	.....
38	Pappukura	Portulaca oleracea ...	Common purslane.
39	Pasupu	Curcuma longa	Turmeric.
40	Peddakakara	Momordica charantia ...	The fruit is bitter, but wholesome, and is eaten in curries.
41	Perukkura	Amaranthus oleraceus ...	Greens.
42	Pendalam	Dioscorea alata et globosa.	Yams.
43	Potlakaya	Trichosanthes anguina ...	Snake vegetable.
44	Ponnagantikura ...	Alternanthera sessilis ...	The leaves are eaten as a vegetable.
45	Sima vangapandu ...	Solanum lycopersicum ...	Tomatoes.
46	Sima gogu	Hibiscus Sabdariffa ...	Roselle, or red sorrel.
47	Sorakaya	Lagenaria vulgaris ...	Bottle-gourds.
48	Soyikura	.....	Greens.
49	Sukkakura	.....	Greens.
50	Tellagadda or vellulli ...	Allium sativum	Garlick, or white onion.
51	Tiyakandu	Arum campanulatum ...	A bulbous esculent sweet-root.
52	Tambakaya	Lablab cultratus	Huzar bean.
53	Totakura	Amaranthus oleraceus ...	Greens.
54	Vankaya	Solanum melongena ...	Brinjalls.
55	Vusarikaya	Emblica officinalis ...	The fruit is occasionally pickled or preserved in sugar.
56	Vustikaya	Solanum trilobatum ...	.....
57	Yerragadda	Allium cepa	Onions.
58	Yerra vankayalu ...	Solanum melongena ...	Brinjalls (red).
	List of Fruits.		
59	Ananas	Ananas sativus	Pine-apple.
60	Ariti pandu	Musa paradisiaca	Plantain.
61	Atti	Ficus glomerata	Glomerous fig or country fig.

No.	Telugu Name.	Botanical Name.	Common Name.
62	Balasu	Canthium parviflorum ...	.....
63	Bappayi	Carica papaya	Papaw fruit.
64	Bilimili	Averrhoa Bilimbi	Bilimbi, cucumber tree.
65	Bonta ariti	Musa paradisiaca ...	Plantain (3-sided course fruit).
66	Chinta pandu	Tamarindus Indica ...	Tamarind.
67	Chitti ita	Phœnix farinifera ...	Small date.
68	Chitti regu	Zizyphus jujuba ...	Small jujubi.
69	Dabbakaya	Citrus medica	Citron.
70	Dosapandu	Cucumis utilissimus ...	Field cucumber.
71	Gajanimma	Citrus bergamia	Sweet orange.
72	Gongura	Hibiscus Sabdariffa ...	Roselle.
73	Jama, yerra	Psidium pomiferum ...	Red guava.
74	Jama, tella	Psidium pyriferum ...	White guava.
75	Jambunereda or Allanereda.	Eugenia jambos	Rose-apple.
76	Kalipandu	.....	A kind of black jungle berry.
77	Karubuja	Cucumis melo	Melon.
78	Kichchili	Citrus aurantium ...	Orange.
79	Kolanimma	.....	A kind of lime.
80	Majipalam	Citrus medica	Citron.
81	Mamidi	Mangifera Indica	Mango.
82	Mulla dosakaya ...	Cucumis muricatus sativus.	Common cucumber.
83	Muntamamidi	Anacardium occidentale ...	Cashew-nut.
84	Neredu	Eugenia (syzygium) jambolana.	.....
85	Nimma	Citrus bergamia	Bergamotte or acid lime.
86	Pala	Mimusops hexandra ...	.....
87	Pamparamasu	Citrus decumana ...	Pumplemose or shaddock.
88	.....	Artocarpus incisa ...	Bread fruit.
89	Panasa	Artocarpus integrifolia ...	Indian jack.
90	Pedda dosakaya ...	Cucumis momordica ...	.....
91	Pedda ita	Phœnix sylvestris ...	Date.
92	Pedda regu	Ziziphus jujuba	Jujubi.
93	Pogada	Mimusops elengi	Ape-faced flower fruit.
94	Pulladanimma	Punica granatum	Pomegranate.
95	Patchakaya	Cucurbita citrullus ... / Cucumis trigonus ...	Water-melon.
96	Ramasitapalam ...	Anona reticulata	Bullock's heart.
97	Sara	Buchanania latifolia ...	Broad-leaved Buchanania.
98	Sima atti or anjura ...	Ficus carica	Fig.
99	Sima gogukaya ...	Hibiscus Sabdariffa ...	Roselle.
100	Sitapalam	Anona squamosa	Custard-apple.
101	Tamarta	Averrhoa carambola ...	Carambola or Coromandel gooseberry.
102	Tati	Borassus flabelliformis ...	Palmyra fruit.
103	Tenkaya	Cocos nucifera	Cocoanut.
104	Tiyadanimma	Punica granatum ...	Pomegranate.
105	Uti	Maba buxifolia	.....
106	Velaga	Feronia elephantum ...	Wood-apple.
	Sapota	Achras sapota	Sapodilla.

In addition to the above, arrowroot and tapioca grow well, and, if cultivated on a large scale, might be found most profitable in a commercial point of view, for some arrowroot manufactured here a few years back and sent to Madras for examination and report was pronounced then to be equal to Speed's, which is the best and worth one rupee per pound. Some few families grow and make enough generally

for their annual consumption, and, if they have more than they require, the shopkeepers in the station gladly purchase it at the rate of 12 annas per pound. The process of manufacture is very simple, and much the same in both. The stock or rhizome in each requires soaking and cleaning,—the tapioca more so than the arrowroot—then they have to be pounded and undergo frequent washings to draw off the poisonous principle which abounds in the form of hydrocyanic acid, when a fine farina, which is the true arrowroot, or tapioca, as the case may be, forms a sediment at the bottom of the vessel; this after more washing should be taken out and exposed to the sun until perfectly and thoroughly dried; it is not considered fit for use until six months afterwards, as it is apt to cause diarrhœa and disarrangement of the bowels, especially in young children.

Medicinal Drugs and Miscellaneous Vegetable Products.

No.	Telugu Name.	Botanical Name.	Remarks.
		List of Dyes.	
1	Batchali aku	Portulaca oleracea ...	Common purslane leaf, a green dye.
2	Bira chekka	Elæodendron Roxburghii.	The bark is used for dyeing.
3	Buddi tiga	.....	The tendrils of this plant are used for dyeing.
4	Chiriveru	Oldenlandia umbellata ...	Chayroot, a red dye.
5	Goranti aku	Lawsonia alba inermis ...	Henna, broad Egyptian privet leaves.
6	Jafaravittulu	Biza orellana	Arnotto seed. The red powder which covers the seed capsules gives a reddish dye.
7	Jigidi ginzalu	Semecarpus anacardium...	Mark-nuts.
8	Kalisa tiga	.....	The tendrils of this plant are used for dyeing.
9	Karakkaya	Terminalia chebula ...	Gallnuts.
10	Kukkamori tiga ...	.....	The tendrils of this plant are used for dyeing.
11	Kusumachettu or kusumba.	Carthamus tinctorius ...	Bastard saffron or safflower.
12	Maddi chekka	Morinda citrifolia ...	Indian mulberry bark.
13	Nilimaudu	Indigofera tinctoria ...	Indigo.
14	Pasupu	Curcuma longa	Turmeric.
15	Patapolam	Oldenlandia umbellata ...	Chayroot, a strong red dye.
16	Soratiga	Lagenaria vulgaris ...	Bottle gourd. The tendrils of this plant are used for dyeing.
17	Sugandapala tiga ...	Hemidesmus Indicus ...	Country sarsaparilla.
18	Surati or sural chekka.	Ailanthus excelsus ...	.....
19	Tangedu chekka ...	Cassia auriculata... ...	The bark is astringent and used to dye leather of a buff color.
20	Tagidisa or tantipa vittu.	Cassio tora	The seeds are used in preparing a blue dye, generally fixed with lime water.
21	Tegadi tiga	.....	.....
22	Toguru chekka ...	Morinda citrifolia ...	Indian mulberry bark.
23	Yerravaladu tiga ...	.....	.....

No.	Telugu Name.	Botanical Name.	Remarks.
		List of Hemps and Fibres.	
24	Arinara...	Bauhinia racemosa ...	.....
25	Ariti nara	Musa paradisiaca ...	Plantain fibre.
26	Gogu nara	Hibiscus cannabinus ...	Deckanee hemp.
27	Ita nara	Phœnix sylvestris ...	Date fibre.
28	Jana nara	Grewia Rothii	.....
29	Janapa nara	Crotalaria juncea... ...	Hemp.
30	Jilledi nara	Calotropis gigantea ...	Gigantic swallow-wort hemp.
31	Mogili nara	Pandanus odoratissimus...	Caldera bush or fragrant screw-pine fibre.
32	Tati nara	Borassus flabelliformis ...	Palmyra fibre.
33	Tenkaya nara	Cocos nucifera	Coccanut fibre.
34	Yenugakalabanda nara.	Agave Americana ...	Wild aloe fibre or American aloe.
35	Yepi nara	Bauhinia diphylla ...	.....

List of Medicinal Drugs found in the Nellore District.

No.	Telugu Name.	Botanical Name.	Uses.
1	Adavibenda or Nugu benda.	Abutilon Indicum ..	*Country mallow.*—The leaves contain a great deal of mucilage, and on that account are used as the marsh mallows in Europe. A decoction of them is used by European and Native practitioners as an emollient fomentation, and an infusion of the roots is given as a cooling drink in fevers. The root is also used in leprosy, and the seeds are reckoned laxative.
2	Adavikanda ...	Dracontium polyphyllum. Arum lyratum.	*Purple-stalked dragon.*—The roots are used by the native doctors in hæmorrhoids. It is a powerful stimulant.
3	Addasaram ...	Adhatoda vasica ...	*Malabar nut.*—Flowers, leaves, roots, and especially the fruit are considered antispasmodic, and are given in cases of asthma and intermittent fevers.
4	Addasarapa ...	.....	.....
5	Aithachetula ...	.....	.....
6	Akujemudu ...	Euphorbia nivulia...	The juice of the leaves of this plant is used internally as a purgative; mixed with rangoon oil it is applied externally in certain cases of rheumatism. The bark of the root boiled in rice-water and arrack is given in dropsy. The leaves simply warmed in the fire will promote urine, externally applied; while their juice warmed is a good remedy in ear-ache, and is occasionally rubbed over the eyes to remove dimness of sight.
7	Ambatigadda ...	.....	.....
8	Amerla	.....	.....

No.	Telugu Name.	Botanical Name.	Uses.
9	Antara damara ...	Pistia Stratiotes ...	The plant is cooling and demulcent, and is given in dysuria. The leaves are made into poultices and applied to hæmorrhoids. The leaves mixed with rice and cocoanut milk are given in dysentery, and with rose-water and sugar in coughs and asthma. The root is laxative and emollient.
10	Aritigadda ...	Musa paradisiaca...	*Common plantain.*—In medicine the root of the plant beaten up and mixed with milk is administered as a draught in vertigo; the juice of the same is diuretic. The leaves from their cooling nature are generally used to dress blisters.
11	Arudonda	Capparis horrida...	The roots for medicine; leaves for abscess, and used in various ways.
12	Atikamamidi ...	Boerhavia erecta. Boerhavia procumbens.	*Spreading hog-weed.*—The root is given in powder as a laxative, and in infusion as a vermifuge.
13	Attapatti	Mimosa pudica ...	*Sensitive plant.*—The leaves are used in medicine.
14	Atti or medi ...	Ficus glomerata racemosa.	*Glomerous fig tree, red-wood fig tree, or country fig tree.*—The root in decoction and bark of the tree are used in medicine. The latter is slightly astringent, and sometimes used in the form of a fine powder; and in combination with gingelly oil is applied in cancerous affections. A fluid, which is yielded by incisions in the root, is given as a tonic by native doctors. An infusion of the bark is given in diabetes, and the young leaves reduced to powder and mixed with honey in bilious affections.
15	Avaduta or Avvaguda pandu.	Trichosanthes palmata.	The fruit is mixed with oil to make ointment for external application, and also mixed with cocoanut oil is a specific in ear-ache; but it is not eatable, being considered poisonous by the natives. It is, however, used in diseases of cattle, such as inflammation of the lungs, &c.
16	Avisi	Agati grandiflorum.	The bark is powerfully bitter, and is used as a tonic. An infusion of the bark is given in small-pox. The natives put the juice of the leaves in the nostrils in bad fevers on the day of the paroxysm. The juice of the flowers is squeezed into the eyes for expelling mistiness of vision.
17	Badisapu	Erythrina Indica...	*Indian coral tree.*—The leaves and bark are used in cases of fevers by the natives. The leaves pulverised and boiled with the ripe cocoanut, till reduced to the thickness of an ointment, are applied to venereal baboes and pains in the joints. Mixed with jaggery applied externally to the stomach in gripes and colic.
18	Balarakasi ...	Fourcroya cantala...	The root is a very good remedy for heat, and the milk of the tree is an eye-wash.

No.	Telugu Name.	Botanical Name.	Uses.
19	Balusu	Canthium parviflorum.	A decoction of the leaves and roots are given in certain stages of flux, and the latter is supposed to have anthelmintic qualities. The bark and young shoots are used in dysentery.
20	Bankatutri ...	.....	.....
21	Barrebatchala ...	Vitis setosa ...	Every part of the plant is exceedingly acrid. The leaves toasted and oiled are applied to indolent tumours to bring them to suppuration.
22	Batchala	Basella cordifolia...	The succulent shoots and leaves form an agreeable protection from the heat of the sun.
23	Bodataram ...	Sphæranthus hirtus.	The whole plant is used in decoction in stomach complaints, especially if mixed with pulverised cummin seeds; also mixed with honey it is used in coughs; a liniment made from it is externally applied in scabies and other cutaneous complaints. The seeds are considered as anthelmintic, and are prescribed in powders. The root powdered is stomachic, and the bark of the same ground small and mixed with whey is a valuable remedy for piles.
24	Boddi	Rivea hypocrateriformis.	.....
25	Bokkena	Zapania nodiflora...	The leaves and young shoots, which are very bitter and astringent, are given to children in indigestion and diarrhœa. They are also occasionally recommended as a drink for women after lying-in.
26	Bonta jemudu ...	Euphorbia antiquorum.	*Triangular spurge.*—The juice which flows from the branch of this plant is corrosive. The natives use it externally in rheumatism; they also give it in tooth-ache, and internally, when diluted, as a purgative in cases of obstinate constipation. A plaster prepared from the roots and mixed with assafœtida is applied externally to the stomachs of children suffering from worms. The bark of the root is purgative, and the stem is given in decoction in gout.
27	Brambadonda ...	Argemone Mexicana.	*Yellow-thistle or Mexican poppy.*—The stalks and leaves of this plant abound with a bitter yellow juice like gamboge, which is used in chronic ophthalmia. An oil is also expressed from the seeds. It has also been employed as a substitute for castor oil, and is applied externally in head-ache by the natives. The juice of the plant in infusion is diuretic, relieves strangury from blisters and heals excoriations. In stomach complaints the usual dose of the oil is 30 drops on a lump of sugar, and its effect is perfectly magical, relieving the pain instantaneously, throwing the patient into a profound refreshing sleep, and relieving the bowels.

No.	Telugu Name.	Botanical Name.	Uses.
28	Buchakra gadda ...	Batatas paniculata. Niebuhria oblongifolia.	The sweet tuberous roots dried and reduced to powder and then boiled with sugar and butter are used for making a cooling drink, and also said to promote obesity. It is used by the natives.
29	Buddakakara ...	Cardiospermum Halicacabum.	*Smooth-leaved heart pea.*—The root, which is diaphoretic and diuretic, is given in decoction as an aperient. The whole plant boiled in oil is rubbed over the body in bilious affections. The leaves mixed with jaggery and boiled in oil are a good specific in sore-eyes.
30	Bhutulasi	Ocimum album ...	The whole plant is used in fever, diarrhœa, and chest affections.
31	Chaduvaram ...	.....	.....
32	Chagamushti ...	.....	.....
33	Chantrasi or Chatarasi.	Mollugo spergula...	The bitter leaves are esteemed by the natives as stomachic, aperient, and antiseptic, and are given in infusion, and are considered especially efficacious in suppressed lochia. Moistened with castor oil and applied warm, they are said to be a good remedy in ear-ache.
34	Chedupolla ...	Trichosanthes cucumerina.	The seeds are reputed good in disorders of the stomach. The tender shoots and dried capsules are reckoned among the laxative medicines by the Hindus. They are used in infusion. In decoction with sugar they are given to assist digestion. The seeds are anti-febrile and anthelmintic. The juice of the leaves expressed is emetic, and that of the root drank in the quantity of two ounces for a dose is very purgative. The stalk in decoction is expectorant.
35	Chemidithe ...	.....	The leaf is a very good remedy for heat.
36	Chendrakanta or Baddrashi.	Mirabilis jalapa ...	*Marvel of Peru.*—Considered an aperient by the native doctors. The roots of this plant were long regarded as the source of the true jalap. They are considered purgative.
37	Chepputattaku ...	Desmiodium polycarpum.	.....
38	Chikonitha ...	.....	.....
39	Chikivelaga ...	Dicliptera parvibracteata.	.....
40	Chilla chettu ...	Strychnos potatorum.	*Clearing nut-tree.*—The seeds in powder mixed with honey are applied to boils to hasten suppuration; also with milk in sore-eyes.
41	Chinnakalabanda...	Aloe litoralis ...	*Sea-side or small aloe.*—The natives attach much value to the juice of the leaves, which they apply externally in cases of ophthalmia, and especially in what are commonly termed country sore-eyes. The mode of administering it is to wash the pulp of the leaves in cold water and mix it up with a little burnt alum. In this state it is applied to the eyes, being previously wrapped in a piece of muslin cloth.

Name.	Botanical Name.	Uses.
.. ...	.....	.....
.. ...	Amaranthus Campestris polygonoides.	The root is considered demulcent, and is given in decoction in cases of strangury.
.. ...	Hedyotis umbellata. Oldenlandia umbellata.	*Chay-root plant or Indian madder.*—The leaves are considered expectorant. Dried and powdered they are mixed with flour and made into cakes and given in asthmatic complaints and consumption, an ounce daily of decoction being the dose given.
...	Poinciana elata ...	The leaves are used as a medicine that dissipates flatulency.
...	.....	.....
...	Ricinus communis...	*Castor-oil plant.*—This is the small variety, from the seeds of which only the medicinal castor is expressed. The oil is a mild laxative medicine, and among the Hindus is used as a remedy in cutaneous affections externally applied. It is particularly recommended in rheumatism, lumbago, habitual constipation, piles, and other diseases of the rectum. Alone or mixed with turpentine it is efficacious in expelling worms. The bark of the root is a powerful purgative, and, when made into a ball about the size of a lime in conjunction with chillies and tobacco leaves, is an excellent remedy for gripes in horses. In Jamaica the oil is considered a valuable external remedy in cramps, pains arising from cold, &c. The leaves heated and applied to the breasts and kept on for 12 or 24 hours will not fail to bring abundance of milk after child-birth. The same applied to the abdomen will promote the menstrual discharge.
	Pavonia zeylanica...	An infusion of the root is given in fevers.
	Citrullus colocynthis.	*Colocynth or bitter apple.*—The medullary part of the fruit freed from the rinds and seeds is alone made use of in medicine. The extract of colocynth is one of the most powerful and useful of cathartics. The juice of the fruit when fresh mixed with sugar is given in dropsy, and is externally applied to discoloration of the skin. In medicine its chief uses are for constipation and the removal of visceral obstructions at the commencement of fevers and other inflammatory complaints.
...	Plumbago zeylanica.	*Leadwort.*—The fresh bark bruised is made into a paste, mixed with rice conjee, and applied to buboes. It acts as a vesicatory. The root reduced to powder and administered during pregnancy will cause abortion.
...	.....	.....

No.	Telugu Name.	Botanical Name.	Uses.
52	Damara	Nelumbium speciosum.	*Egyptian or Pythagorean bean.*—In medicine the root is said to be demulcent and diuretic, and the stalks, leaves, and flowers are used as cooling and a tonic.
53	Danimma	Punica granatum ...	*Pomegranate tree.*—The rind of the fruit and flowers are the parts used medicinally. They are both powerfully astringent and are employed successfully as gargles in diarrhœa, &c. The pulp is sub-acid, quenching thirst and gently laxative. The bark of the root is a remedy for tape-worm given in decoction.
54	Devadari	Erythroxylon (Sethia) Indica.	The young leaves and tender shoots are reckoned refrigerant. Bruised and mixed with gingelly oil they are applied as a liniment to the head. The bark is occasionally administered in infusion as a tonic.
55	Donda	Coccinia Indica ...	The whole plant rubbed up with the root of the elaculli and powdered cummin seed is administered by native practitioners in gonorrhœa. Leaves rubbed with butter are applied in the form of a liniment to eruptions of the skin.
56	Dundigam or Nela amudam.	Jatropha glandulifera.	An oil is expressed from the seeds which, from its stimulating property, is reckoned useful; externally applied in cases of chronic rheumatism and paralytic affections. The plant exudes a pale thin juice, which the Hindus employ for removing film from the eyes.
57	Dundupa	.....	The leaf and milk are good remedies for heat.
58	Durudagundi ...	Tragia involucrata.	*Canchoric tree.*—The root is used medicinally as an alterative in old venereal complaints. The juice of the same mixed with cow's milk and sugar is given as a drink in fevers and itch. The root in decoction is administered internally against suppression of urine.
59	Durisepu	Acacia speciosa ...	*Sirissa tree.*—The bark is a remedy both for heat and wind.
60	Dusaratiga ...	Cocculus villosus ...	A decoction of the fresh root mixed with pepper and goat's milk is given in *rheumatism*; dose half a pint every morning. It is said to be laxative and sudorific. The leaves when agitated in water render it mucilaginous: this sweetened with sugar and drunk when fresh made to the extent of half a pint twice a day is given for the cure of gonorrhœa.
61	Dushtapaku or Zuttupaku.	Cynanchum extensum. Dœmia extensa.	The juice of this is supposed to possess an emetic as well as purgative quality, and is said to be particularly useful in cases of jaundice: it is generally administered in cow's milk.

No.	Telugu Name.	Botanical Name.	Uses.
62	Gacha	Guilandina Bonduc.	The kernels of the nuts are bitter, and said by the native doctors to be powerfully tonic. They are given in cases of intermittent fevers, mixed with spices in the form of powder. Pounded and mixed with castor oil they are applied externally in hydrocele. The roots and seeds in infusion are given in intermittent fevers. The leaves are heated with castor oil and applied to the testicle.
63	Gadidagadapa ...	Aristolochia bracteata.	*Worm-killer.*—Every part of this plant is nauseously bitter. In cases of gripes, two of the fresh leaves are rubbed up with water and given once in 24 hours. An infusion of the dried leaves is given as an anthelmintic: fresh bruised and mixed with castor oil, they are considered a valuable remedy in obstinate cases of itch. The fresh leaves applied to the navel of a child are said to have the effect of moving the bowels. The same fried with castor oil and made into a ball, the size of an orange, relieves horses when suffering from gripes. The leaves beaten up with water are given internally in cases of snake-bites; also in infusion for boils and inflammatory attacks. The natives squeeze the juice into wounds to kill worms.
64	Galijeru	Trianthema obcordata.	The root, which is bitter and nauseous, is given in powder in combination with ginger as a cathartic: when taken fresh, it is somewhat sweet, and the leaves are used for decoction.
65	Ganjigadda ...	Commelyna ...	.....
66	Gangaravi ...	Thespesia populnea.	*Portia tree.*—The capsule is filled with a yellow pigment-like liquid gamboge, which is a good external application in scabies and other cutaneous diseases, the juice being simply applied to the parts affected. The bark boiled in water is used as a wash for the same purposes with the best effect. The bark in decoction is given as an alterative internally.
67	Garikanedi ...	.....	The bark or root is used in decoction as a remedy for heat.
68	Garikavaru ...	Cynodon dactylon..	*Huriallee grass.*—The natives eat the young leaves, and make a cooling drink from the roots.
69	Garuputumma ...	.....	The bark is a medicine that dissipates flatulency.
70	Gobbi or Nirugobbi.	Asteracantha longifolia.	The roots are considered tonic and diuretic; administered in decoction; they are also employed in dropsical affections and gravel. The leaves boiled in vinegar are reckoned diuretic.
71	Golimidi	Coix barbata ...	The leaf dissipates flatulency.

No.	Telugu Name.	Botanical Name.	Uses.
72	Goranti	Lawsonia alba ...	*Henna—Broad Egyptian privet.*—The plant is supposed to possess vulnerary and astringent properties. The flowers have a strong smell, from which, as well as from the leaves and the young shoots, the natives prepare a kind of extract which they reckon useful in leprosy. The leaves are also used externally applied in cutaneous affections. The leaves mixed with sugar are given in decoction in jaundice, and boiled in milk and drunk are said to promote sleep. A bath made with the bark, leaves, and flowers is used in the cure of epilepsy and other spasmodic affections.
73	Gotti gadda ...	Spathium Chinense.	*Spathium root.*
74	Gudabala	.....	The leaves are used for blistering purposes.
75	Gudapala	.....	.....
76	Guntakalagara ...	Eclipta erecta prostrata.	This plant in its fresh state ground up and mixed with gingelly oil is applied externally in cases of elephantiasis. The juice of the leaves is mixed with ointment and in decoction.
77	Hamsapade ...	Coldenia procumbens. Heliotropium Coromandelianum.	The dried plants mixed with fenugreek seeds and rubbed to a fine powder are used to promote the suppuration of boils.
78	Injeti gadda ...	.....	The roots fried are eaten by men; it is a strengthening substance.
79	Ippa	Bassia longifolia ...	The bark is used in decoction as an astringent and emollient, and also as a remedy in the cure of itch. The leaves are boiled and given in medicine as well as the milk of the green fruits.
80	Isari or Iswara ...	Aristolochia Indica.	*Indian birth-wort.*—The root is nauseously bitter, and is said to possess emmenagogue and antarthritic virtues, and to be an antidote to snake-bites, being applied both externally and internally. Mixed with honey, the root is given in white leprosy, and the leaves internally in fever.
81	Jadadanaku ...	.....	It is a remedy for heat.
82	Jilledu	Calotropis gigantea. Calotropis procera.	*Gigantic swallow-wort tree.*—An acrid, milky juice flows from every part of the shrub when wounded, and this the natives apply to medicinal purposes in many different ways, besides preparations of the plant itself in epilepsy, paralysis, bites of poisonous animals, as a vermifuge, &c. The root, bark, and inspissated juice are used as powerful alteratives and purgatives. The milky juice has been found to be a very efficacious medicine in leprosy, lues, tænia, herpes, dropsy, rheumatism, hectic and intermittent fevers. By Hindus it is employed in typhus fever and syphilitic complaints with such success as to have earned the title of vegetable mercury.

No.	Telugu Name.	Botanical Name.	Uses.
			The powdered bark is given in doses of 5 or 6 grains twice daily. It will occasionally produce nausea and vomiting, but such symptoms are removed by a dose of castor oil. The root pulverised and made into an ointment is very efficacious in the treatment of old ulcers. The milky juice mixed with common salt is given in tooth-ache, and the juice of the young buds in ear-ache. The leaves beat up with pepper are administered internally in cases of snake-bites, and boiled in oil they are rubbed over the body in scabies. Warmed and moistened with oil they are applied as a dry fomentation in pains of the abdomen, and also form a good rubefacient.
83	Jittavaragogu ...	.....	.....
84	Kadajemudu ...	Euphorbia tirucalli.	*Milk hedge or Indian tree spurge.*—The fresh acrid juice of this plant is used as a vesicatory. A decoction of the tender branches is given in colic, and the milky juice mixed with butter as a purgative. Root in decoction is administered internally in pains in the stomach.
85	Kakidonda ...	Trichosanthes palmata.	The roots and leaves are used in medicine generally.
86	Kakimoragaddu ...	Coccinea Indica.	
87	Kalutamba ...	.....	.....
88	Kamanchi or Kasaku.	Solanum incertum nigrum rubrum.	..... The leaf is a very good remedy for heat and bile. The juice is also used as ointment, and also taken internally.
89	Kamsagadda ...	.....	.....
90	Kanaga	Pongamia glabra ...	*Indian Beech tree.*—The leaves and bark are used in medicine. The seeds yield by expression a fixed oil which the natives use externally in eruptive diseases.
91	Kannekumaragaddu.	.....	The root of this plant is by natives used in medicine.
92	Kapparavalli ...	Anisochilus carnosus. Colcus amboinicus.	*Thick-leaved lavender.*—The fresh juice squeezed from the leaves of this plant and mixed with sugar and gingelly oil is used as a cooling liniment for the head. Leaves and stems are given in infusion to children in coughs and colds.
93	Karaka	Terminalia chebula.	*Pilla marduh nut.*—The fruit is very astringent, and on that account much used by the Hindus in their arts. The gal-nuts well rubbed with an equal proportion of catechu is used in aphthous complaints, and considered a valuable remedy. The unripe dried fruits are recommended as purgative by the natives. The fruit mixed with honey is given in infusion in dropsy and diabetes and hæmorrhoidal affections, and externally in cases of sore-eyes, &c.

No.	Telugu Name.	Botanical Name.	Uses.
94	Karepaku or karivepa.	Bergera Kœnigii...	*Curry-leaf tree.*—The root is laxative, and both bark and roots are stimulant, and are used externally as remedies in eruptions and in infusion to check vomiting in cholera. It is used for bites of poisonous animals, the tender leaves being boiled in milk, bruised and applied as a poultice to the parts affected. The fresh leaves are good, eaten raw in dysentery.
95	Karumunaga ...	Moringa	*Moringa.*—Leaves, roots, flowers, seeds, vessels or fruit, gum, wood, bark, and oil are all used in medicine by the people. This tree can be found in jungles.
96	Karuvaragogu ...	.....	.....
97	Kasagadda ...	.....	.....
98	Kattevari tiga ...	.....	.....
99	Kolamukki or kodapala.	Wrightia antidysenterica.	The bark is reputed to be a specific in dysentery and bowel complaints, and is the *Conessi bark* of the Materia Medica. It is astringent and febrifuge. The seeds are also used medicinally, being boiled in milk and given in hæmorrhoids and dysentery and in decoction in fever and gout. The root rubbed up and mixed with rice-water is given in sore-throat, a lotion of the same being applied to the neck. It is also used externally in rheumatic complaints and tooth-ache. A medicinal oil is procured from the seeds.
100	Kondamudam or Katamedam.	Baliospermum polyandra.	The seeds serve as a useful aperient medicine. The leaves are heated and applied to boils in order to reduce pain.
101	Kondagummadigaldu.	Batatas pentaphylla.	It is an excellent root; used as medicine.
102	Korendapala ...	.....	.....
103	Korinda	Acacia Intsia ...	The juice of the leaf is used in medicine for coughs, &c.
104	Kovinda	.....	.....
105	Koyyatotakura ...	Amaranthus tristis.	.....
106	Kukkapala ...	Tylophora asthmatica vomitoria.	The roots partake in an eminent degree of the properties of Ipecacuana, and are a good remedy in dysentery. Given in a pretty large dose it answers as an emetic, in smaller often repeated doses as a cathartic, and in both ways effectually. The natives also employ it as an emetic by rubbing upon a stone 3 or 4 inches of the fresh root, mixing it with a little water for a dose.
107	Kukkatulasi ...	Ocimum canum ...	The whole plant is used in decoction for fever.
108	Kuppinta	Acalypha Indica ...	*Indian Acalyphe.*—The root bruised in hot water is employed as a cathartic, and the leaves as a laxative in decoction mixed with common salt; the latter are applied externally in scabies. A decoction of the plant

No.	Telugu Name.	Botanical Name.	Uses.
			mixed with oil is antarthritic and mixed with chunam is applied externally in cutaneous diseases. A decoction of the leaves is given in ear-ache.
109	Maddi	Terminalia glabra...	The bark is used in decoction.
110	Mallegaddu ...	.....	.....
111	Mamidi	Mangifera Indica...	*Common mango tree.*—The bark of the tree is administered in infusion in menorrhagia and leucorrhœa, and the resinous juice mixed with white of an egg and a little opium is considered a good specific for diarrhœa and dysentery. The tender leaves mixed with the bark of the castor oil plant and cummin seed are used in decoction for coughs, asthma, and affections of the chest. An infusion of the young leaves is likewise prescribed occasionally by native practitioners in bilious affections.
112	Manchikalabandu...	Aloe vulgaris ...	*Common aloe.*—As a drug aloe is reckoned extremely valuable, and its medicinal properties are very numerous. To persons predisposed to apoplexy it is more beneficial than most other purgatives. The compound decoction is a valuable emmenagogue, particularly when combined with preparations of iron. One of the best modes of covering the unpleasant taste of aloes when given liquid is in the compound tincture of lavender.
113	Manga	Randia dumetorum.	The fruit bruised and thrown into ponds where fish are they are soon intoxicated and seen floating. The fruit is used as an emetic. The bark of the root in infusion is used as a nauseating medicine.
114	Maredu	Ægle Marmelos ...	*Bel-tree.*—The fruit is nutritious, and occasionally employed as an alterative. The mucus of the seeds is used as an excellent addition to mortar, especially in well-buildings. Roots, bark, and leaves are reckoned refrigerant. The bark of the root especially is given in compound decoctions in intermittent fevers, and the leaves made into poultices in ophthalmia. When dried before it is ripe the fruit is used in decoction against diarrhœa and dysentery; and when ripe and mixed with juice of tamarinds, forms an agreeable drink. A water distilled from the flowers is reputed to be alexipharmic. A decoction of the bark of the tree is given in palpitation of the heart, and a decoction of the leaves in asthma.
115	Marrivalndu ...	.....	.....

No.	Telugu Name.	Botanical Name.	Uses.
116	Marri	Ficus Bengalensis..	*Common Banyan tree.*—The seeds of the fruit are considered as cooling and tonic, being prescribed in the form of electuary. The white glutinous juice which flows from the stems is applied as a remedy in tooth-ache, and also to the soles of the feet when cracked and inflamed. The bark given in infusion is said to be a powerful tonic, and is also used in diabetes. The tender drops are also used in decoction, &c.
117	Medi atti	.....	The bark is a very good remedy for urinary, genital, and other diseases.
118	Mirapagandra ...	Toddalia aculeata...	The bark of the root is given in remittent jungle-fevers. The fresh leaves are eaten raw in stomach complaints. The whole plant is reckoned a valuable stimulant, and has a strong pungent taste, especially the root. A liniment good in rheumatism is made from the root, and green fruit fried in oil.
119	Moduga	Butea frondosa ...	*Bastard teak.*—This tree yields a kind of gum. It is used in medicine as a powerful astringent, administered in the form of tincture and powder. Two or three seeds deprived of their outer covering are frequently given as an anthelmintic in cases of tape-worm.
120	Modugavuda ...	Butea frondosa (root).	The roots cause considerable heat.
121	Mogabira	Anisomeles Malabarica.	*Malabar Cat-mint.*—The juice of the leaves is given to children in colic and indigestion and fevers arising from teething. Also employed in infusion in stomachic complaints, dysentery, and intermittent fevers. A decoction of the whole plant is anarthritic if the body be washed with it.
122	Mogalinga ...	Schrebera swietenioides.	The root and bark are used for fevers.
123	Mogalisandlu ...	Pandanus odoratissima (root).	The juice of the dropping roots of this plant is used in drawing ointments, and is also internally applied.
124	Molla	Jasminum	.....
125	Mudda pulagam ...	Pavonia odorata ...	The root is used in infusion as a diet drink among the Hindus in fevers.
126	Mukamudusugaddu.	.....	.....
127	Mulugoronta ...	Barleria Prionitis...	The juice of the leaves mixed with sugar and water is given to children in fevers and catarrhal affections. The ashes of the burnt plant mixed with water and rice-conjee are employed in cases of dropsy and anasarca, also in coughs.
128	Mulugudu or nonachettu.	Morinda umbellata.	The leaves are used in conjunction with certain aromatics among native practitioners in cases of diarrhœa.
129	Muluvempali ...	Tephrosia spinosa..	.....

No.	Telugu Name.	Botanical Name.	Uses.
130	Mullamushti ...	Solanum trilobatum.	The root, leaves, and tender shoots are all used medicinally; the two first in decoction or powder in consumptive complaints. The berries and flowers are given internally in decoction for coughs.
131	Munaga	Moringa pterygosperma.	*Horse-radish tree.*—The root of this tree is much like the English horse-radish. The native practitioners prescribe the fresh root as a stimulant in paralysis and intermittent fevers; they also use it in epilepsy and hysteria, and reckon it a valuable rubefacient in palsy and chronic rheumatism. The root has a pungent odor and a heavy aromatic taste. The juice of the leaves mixed with pepper is applied over the eyes in vertigo, and mixed with common salt is given to children in flatulency. It is also used to hasten suppuration in boils. The bark rubbed up in rice-water, mixed with cummin seed, is a cure for gumboils and tooth-ache. The leaves simply warmed are applied in hydrocele, and also good for ulcers and guinea-worm. The gum used in head-ache, mixed with milk and externally rubbed on the temples. It is also locally applied to buboes and venereal pains in the limbs.
132	Muntamamidi ...	Anacardium occidentale.	*Cashew-nut tree.*—The juice of the fruit is given in diarrhœa and for the cure of diabetes. The astringency of the fruit juice has been recommended as a good remedy in dropsical habits. The bark of the tree is given internally in infusion of syphilitic swellings of the joints.
133	Mushti	Strychnos nux vomica.	*Vomit-nut or poison-nut tree.*—The root is used in the case of intermittent fevers and the bites of venomous snakes. The nut, when finely pounded and mixed with margosa oil, is considered tonic and astringent, given in minute doses. They recommend it in chronic rheumatism, and blended with white of an egg they employ it as a repellent. The seeds are given in leprosy, paralysis, and bites of venomous serpents, and are used by the lower natives as a stimulant, like opium, in very small doses. A decoction of the leaves externally in paralysis and rheumatic swelling of the joints. The root is used in gout, the part affected being rubbed. The decoction is also given in vertigo and in bilious complaints. The bark mixed in rice-water is antibilious. The leaves are given in decoction for rheumatism, and for catarrh applied externally. The juice from

No.	Telugu Name.	Botanical Name.	Uses.
			the leaves expressed and given in decoction is good for head-ache. If taken internally it is poisonous. The seeds of the fruit, if taken for two years, one or two every day, have the effect of rendering innoxious bites of poisonous cobras.
134	Naga malli ...	Rhinacanthus communis.	The fresh roots and leaves bruised and mixed with lime juice are reckoned a useful remedy in ring-worm and other cutaneous affections. Milk boiled with the root is reckoned aphrodisiacal by native doctors, and as such is often employed. The roots are used in the bites of poisonous snakes.
135	Nageti panatagadda	.....	.....
136	Nallagantena ...	Clitorea ternatea ...	The powdered seeds, when combined with cream of tartar, is a useful purgative. The root is used in croup: it sickens and occasions vomiting. It is also given as a laxative to children, and is also diuretic. There are two varieties of this creeper; the one with white flowers is said to be the best.
137	Nallaguruginja ...	Abrus precatorius...	*Black wild liquorice.*—Of this creeper there are several varieties, with seeds scarlet, black, and white. The leaves are mixed with honey and applied externally in swellings of the body, and pulverised and chewed with sugar are given to mitigate coughs. The seeds mixed with the roots and cocoanut milk are given in hæmorrhoids.
138	Nallamulaka ...	.....	.....
139	Nallapayala ...	.....	The whole plant is a very good remedy for heat.
140	Nallapulugudu ...	Anisonema multiflora.	.....
141	Nallavavili or vavili.	Vitex negundu ...	*Five-leaved chaste tree.*—The root in decoction is a pleasant bitter, and administered in cases of intermittent and typhus fevers. The leaves simply warmed are a good application in cases of rheumatism and sprains. The dried fruit is considered a vermifuge. A decoction of the aromatic leaves helps to form the warm bath for native women after delivery. The root in decoction is used for vermifuge and to reduce swellings in the body. The leaves are employed in weakness of the eyes, and with the root mixed with rice-water are good for healing ulcers. The tender leaves rubbed up with pepper made into small balls are given two or three at a time when fever comes on. An ointment is made from the juice of the leaves and used for promoting the growth of hair.

No.	Telugu Name.	Botanical Name.	Uses.
142	Nallavirametta ...	Datura fastuosa ...	*Purple thorn-apple.*—The root in powder is given by Mahomedan doctors in cases of violent head-aches and epilepsy. The inspissated juice of the leaves is used for the same purpose. The Hindu doctors use the succulent leaves and fruit in preparing poultices, mixed with other ingredients for repelling cutaneous tumours and for piles. They also assert that the seeds made into pills deaden the pain of tooth-ache when laid upon the decayed tooth. Leaves in oil are rubbed on the body in itch or rheumatic pains of the limbs. The seeds bruised are applied in boils and carbuncles. They are soporific, and very dangerous if incautiously used.
143	Nallavappi ...	Capparis sepiaria...	The bark is used for fever.
144	Nalleru	Vitis (cissus) quadrangularis.	The leaves and young shoots when fresh are sometimes eaten by the natives, and when dried and powdered are given in bowel affections.
145	Naragonji	.....	It is used in medicine for opening the bowels.
146	Nelagolimidi ...	Sievogtia verticillata.	It is used for dropsy, &c.
147	Nelagummadi ...	Batatas paniculata.	The sweet tuberous roots dried and reduced to powder and then boiled with sugar and butter are used for making a cooling drink, and also said to promote obesity; it is used by the natives.
148	Nelatangodu ...	Cassia elongata obtusa.	*Country senna.*—This species is frequent in pastures and uncultivated grounds in the district. The leaves are much used by the natives as a substitute for senna.
149	Nelatatigadda ...	Curculigo orchioides.	The root considered a demulcent. It is used in gonorrhœa, and also has tonic qualities.
150	Nelavelaga ...	Justicia paniculata.	This plant grows wild in the district. It is highly prized as an excellent stomachic.
151	Nelavemu ...	Andrographis paniculata.	This plant is much valued for its stomachic and tonic properties, especially the root, which is one of the chief ingredients among the natives. The whole plant is very bitter, and is occasionally used in cholera and dysentery. It is also said to be alexipharmic.
152	Nelavempali or vempali.	Tephrosia purpurea.	The roots beaten up and mixed with arrack are applied to swollen gums and affections of the mouth. The roots are bitter and are given in decoction for dyspepsia and in infusion to check vomiting. The juice extracted from the plant and mixed with honey is applied to pustular eruptions of the face. The root bruised, boiled with cocoanut oil, and made into an ointment is given in elephantiasis.

No.	Telugu Name.	Botanical Name.	Uses.
153	Nelavusari... ...	Phyllanthus Niruri.	The root, leaves, and young shoots are used medicinally as deobstruent and diuretic: the two first in powder or decoction in jaundice or bilious complaints; the latter in infusion in dysentery. The leaves, which are bitter, are a good stomachic. The fresh roots are given in jaundice. Half an ounce rubbed up in a cup of milk and given morning and evening will complete the cure in a few days without any sensible operation of the medicine. The juice of the stem mixed with oil is employed in ophthalmia. The leaves and roots pulverised and made into poultice with rice-water are said to lessen œdematous swelling, ulcers, &c.
154	Nelli or pedda nelli.	Premna esculenta latifolia.	The leaves have a strong, but not disagreeable odor, and are eaten by the natives in their curries.
155	Neredu	Eugenia (syzygium) jambolanum.	The whole tree has astringent properties, and the leaves and bark are used in medicine.
156	Nimma	Citrus bergamia ...	*Bergamotte or acid lime.*—Lime juice is much used in medicine by native practitioners. They consider it to possess virtues in checking bilious vomiting, and to be refrigerant and antiseptic. It probably possesses all the virtues attributed to the lemon.
157	Nirugobbi... ...	Asteracantha longifolia.	The roots are considered tonic and diuretic, administered in decoction. They are also employed in dropsical affections and gravel. The leaves boiled in vinegar are reckoned diuretic.
158	Nugudosa	Bryonia scabrella...	Seeds in decoction are sudorific, and are also employed in diabetes and dysuria. Root in decoction is given in flatulency, and the root itself is masticated to relieve the tooth-ache. The leaves are also used for children's diseases.
159	Nulivempali ...	.....	.....
160	Obili	.....	It is used in medicine generally.
161	Otharam	.....	.....
162	Pachi gadda ...	.....	.....
163	Pala ...	.....	.....
164	Pala tiga	Mimusops hexandra.	The bark is a remedy for heat.
		Leptadenia reticulata.	.....
165	Palleru	Tribulus lanuginosus.	The leaves and roots are said by the natives to possess diuretic qualities and are prescribed in decoction. The seeds powdered are given in infusion to increase the urinary discharge, and are also used in dropsy and gonorrhœa.

No.	Telugu Name.	Botanical Name.	Uses.
166	Pamidipatti ...	Gossypium acuminatum.	*Indian cotton plant.*—An emulsion of the seeds is employed as an antidote to opium, also in dysentery, and the oil is useful in cases of poisoning from narcotics. A decoction of the root is given in cases of strangury and gravel, as it is demulcent. The young leaves and shoots are prescribed for children in dysentery, also in colic and hysterics. They are said to be very cooling. The root in infusion is diuretic.
167	Pamudondu ...	.....	The roots for blistering, &c.
168	Papata	Pavetta Indica ...	The bitter root has aperient qualities, and is prescribed by native doctors in visceral obstructions. The leaves are boiled in water, and fomentation is made from them for hæmorrhoid pains. The root pulverised and mixed with ginger and rice-water is given in dropsy.
169	Parpatakam ...	Mollugo cerviana triphylla.	This plant mixed with oil is made into an ointment for scabies and other cutaneous diseases. The young shoots and flowers are given in infusion as a mild diaphoretic in fever cases.
170	Pasi tiga	Cassyta filiformis...	This leafless, thread-like parasite is found twisting round the branches of trees. It is put, as a seasoning, into butter-milk and much used for this purpose. The whole plant pulverised and mixed with dry ginger and butter is used in the cleaning of inveterate ulcers. Mixed with gingelly oil it is employed in strengthening the roots of the hair. The juice of the plant mixed with sugar is occasionally applied to inflamed eyes.
171	Patti	Gossypium herbaceum Indicum.	*Indian cotton plant.*—An emulsion of the seeds is employed as an antidote to opium, also in dysentery, and the oil is useful in cases of poisoning from narcotics. A decoction of the root is given in cases of strangury and gravel, as it is demulcent. The young leaves and shoots are prescribed for children in dysentery, also in colic and hysterics. They are said to be very cooling. The root in infusion is diuretic.
172	Payalaku or sanna payala.	Portulaca quadrifida.	The fresh leaves bruised are applied externally in erysipelas, and an infusion of them as a diuretic in dysuria, also internally in hæmorrhage.
173	Peddakalabandu or Kalabandu.	Aloe Indica ...	*Indian aloe.*—A kind of aloe, but of an inferior description, is obtained from it. It is used in medicine generally as a cooling substance.
174	Peddamanu ...	Ailanthus excelsa...	The bark of this tree is used for fever and cough.
175	Pemagaddu ...	Calamus rotang ...	The root is used in infusion for cooling.

No.	Telugu Name.	Botanical Name.	Uses.
176	Pennerigadda ...	Physalis somnifera.	*Winter cherry.*—The root is said to have deobstruent and diuretic properties. The leaves moistened with warm castor oil are useful, externally applied in cases of carbuncle. They are very bitter, and are given in infusion in fevers. The root and leaves are powerfully narcotic, and the latter are applied to inflamed tumours, and the former in obstinate ulcers and rheumatic swellings of the joints, being mixed with dried ginger and so applied. The native physicians reckon the roots alexipharmic.
177	Penuzuttu... ...	.....	The whole plant is used in medicine, a cooling substance, and also used for cough.
178	Pilli gadda or dumpa.	Urtica tuberosa ...	The root is used for dropsy and for fever.
179	Pillipesara ...	Asparagus racemosus.	*Three-lobed bean.*—The leaves are said to be tonic and sedative, and are used in cataplasms to weak eyes.
180	Pisangi	Clerodendron inerme.	The juice of the root and leaves are bitter, and occasionally employed by native doctors in scrofulous complaints; the leaves dried, pulverised, and mixed with sugar and rice are given in infusion in venereal disorders. The leaves boiled are applied to buboes, and the root boiled in oil is made into a liniment for rheumatism.
181	Podadamara or sima avisi.	Cassia alata ...	*Ring-worm shrub.*—The juice of the leaves mixed with lime juice is used as a remedy for ring-worm: the fresh leaves simply bruised and rubbed upon the parts will sometimes be found to remove the eruption. The Hindu doctors affirm that the plant is a cure in all poisonous bites, besides cutaneous affections.
182	Podapathra ...	Gymnema sylvestri.	.....
183	Ponnaganti ...	Alternanthera sessilis.	The whole plant is greatly prized by the natives, who attribute to it very high qualities, considering the leaves food for kings. It is used in medicine generally.
184	Poddupodupu ...	.....	.....
185	Pottikakara ...	Momordica charantia.	The whole plant mixed with cinnamon, long pepper, rice, and marothy oil is administered in the form of an ointment in psora, scabies, and other cutaneous diseases. The juice of the leaves mixed with warm water is reckoned anthelmintic. The whole plant pulverised is a good specific, externally applied in leprosy and malignant ulcers.
186	Pudina	Mentha viridis ...	The leaves are used by the natives for bile.
187	Pulichinta... ...	Oxalis corniculata.	*Yellow-wood sorrel.*—The leaves, stalks, and flowers are used by the Hindus as cooling medicines, especially in dysentery.

No.	Telugu Name.	Botanical Name.	Uses.
188	Pulichenchala ...	.....	.....
189	Pulitodugu ...	Pterolobium lacerans.	The whole plant is used for dropsy.
190	Pullabachala ...	Vitis setosa ...	.....
191	Puttatamba ...	.....	.....
192	Ragi or ravi ...	Ficus religiosa ...	*Poplar-leaved fig tree.*—The seeds are said to possess cooling and alterative qualities, and are prescribed in electuary and in powder. The glutinous juice which exudes from the stem is made into bird-lime. Leaves and young shoots are used as a purgative, and an infusion of the bark is given internally in scabies.
193	Rudrajada... ...	Ocimum basilicum.	*Sweet basil.*—The whole plant is aromatic and fragrant. The seeds are cooling and mucilaginous, and are said to be very nourishing and demulcent. An infusion is given as a remedy in gonorrhœa, catarrh, dysentery, and chronic diarrhœa. The juice of the leaves is squeezed into the ear in earache. The seeds are a favorite medicine with Hindu women for relieving the after-pains of parturition.
194	Sabadovi	.....	.....
195	Sadapaku... ...	Ruta angustifolia...	*Narrow-leaved rue.*—It is met with in gardens, and used medicinally; it is highly valued by the Hindus.
196	Sambhacherla ...	.....	It is used in medicine generally.
197	Sambrani chettu ...	Herpestis monniera.	The root, stalks, and leaves are used by the Hindus medicinally as diuretic and aperient. The pressed juice mixed with petroleum is rubbed on parts affected with rheumatism.
198	Sannapayala ...	.....	The leaf is a good remedy for heat in the system.
199	Sata kuppi ...	Anethum sowa ...	*Sowa, dill, or Bishop's weed.*—The seeds yield a valuable oil, prepared by distillation, and used medicinally. Bruised and boiled in water and mixed with the roots these seeds are applied externally in rheumatic and other swellings of the joints. The leaves applied warm and moistened with a little oil are said to hasten suppuration.
200	Sedu bira	Luffa amara ...	This is bitter in every part. The fruit is violently cathartic and emetic, and the juice of the young roasted fruit is applied by the natives to their temples in cases of head-aches. The seeds in substance or infusion are used as emeto-cathartic.
201	Sikireni	.....	The bark and the leaves are used in medicine generally for heat. The powdered leaves are used by the natives like soap-nut to cleanse the hair.
202	Sirrivaku	Acacia concinna ...	The acid leaves are used in decoction, &c., for bile. The leaves are used in cookery instead of tamarind.

No.	Telugu Name.	Botanical Name.	Uses.
203	Sitapalam... ...	Anona squamosa ...	*Custard-apple.*—The leaves gently bruised and mixed with salt and reduced to the form of a plaster and so applied to maliguant tumours will act powerfully in ripening them. The unripe fruit mixed with a little ginger is given in vertigo.
204	Sora veru	Lagenaria vulgaris.	*White pumpkin, bottle gourd.*—The root and seeds are used in medicine. A decoction of the leaves mixed with sugar is used in jaundice.
205	Soyindaku ...	Seshania Ægyptiaca.	The leaves are heated with castor oil and applied to swellings. The flowers are boiled in oil and applied to the head for long-standing headache.
206	Sugandapala ...	Hemidesmus Indicus.	*Country sarsaparilla.*—This root is an excellent substitute for sarsaparilla, and much used among the natives. They employ it particularly for the thrush in children, giving about a drachm, every morning and evening, of the powder fried in butter. Dried and reduced to powder and mixed with honey it is reckoned a good specific in rheumatic pains, boils, &c., and in decoction with onions and cocoanut oil is internally recommended in hæmorrhoids, and simply bruised and mixed with water in diarrhœa. The root is mucilaginous and slightly bitter, and is recommended by the native doctors in cases of strangury and gravel, being pulverised and mixed with cow's milk: they also give it in decoction with cummin seeds to purify the blood and correct the acrimony of the bile. A decoction of it is also prescribed by European practitioners in cutaneous diseases, scrofula, and venereal affections. Two ounces infused in a pint of water and allowed to cool is the quantity usually employed daily; and by such doses the discharge of urine is generally trebled or quadrupled. It also acts as a diaphoretic and tonic, greatly increasing the appetite. The root is brownish externally, and has a peculiar aromatic odor, somewhat like that of sassafras. It has been employed as a cheap and efficacious substitute for sarsaparilla in cachectic diseases, increasing the appetite and improving the health. The milky juice of the fresh plant boiled in oil is applied externally in rheumatism, and an infusion of the whole plant is given in fevers.
207	Surati	Ventilago Maderaspatana.	.....

No.	Telugu Name.	Botanical Name.	Uses.
208	Suriyakanti ...	Ionidium suffruticosum.	The root in infusion is diuretic, and is a remedy in gonorrhœa and affections of the urinary organs. The leaves and tender stalks are demulcent, and are used in decoction and electuary, and also employed, mixed with oil, as a cooling liniment for the head.
209	Tadi	Terminalia bellerica.	The kernel of the nut is said to intoxicate if eaten in great quantity. The taste is astringent. The kernel of the nut mixed with honey is given in certain cases of ophthalmia. An oil is expressed from the seeds used for strengthening the hair. The juice of the bark and root is given in decoction with rice and milk in colic.
210	Tadigadda ...	.....	.....
211	Takkedu	Premna	The leaves applied to the head are said to cure head-ache, and a decoction of the roots is employed as a stimulant in fevers, flatulency, &c.
212	Talapidasa ...	.....	.....
213	Tamalapaku ...	Chavica betel ...	*Betel leaf pepper.*—The freshly expressed juice is employed as febrifuge medicine and as an antispasmodic, especially against obstinate dry coughs. It is a powerful stimulant to the salivary glands and digestive organs, and diminishes the perspiration of the skin.
214	Tamaragadda ...	Nelumbium speciosum.	*Egyptian or Pythagorean bean.*—In medicine the root is said to be demulcent and diuretic, and the stalks, leaves, and flowers are used by the natives as cooling and tonic.
215	Tangedu	Cassia auriculata ...	A very common shrub; the bark is used for tanning leather. The natives consider the powder of the dry seeds as a good remedy in certain stages of ophthalmia. The bark is astringent and used to dye leather of a buff color. Workers in iron employ the root in tempering iron with steel.
216	Tapasi	.....	The bark is used for fever, &c.
217	Tella duradagondi..	Tragia cannabina...	The hairs of this plant sting like the common nettle. The root is considered diaphoretic, and is prescribed in decoction as an alterative; also in infusion in ardent fevers.
218	Tella ganjeru ...	.....	.....
219	Tella ganneru ...	Nerium odorum ...	*White sweet-scented oleander.*—The bark of the root is used externally as a powerful repellent, and made into a paste is applied in cases of ringworm. The root itself taken internally acts as a poison.

No.	Telugu Name.	Botanical Name.	Uses.
220	Tella ganti'a ...	Clitoria ternatea ...	The powdered seeds, when combined with cream of tartar, is a useful purgative. The root is used in croup; it sickens and occasions vomiting. It is also given as a laxative to children, and is also diuretic. There are two varieties of this creeper; the one with white flowers is said to be the best.
221	Tella galijeru ...	Trianthema decandra.	The root is light brown outside and white within. It is aperient, and said to be useful in hepatitis and asthma. The bark of the root in decoction is also given as an aperient.
222	Tellagurugiuja ...	Abrus precatorius...	*White wild liquorice.*—Of this creeper there are several varieties, with seeds scarlet, black, and white. The leaves are mixed with honey and applied externally in swellings of the body, and pulverised and chewed with sugar are given to mitigate coughs. The seeds mixed with the roots and cocoanut milk are given in hæmorrhoids.
223	Tella jilledu ...	Calotropis gigantea.	*White gigantic swallow-wort.*—See No. 82.
224	Tella mulaka ...	Solanum Indicum...	*Indian night-shade.*—The root is used by native doctors in cases of dysuria and ischuria in the form of decoction. It is said to possess strong exciting qualities if taken internally, and is employed in difficult parturition. It is also used in tooth-ache. An infusion of the root is given in fevers and coughs, and the juice of the leaves boiled with the juice of fresh ginger is administered to stop vomiting. The leaves and fruit mixed with a little sugar are rubbed on the body in itch.
225	Tellategadu ...	Ipomœa turpethum.	*Indian jalap.*—The bark of the root is employed by the natives as a purgative, which they use fresh, rubbed up with milk. About six inches in length of the root is reckoned a dose. It is a good remedy against worms; it removes of phlegm, swellings of the limbs, and diseases of the stomach. It also heals ulcers, and is useful in diseases of the skin. It is known to be one of the best purgatives. It is cathartic and pungent; it increases wind; is hot and efficacious in removing cold and bile; it is useful in bilious fevers and complaints of the stomach. The black sort is somewhat less efficacious; it is a violent purgative; is good in faintings, and diminishes the heat of the body in fevers with delirium.
226	Tella tumma ...	Acacia ferruginea...	This bark is very astringent. A decoction of the same, in conjunction with ginger and other ingredients, is frequently employed as an astringent wash for the teeth.

No.	Telugu Name.	Botanical Name.	Uses.
227	Tellavavili or niruvavili.	Vitex trifolia ...	*Three-leaved chaste tree or Indian privet.*—The leaves and young shoots are considered as powerfully discutient, and are used in fomentations, or simply applied warm in cases of sprains, rheumatism, contusions, &c.; also externally in diseases of the skin and swellings: leaves powdered and taken with water are a cure for intermittent fevers; root and a cataplasm of the leaves are applied externally in rheumatism and local pains. The root mixed with warm water is used in gout.
228	Tellavuppi ...	Monetia tetracantha.	The bark is used for fevers, &c.
229	Tellayampali ...	Tephrosia purpurea.	See No. 152.
230	Thagadu	Bignonia chelonoides.	Both the roots and the flowers are given in infusion as a cooling drink in fevers. A decoction of the leaves is given in cases of visceral obstruction.
231	Thigadirisanam ...	.....	The bark is used for rheumatism, and is a very heating drug.
232	Thorravelaga ...	Feronia	The bark is used for fevers, &c.
233	Thundigapu ...	.....	.....
234	Thurakavepa ...	Melia azedarach ...	*Common bead tree or Persian lilac.*—The pulp surrounding the seeds is said to be poisonous, and mixed with grease is reputed to kill dogs. This, however, is doubtful. The root is nauseous and bitter. A valuable oil is also produced from the seeds.
235	Tippatiga	Tinospora cordifolia.	A tincture forming a kind of salt is extracted from the whole plant; it is used for complaints of heat, &c., and also used for bile.
236	Tulasi	Ocimum sacrum ...	*Holy basil.*—The whole plant is of a dark purple color, and has a grateful smell. The root is given in decoction in fevers, and the juice of the leaves in catarrhal affections in children. Also an excellent remedy mixed with lime juice in cutaneous affections, ring-worm, &c.
237	Tumma or nallatumma.	Acacia Arabica ...	*Babool tree.*—This tree yields a transparent gum, which is used as a substitute for the real gum arabic. The bark itself is used medicinally as a tonic in infusion, and a strong decoction of it is employed as a wash for ulcers; and finely powdered and mixed with gingelly oil it is recommended externally in cancerous affections. A decoction of the bark makes a good substitute for soap, and is used to a great extent for tanning leather and dyeing various shades of brown. The leaves burnt and mixed with cocoanut oil are applied externally in cases of itch.

No.	Telugu Name.	Botanical Name.	Uses.
238	Tummi	Leucas cephalotes ..	This is a most celebrated species. The leaves are eaten, the flowers are sacred to Siva, and are offered in his temple. The juice of the leaves or flowers is applied as a caustic for the eyes, &c.
239	Tungagadda ...	.....	The roots are good remedy for heat.
240	Tungamushti ...	Cyperus hexastachys.	The tubers are sold in the bazaars and used by perfumers on account of their fragrance. In medicine they are used as tonic and stimulant, and have been employed in the treatment of cholera. In the fresh state is given in infusion as a demulcent in fevers, and also used in cases of dysentery and diarrhœa.
241	Tutturi	Ipomœa reptans ...	A creeping annual of the convolvulus family with rose-colored flowers, found about the borders of tanks and most places. The leaves are used as greens, and also used in medicine generally.
242	Vakudu	Solanum jacquini...	The fruit is bitter and sub-acid; considered as an expectorant by the natives, and given by them in coughs and consumptive complaints: also in decoction in humoral asthma. The berries are good for the digestion. The roots beaten up and mixed with wine are given to check vomiting.
243	Vallari	Hydrocotyle Asiatica.	*Asiatic penny-wort.*—A widely distributed plant, growing in moist, shady places near hedges or tanks. The leaves, which are bitter, are toasted and given in infusion to children in bowel-complaints and fevers. They are also applied to parts that have suffered from blows or bruises as anti-inflammatory. The plant is one of the remedies for leprosy, for which it is said to be an excellent specific, and one which is worthy of more attention than has hitherto been bestowed upon it.
244	Vamihta	Gynandropsis pentaphylla.	The leaves are eaten by the natives: bruised and applied to the skin act as a rubefacient, and produce abundant serous exudation, answering the purpose of a blister. The seeds are given internally, beaten to a paste, in fever and bilious affections, and the juice of leaves beaten up with salt in ear-ache. The whole plant made into an ointment with oil is applied to pustular eruptions of the skin, and simply boiled in oil is efficacious in cutaneous diseases, especially leprosy.

No.	Telugu Name.	Botanical Name.	Uses.
245	Vankaya	Solanum melongena.	*The brinjal or egg-plant.*—The oil of the seeds of the brinjal taken with opium is a vehement poison, to which the leaves bruised and mixed with water are an antidote. The juice is given to cattle when suffering from internal abscess. The fruit punctured with a needle and boiled in gingelly oil is a remedy in tooth-ache.
246	Varagogu	.....	A chief medicinal drug among the natives.
247	Vavinta	.....	.....
248	Veduru	Bambusa arundinacea.	*Bamboo.*—The roots are diluent, the bark is a specific in eruptions, and the leaves are given to children as an anthelmintic, and are, moreover, a powerful emmenagogue.
249	Velaga	Feronia elephantum.	*Elephant or wood-apple.*—A transparent gummy substance exudes from the stem when cut or broken, which is used for mixing with painter's colors, in dyeing, and also in ink and varnish, and by brick-layers in preparing a fine kind of whitewash. It is used medicinally by the natives, being reduced to powder and mixed with honey and then given in dysentery and diarrhœa. The leaves when bruised have a fragrant smell, like anise. The natives consider them as stomachic and carminative. They are also used by native practitioners as a gentle stomachic stimulant in the bowel-complaints of children.
250	Velivempali or nulivempali.	.....	The roots are used for fevers.
251	Veluturu	Dichrostachys cinerea.	The young shoots are bruised and applied to the eyes in cases of ophthalmia. The roots are used in decoction for fevers.
252	Vepa	Azadirachta Indica.	*Margosa or Nim tree.*—This is a beautiful tree; its chief virtues reside in the bark, which has a remarkably bitter taste, and has been much employed. The natives consider it a most useful tonic in intermittent fevers and chronic rheumatism, administering it either in decoction or powder. The dried leaves added to common poultices act powerfully in preventing glandular tumours from coming to maturity. The same discutient effect is produced after the application of leeches, in all kinds of bruises and sprains, by a watery or vinous infusion of them, particularly when spirit of camphor is now and then sprinkled over the cloth steeped in the infusion. The greatest benefit has been derived from the application in the worst cases of compound fracture. A sacculus aromaticus of these leaves, with a few grains of powdered

No.	Telugu Name.	Botanical Name.	Uses.
			camphor seldom fails to afford relief in rheumatic affections of the ears, eyes, and teeth. The leaves beaten into a pulp and externally applied act like a charm in removing the most intractable form of psora and other pustular eruptions. From the pericarp of the seed an acrid bitter oil is expressed, which is a useful remedy in leprosy, and is, moreover, anthelmintic and stimulant, being used externally in cases of bad ulcers, and is a liniment in head-aches and rheumatic affections. It is obtained either by boiling or expression; is of a deep yellow color; and is much used for burning in lamps. It is also used in imparting colors to cotton cloths. The seeds, after being skinned, are employed to kill insects, and the kernels powdered and mixed with water for washing the hair. A gum is also got from the bark, used medicinally as a stimulant. A kind of toddy is produced from the young trees, which is said to be a good stomachic.
253	Vishabuddi ...	Sida acuta ...	The root is bitter, and is given in infusion in conjunction with ginger in intermittent fevers. The Hindus consider it a valuable stomachic, and a useful remedy in chronic bowel-complaints. The leaves made warm and moistened with gingelly oil are employed to hasten suppuration. The juice of the leaves mixed with honey is given in dysentery and pains in the chest, and is said to be a remedy in snake-bites.
254	Vishnukranta ...	Evolvulus alsinoides.	A widely distributed plant. The leaves, stalks, and roots are used in medicine and reputed to be excellent remedies in dysentery and fever.
255	Vomam	Ptychotis ajowan...	*Bishop's weed seed.*—The seeds have an aromatic smell and a warm pungent taste; they are much used by the natives for medicinal and culinary purposes. They are small plants, and are to be met with in every market.
256	Vudaga	Alangium decapitalum.	*Sage-leaved alangium.*—The juice of the root is reckoned anthelmintic and purgative. It is used in dropsy. The root powdered is an antidote to snake-bites. The leaves boiled in oil are used as a vulnerary ointment.
257	Vummetta or tella vummetta.	Datura alba ...	*White-flowered thorn-apple.*—The juice of the leaves boiled in oil is applied to cutaneous affections of the head. The seeds are employed in fevers about three at a dose, &c., and are with the leaves applied externally in rheumatic and other swellings of the limbs.

No.	Telugu Name.	Botanical Name.	Uses.
258	Vusirika	Emblica officinalis..	*Emblic myrobalam.*—The seeds are given internally as a cooling remedy in bilious affections and nausea, and in infusion make a good drink in fevers. They are also used in diabetes. Infusion of the leaves is applied to sore-eyes. Bark of the root mixed with honey is applied to aphthous inflammations of the mouth. The bark of the tree itself is astringent, and is used for tanning purposes. It is also medicinally used in diarrhœa. Of the fruit when dry the decoction is employed in fevers, and mixed with sugar and drunk in vertigo. The young leaves mixed with sour milk are given by the natives in dysentery.
259	Vuttarena... ...	Achyranthes aspera.	*Rough chaff flower.*—The root is used by the natives as a sort of tooth-brush. The seeds are given in hydrophobia and in cases of snake-bites, as well as in ophthalmia and cutaneous diseases. The flowering spikes rubbed with a little sugar are made into pills and given internally to people bitten by mad dogs. The leaves taken fresh and rubbed to a pulp are considered a good remedy applied externally to the bites of scorpions. The ashes of the burnt plant mixed with conjee is a native remedy in dropsical cases. A decoction of the leaves is a useful diuretic.
260	Yadatiga	.....	.....
261	Yampali	Tephrosia purpurea.	See No. 152.
262	Yella	.....	The root is a cooling substance.
263	Yenugakalabanda...	Agave Americana...	*American aloe.*—An extract of the leaves is boiled and applied externally in swellings and pains of the body.
264	Yenugapalleru ...	Pedalium murex ...	The whole plant has an odor of musk. If the leaves when fresh are stirred in water they render it mucilaginous, and this is given as a drink in gonorrhœa. The effect, however, goes off in 10 or 12 hours, leaving the liquid in its former state. The seeds are administered as a decoction for the same purpose. They are diuretic, and are used in dropsy. The leafy stems are used in thickening butter-milk, to which they give a rich appearance.
265	Yerra chittramulam.	Plumbago rosea ...	*Rose-colored lead-wort.*—The root when bruised is acrid and stimulating, and when mixed with oil is used externally in rheumatic and paralytic affections. It is also given internally for the same complaints. Also a good remedy in ulcers, cutaneous diseases, rheumatism, and leprosy. The leaves made into plasters are said by the natives to be a good application to buboes and incipient abscesses.

No.	Telugu Name.	Botanical Name.	Uses.
266	Yerra guruginja ...	Abrus precatorius...	*Red wild liquorice.*—See No. 137.
267	Yerra galijeru ...	Trianthema obcordata.	See No. 64.
268	Yerra ganneru ...	Nerium odorum ...	*Red sweet-scented oleander.*—See No. 219.
269	Yerripucha or budama.	Citrullus ciliatus...	The seeds, which are bitter, are mixed with oil and employed as a vermifuge. They are also occasionally used by farriers in diseases of horses. They yield a fixed oil by boiling, which is used for lamps by the poorer classes.
270	Yarravaludu ...	.....	There are two or three different kinds under this name, distinguished as yerra, nalla, and tella valudu; but the red is the chiefest; its bark is considered by the natives a powerful ingredient for venereal disease.

List of Miscellaneous Vegetable Products.

No.	Telugu Name.	Botanical Name.	English Name.
1	Allam (green root).	Zingiber officinalis ...	Ginger.
2	Avalu	Sinapis ramosa	Mustard seed.
3	Bellam	Saccharum officinarum ...	Cane jaggery.
4	Benda	Æschynomene aspera ...	Sola-pith.
5	Buraga banka ...	Odina Wodier	Curry wood gum.
6	Buraga dudi ...	Eriodendron anfractuosum.	Silk or tree cotton.
7	Cheruku	Saccharum officinarum ...	Sugar-cane.
8	Chintapaudu ...	Tamarindus Indicus ...	Tamarind fruit.
9	Danyalu	Coriandrum sativum ...	Coriander seed.
10	Ganjaya	Cannabis sativa	Common hemp plant.
11	Goguvittulu ...	Hibiscus cannabinus ...	Deckanee hemp seed.
12	Itabellam ...	Phœnix sylvestris	Date jaggery.
13	Itakallu	Do.	Date toddy.
14	Jigidiginjalu ...	Semicarpus anacardium ...	Marking-nut.
15	Kunkudukaya ...	Sapindus emarginatus ...	Soap-nut.
16	Muntamamidipappu.	Anacardium occidentale ...	Cashew-nut.
17	Pasupu	Curcuma longa	Turmeric.
18	Pogaku	Nicotiana tabacum ...	Tobacco.
19	Sarapappu ...	Buchanania latifolia ...	Broad-leaved buchanania seed.
20	Sikaya ...	Acacia concinna	Soap-nut.
21	Sonti (dry root)...	Zingiber officinalis ...	Ginger.
22	Tamalapakulu ...	Chavica betel	Betel leaf pepper.
23	Tatibellam ...	Borassus flabelliformis ...	Palmyra jaggery.
24	Tati kalakanda ...	Do.	Palmyra sucker.
25	Tati kallu ...	Do.	Palmyra toddy.
26	Tegalu	Do.	Young palmyra plant.
27	Tellapatti ...	Gossypium Indicum ...	White Indian cotton.
28	Tumma banka ...	Acacia Arabicum	Gum.
29	Vasa	Acorus calamus aromaticus.	Sweet flag.
30	Veduru biyam ...	Bambusa arundinacea ...	Bamboo rice.
31	Velaga banka ...	Feronia elephantum ...	Elephant or wood-apple gum.
32	Vepa banka ...	Azadirachta Indica ...	Nim tree gum.
33	Vatti vellu ...	Andropogon muricatus ...	Kus-kus grass.
34	Yerra patti ...	Gossypium Indicum ...	Red Indian cotton.

N.B.—In the preparation of the lists contained in this chapter, the compiler is chiefly indebted to Balfour's Encyclopædia, Balfour's List of Timber Trees, Drury's Useful Plants of India, and Sir W. Eliot's Flora Andrica.

Among the vegetable specimens sent from Nellore to the Madras Exhibition of 1857 was—

(1.) A cement extracted from the common *cactus* growing in wild profusion all over the Narasimhakonda hills near Nellore. It attracted attention from its similarity to the plant from which the kattimandu gum is made, and is said to be abundant in many parts of the district. It has been ascertained to be a highly powerful cement.

(2.) Specimen of caoutchouc.

The caoutchouc plant grows in great luxuriance both as a creeper and as a standard, and with great rapidity. It could be cultivated to any extent.

(3.) A few sheets of the paper made in the jail from the wild thistle mixed with old net. The thistles are dried and crushed in the paper mills and mixed with a proportion of old fishing nets, and much of the paper at that time used in the Zillah Court was thus made.

CHAPTER VII.

ETHNOLOGY.

Aborigines.—Scythian element.—The Dravidians.—The Aryans.—Hindus.—Religion and civilization.—Solar and Lunar dynasties.—Barbarian tribes.—Telugu.—Kalinga and Andhra—The characteristics of the people. YANADIES.—Origin.—Physique.—Sub-divisions.—Habits and livelihood.—Language.—Crime.—Marriage customs.—Religion.—Yanadies of Sriharikota. YERUKALAS.—Habits and means of livelihood.—Physical characteristics.—Crime.—Religion.—Marriage customs.—Institutions of family and property.—Language.—Origin.—Yerukalavaudlu.—Words and phrases of the Yerukala dialect—Cardinal numbers, Ordinals.—Nouns substantive.—Pronouns.—Phrases. SUKALIES or LAMBADIES.—Livelihood.—Crime.—Physique.—Dress.—Marriage customs.—Language and origin. CHENCHUS.—DOMMARAS.—OTHER MINOR TRIBES.—Wuddars.—Pamulavaudlu.—Muttarachavaudlu.—Dasarivaudlu.—Pichiguntavaudlu.—Criminal propensities of the different tribes.—Statements.

Aborigines.

WHEN the Scythian hordes penetrated the thick forests of Southern India they found aboriginal races already before them, but races so uncivilized that they designated them as foresters, mountaineers, hob-goblins, and devils. These

Scythian element.

Scythian colonists had been probably driven out of Northern India by incursions of other Scythian tribes. They settled down in the south and formed the Dravidian

Dravidians.

group. These Dravidian races of Scythian origin appear never to have been conquered by the fair-skinned Aryans, but the latter seem to have come in and colonized

Aryans.

the country, gradually to have obtained wealth and power, and, having two castes of their own—Brahmins and Kshetryas—to have converted the Dravidians generally into the fourth or Sudra class, admitting the more respectable members of the community into the intermediate or Vysia caste. Thus the Scythian and Aryan elements combined in what we term generally

Hindus.

the Hindus, although even to this day the distinctions of caste have kept the two upper castes perfectly distinct from the two lower ones. The Dekkan owes its

Religion and civilization.

religion, as well as its civilization, chiefly to Bahar, where the Magadha empire flourished. The country about the Cauvery river was cleared and cultivated by settlers from Oude. Rama's expedition to South India is perpetuated by the temple of Rameshwaram, which he is said to have founded, and which drew numbers of pilgrims from the north of India, who settled there and first cultivated the country. Among them was Pandion, who built the city of Madura. Trichinopoly was built by a colonist from Oude named Chola, who gave his name to the Coromandel Coast

which is properly Cholamandal, *i.e.*, the district of Chola. Agast the first person who composed a Tamil grammar, came from Nor India and led the Brahmins across the Vindhia Mountains into t Dekkan. He settled in the Dekkan; "became the father of Ta

Solar and Lunar dynasties.

grammar and medicine;" and introduced letter and religion among the tribes of Dravira. As t Brahmins invented for the Kshetrya princes of Northern India dyna ties traced to the sun and moon, so we find in Southern India the Solar and Lunar dynasties perpetuated.

In a note to Professor Wilson's Translation of the Ancient Drama

Barbarian tribes.

Mrichchakati, there is a list of the countries which are considered as inhabited by barbarian tribes or Mlechkas, that is otherwise than Hindus. Among the countries specified are Karnata (Carnatic), Andhra (Telingana), Chola (Coromandel). Some three or four hundred years before the Christian era we read that the Yavans frequently invaded Orissa. Elphinstone alludes to the Yavans of Telingana who have all Sanscrit names. Yavanas have been taken to mean the children of Yavan or Javan (the Jaones), or great ancestor of the Greeks. The early Yavans* may, therefore, have been Bactrian Greeks, the remnant of the expedition of Alexander the Great. The ruler of the Magadha kingdom at the time of Alexander's invasion in B.C. 327 was Nanda, and he was eventually succeeded by Sandradothus or Chandragupta, with whom Seleucus, Alexander's General, made a treaty.

The District of Nellore is a portion of the ancient division of Southern

Telugu.

India—Telingana. Tradition states that the origin of the name is Tri-lingam or impure Telugu. Modagalingam, the country of the three lingams, or mystic symbols of the divinity Shiva, who is said to have descended upon the three mountains, (1) Shree Shailam or Parvatam, (2) Kaleshwaram, and (3) Bhimeswaram. These three lingams are said to have marked the chief boundaries of Telingana.

Mr. C. P. Brown, in the introduction to his Telugu grammar, notices that Ptolemy mentions "Triglyphon vel Trilingam regia," but places it beyond the Ganges; and that Pliny, alluding to the same region under its purer name of Modogalingam, makes it an island in the Ganges: "Insula in Gange est magnæ amplitudinis, gentem continens unam, Modogalingam nomine." He accounts for the apparent inaccuracy, as to situation, by pointing out that the Godavery as well as the Ganges proper are both known by the name of Gunga. Mr. Brown goes on to state that from the adjective Trilinga by a general grammatical rule is derived Tilinga, or, as it is more generally written, Telinga. From

* See Political History, Chapter XIV.

nga, also by corruption, the native grammars derive the words
ugu and Telugu.

he country appears to have been sub-divided at a very early period
into the Kalinga and Andhra provinces. Kalinga
linga and Andhra. stretched northwards from the Godavery to the
ges, and the nation is mentioned by Pliny as "Calingæ proximi
" and "Gentes gangaridum Calingarum," and the people of Telin-
na are still known to the inhabitants of the eastern islands by no
ther name than Caling or Keling. Andhra, whence the first ancient
nasty of Hindu emperors appear to have derived their name, seems
o have been an inland sub-division to the south of the Godavery,
Characteristics of the people. greater in extent than Kalinga. Pliny thus
alludes to the Andhræ as a superior people:
Validior deinde gens Andhræ plurimis vicis xxx. oppidis, quæ
nuris turribusque muniuntur; regi præbet peditum C.M. equitum M.M.
elephantos M." The Andhra race of sovereigns appear first to have
been located at Shrikakolam* on the banks of the Kistna, and after-
wards to have established their capital on the banks of the Godavery.
We afterwards find Rajahmundry as the capital of the kings of the
Chalukya race.

In Chapter XIV. we have endeavoured briefly to trace the evidences that we have of the successive dynasties of the Chola Rajahs, the Yavans, the Gazapatti Rajahs of Warrangal, and the Narapatti dynasty down to Mahomedan times.

As we elsewhere (Chapter VIII.) treat of religion and castes, it will be unnecessary here to enter into any particulars with regard to the Hindus proper. The language of the district is Telugu.

The following account of the wild tribes of the district has been extracted from a report by Mr. H. E. Stokes, M.C.S., and is based upon the previous reports of Dr. John Shortt:—

"A great deal has been written about the Yanadies of Sriharikota,
Yanadies. and great efforts have been made by Government
to ameliorate their condition and civilize them to
some extent; but it would seem with comparatively little effect, their condition as described by Dr. Shortt in his report of 1864 being very little below that of their brethren on the mainland, for whom nothing has been done, and to whom they bear, in point of numbers, a very small proportion. The Yanadies of the district numbered 20,000 in 1865; those of Sriharikota 489 in 1867. Previous to Mr. Dykes' letter†

* Leaden coins of Gotamiputra and Pudinayi his successor, date about the first century of the Christian era, have been found at Amravate, or rather the site of the ancient city of Dharinikota on the river Kistna.

† *Vide* letter to the Board of Revenue, No. 182, dated 31st July 1865.

of 1865, no notice seems to have been taken of the former. I wi
give a brief account of the Government dealings with the Sriharikot
Yanadies after I have described the tribe generally.

"Nothing certain is known on this point: the people have no triba
traditions, and there is nothing in their language
Origin. or religion to indicate their descent. To call
them, with Dr. Shortt, 'aborigines,' simply means that their origin is unknown, and that their state of civilization is lower than that of their neighbours, and the two derivations* of the name which are suggested in his report are altogether fanciful. The first 'a' in Zanadi is long, and it is usually found that when a tribe bears a name of foreign origin a native word is also in use; there is none among the Yanadies. The 'y' therefore is radical. The second derivation offered is open to the same objections. All that can with certainty be said of them is that they are a Dravidian tribe, and show, with the rest, the Mongolian type, of which Dr. Shortt speaks.

"In his report† above alluded to, Dr. Shortt fully described the
Physique. Yanadies of Sriharikota, and the description as
regards physique is applicable to the tribe throughout the whole district. He says:—'Their type of features is Mongolian; broad about the cheek bones, which are also more or less prominent; with a pointed chin; a scanty moustache; no whiskers, and a scanty straggling beard over the forepart of their chins . . . . . The men are pretty tall and lanky in appearance; their muscles are soft and flabby . . . . The men are generally dark colored, but the women vary from dark to a brown bamboo' (se.color.) Among 25 men examined by Dr. Shortt, the tallest was five feet nine and a half inches, and greatest weight obtained 118 lbs.; average height 5 feet 4·8 inches; average weight 100·4 lbs.: and of 25 women, the tallest was 5·3½; the greatest weight obtained 100 lbs.; average height 4 feet 10·6 inches; average weight 82·6 lbs. I have noticed that the men are usually bow-shinned, and have a scant development of the muscles of the calf. The inland Yanadies are finer men than those on the coast. Mr. Dykes appended to his letter above mentioned a statement, from which it appears that the Yanadies in the district amount in round numbers to 20,000. 15,406 are in the Collector's Division‡ and the Zemindary tracts, the largest number (4,019) being in Nellore; half

* 1.—"A" privative and S.K. "Natha," a lord or protector. 2.—"A" privative and ādi beginning.

† *Vide* Government Proceedings, dated 17th May 1864.

Coast.		*Inland.*	
‡ Nellore ... Gudur ... Pulur ...	10,035.	Atmakur ... Rapur ... Venkatagiri ...	5,361.

remainder are in Kavali and Kandukur: there are very few in the extreme north and north-west.

Sub-divisions.

"There appear to be no well-marked sub-divisions among the Yanadies. Tamil and Telugu Yanadies in Polur are mentioned. These Tamil Yanadies are perhaps some of the Villie tribe mentioned by Dr. Shortt, who have strayed thus far north from the Tamil districts. The Yanadies in Ongole and the north seem to have some caste customs, no doubt borrowed. They are divided into the refuse-eating Yanadies and those who do not eat refuse. In Nellore the Kappala or Chatta, *i.e.*, the frog-catchers, and the Panta or Crop Yanadies, and in Kavali the Somaries or idle men appear. These names obviously do not indicate radical sub-divisions. The Yanadies adopt house names.

Habits and livelihood.

"In their persons the Yanadies are filthy in the extreme. Their clothing is of the scantiest nature; the men have seldom anything but *langoties*, and the women wear the merest rag of a cloth. The men tie their hair in a knot usually on the top of the head; the women have their hair flying loose. The huts are mere circular frames of sticks, usually six or eight feet in diameter, and thatched with palmyra leaves, and they crowd into them like pigs. They seldom possess anything but a few pots and fowls. They gain their livelihood, some few as agricultural laborers, some by making mats and leaf platters, and by cutting firewood in the jungles and selling it. They are most commonly, however, employed as watchmen for crops, &c., and in pounding paddy in the villagers' houses, receiving as wages small quantities of grain. In the Southern Coast Taluqs some are found in every village, and they are not so migratory in their habits as in the inland and northern parts of the district. In the Udayagiri and the inland taluqs they live principally by hunting —an avocation which entails constant movement from place to place.

Language.

"They speak Telugu only among themselves, with an 'elongated sound,' as it is described, probably a drawling pronunciation of the long vowels.

Crime.

"It will be seen from the crime statement that the offences to which the Yanadies are most addicted are house-breaking and theft, and that they do not, as a rule, commit crimes attended with violence to the person, such as robbery and dacoity. In the Ongole Taluq they are said to organize these crimes,* but this is quite exceptional. The intimate acquaintance with the houses and the habits of their inmates which they acquire while pounding paddy or performing other domestic services for the people, gives them great facilities for the commission of house-breaking.

* *Vide* Lieutenant Balmer's letter to Mr. Dykes, dated 22nd May 1865, No. 317.

Marriage customs.

"The reports of the Tahsildars and my own inquiries lead to the conclusion that Dr. Shortt's account of the marriage customs of the Yanadies of Sriharikota applies equally to the district Yanadies. The union is based on the consent of the parties and that only; the man and woman, without consulting their friends, themselves arrange the matter, and afterwards the friends are assembled, betel and nut distributed, the marriage string tied on the neck of the bride, and she is taken to her husband's house. Consent and inclination of the parties evidently implies maturity on both sides, and it is found accordingly that the Yanadi women are never married before they attain puberty. The marriage tie among the district Yanadies is very loose: adultery is common; but the Yanadies of Sriharikota are stated by Dr. Shortt to be very jealous of their conjugal rights. Re-marriage of widows is the rule. Polygamy is practised, some men having as many as seven wives. Dr. Shortt expresses his opinion, apparently based on this fact, that the women outnumber the males; but it appears from the figures given below that the excess is very slight. The custom of tying the '*talli*' or marriage symbol round the necks of the married women seems pretty generally adopted; it is of rarer occurrence in the inland taluqs. The women, when they can afford it, wear the usual bangles, &c.

Religion.

"The religious rites of this tribe appear, as well as their marriage customs, to be copied in great measure from, or at least to resemble strongly, the usages of more civilized Hindus. They wear "*bottus*" or marks on their foreheads like other Hindus; they offer sacrifices in the same way; they call themselves Vaishnavas and Saivas, probably without understanding the differences between the sects. The god in vogue at Sriharikota is called 'Chenchu Devudu,' the wild or savage god, a name obviously given by others than his own votaries. He is a large wooden idol, to whom fortnightly sacrifices of cooked food, flowers, &c., are made. The Yanadies have no idea of a future state. They invariably bury their dead.

Yanadies of Sriharikota.

"The small section of the tribe which inhabits part of the island of Sriharikota has long been the object of special measures on the part of Government, with a view to its civilization. The mutta of Sriharikota came into the possession of Government in the year 1835. Previous to that time the Yanadies who dwelt in the jungles were rarely seen, and were in a state of complete barbarism. They lived on fruits, roots, and other jungle produce; and, in order that they might have an occupation which would at once be congenial to their habits, and would have the effect of bringing them into contact with civilization, they were employed in the collection of jungle produce, which was delivered to Government

agents; and of the sale proceeds a proportion, varying at different times, was devoted to the remuneration of the Yanadies. In order that they might be induced to adopt the use of rice and clothing, these commodities were supplied to them instead of money, of the use of which they were quite ignorant. At the same time, to restrict their wandering habits, a system of registration was introduced, and continued to the present time. All marriages were also registered, and premiums on births were given at the rate of two annas six pie for male, and one anna three pie for female children. From the papers to which I have had access, I have not been able to discover the dates of the introduction of these several measures; but that they had their natural effect in increasing the numbers of the tribe is clear from the subjoined table which I have compiled from incidental statements in the papers sent from the Madras Collector's Office when Sriharikota was transferred in 1863 to this district.

Date.	Males.		Females.		Total.	
	Adults.	Children.	Adults.	Children.		
1835 ...	...	...	...	...	199	Board to Collector of Madras, 22nd February 1858.
1852 ...	...	...	...	...	317	Collector to Board, 21st October 1856.
1855 ...	...	...	...	...	347	
1856 ...	...	...	...	...	419	Board to Collector of Madras, 22nd February 1858.
1861 ...	106	99	130	109	444	Sub-Collector of Madras to Collector, 15th June 1861.
1862 ...	172	...	154	...	561	Including 235 children; children not classified. Collector to Board, 25th March 1862.
1865 ...	112	102	146	103	463	Mr. Dykes to Board (above-mentioned letter).
1867 ...	122	110	157	100	489	Assistant Collector of Nellore to Collector.

"The total in 1862 seems too high to be correct, as an increase of 121 in one year is impossible. The tribe has, at all events, increased in 32 years nearly 150 per cent. Mr. Dykes' orders, issued in 1865, that all interference with their leaving the jungles should cease, do not seem to have had any effect in lessening the numbers of Yanadies on the Government books. There have for some years been about eighty Yanadies, besides those on the Government books, on the island of Sriharikota, having probably immigrated from the mainland; and these may have been included in the census of 1862. Mr. Dykes says that the Government Yanadies are thoroughly honest, but in this point he is contradicted by Dr. Shortt, who in his report says that 'theft is well understood by them.' The proportion of the amount realized by the sale of the jungle produce, which has been devoted to the remuneration of the Yanadies, has varied at different times; it was $\frac{2}{3}\frac{1}{3}$ per cent. in 1843, was increased to 35 per cent. in 1844, to

50 per cent. in July 1845, and in November of that year, under the orders of the Court of Directors, to two-thirds. In 1861 the whole value was given. In practice the expenditure on the Yanadies from 1855 to 1861 was greater than the limit fixed, but before 1855 it was usually much less. The work of collection of jungle produce is carried on from November to July, inclusive, and during the remaining months, when the Yanadies have no other means of subsistence, three measures of paddy per month are given to each. In addition they received, both males and females, a supply of cloths in July and September of each year. The rates of payment are as shown below :—

	Paddy. Measures.	Tobacco. Pollams.
For one measure of honey	2	½
„ Suratichekka per viss...	2	1
„ Tamarinds per basket...	1	...
„ Pelting tamarinds per 20 viss... ...	1	...
„ Cheyroot per 20 handsful	1½	...

"An important change was introduced in 1855, viz., the substitution of part-payment in money for the system of payment wholly in kind which had prevailed previously. Half the value was then paid in money, and the Yanadies were left to purchase for themselves in the shops the articles which they needed. This succeeded so well, that in the year 1860 Mr. Cunliffe, then Collector of Madras, recommended that the payments should be made wholly in money, which was sanctioned; but the system of part-payment in kind was reverted to in 1861, and still continues in force. Attempts were made to induce the Yanadies to cultivate on their own account, and a small piece of land (about three-quarters of a cawny) was cultivated by four of them under the direction of the Government officers; but it was only by compulsion that they could be induced to engage in this occupation, and their example had no effect on the tribe. An attempt to induce them to rear cattle and sheep was equally unsuccessful. A school was established under the orders of Government, dated 6th August 1857, No. 1,078, and a master on Rupees 10 per mensem sanctioned. A second master was added in 1860. The boys are taught reading and writing in Telugu and some arithmetic and geography. They are also taught basket making. From 40 to 50 boys are usually on the rolls, and they receive each a measure of paddy per diem. Of their progress varying reports are given, but they are on the whole favorable; and it is anticipated that on leaving the school these comparatively civilized boys will leaven the whole tribe. In the year 1860 such an amount of good was found to have resulted from the measures adopted, that Government expressed their opinion that it was no longer necessary that they should act as middlemen between the Yanadies and the

consumers of the gums, &c., collected by the former, and that the Government dealings with them, by providing them with a ready market for these things, tended directly to confirm them in their wild and irregular jungle life, and to deter them from seeking regular industrial employment. They, however, on the recommendation of the Board, sanctioned the continuance of the former system for a few years longer. It would certainly seem that (as stated by Mr. Dykes) by the extension of agriculture and the opening of the Sriharikota jungles for the supply of firewood to Madras, regular industrial employments are available for the Yanadies, and that the reasons for the cessation of Government dealings with the tribe, which were near prevailing in 1860, have double force in 1867.

Yerukalas—Habits and means of livelihood.

"These people wander from place to place, as they find it easy to gain a living, pitching their huts generally in open places near villages. Their property consists principally of cattle and asses, and they act as carriers of salt and grain; they cut firewood in the jungles and sell it in the villages; they also gather and sell a leaf called karepaku (the black margosa); they eat game, flesh of all sorts, and jungle roots. They all, both women and men, pretend to tell fortunes; these people, like all the wandering tribes of the district, are basket makers. Sometimes, when they halt for a length of time at a village, they work for cooly for the ryots, and it is stated that in some cases wealthy Yerukalas settle down permanently and engage in cultivation, holding lands on puttah like other ryots. A number of sub-divisions of the tribe are given by the Tahsildars in their reports, but these are evidently mere names, and refer to the different occupations which the tribe engage in, such are, Kattevandlu (fire-wood men), Gampavandlu (basket makers), Vuppuvandlu (sellers of salt), Muchivandlu (said to be those who live by wages), Dabbavandlu (those who work in split bamboos), Karepakuvandlu (those who sell that leaf), Dodduvandlu, Vetirivandlu (viz., hunters) and Yerrabodivandlu.

Physical character. istics.

"On this head I can give no very definite information. The people are usually dark, though some light colored men are found among them. The average color seems to be a very dark brown, not the deep black which is characteristic of the Yanadies. The few specimens I have seen seem to me to be of higher race than the Yanadies, and to be in no way inferior either in physique or intelligence to other low caste Hindus, who are supposed to be more civilized. Their bodies are usually very filthy, and they, as a rule, wear no clothing, except a piece-cloth. They are stout men and very hardy in constitution. Like the Yanadies they tie their hair in a knot over the forehead.

Crime.

"Lieutenant Balmer, in his letter to the Collector, dated 22nd May 1865, No. 317, writes the following as to the Yerukalas:—'The crimes they are addicted to are dacoity, highway robbery, and robbery; they are the most troublesome of our wanderers.' The number punished is shown in the statement appended. They are not so addicted to petty crimes as the Yanadies.

Religion.

"The gods whom they chiefly worship are Mahalakshmi and Venkatesvara (to whom the Trippati temple is sacred), and they also sacrifice to the pitris, or manes of their ancestors. They state generally that all gods worshipped by Hindus are worshipped by them. The old men of the tribe are priests. Each tribe or family has a god, which is carried about with the encampment. One, which I have seen, was a piece of wicker work, about five inch square, cased in black canvas, one side being covered with white sea-shells imbedded in a red paste. It was called Polaperamma.

Marriage customs.

"Polygamy is practised among the Yerukalas, and the number of wives is only limited by the means of the husband. There is no polyandria, nor is there any trace of the custom, which some times is found among rude tribes, of the brothers of a family having their wives in common. The marriage string is always tied round the neck of the wife. The females are said not to marry till they are full grown. The ceremony usually takes place on a Sunday, *puja* having been made on the Saturday. Rice mixed with turmeric is poured on the heads of the married couple; the marriage string is tied on, and the ceremony is complete. During the lifetime of her husband a wife may not marry another man, but after his death she may if she wishes. It is not usual for a woman to marry again if she is past bearing, or if she has had two or three children. Marriage of relations within the degree of first cousins is not allowed. The rule is relaxed with respect to a man marrying the daughter of his father's sister, which is not only allowed, but a custom prevails that the two first daughters of a family may be claimed by the maternal uncle as wives for his sons. All wives are bought from the parents, and a wife is valued usually at 20 pagodas. The maternal uncle's right to the two first daughters is valued at 8 pagodas of the 20, and is carried out in this way: if he urges his preferential claim and marries his own sons to his nieces, he pays for each only 12 pagodas; and similarly if he, not having sons, or from any other cause forego his claim, he receives 8 pagodas of the 20 paid to the girl's parents by any one else whom they may marry. It is stated that in Venkatagiri the first wife only costs 20 pagodas, and all the others less than 2; however, those Yerukalas,

whom I have questioned, state that there is no difference in this respect; and it is difficult to see why the parents of a girl should charge less for her, because she is to occupy a subordinate position. It is stated that in Gudur the price of a wife is 12 pagodas. The money is not paid in cash, nor usually at the time of marriage. Agreements are made, and asses are the consideration which usually passes. No documents are exchanged, but the contracts are enforced by suit in the way mentioned below:—

Institutions of family and property.

"In each gang of these people, there are usually many distinct families. These have family names, answering to the village or house names of other Hindus. The system of undivided families prevails, but the tie is very loose. Any member of an undivided family of brothers may demand partition of all the property at any time, and separate himself. If a son wishes to leave his father's family he can do so, and the father may or may not give him a share of property as he chooses. If he refuse, the son has no remedy during his father's lifetime, but after his death he may claim a share. He does this by assembling a number of the old men of the tribe and stating his case before them. They may adjudge his share to him and enforce their decree, in default of compliance by defendant, by declaring him outcast, by making him keep at a distance from the camp, refusing him fire and water, denying him the right of marriage among the tribe, &c. If, having been made an outcast, he afterwards submit and satisfy the claim in the presence of as large an assembly as condemned him, he is re-admitted. A man supports all his children by all his wives. If he has a great number, the brothers will take some of them and rear them; but when they are grown up they return to their father's family. Sons so reared will, through gratitude, support their uncles in their old age. On a man's death his property passes to his sons. If he have no sons or wife, the brothers take. If the sons be minors, the wife or brothers take and maintain the children. Should the brothers refuse to do so, the sons shift for themselves; and when they are grown up they claim the property before the elders in the way above mentioned. When a man wants to assemble the elders for the purpose of deciding on any disputed point, he goes about and collects the old men, giving each a meal of rice. Any old man is competent to act. Thus costs of suit are always paid by the plaintiff—a rule calculated at least to check litigation.

Language.

"I have collected a number of words and phrases of the language spoken by the Yerukalas among themselves—a language which is unintelligible to the Telugu people. The most cursory glance at these is sufficient to produce the conviction that it is a Tamil dialect. It has been considerably mixed,

as is to be expected, with Telugu and Canarese, but in its structure it is plainly Tamil. The Yerukalas understand Tamil when spoken, and it is superfluous to state analogies between their dialect and Tamil, inasmuch as the former is nothing but a patois of the latter, in which Telugu and Canarese words are freely used.

Origin.

"There can be no doubt as to the fact that the Yerukalas are a Tamil tribe, but there are some points connected with the name and language which seem to throw further light on the question. The name has two forms in Telugu—one Yerukuvandlu, said by Brown and Campbell to be derived from 'Erugu,' to know, and to have reference to their fortune-telling powers; and one Yerukalavandlu: the first part of this word is evidently not a plural of 'Yeruku,' but a distinct word. This seems to be recognized by Brown and Wilson, who conjecture that 'Yeru' is a prefix to be connected with the word 'erra,' red. Wilson has the following remarks in his glossary:—"Yerukulavar (?) Telugu, probably for Erukuvadu, plural Erukuvandlu, and the same as those corruptly termed Yerkelwauloo, Yerakedi, Yerakelloo (ఎరుకలవాడు) . . . They are also said to be called Koorshewanloo, Yerkelvanlu, Yerukedi, and Yerakelloo, but to be known among themselves as 'Kurra.' They are possibly the same who appear among the practical slaves in Kurg, under the name of Yerravauroo, *i.e.*, Erravandlu (?) red men, or Yevaru, or Yerlau, or Yerekleu (?), also specified among the servile races of Kurg." The Yerukalas in this district state that their tribe name in their own language is 'Kurru,' also 'Kola;' and I think there can be no doubt that the 'Yer' or 'Yeru' is a mere prefix, and that 'Kala,' Wilson's 'Kullevar,' represents the real name of the tribe. To connect 'Yer' or 'Yeru' with the Telugu 'erra,' red, seems quite meaningless; it might perhaps be compared with 'Yervaru' mentioned by Wilson, or which seems more plausible to suppose it to be the word 'Yeruku' (which, as has been said, is one designation of the tribe in Telugu) compounded with the real tribe name 'Kurruvandlu,' or Kolavandlu, when, according to a common euphonic law in Telugu, the two 'Ks' would coalesce, and the word become Yerukkalavandlu. The second 'K' would easily be dropped, and the word assume its common form Yerukalavandlu. I have been unable to find that there are any traditions among these people as to the country from which they came: one of them indignantly repudiated the notion of a Tamil origin. The language, however, and the tribe name 'Kurru' seem to me unmistakeably to point to the identity of this tribe with the well known Kuravar or Koravar of all the Tamil districts. Wilson has no mention of the latter, but has of two Canarese tribes—

"(1) The Koracharu, Korcharu, Korvaru, or Korsaru, a basket making tribe in the Carnatic (the name is given in Canarese), and (2) Korava-

rava, Kormaravame, or Koravame; abbrev. Koravar, Koramar. The name of a low tribe in Mysore (of which there are three branches) *with a dialect of their own.** The existence of a considerable number of Canarese words and forms in the Yerukala dialect is at once accounted for by the annual migration, spoken of above, to the Canarese country and Bellary. It is also a plausible supposition that the tribe came to the Telugu country through Mysore.

Words and Phrases of the Yerukala Dialect.

I.—*Numeral Series—Cardinal Numbers.*

1. Ondu.	10. Pottu.	50. Anjarikapottu.
2. Randu.	11. Padinondu.	60. Ararikapottu.
3. Mūdu.	12. Pannendu.	70. Ērikapottu.
4. Nālu.	13. Padimūdu.	80. Ettarikapottu.
5. Aŭju.	14. Podnālu.	90. Onbarikapottu or Onbidipottu.
6. Āru.	15. Podinaŭju.	
7. Ēgu.	20. Irudi.	100. Nūru.
8. Ettu.	30. Muppidu.	1,000. Pottanūru.
9. Onbidi.	40. Nāpidu.	

"The general identity with the Tamil series is obvious.

"The words for 3, 12, and 13 are Telugu. 'Ēgarika'—and 'onbadarika'—'pottu' have been contracted to 'ērika' and 'onbarika.' The formative 'arika' is curious. The Tamil 'āyiram' 1,000 (said to be from Sk. sahasra) is not understood by the Yerukalas.

"The ordinals are 'minne,' first, (cf., Tam. 'mun,' &c.,) 'perugile,' second, (apparently a locative from perugu. Cf., Tam. 'piragu' adv. and 'pirakku' sub., the back part), attukuperugile, third, *i.e.*, second to that nalo, fourth; anjo, fifth; āro, sixth, &c.

II.—*Nouns Substantive.*

Rice	Sōrā; Tam. soru.
Water	Tanni; Tam. tannīr.
Father	Āva; Tam. appan; Tel. appa.
Mother	Amma, Tel. Tam. tāy is also used—*vide* phr. 24.
Son	Magani; Tam. magan.
Daughter... ...	Magale; Tam. magal.
Younger brother...	Tembi; Tam. tambi.
Husband	Manāgam. A masculine suffix 'm' is queer; but cf. inf. 'pyētam,' 'sottam,' and 'kēpāyam.' The root is to be found in the Tam. manai, a family, house, or wife.
Wife	Mondu or pondu, either from the same root or from Tam. 'pen,' female, 'p' being changed to m. Cf. inf.
Wall	'Goda,' Tel.

* Qy. Tamil.

Stone	Kellu; Tam. kallu.
Hunger	Pasi; Tam. pási.
Pain	Noppi, Tel. To pain is nokkudu; Tam. nōgiradu.
Head	Talakāy, Tel. Tam.
Hair	Megiru; Tam. mayir.
Hand	Kīya; Tam. kai.
Right hand ...	Sōrā kīya; Tam. soru kai.
Left hand ...	Pura kīya; 'pura,' cf. perugu, Tam. piragu, &c. The idea is the same as in the Tam. pisa kai.
Leaf	Ili; Tam. ilai.
A month	Mādam, vulg. Tam. for māsam; this corruption never occurs in Tel.
Elder sister ...	Akka, Tel.; Tam. akkāl.
Younger sister ...	Tamisi; Tam. tangaichi.
Grandfather ...	Tāta.
Grandmother ...	Appa.
Father's brother...	Sottam.
Mother-in-law ...	Atta, Tel. Tam.
Grandson ...	Pyētam. Cf. Tam. peyiran.
Granddaughter ...	Pyēti; Tam. peyirti.
Marriage	Kanyālam, fr. kalyānam.
Ear	Soyya, plur. soyyanga.
Blood	Regam.
Woman	Pavidi, pangeru. Cf. Tam. pen.
Old man	Kēpāyam.
Old woman ...	Kemla (Qy. cf. kilavan and kilavi).
Mouth	Vāy, Tam.
Horse	Kudira, Tam.
Belly	Varugu; Tam. vayiru.
Back	Nedu mudu, *i.e.*, middle back; Tam. 'nadu' and mudugu.
Tooth	Pellu.; Tel. pallu; Tam. pal.
Leg	Kāl; pl. kālinga.

III.—*Pronouns.*

I ...	Nānu, Tam.
Thou ...	Nī, Tam., also nīnu. This is perhaps the Canarese pronoun. The form nīn is, however, used also in Tamil—Cald., p. 307, &c.
He ...	Avanu; Tam. avan, also 'idu' qy. for Tel. vīdu.
She ...	Avale; Tam. aval.
It ...	Attu. This is also used for masc. sing. and plur.—*vide* phrs. 30, 31.
We ...	Nānga; Tam. nāngal.
You ...	Ninga; Tam. nīngal.
They ...	Avē. Qy. for avā, fr. avāl, vulgar plur. for avargal (ikkivē for ikkivān, phr. 7), also phr. 32.
What ...	Yettu.

The possessives are formed by the neuter demonstrative suffix, *e.g.*, namad, attad. The 'd' is soft namad; therefore cannot be the vulgar Tamil nammiḍa for nammuḍaiya. Some of the Telugu inflexions are used.

IV.—*Phrases.*

1. I drink water ... Tanni kuḍikirēn. The nasal is very obscure in sound.
2. To eat rice ... ... Sora tingaru—Cald., p. 424.
3. My wife ... ... Nā monḍu.
4. Your father is here .. Ning āva iṭye ikkidu (ikkidu for iṛukkiradu.)
5. I am here ... ... Nān iṭye ikkirēn.
6. Thou art here ... Nīn iṭye ikkiré.
7. He is here ... ... Iḍu iṭye ikkirē.
8. She is there ... Avale aṭye ikkidu.
9. My mother is coming. Nāng amma varāyidu. Qy. root 'var' with 3rd pers. neut. of a tense of āgiradu, cf. Tam. construction varal āgiradu and compare next two phrases.
10. I am coming ... Nān vārēn (for varugirēn) or nān varākirēn.
11. The rain falls ... Maga peyāyidu; maga, Tam. malai. For change of l to g, cf. ēgu, seven for ēlu.
12. She goes ... ... Avale pōkiradu.
13. We all of us go there. Nānga aḍḍeru aṭiko pōgirō (aḍḍeru, cf. ellā-ru.)
14. You all ... ... Nīng aḍḍēru.
15. Our horse... ... Nannad kudira.
16. A good man ... Nalla manusan.
17. His horse ... ... Attad kudira.
18. A man who can't walk, can't walk. Nadakkāra manusan, nadakka māṭṭāḍa. (The 'd' to 'r' change is found sometimes in Tam.)
19. I will beat him ... Nān attu moṭṭirēn (cf.? Tam. muṭṭugiradu.)
20. Give a little more... Inna rava koḍu.
21. A peon went and brought us. Bantrōṭ pōy asakkanu vandasu. Qy. for Tam. alaittu koṇḍu vandadu.
22. I will take it ... Attu nān mānkirēn (mānkirēn for vāngugirēn. See phr. 38; compare the change of m to p and v v in monḍu or poṇḍu a wife, and m to v in phr. 42.)
23. I told my father and came. Nānga āvaṭu sonniṭṭu. (The post position ṭu is for ōḍu or ōṭu changed perhaps under influence of Tel. ṭō; ōti occurs phr. 31; sonnittu is for sonnu = solla and iṭṭu past part. of iḍugiradu.
24. He told his mother and came. Tāyiṭu sonniṭṭu varākirē (see note on pronoun "they.")
25. Give more ... Marittana koḍu; ittana, Tam. ittanai.

26. I will ask him to give. Tara sonni kēkirēn; tara from tarugiradu. Sonni = solli kēkirēn, Tam.
27. Come to-morrow at noon. Tallāriki maddāntuku vā. The first word is Tel.; the second is for maddiyānattuku, and shows the Tamil increment in declension of nouns in 'am.'
28. In three months ... Mūḍu māttuku (for mādattuku).
29. Yesterday, to-day... Nesaru; yēmānam. Cf. nērru, Tam. Qy. is yimmānam = yīmānam, the prox. demonstrative with mānam which in Sk. and in Tam. means a period of time and also the sky.
30. I will go to their house. Attiṭṭudāṭuku pōy vārēn. I don't understand the post position dāṭuku. It is a dative. It may be for 'iḍattuku;' the ṭ is, however, hard—*vide* phr. 46 for a locative (?) of the same, and phr. 52.
31. I will fight with him. Attōti pōtlāttirēn, Tel.
32. He worked in that village and came. Avvūrile pani sēndu vandō. (Note the Tam. loc. 'e' seems to be added to fi '1.' Cf. magalo avale,—Sēndu for seydu *vide* Cald., p. 129—vandē = vandān.
33. I will get up and go now. Ippuḍeḍindu pōgirēn; (eḍindu, cf. T elundu).
34. I went outside ... Vēlisi pōy vandēn (cf. Tam. velliyē, veli pala).
35. I will go to the tank and draw water. Tēṅki pōy tanni eḍuttu koṇḍu vārēn monḍu koṇḍu vārēn. This is all pure
36. When I came the house was shut up. Nān vāndappiḍi viḍu mūsikkudu. (Mū apparently Tel.; mūsikkudu = músi ir kudu).
37. Be careful till I come. Nān varadākā nalagiru. Dāka is the Tel. position. Nalagu, Cf. nalla. Not Tam. imperative.
38. I will take whatever he gives. Avan yettu tarākō attu mānkirēn; (tarāku tarākiro. Cf. phr. 10.)
39. He did that well ... Attu nalla sēndā.
40. I will kill him ... Attu koṇḍu pōrrēn. Koṇḍu = konru pōri = pōḍugirēn.
41. I will buy and bring a cow. Nān māṭṭe koṇḍu koṇḍu vārēn (cf. Tam. ... māṭṭai.
42. I am hungry, I will eat, I must eat. Pasi varākkudu tingirēn, tinga vēnu or tinga ménu (= Tam. tina vēnum.)
43. The man who killed you. Ninnu koṇḍu pōṭṭa manusan; (ninnu, Tel.
44. For how much will you sell that? Attu yettanuki yikkirā. (Qy. for virkirāy

45. How many clothes have you brought?	Yettana batte (or tuni) eduttu kondandē (for kondu vandāy.)
46. What have you got there? Nothing.	Nindāṭi yendikkudu; yendilla. Nindāṭi, Cf. remark phr. 30 and pronoun nīnu, of which this is an inflexion; and Cald., p. 307.)
47. They came from behind.	Perugilindu varāyidu; (pirakkilirundu, Tam.)
48. They are going ...	Avē pogāyidu.
49. This does not suit me.	Nāku sarigilla; (nāku is apparently Tel.) The 'g' in sarigilla is an adverbial formative and = Tel. గా, Tam. āga. Cf. 'nalagu,' phr. 37.
50. We will go in front.	Namare minne pōm or pōgākirōm, (pōm for pōvōm. Namare = Tam. nammavar or nammar.)
51. The price has diminished.	Dara vangi pōsu; (pōsu for pōsuṇdu vuig." Tam. for pōnadu; 'vangi' is obscure.)
52. I will come to your house to-night.	Nāvāriki ningadi tuḍāṭuku vārēn; (nāvārike = to-night is not clear; vāvariki is used in Tam.; it may be for this).

e above list is very imperfect, but it is, I think, sufficient to show e so called Yerukala language is a Tamil dialect. It was very t to make the men understand that I wanted them to translate phrases into Yerukala; and I am sure that in doing this they number of Telugu words and forms which are not ordinarily that dialect.

ese people are not very numerous in this district. Their principal occupation is the same as that of the Yerukalas, namely, the transport of salt and grain h the district and into the interior. They always encamp if le in jungle or in places remote from villages, and sometimes soap-nut, tamarind, &c., in the jungles and sell them. They also and eat partridges, hares, &c.; and in the neighbourhood of large such as Nellore, they bring them in for sale. The causes before ned as having diminished the trade and the numbers of Yeruhave affected the Sukalies in a like degree. The Sukalies eat made from wheat or maize, and are said to be partial to strong

ie Sukalies do not, as a rule, commit violent crimes, though they occasionally are guilty of robbery. They prefer petty crimes, and are noted cattle thieves. The which appear against them in the crime statement are almost this class, and these constitute three-fourths of all the crimes itted by them.

Habits and livelihood.

"There is nothing distinctively characteristic in their outward appearance. Their color is a dark reddish brown; the women, as is often found, are lighter than the men, and are usually tall and rather well shaped. The men are of average height and very hardy.

Physique.

"They are generally rather heavily clad: many of the men wear trousers, and the women have almost invariably the *'ravika'* or short jacket. Some of the men are said to wear thread. The women wear great quantities of gaudy ornaments, usually several necklaces of red and white beads and heavy bangles of brass, ivory, and sometimes of horn curiously engraved.

Dress.

"The practice of tying the marriage string on the bride's neck seems to be universal among them. They practise the usual ceremony of pouring rice and turmeric on the heads of the bridal pair. Re-marriage of widows is allowed among them, but no mention is made of their being polygamists. Instead of, as among the Yerukalas, the bridegroom paying the parents, the father of a Sukali bride invariably gives her a dowry consisting of clothes and bullocks.

Marriage customs.

"The language of these people is well known to be a Mahratta dialect. In fact, they call themselves Mahrattas, and there can be no question that they have come from the Central Provinces. They are sometimes said to be the same as the Brinjaries* or Banjaras, so well known further north; but this seems to be incorrect. From what Wilson says it appears that the Brinjaries came from the North-Western Provinces. The Sukalies are much more numerous in the Canarese country than in this district. They are there well known, and probably the few who are found in Nellore have come from thence. The name Lambady, which is commonly applied to this tribe, is merely a general name for a wandering merchant and carrier, and is usually applied in particular to the Brinjaries. Though the word Sukali is similarly used, there are, I think, grounds for the opinion that it is the true tribal name of the people called by it here and in Mysore.

Language and origin.

"The Tahsildars of Ongole and Darsi in their reports have mentioned the Chenchuvandlu among the tribes existing in their taluqs, but I do not believe that any really inhabit the district. There are certainly none in the principal division in which I have made inquiries myself. Some of the tribes are found in the Velugondla hills, which form the western boundary of the district, but their chief habitat is in the hills about the Nandika-

Chenchus.

* Tahsildar of Ongole's report, and cf. Wilson, s.v. Banjara or Brinjari, with which tribe these are confounded sometimes.

nama pass, which is in the district of Kurnool, on the road between Cumbum and Ghooty. This pass is 32 miles in a straight line north-west from Sitarampuram on the borders of Udayagiri Taluq, and west of Kanigiri, about 40 miles. They are also found in considerable numbers near Alinagaram within a few miles of the border of this district.

"Though these people do not permanently reside in the district, some of them come occasionally even as far as Nellore. It is, therefore, worth while to give such particulars about them as I have been able to pick up. Those who come to Nellore are called Bontachenchu-vandlu, from, it is said, a kind of patch-work tent or booth which they set up, made of bits of cloth stitched together. They come only at the time of Pongal and Sivaratri and such like great feasts, when a large crowd is assembled. They bring bamboo rice and bamboo sticks for sale, and also flutes made of bamboo, which they play upon and sell. When the feasts are over they go back to their hills.

"The Chenchus, who dwell near the Nandikanama, are employed as watchmen in the pass and as guides to travellers, and it is said that tannahs have been built for their accommodation.

"These people live principally by hunting in which they are very skilful. They use darts which they throw by hand, but possess also firearms. They come into the villages near the hills and obtain such supplies of powder, &c., as they require; but, except for the purpose of supplying a want such as this, they never leave the hills. Besides hunting they breed horned cattle, sheep, and goats, but they never engage in cultivation even of the rudest kind. They collect wax, honey, and other jungle products and sell them to traders. They eat bamboo rice, jungle roots, and, when they can get it, ragi, as well as all animal flesh. They kill deer, wild boars, hares, and birds. They build themselves small round huts having walls of mud and stone about a yard high and roofed with bamboos and jungle grass. These huts are in clusters of ten or a dozen, each village having a head-man. The men are active and hardy. Their color is black or dark brown, never lighter. They wear piece-cloths, and sometimes a cloth round the waists. They ordinarily wear their hair tied in a knot, and have no head cloths, but many of them make for themselves caps of skins. Besides the Bontachenchuvandlu above mentioned, a section of the tribe, bearing the same name, is said to exist in the remote parts of the jungle. My informant stated that he never saw any of them, but that they are represented as never leaving the deep jungle, and as wearing aprons of leaves stitched together. The name Bonta seems to have some reference to this. He believes them to be a different tribe. How far this information is reliable, I do not undertake to say, nor does the matter concern us much, as there are certainly no Chenchus of this

sort in Nellore. It is to be observed that the crime returns of this district in respect of Chenchus of any description are blank.

"They speak a dialect which is unintelligible to a Telugu man from other parts, but which is readily understood by those who live near the hills inhabited by the Chenchus; and these state that the dialect is merely a corrupt Telugu.

"The Chenchus practise polygamy. They worship a god called, like the Yanadi deity, Chenchu devudu, and they make daily puja to him. They wear no bottus or swamy marks on their foreheads.

"These people are rather to be considered as an itinerant caste than as a wild or wandering tribe. Their state of civilization is not below that of other low castes;

Dommaras.

they do not seem to have any peculiarity of race. Dr. Shortt calls them aborigines, and makes a statement, based apparently on a conjecture of Wilson's, that the name is identical with "Dom," the Hindustani appellation of a tribe found in Northern India. They go about the country performing gymnastic feats and singing; the women and men both perform. They usually travel in bands of four or five persons, but sometimes they go in large gangs and pitch their huts in the neighbourhood of villages. It is stated by Lieutenant Balmer that they sometimes come in such numbers to a village, that the villagers are afraid to impound their cattle which they turn loose to graze on the villagers' lands. They have portable huts, something like the top of a country cart, made of bamboos with date leaf mats spread over them. Though they usually possess cattle and asses, they do not seem to engage in the carrying trade like most other wanderers. They traffic in pigs and asses. They sell date mats, baskets, and a kind of comb with close teeth. They are stated by the Nellore Tahsildar to possess mirasi rights in some villages; this I take to mean that there is in some villages a customary contribution for tumblers and mendicants, which according to Wilson was made in Mysore the pretext for a tax named Dombar-lingada-vira kaniki.* There are many sub-divisions among them, and it is said that these classes do not intermarry or eat together. The Dommaras eat all sorts of flesh; cats, pigs, and game are equally acceptable to them. They usually wear heavy clothes like the Sukalies. Jackets and trousers are common. They have the usual native ornaments.

"The Dommaras are great adepts in crime. It will be seen from the crime statement that there were twenty-three Dommaras punished during the last two years, and that of these eleven, or nearly half, were guilty of robbery and dacoity and nine of simple theft. There are not in the district more than 500 Dommaras, if so many; and the

* This tax under the name Dombar tafrik was levied in Venkatagiri in 1861—Stratton's Report. It is probably levied still (?)

per-centage of criminals is, therefore, higher among them than among any of the other tribes. Dr. Shortt states that the Dommaras of a district never wander beyond its limits; but I am informed that the Dommaras in this district leave it like the Yerukalas and Sukalies in the rainy season.

"The physique of the Dommaras does not strike the uneducated observer as being very different from that of other Hindus; but Dr. Shortt states that the Mongolian type predominates. The specimens I have seen were of middle height and of a light brown color. The women are tall and well made.

"The Dommaras marry but one wife, but keep concubines in addition. The marriage ceremony is described as being much the same as the ordinary Hindu rite: the marriage string is invariably tied on the bride's neck. Those women who perform gymnastic feats with the men never marry; they learn singing and dancing, and are professed prostitutes. Dr. Shortt states that the men of their own gang have nothing to say to them. The Dommaras worship various deities, the chief being a goddess called Poteriamma. This goddess is perhaps the same as the Polaperamma of the Yerukalas. The Dommaras in this district speak Telugu.

Other minor tribes—Wuddars or Woddevandlu.

"These people are the tank-diggers, who are so common throughout the country. They sometimes engage in the carrying trade, but beyond this they only move about from place to place as they have work. The word "Vodde" or "Odde" is said to be a corruption of the Sanscrit "Odhra," the name of the country now called Orissa, and the people are ordinarily supposed to have emigrated from the Uriya country. Besides Telugu they are said to speak a peculiar dialect among themselves; and, if this should turn out to be Uriya, the question might be regarded as settled. Three Wuddars were imprisoned for theft, one whipped for theft and breaking open a closed receptacle, and seven imprisoned for house-breaking and theft during the two years covered by the crime statement appended. The Wuddars worship Telugu deities. They marry according to the ordinary rites. Re-marriage of widows is permitted. The laborious occupation of the men tends to develop their muscles; I have seen some very fine men among the tribe.

Pamulavandlu or snake-charmers.

"These are rather itinerant show-men than a wandering tribe. The Pamulavandlu in this district are, I am informed, principally Tamilians. They commit robberies and dacoities.

Muttarachavandlu.

"These are hereditary watchmen in their villages. They call themselves Nayudus, and form a sub-division of the Telugu Sudras. They have permanent abodes, and are in no sense a wandering tribe.

Dasarivandlu.

"These are found in the Telugu and Canarese countries. They are mendicants and expert thieves. They usually practise what is known as scissor-theft, and are commonly known as Dongadasarlu as by the simple name.

Pichiguntavandlu.

"These are a class of mendicants in the north of the district. They are herbalists and physic people for fever, stomach-ache, &c. They beat the village drums, relate stories and legends, and are apparently a kind of heralds, being learned in family history and giving names to, it is said, the Kapu families.

Criminal propensities of the different tribes.

"A statement appended gives for two years the particulars of grave crime amongst the four principal tribes—the Yanadies, Yerukalas, Dommaras, and Sukalies. It has been compiled from the returns of admissions into the District Jail and the calendar books of the Magistrates who have power to work under Act VI. of 1864. It does not thus include the persons punished by Sub-Magistrates with imprisonment in the Subsidiary Jails, or those punished with fine only; but I have not thought it worth while to institute inquiries as to these, as the numbers are small and the crime of a petty character. Mr. Dykes framed a statement showing the crime among the four tribes for five years from 1st May 1860 to 30th April 1865, which, for convenience of reference, is here given*:—

Caste.	Offences.				Total.	Average of five years.
	Murder.	Dacoity.	House-breaking.	Theft.		
Yanadies	6	261	161	203	634	127
Yerukalas	...	127	7	34	168	33
Dommaras	...	36	2	18	56	11
Sukalies	...	41	...	19	60	12

"On comparing these numbers with those for the two following years it is to be observed that there is on the whole a decrease. The increase for the Yanadies is only apparent, as the statement appended hereto includes some offences which Mr. Dykes omitted; and besides this 39 Yanadies were whipped for grave crime in 1864 and three months of 1865; and, if these be taken into account, Mr. Dykes' average for the five years will be raised to 135. If those punished for "other offences," as grouped in the statement No. 1, and those confined in default of security, be excluded, the mean for the two years (1865 and 1867) becomes 129. Considering the circumstances of the year 1866, this decrease is, I think, creditable to the Police, to whose exertions it must be in the main attributed. The very marked decrease in the case of the

* *Vide* letter to the Board of Revenue, No. 182, dated 31st July 1865, Board's Proceedings No. 6,867, dated 9th October 1865.

erukalas is due partly, no doubt, to the same cause, but in greater easure to the fact that the numbers of these people who resort to this strict are less now than in former years. Their great means of velihood was the transport of salt to the interior, and since the stablishment of salt depôts along the North-West Railway, their ade has diminished. It is curious, however, that a similar decrease is ot observable in the amount of crime among the Sukalies or Lambadies, ho, having the same occupation, ought to be similarly affected by the me cause. Their numbers are, however, so much less, that the verage may be affected more easily by accidental causes. There is a mall decrease in the crime committed by the Dommaras. The Yerukalas and Sukalies almost all leave the district at the commencement of he rains, and betake themselves to Cuddapah, Bellary, and the Mysore country, where the heavy rains fall at a slightly different time of the ear, the reasons for the migration being principally that the manufacture of salt ceases during that season, probably also that from the insubstantial nature of their habitations they suffer great hardship during the rains.

"Mr. Dykes in his letter above mentioned dwelt greatly on the preponderance of the Yanadies among the criminal classes of the district. It seems to me that it is natural to expect that the majority of grave crimes, at least crimes against property, should be committed by the lowest classes in the social scale, especially when these classes are, in point of civilization, far below the rest; and further that the preponderance of the Yanadies above the other wild tribes in crime is to be ascribed, not, with Mr. Dykes, to the 'widespread radical viciousness of the race,' but rather to their superior numbers and the more migratory habits of the other tribes, which render detection in their case more difficult. As far as I can judge (an exact determination seems very difficult) the Yerukalas and Lambadies together number about 5,000, or one-fourth of the number of Yanadies, and besides this the former two tribes have, by reason of their migrations to the west, only nine months in which to make their contributions to the criminal statistics. It, therefore, seems probable that, even supposing the proportion of detected to undetected crime to be the same for all the tribes, the Yanadies will be found to contrast favorably with the other two."

I.—*Statement showing the Particulars of Serious Crime among the Principal Wild Tribes of the District of Nellore, for two years, from 1st May 1865 to 30th April 1867, compiled from Jail Returns and Magistrates' Calendars.*

		Yanadi.		Yerukala.		Sukali.		Dommara.		Remarks.
		Imprisoned.	Whipped.	Imprisoned.	Whipped.	Imprisoned.	Whipped.	Imprisoned.	Whipped.	
Offences against Property.	Thefts, Sections 379, 380, 381	46	18	2	1	15	...	9	1	Almost all the house-breakings were accompanied with theft. By far the greater number were under Section 457 (house-breaking by night). In many of the cases of theft, retaining stolen property was also charged. The one Yanadi whipped for robbery was a juvenile offender. The "neglect of duty" charged against one Yanadi seems to be neglect of duty as a Village Police Officer, and to have been punished under Act XXIV. of 1859. The prisoners whipped, entered under Section 461, were also found guilty of theft, pt. The closed receptacle was usually a grain As the return of 'admissions into the jail includes those prisoners who have been sentenced to transportation, all the grave crime appears in the statement.
	Criminal misappropriation, Section 403	...	...	...	...	2	...	1	...	
	House-breakings, Sections 454, 457	65	33	11	4	2	...	...	...	
	Dishonestly breaking open a closed receptacle, Section 461	38	20	...	...	...	...	...	...	
	Dishonestly receiving stolen property, Section 411	14	...	4	...	...	...	1	...	
	Voluntarily assisting in the disposal of stolen property, Section 414	2	...	...	...	...	...	...	...	
Offences against the Body.	Robbery, Section 392	11	1	11	...	1	...	3	...	
	Dacoity, Section 395	3	...	11	...	...	...	1	...	
	Voluntarily causing hurt, Section 323	2	...	...	...	...	...	...	...	
	Kidnapping, Section 367, and attempt to murder, Section 367	2	...	...	...	...	...	...	...	
	Attempt to commit suicide, Section 309	1	...	...	...	...	...	...	...	
	Causing miscarriage, Section 312	1	...	...	...	...	...	...	...	
Other Offences.	Unlawful assembly, Section 141	7	...	...	...	...	...	...	...	
	Resistence to arrest and escape from custody, Section 224	7	...	1	...	...	...	...	...	
	Neglect of duty	1	...	...	...	...	...	...	...	
	Failing to give security for good behaviour under Chapter 19 of the Code of Criminal Procedure	3	...	2	...	...	...	...	...	

II.—*Abstract of the above Statement.*

Tribe.		Offences against Property.		Offences against the Body.	Other Offences.	Security for Good Behaviour.	Total.	Average of each year.
Yanadi. ...	Imprisoned.	180	252	6	15	3	276	138
	Whipped ...	72						
Yerukala. ...	Imprisoned.	39	44	...	...	2	47	23·5
	Whipped ...	5		...	...	...		
Sukali. ...	Imprisoned.	20	...	...	...	...	20	10
	Whipped ...	...		...				
Dommara ...	Imprisoned.	22	23	1	...	...	24	12
	Whipped ...	1		...	...	...		

CHAPTER VIII.

RELIGION, FESTIVALS, AND CASTES.

Dravidian and Aryan races.—Vedas and the Vedantic system.—Worship of the powers of nature.—Monotheism.—The Vedangas.—The Vedapangas.—Institutions of Menu.—The Puranas.—The Upavedas.—The Ramayanam.—The Mahabharata.—Progress of Aryan ideas.—Brahminism.—Hindu triad.—Development of mythology.—Buddhism.—Its rise and progress.—The Jains.—Buddhist remains.—Persecution of Buddhism.—Buddhists' expulsion from India.—Brahminism popularized.—Creation of a mythology.—Survey of changes in religious belief.—Vaishnuva and Shiva sects.—Sources of modern Hinduism.—Adwaitam.—Visistadwatam.—Dwaitam.—101 sects reduced to 6.—Sankaracharya and the Smartas.—Their seats.—Bashikacharya and the Stri Vaishnavas.—Tengali and Vadagali.—Mardhavacharya and the Mardhavas.—Basava and the Vira Shivas.—Their seats.—Sanyasis and Vairagis.—Jogis.—Satanis.—Mahomedanism, early history.—Shiahs and Sunnis.—Wahabees.—Hanafis.—Shafis.—Malika.—Hanabalis.—Ghair Mohdis. Festivals.—Samvatsaradi.—Rama Navumi.—Narasimha Jayenti.—Toleyekadasi.—Dakshinayanam.—Naga Panchami.—Krishna Jayenti.—Shravanala Purnavami.—Vinayakachaviti.—Rushipanchami.—Atshatadiya.—Anantapadmanabhuni Chaturdasi.—Muhalayapatshamulu.—Navaratrams.—Durgashtami.—Depavali.—Nagula Chaviti.—Kartika Somavaralu.—Chelukudvadasi.—Kartika Purunvami.—Dhanurmasaum.—Mokkotiyekadasi.—Bhogipanduga.—Magha Sankurantri.—Maghapu Audivaramulu.—Rathasaptami.—Vyasa Purnavami.—Shevaratri.—Holipunduga. Local Festivals.—Nelloro.—Atmakur.—Gudur.—Rapur.—Kavali.—Udayagiri.—Kandukur.—Ongole.—Kanigiri.—Venkatagiri.—Polur.—Podile.—Darsi.—Principal Festivals. Mahomedan Festivals.—Moharram.—Akhira Chaper Shamber.—Bari Wafat.—Pir-i-dastgir.—Khadir wali Miraje-i-Mahomed.—Shab-i-Barat.—Ramjan-ka-rozah.—Idul fiti.—Charugban-i-Baudar-Namaz.—Bakrid. Local festivals.—Urus.—Caste. Origin in successive conquests.—Hindus yuga.—Changes in manners and customs.—Division of Brahmins.—Kshatriyas.—Vysayas.—Sudras.—Division of Sudras.—Criminal classes.—Out-casts.—Mahomedan Divisions.

The origin of the religions of Hindustan is involved in the deepest obscurity. The Dravidian race who colonised Telingana appear undoubtedly to have been of Scythian origin, and were probably driven southwards from their first seats in Northern India by subsequent incursions of other Scythian tribes. These later Scythian races who settled in the north appear to have been conquered by the Aryans, a Sanscrit-speaking race of Brahmins, Kshatriyas, and Vysayas; but, when the Aryans came down further south, they do not seem to have conquered the people they found dwelling in these regions, but to have settled among them, gradually acquired influence over them, and incorporated them into the fourth or Sudra class.

Dravidian and Aryan races.

The most ancient religious works of the Hindus are the Vedas. The founder of the Vedantic system is generally acknowledged to be Vyasa, who appears to have collected all the religious works extant in his day. He was by birth

Vedas and the Vedantic system.

an illegitimate child of Parashara, a Brahmin, by Satyavati, the wife of the king of Shantanu. By the Hindu standard the antiquity of the Vedant system would be about 2,000 years, or, according to the English system, about 1,200 years before Christ. Vyasa is said to have had four disciples, to each of whom he taught one Veda—the Rig Veda, the Vejur Veda, the Sama Veda, the Atharvana Veda; his chief works were the collection of the Vedas which existed long before his time.

Besides the four Vedas, the holy books of the Hindus include the six Vedangas, the four Vedapangas, and the four Upavedas.

Each of the Vedas consists of two parts—(1) the Sanhita, or collection of *mantras*, and (2) the Brahmana, or collection of rules for the application of the *mantras*, directions for the performance of particular rites, citations of the hymns, illustrations and legendary narrations. The hymns of the Vedas describe the simple religious conceptions of the fair-complexioned Aryans, who, having migrated from a colder climate, drove before them the dark-skinned race they found in occupation of the country. They appear to have emerged from the pastoral into the agricultural state, and the deities they addressed were the personifications of the powers of nature—indra, the firmament; agni, fire, the sun, the moon; and vayu, the wind. Without temples or idols their sacrifices consisted of the presentation of the choicest articles of food to the deities they sought to propitiate. Still in the Vedantic system there was the recognition of monotheism, "there is in truth but one deity, the Supreme Spirit, the Lord of the universe, whose work is the universe."

Worship of the powers of nature.

Monotheism.

All the verses of the Yejur Veda and the Sama Veda are used in one sacrificial act or another, but this is not the case with the verses of the Rig Veda, from which it is inferred by Dr. Goldstücker that the collections of the Rig Veda cannot have borne originally a ritual stamp, though they may have been subsequently adopted for religious rites. The Atharvana Veda is not considered of equal sanctity, and is of less authority than the others.

The Vedangas are called the limbs of the Vedas, and display the mode in which scientific research sprung from the sacred text—(1) Siksha treats of orthoepy or proper pronunciation, (2) Chandas of prosody, (3) Vyakarana of grammar, (4) Nirukta of etymology, (5) Jyotisha of astronomy. (6) Vedanga is the *kalpa* or ceremonial, constituting the code of Brahminical rites. Two other classes of *sastras* complete the code of these kalpa works, viz., the *Grihya* and the *Samaya Charitha Sastras*; the former describes the domestic ceremonies as distinct from the great sacrificial acts, and the latter regulates the relations of every day, and in them we have to look for the originals of the metrical law books, such as Menu, Yajnavalkya, &c.

The Vedangas.

The Vedapangas consist of (1) the Mimamsa, which explains portions of the Vedas, both doctrinal and ceremonial; (2) the Nyaya, which contains a refutation of atheism by way of reasoning; (3) the Dharma Sastra containing the ordinations of Manu, a complete code of morality, and a poetical account of God, spirits, and the origin of the world and water. The Institutes of Menu are the main fountain whence the religious observances of the Hindus and all their social customs are derived. Here, with minute exactness, are laid down all the regulations of society. Here we introduced to the distinctions of caste, the laws of inheritance, the laws of marriage, the celebration of birth-rites, and the practice of funeral pyres. This great work is certainly as old as the twelfth century B.C. This is the great sastra which regulates the religious and secular life of the Hindus. The fourth division of the Vedapangas are the 18 Puranas, to which are appended as many like puranas or compilations and explanations. Taken collectively these are of mystical and philosophical contexture, cosmogonical, theogonical, and chronological, and contain extensive legendary narrations. They include (1) the Vishnu Purana, (2) the Naradaya Purana, (3) the Bhaghavata Purana, (4) the Garuda Purana, (5) the Padma Purana, (6) the Varaha Purana, (7) the Matsya Purana, (8) the Linga Purana, (9) the Siva Purana, (10) the Skanda Purana, (11) the Agneya Purana, (12) the Kurma Purana, (13) the Brahmanda Purana, (14) the Brahma Vaivartha Purana, (15) the Markandya Purana, (16) the Bhavishya Purana, (17) the Vamana Purana, and (18) the Brahma Purana.

The Vedapangas.

Institutions of Menu.

The Puranas.

The four Upavedas comprise (1) Ayurva, which treats of surgery and physic; (2) Dhanarva, which treats of the art of war; (3) Ghundharva, which treats of music and dancing; (4) Artha Sastra, which treats of political economy.

The Upavedas.

With these ceremonial books may be classed the two ancient and excellent epics—the Ramayana, the work of Valmika, containing the history of Rama, king of Ayodhya, the seventh Avatar of Vishnu; and the Mahabharata, containing an account of the war between the Pandavas and Kauravas, the descendants of the ancient Indian king Bharata, the celebrated epsode of which the Bhagavad Gita is well known (History of the sect of the Maharajas).

The Ramayanam.

The Mahabharata.

According to a common tradition the religion of the Vedas is said to have been extended to Southern India by the Aryan tribes, who followed Rama in his expedition to the south in the tenth century before Christ. According to one tradition noticed by Professor Wilson the Brahmins were invited to Shrikakolam near the mouth of the Kistna by a prince named Sudakshana, and according to another they first came to the south of the

Progress of Aryan ideas.

Nerbudda with Uttamaya Bhuja, the father of Nanda, or were invited by Nanda about the beginning of the Christian era. Another account generally current assigns the introduction of the principal families to Munkunti Palluva, prince of Dharanikota, in the third century of Christianity. Dharanikota is the ancient town on the southern bank of the Kistna, only about a mile from Amaravati, where a celebrated Buddhist temple was raised probably about the first century A.D., the remains of which have been very ably illustrated by Fergusson in his Tree and Serpent Worship.

Brahminism.

We have spoken of Vyasa as reducing to a system the old Aryan religion of the Vedas, but in the story of the Mahabharat we find that the simplicity of the old Veda worship had lost its hold on the national sympathies, and the growing influence of Brahminism is evinced in forms of faith and practices of devotion unknown to the older religion. Indeed, Mr. Wheeler in his recent History of India traces an earlier and a later legend woven together in the history of the great war of Bharata and points out the efforts of Brahminism to foist upon the old story, the antiquity of their own system in the institution of caste and the inculcation of the worship of Krishna.

Hindu triad.

The three deities that we find in the Vedas are one Brahma, the creator, the self-existent, and eternal, the author and origin of everything. It is strange that throughout the whole of India there is not a single temple dedicated to Brahma. Brahma having called the universe into existence, Hinduism represents it as ruled by the two powers of good and evil in Vishnu, the preserver, and Shiva, the destroyer. Around this triad poetry and fable have developed a mythology of 360 million divinities,

Development of mythology.

male and female, whose histories are treated of in the 18 Puranas and 18 Upapuranas. It has been well said that, "although the customs and habits of the Hindus are said to be immutable, yet, strange to say, in a country which still regards the Vedas with profound veneration as the great fountain of religion, the ritual they prescribe has become so obsolete that the man who ventured to regulate his devotions by it would be considered in the light of an infidel."

Buddhism.

Hinduism had become essentially changed and greatly corrupted when the great reformer Sakya Muni or Guadama Buddha appeared in Behar about B.C. 1000 according to Klaproth and Wilson, and about B.C. 600 according to others. Resenting the progress of Brahminical influence, his object was to reform the religious faith of the nation, and bring it back to its purer standards. In the rise of Buddhism we see the successful results of appealing to popular feeling in a religious creed. This system

opposed itself to the exclusiveness and monopoly of an hereditary hierarchy; it proclaimed the principle of the equality of all men in the sight of God, and resisted the dogma of religious castes. By adopting the monastic system in its propagandism it imparted *esprit de corps* to its missionaries. Rapidly this faith spread from Northern India to Ceylon, and during four or five centuries at least it is probable that Buddhism was as influential throughout the continent of India as Brahminism. Some writers have come to the conclusion that there was an ancient and a modern Buddhism. Colonel Sykes, in his "Ancient India," states that Sakya was a reformer of the previous existing Buddhism, and the evidences that we possess confirm this view, that a qualified Buddhism existed in India long prior to the sixth century B.C. In the reign of Asoka, however, who reigned over the Magadha kingdom about B.C. 319 and was the contemporary of Alexander the Great, we find Buddhism in the ascendant all over India. The language of all the Indian inscriptions previous to the fourth century is Pali, and these inscriptions are Buddhist. Buddhism does not deny the existence of God, though it has no idea of him as taking any active part in the creation of the world. The Buddhists believe in 130 hells and 18 heavens; they hold the dogma of the transmigration of souls; they offer sacrifice to the *manes* of their ancestors, and believe that, by the exercise of virtue and knowledge, an individual can obtain *Nibbute* or *Nirvana* absorption into the deity. In opposition to Brahminism, which inculcated the doctrine of priestly mediation, Buddhism taught "an enthusiastic self-reliance;" it resorted to the Vernaculars as the vehicles for its doctrines, instead of shrouding them in a dead language. The sovereigns of the Magadha kingdom were either Sudras or Buddhists. It is a question how much the emissaries of Magadha were the means of extending civilization to Southern India.

Its rise and progress.

The Jains.

The Jains were originally a mere sect of Buddhists. Their chief Saint, Parisnath, lived about 200 B.C. The Jains worship 24 deified heroes, the Buddhists only seven. The Jains have caste, Buddhists have none. The Jains' images are naked, the Buddhist ones clothed. Buddhism prevailed uninterruptedly in India from the sixth century B.C. to the ninth century A.D. Its decline seems to have set in about the seventh century A.D., until it completely died out about the year 800 A.D. The Buddhists came to the Dekkan probably before the Christian era, and the Jain faith was introduced into the peninsula about the seventh century.

Buddhist remains.

These faiths have left their mark, however, in the shrines, monasteries, and cave temples, which may be found all over the country. There are none in the Nellore District itself, but the great Buddha temple of Amravati and the cave

temples of Bezwara, &c., in the Kistna District attest the influence that this religion once held in this part of the country. In the north portion of the Nellore District, particularly in the neighbourhood of Ongole, many Jain images and other remains have been discovered, and even at Nellore, in digging the reservoir in front of the Collector's Cutcherry, a few years ago, a Jain image was disinterred, but there are no Jains now in the district.

Persecution of Buddhism.

The period of the decay of Buddhism corresponds with the rise of the present popular forms of the Hindu religion in the time of Sankara Acharya in the eighth and ninth centuries. Wilson fixes the date of the Vishnu Puranas being composed at about A.D. 954. The Buddhists were persecuted by Vaishnuvites and Shivites in combination, and, driven from the country, took refuge in Ceylon, Jafna, and Bhutan. Brahminism gained the day,

Buddhists' expulsion from India.

but it is from the association of Buddhists with Brahmins that we may probably trace many of the sects among the Hindus who have received a leaven of liberalism. Colonel Sykes remarks that prior to the fourth century A.D. every inscription whatever is in the Pali language and by Buddhists, and subsequently to that period a rough Sanscrit makes its appearance, gradually refining into the polished Sanscrit of the tenth and eleventh centuries, affording ground for the presumption that the Sanscrit gradually superseded and displaced the Pali.

Brahminism popularized.

After the great struggle between Brahminism and Buddhism, in which the former prevailed, the great effort of the Brahmins appears to have been to popularize their religion. Colebrook is of opinion that the worship of Rama and Krishna by Vaishnuvas and of Mahadeo and Bhavani by Shivas and Jats have been gradually introduced since the persecution of the Buddhists and Jains. Brahma, according to Brahminism, is the one God. He is destitute of qualities, and lives abstractedly in himself. Resolving to create worlds, he gave birth to *Maya*, who created the universe and all living things. This energy manifested in creation became immortal, and is personified under the name of Narayana, which the Vaishnuvas claim for Vishnu to exalt him above his rivals. According to another

Creation of a mythology.

sect, the Shaktas, *Maya*, or Sakti, is a female power personified in the name of Bhavani. According to the Puranic doctrine this energy has different attributes, though Brahma himself has none, and the learned among the Hindus declare that it is to these attributes of the divine spirit they pay adoration. To describe these attributes of the one God, images, they say, were introduced as intelligible symbols. The *Maya* of Brahma being represented in the Vedas as a distinct being originating from him, this the Puranas recognize as a female principle, and go on to give a consort to every God. Next to the Gods above noticed rank, according to the

Puranas, the Avatars, or incarnations of the deities, demigods, who are said to have walked the earth for the relief of humanity; thus Rama and Krishna are Avatars of Vishnu. Here we appear to have introduced the deification of heroes. The era from which the great part of the Hindus date their chronology is the reign of Vikramaditya, who ruled with great splendour in the capital of Oojini and re-established there the Brahminical faith B.C. 57. Intermediate between the death of Asoka and the dethronement of Vikramaditya by Salivahana, who was a Buddhist, the Andhra usurpation took place. From Salivahana's reign chronology dates in Southern India A.D. 77. The king Sudraha celebrated in Hindu history is considered the first usurper of the Andhra dynasty, and this race seems to have held the sovereignty of the Magadha kingdom until A.D. 436. Another Andhra dynasty was established at Warrangal, 77 miles north-east of Hyderabad, founded A.D. 1067, and they were for a considerable period supreme in Telingana.

Survey of changes in religious belief.

From this brief sketch of the early religions of India, we may be led to infer that the worship of the elements introduced by the Aryan races was probably derived from Sabœism and preceded all approach to Brahminism. The worship of Brahma was a subsequent introduction, and gradually merged into Vedeism, or a species of Pantheism. But it seems probable that the aborigines were fetish worshippers; possibly the serpent was the object of adoration. The Scythians seem to have brought or developed the worship of the *phallus* or *lingam* as the symbol of power, and from thence it was a step to Shiva, the personal embodiment of the power of destruction. Then the Aryans brought their element worship, which developed into Brahminism. Buddhism was an effort to reform the idolatry and corruptions of Shivaism by bringing back the popular mind to the worship of a ruling intelligence. This soon degenerated into worship of intellect, of which each Buddha was the impersonation; whether or not Buddha preceded the worship of Vishnu. Modern Vaishnavism is really an extension and development of Buddhism. Mysticism, says Professor Wilson, gave way to the philosophy of Sankara Acharya in the seventh or eighth century, and was finally expelled by the new doctrine of Bhakti, or faith, which was introduced by Ramanuja and the Vaishnuvas in the eleventh century, and has since continued to be the ruling dogma of every sect of Hindus.*

Vaishnuva and Shiva sects.

We subjoin the following account of the chief differences between the Vaishnuva and Shivite sects furnished by Bomma Teperumal Chettiyar, now Sub-division Sheristadar, Cuddapah:—

* Oriental Archæology and Belief, Calcutta Rev. No. 21, page 138, and several other articles.

"There are various sects among the Hindus: the principal divisions are two, viz., the worshippers of Vishnu and those of Shiva. The former are distinguished by a vertical trident mark, and the latter by horizontal lines painted on their foreheads. These and the other Hindu sects have a belief in the immortality of the soul and a future state of reward and punishment. Demon worship was prevalent among the aborigines of the country, and still exists in most parts of it, especially among the lower orders of the people. It is believed that certain evil spirits bring down upon men certain diseases (small-pox, cholera, &c.) and other calamities which they seek to avoid by making offerings to them. The worship of village goddesses is also common among the lower orders. These so-called village goddesses are one or other of the forms of Parvati, the consort of Shiva, and in most villages annual orgies are held in celebration of this divinity's festival."

Modern Hinduism is contained in the Puranas. They are written in praise of particular deities and contain their histories, amours, and achievements. The performance of religious ceremonies and the instruction of the people is entirely confined to the Brahmins, the priestly class.

Sources of modern Hinduism.

There are three different phases of belief in the Hindu religion, viz., "Advaitam," "Visishtadvaitam," and "Dvaitam." "Advaitam" is the belief that there is no distinction between God and the soul, and that they are one. "Visishtadvaitam:" the followers of this faith believe that there are four kinds of salvation, viz., Salokyam, Samipyam, Sarupyam, and Sayirjiam. By the first it is supposed that the soul, after separation from the body, proceeds to the residence of the creator; by the second, that the soul lives close to him; by the third, the soul assumes a form similar to that of God; and by the last, the soul acquires an intimate union with him. "Dvaitam" is the belief that God and the soul are totally distinct, and that the latter never becomes absorbed into the essence of the deity.

Advaitam.

Visishtadvaitam.

Dvaitam.

Holding these forms of belief with various differences it is supposed that there were originally 101 sects, subsequently reduced to 96, as five of them were cancelled by Shiva himself. Sankarachary, the founder of the Smarta faith, disapproved of the majority of the 96 faiths and explained the doctrine of the 18 Puranas, so as to reconcile it with the tenets of only six sects, viz., (1) Shivas, or followers of Shiva, a portion of whom are Lingavites adoring the lingam, the symbol of the male organ of generation; (2) the Vaishnuvas, or followers of Vishnu; (3) the Sauras, or worshippers of the sun; (4) the Shaktas, who adore the youi, the symbol of the female organ of generation, and are sub-divided into the (i) Dakshnacharies,

101 sects reduced to six.

whose worship is performed publicly in a manner harmonious to the Vedic or Puranic ritual, free from all obscene practices, and (ii) the Vamis or Vamacharies, left-hand worshippers, whose ritual is sanctioned by a portion of the Tantras, and is most obscene and impure; (5) the Ganapatyas, or followers of Ganesha, the God of Wisdom, or the Bel[illegible] God; and (6) the Kapalikas, or Yogis, worshippers of Bhanava, son of Shiva, whose philosophical tenets appear to be derived from Buddhism. All these are to be found in the District of Nellore.

The tradition is that when Sankarachary, who is believed to be the incarnation of Shiva, was five years old, he became a sanyasi, *i.e.*, an ascetic, and established the Advaitam faith above described. He extended this in every direction, and published many commentaries, the principal of which are (1) "Sankara or Gita Bhashyam," (2) "Sutra Bhashyam," and (3) "Gauda Brahmanaudiyam." Sankarachary introduced the sect known as Smarta Brahmins, "who profess to follow the principles of the Vedas and the code of the Hindu Law (Smriti)." The 18 Puranas are divided into three distinct doctrines, called Satvika, Rajasa, and Tamasa, the principles of which, from their tendency, are compared to God, to a king, and to the devil." Sankarachary acknowledged the first two doctrines to be the proper guide for the conduct of the Brahmins, and wrote a commentary thereon. The Smartas believe that there is no difference between God and the soul, and say everything is maya (illusion). Their faith will be explained by the following illustration:—

Sankarachary and the Smartas.

"Suppose a number of vessels, with water in them, be placed opposite to the sun, then in each of the vessels the sun is visible, although in reality he is but one. Similarly, although God is one, still he is visible in every body, presenting various appearances."

Sankarachary's chief seat is named Kamakote-pitam at Conjeveram, and his representative now resides at Combaconum. There are four other seats of the chief priests of this sect at different places in the Presidency, viz., Pushpagiri, Saraswati or Sringiri, &c. These priests proceed on periodical circuits for the declared purpose of ascertaining the morals of the people, and checking them if bad.

Their seats.

As to the Vaishnuva religion, the principle which governs this sect is Visishtadvaitam. This sect was reformed by Ramanuja, *alias* Udayavar, *alias* Bashikachary, who was born about 1009 A.D. He was the son of Kesava Acharya, an inhabitant of Sriperumbudur, a village 26 miles from Madras. He is said to have learned various *sastras* from one Yadavaprakasa, an ascetic of the Advaita faith. He then proceeded to Conjeveram, where he resided for some time. During his stay at this place he abandoned

Bashikachary and the Sri Vaishnuvas

family life and became a sanyasi (ascetic). He then went to Srirungam and became the dharmakarta of the great temple in that island. He gave his sanction to only to 6 of the 18 Puranas, which inculcate the Satvika faith. The followers of this sect consider that Vishnu is the Para-Brahma, or the Supreme Being. Bashikachary refuted the works of Sankarachary and others, and obtained great success against the Smartas, &c. He wrote several commentaries, the chief of which are Gita Bhashyam and Sutra Bhashyam, in which he enjoins certain duties for the obtaining of salvation. This sect now prevails in almost every district of Southern India.

Tengali and Vadagali.

The followers of the Vaishnuva religion are divided into three classes, viz., (1) Tengali, (2) Vadagali, and (3) Nambi.

Nambi is either Pancharatra or Vaighanasa.

Tengali = Ten-gala = Southern Sastram.

Vadagali = Vada-gala = Northern Sastram.

The Pancharatralu worship the deity: they say in accordance with the rules laid down by God himself, and the Vaighanasalu worship him according to the rules prescribed by Vaighanasa, a rishi or monk.

The founder of the Tengali sect was Manavala-Mahamuni, who lived about 400 years ago. He was the son of Krishnamachary and a native of Alwartinnegiri in the Tinnevelly District. He was also called Ramya Jamatramuni. The three principal seats of the priests of the Tengali sect are situated in (1) Vonamala, called in Sanscrit Zotadri, in the Tinnevelly District; (2) Srirungam in the Trichinopoly District; and (3) Tirupati in the North Arcot District.

As to the Vadagali sect, Desikachary, a native of Tirupett at Conjeveram and son of Anantasuri, was the founder of the Vadagali faith. Anantasuri had no children, and, in company with his wife, is said to have begged Venkateswaraswami of Tirupati to bless him with children. The god then presented him with a *ganta* (bell), from whence he is known as Gantachary. Desikachary, the founder, was the author of a book named Tatvamuktakalapam, a commentary containing 500 verses upon Bhashyam, the author of which was Udayavar, *alias* Bashikachary.

The followers of this sect ring a bell when performing religious ceremonies and when making offerings to the god, but those of the Tengali sect do not use the bell on such occasions. There are three principal seats or (matams) of the Vadagali priests, viz., (1) Aghopalam Matam, (2) Thoshappar, and (3) Gopala Desikam. The first and second divisions differ only in the case of Aradhanam (worship or prayer) and the followers of the third matam abstain from *drink* or food of any kind on the birth-days of Rama, Krishna, and Narasimha, which fasts, the followers of the first two divisions do not observe.

The followers of the Tengali sect are more numerous in the Nellore District than those of the Vadagali sect, and most of the temples in this district are Tengali temples. The widows of the Vadagali sect shave their heads, but those of the Tengali sect do not, saying, "I will bow my head to the *guru* (priest), not to the barber." The Vadagalis perform annual ceremonies for the deceased on the eleventh day of the bright and dark fortnights of every Telugu month, on which day abstinence from food and drink is enjoined; but the followers of the Tengali religion consider it "improper to perform the daily libation of water and annual ceremonies in honor of their deceased ancestors." There is much contention and strife between the followers of the two sects, and those of the Vadagali persuasion are always trying to introduce their Vadagali chants into the pagodas of the Tengali sect.

The most striking peculiarities in the practices of this sect (the Vaishnuvas), says H. H. Wilson, "are the individual preparation and scrupulous privacy of their meals: they must not eat in cotton garments, but, having bathed, must put on woollen or silk: the teachers allow their select pupils to assist them, but, in general, the Vaishnuvas cook for themselves; and should the meal, during this process, or whilst they are eating, attract even the looks of a stranger, the operation is instantly stopped, and the viands buried in the ground.

"The chief ceremony of initiation in all Hindu sects is the communication, by the teacher to the disciples, of the *mantras*, which generally consist of the name of some deity, or a short address to him; it is communicated in a whisper, and never lightly made known by the adepts to profane ears. The *mantra* of the Ramanuja sect is said to be the six syllable *mantra* or *Om Ramaya namah*, or Om salutation to Rama. Another distinction among sects, but merely of a civil character, is the term or terms with which the religious members salute each other when they meet, or in which they are addressed by the lay members. This among the Ramanujas is the phrase *Daso smi* or *Daso hum*, I am (your) slave, accompanied with the *pranam* or slight inclination of the head and the application of the joined hands to the forehead. To the Acharyas, or supreme teachers of this sect, the rest perform the *Ashtanga Dandawat*, or prostration of the body with the application of eight parts, the forehead, breast, hands, knees, and insteps of the feet, to the ground." (Wilson's Religious Sects of the Hindus, pp. 38-40.)

Madhavachary and the Mardhavas.

Another Vaishnuva sect is known as the Mardhavas or Mardhavacharies. About the twelfth century a revival of the Vaishnuva religion took place. The founder of this sect was Mardhavachary. He was the son of one Maddigabhat, a Smarta Brahmin of Udipi Taluq in the South Canara District. He was born in the year 1051 of the era of Salivahana. He is supposed to

have disappeared in the year 1119 of the said era. When he was five years old he is traditionally said to have become a monk (sanyasi), and subsequently published several commentaries on the Vedas, Smritis, and Sastras, which he believed were misconstrued by the followers of the then existing sects. He visited a great portion of Hindustan and made converts of many of the Smartas, &c. He built a large temple at Udipi, dedicated to Krishna. This creed was largely propagated throughout Southern India and in the Nizam's territories. The distinguishing characteristic of this creed is *Dwaita* or duality. The followers of this sect allege that there is a distinction between God and his creatures, both in this and in the other world. A distinction between *jivatma*, the principle of life, from the *paramatma*, the supreme being. In this respect they agree with the Vaishnuvites and differ from the Smartas. The Stri Vaishnuvites allege that, although the created is distinct from the creator, still the former becomes equal to the latter in the other world, except as regards the creative and destructive powers belonging only to deity. The followers of this sect are diffused throughout the District of Nellore.

Wilson observes (page 147) that "The modes in which devotion to Vishnu is to be expressed are declared to be three—*Ankara, Namakarana*, and *Bhojana*, or marking the body with his symbols, giving his names to children and other objects of interest, and the practice of virtue in word, act, and thought; truth, good counsil, mild speaking, and study belong to the first, liberality, kindness, and protection to the second, and clemency, freedom from envy, and faith to the last. These ten duties form the moral code of the Mardhvas.

"The usual rites of worship as practised by the Vaishnuvas of this sect are observed and the usual festivals. In the *puja* (worship ceremonial), however, there is one peculiarity which merits notice as indicative of a friendly leaning towards the Shiva sects: the images of Shiva, Durga, and Ganesha are placed on the same shrine, with the form of Vishnu, and partake in the adoration offered to his idol. Rites are conducive to final happiness only as they indicate a desire to secure the favor of Vishnu. The knowledge of his supremacy is essential to the zeal with which his approbation may be sought; but they consider it unnecessary to attempt an identification with him by abstract meditation, as that is unattainable. Those who have acquired the regard of Vishnu are thereby exempted from future birth, and enjoy felicity in *Vaikuntha* under four conditions, as *Sarupya*, similarity of form; *Salokya*, visible presence; *Sannedhya*, proximity; and *Sarshthi*, equal power."

Basava and the Vira Shivas.

A modern form of the Shiva religion is found in the sect of the Vira Shivas. The founder of this faith was Basava, who was born about the beginning of the twelfth century near Belgaum, in the Southern Mahratta country. He was the son of Mandiga Madiraziah, a learned Brahmin. It is believed that Basava was for three years in the womb conversing with his mother during that period. He established the form of religion called Vira Sawam.

The tradition is that a sasanam, or inscription, fell down from heaven in the presence of a Jain prince of the town of Kalyanam; that, as there were none able to interpret the meaning of the inscription, the prince sent for Basava and requested him to explain it. The prince was so much pleased with Basava that he appointed him as his prime-minister. The former was of the Jain sect, and the latter was a Lingavite. Basava was successful in converting many of the Jains, including the prince himself, into Lingavites. The followers of this creed worship the lingam, or the symbol of Shiva, and wear it always hung on their breasts. The image worshipped by the Smartas is established in temples, and is called Stavara-lingam (immoveable), while the lingam or emblem of Shiva worshipped by the Lingavites is carried about their persons. These believe that the lingam is the soul and *vice versâ*. The followers of this sect are also called Jangams, or living images of the deity.

Their seats.

There are five seats of the principal priests of this sect, viz., (1) Gokarna Matam at Nizampatam, (2) Vibhuti Matam at Bangalore, (3) Saranga Matam at Srisailam, (4) Tota Matam in Hyderabad, (5) Chebrole Matam at Chebrole, about 10 miles from Guntur.

The Vira Shivas are diffused throughout the Nellore District, but the Aradhyas, another Shivite sect, are Lingavites, and wear the lingam with the Brahminical thread like the Smartas, performing the religious obligations imposed on the latter. The followers of this faith are found in the northern parts of this district.

Mr. C. P. Brown writes as follows regarding the Jangams in his essay on their creed:—"The Jangams are a sect of Hindus, who have lasted about 700 years. They adore Shiva as the one god and wear his image hung on their breasts. They call themselves primitive worshippers, and look upon others as idolaters." They deny the authority of the Brahmins, by whom they, therefore, are detested as hereties. They are the disciples of Basava, and, as all Hindus are apt to exalt their teachers into gods, they declare Basava to be god, Shiva himself. Basava, though born a Brahmin's son, abolished every one of the Brahminical observances, particularly caste, pilgrimage, and penance. This class bury their dead instead of burning.

Sanyasis and Vairagis.

The terms *Sanyasis* and *Vairagis* and other similar denominations are used, and correctly used often with a wide acceptation, but when limited it may generally be concluded that the term *Sanyasis* applies to the mendicant followers

of Shiva, and the *Vairagis* to those of Vishnu. Sanyasi is the third state of the Brahminical orders, viz., (1) *Brahmachari* or student, (2) *Grihasta* or householder, (3) *Sanyasi* or ascetic.

The term Vairagi implies a person devoid of passions, and is applied to all sorts of religious mendicants who affect to have estranged themselves from the interests and emotions of mankind. The term *Fakir* is of equally general application, although it is of Mahomedan origin, and in strictness more descriptive of the holy beggars of that faith. The term *Jogi* is also in popular acceptation one of general application.

Jogis.

The *Jogi* proper is a follower of Shiva, whose aim is to acquire even in life entire command over elementary matter by means of certain ascetic practices, and these are particularly distinguished amongst the different mendicant characters by adding to their religious presumption more of the mountebank than any others. The *Nagas* are the *Sarvâ Sanyasis*, who go naked, smear their bodies with ashes, allow their hair, beards, and whiskers to grow, and wear the projecting braid of hair called the *jata*, and who sometimes carry arms and wander about in troops, soliciting alms or levying contributions.

Satanis.

There is a separate sect called *Satanis*, who now form themselves into a separate caste, having no connexion with the other divisions of the Sudra caste. This class holds an intermediate position between Sanyasis (ascetics) and family men.

The *Satanis* profess to give up worldly enjoyments like ascetics, but live with family and children. The word *Satani* is derived from a Tamil word "Chattatavar," meaning those who do not wear the sacred thread or top knot of hair. Other Sudras are admitted into this caste. The *Satanis* are a class of Vaishnuvites, but of a mixed kind who have forfeited caste. Their principle is *Visishtadvaitam*, and their observances are peculiar to their own caste. They are by occupation flower-gatherers, minstrels, and wandering mendicants. Those who have forfeited caste among the Shivites are admitted into the class of *Pundarams*.

There are three principal divisions among the *Satanis*, viz., (1) "Ekatshulu," (2) "Chatmatshulu," and (3) "Ashtubhukkulu." There are eight differences among them, and intermarriages are entirely forbidden among these divisions. They are found at Nellore, Ongole, Kottapatnam, and other places. Vaishnuvites who have forfeited caste rights were termed Satanis, and Shivites, who have received caste rights are termed Jangams.

We come now to Mahomedanism. Its followers are very numerous in this district. Mahomed was born in A.D. 569.

Mahomedanism, early history.

The Mahomedans had one advantage in their rule of faith wanting to the Hindus. In the Koran they have some sprinkling of the grand, the ideal, and the true derived from the Hebrew fountain. Extending their faith by the sword, their first incursion into India was dated A.D. 664. From the invasion of Timour to the accession of Baber we see the rough Mahomedan element imposed by a half-barbarous people upon a people much more civilized than themselves. From Baber's reign we find a more genial state of the historic atmosphere, though the political elements continued in a state of perturbation. The first Mahomedan invasion of the Dekkan took place in A.D. 1298, but they scarcely penetrated as far south as this portion of the Dekkan till 1307. In that year Kafur invaded Telingana and defeated the rajah of Warrangal, and the whole of this kingdom became subject to Mahomedan rule till 1350, when the united efforts of the Carnata and Telingana rajahs freed the country from the Afghan dynasty. The Bahamani dynasty was now established over the countries between the Kistna and the Tumbuddra from Bijayanagar, and entirely subverted the kingdom of Warrangal. The army which placed this dynasty on the throne was chiefly composed of foreigners, but in time the native troops increased and balanced the foreigners. The greater part of the foreigners were of the Shiah sect, and the contest with the native troops was probably between Shiahs and Sunnis. In A.D. 1565 the Mahomedans overthrew the rajah of Bijayanagar and the kings of Golconda, subdued all Warrangal, which had made efforts at independence, and reduced other parts of Telingana and Carnata, as far as the river Pennair. Until the British occupied the country this district remained under the Mahomedan government. Their religious intolerance is attested by the number of Hindu temples which they destroyed.

Shiahs and Sunnis.

The two leading sects among the Mahomedans are, 1st, the *Sunnis*; and, 2nd, the *Shiahs*. The Sunnis accept the *Sunnat* or traditions of Mahomed as a supplement to the Koran and of nearly equal authority. They revere equally the four successors of Mahomed—(1) Abu Baker, (2) Umer, (3) Usman, and (4) Ali. The Shiahs on the other hand reject the *Sunnat*, and do not acknowledge the three first successors of Mahomed or Khalifahs. They are called by the Sunnis *Rafizi* or heretics. Few Shiahs perform the pilgrimage to Mecca, because they are then obliged to praise the three Khalifahs whom they regard as usurpers; and, instead of visiting Medina where Abu Baker and Umer were buried, they go to Kerbola, where is the tomb of Hussain.

Wahabees.

Another sect which has risen into prominence of late years are the Wahabees. Abdul Wahib, the founder of the sect, was born at Elttowa in Arabia more than a century ago, and was of the tribe of Tomyu. He settled at Dirryah and gained considerable influence over the surrounding Bedouin tribes.

Some of the followers of the sect introduced Wahabees into India. They object, however, to the use of this distinctive term and claim to be pure Sunnis. They denounce the superstitions acquired by their co-religionists by contact with Hindus. They consider themselves alone as true Mahomedans. They reject the intercession or worship of saints and all forms and ceremonies. They worship God alone as a spirit, and deny any divine characteristic to Mahomed. They stand up for purity of morals and denounce whoring, gambling, drinking, and indulgence in all intoxicating drugs. They are, in fact, the puritan party, and with earnestness it is not strange if something of fanaticism may also manifest itself, and that the desire to carry out all the principles of religion should lead them to support Jehod or holy war, direct hostility to every other creed. This sect are not numerous in the Nellore District, though individual members are found in different places, chiefly among the pensioned sepoys.

Hanafis.

Besides these there are other sects called after a celebrated doctor of Islam *Hanafi*, the followers of Abu Hanafa, surnamed Al Numan, born at Kufah in the year 80 A.H. He was imprisoned by the Khalifah Al Mansur for refusing to subscribe to the doctrine of absolute predestination, and died in confinement 150 A.H. He adhered closely to the Koran and the traditions, whereupon his rejection of predestination appears the more surprising. He held that sins did not destroy faith, and the faithful might fall into sin.

Shafis.

The sect known as *Shafi* derive their name from Abu Abdullah Mahomed-bin Idris, surnamed Shafi, born in 150 A.H. He died in 204 A.H. He was the first Mahomedan who wrote of jurisprudence. There are followers of both these sects in the Nellore District.

Malika.

Another sect known as Malik, or followers of Malib Abu Aus, born at Medina, who died 179 A.H.

Hanabalis.

Another Hanbali are followers of Ahmad Abu Hanbal, surnamed Al Shihani Al Meruzi, born at Bagdad 164 A.H., who died 241 A.H. He was imprisoned by the Khalifah Mutassim for refusing to say that the Koran was not created.

Ghair Mohdis.

The sect of *Ghair Mohdi* or deniers of Mohdi are Pattans, who affirm that the twelfth Imam Mohdi is come and gone, while the orthodox Muslims hold that he is yet to come.

Feasts and Festivals.

Festivals.

The popular festivals celebrated in this part of India are like those of other races, partly religious and partly social, though the former are more numerous and various than the latter. These festivals will be treated of in chronological order, commencing from Samvatsaradi, the Telugu new year's day, held on the new moon of Chaitra (March, April.) This is a very important feast. Early in the morning each person anoints his body with oil and bathes in warm water. The day is celebrated by public rejoicings. Relatives are invited, and the holy water, mixed with margosa flowers, jaggery, and new tamarind, is presented by the Purohitan, i.e., family priest, and freely passed round. It is supposed to secure health during the coming year. Towards the evening the priest produces the new almanac and reads out the more striking passages, explaining them at the same time. The whole family and relatives sit round the presiding genius with great eagerness to hear their fortune during the approaching year.

Samvatsaradi.

Rama Navami.

The birth-day of Rama is celebrated on the ninth day of Chaitra Suddha (March, April). The festival kept up on this and four following days is observed by Vaishnuvites. Rama is held to be the seventh incarnation of Vishnu. The story is that Ceylon was suffering from the oppression of a demon with 10 heads and 20 hands, by name Ravana, and, moved by the prayers of the people to be relieved from the monster, Vishnu took human form and was born as the son of king Dasaradha. Rama is supposed to have married Sita whom Ravana carried off to Ceylon. Rama, with the aid of Hanuman and his monkey race, pursued and defeated and slew Ravana and recovered his wife Sita.

Narasimha Jayenti.

The birth-day of Narasimha, the lion-man, the fourth incarnation of Vishnu, is celebrated on the 14th day of Visagha Suddha (May). The tradition runs that Vishnu in this instance assumed the human form to rid the world of the giant Hernya Kasepa. Hernya Kasepa was a worshipper of Shiva, but his son Plahalada was a follower of Vishnu. The giant, by the fervency of his prayers addressed to Brahma, had obtained this boon, that he would meet with death from neither man nor beast. Inflated with pride he taunted his son for his worship of Vishnu, and challenged him to show Vishnu or to cease any longer to offer him divine honors. The tradition goes that on the moment Narasimha, the new incarnation of Vishnu, half man and half lion, sprang forth from a cleft pillar and destroyed the giant. The temples of Vishnu are lighted up on this day, and Vaishnuvites abstain from food and drink till the evening, when, after worshipping the God, the followers of this sect eat together. The offering to Narasimha is sugar-water (Panakam).

Toleyekadasi.

Toleyekadasi is the 11th day of the lunar fortnight of the Telugu month Jesta. On this day people abstain from food and drink till the following morning. Brahmins are invited and presented with sugar and copper vessels filled with water.

Dukshinayanam.

Dukshinayanam is the day on which the sun leaves the zodiacal sign of Cancer and passes towards the south of the equator. On this day people of all classes bathe in rivers and tanks and perform the ceremony of "*Tarpanam*," and propitiate the spirits of their deceased ancestors. The Brahmin who pronounces the muntram is presented with money and cloths, and is invited to the house and a good dinner given to him.

Naga Panchami.

Naga Panchami.—A day sacred to certain demigods called *Nagas*, *i.e.*, Pythores, celebrated on the 5th of Shravana (July and August). On this day Krishna slew the great serpent Kali. Ceremonies are performed to ensure protection against the bite of snakes.

Krishna Jayanti.

"*Krishna Jayanti*," *or Krishna Ashtami*, is the birth-day of Krishna, one of the incarnations of Vishnu. The festival is held on the eighth of the dark half of Shravana. This is a hilarious feast. He is supposed to have been born at Mathura at midnight, and he is worshipped by all classes, both "Vaishnuvites" and "Shivites," towards the evening, fast being kept all day. The worshippers bathe, and after performing "puja" in the temples by adoring the image of the infant Krishna with tulsi (*Ocymum sanctum*) and other flowers, they parade the streets, singing, shouting, and dancing. Various kinds of grain are eaten at 11 P.M., rice being prohibited. Presents are passed from house to house, and both men and women adorn themselves with their best jewels and cloths, and decorate their houses in every manner. Sweetmeats abound in immense variety. On the evening of the following day the images are borne through the streets in procession, and the shepherds try their skill in climbing a pole to reach the present hung up at a height of twenty or thirty feet in front of the houses. There cowherds keep up great rejoicings, dancing with joined hands and throwing curds over one another.

Shravanala Purnavami.

Shravanala Purnavami is a religious festival held on the full moon of the month Shravana. On this day all the first three castes, or the twice-born classes, put on a new thread. The bachelors get their heads shaved, put on the new thread, and perform all the ceremonies laid down in the Vedas. They take their meals once only in the day, and abstain from supper altogether.

Vinayakachaviti.

Vinayakachaviti.—This is the feast of the Belly-god Ganesha, the son of Shiva and Parvati, the remover of obstacles and difficulties, and the most popular of all the domestic deities. It is celebrated on the fourth day of Bhadrapad, clay images being made for worship as the worship of *Mrithka*, or earth is enjoined by the Sastras. In respectable families a magnificent image, richly gilt and adorned, is prepared, and placed in the central

part of the house, and decorated with all kinds of flower garlands. Old and young bathe early in the morning and sit near the priest, who consecrates the idol by reciting incantations from his books and throwing over it red-colored rice. Food, sweetmeats, and fruits are offered to the image, and the God is invoked to partake of the offerings. In the evening the rest of the ceremony is performed by the master of the house through the priest, who invokes the god to bless the owner and his family, and remove any calamity that may be threatening them during the year. Early on the next morning the image is carried to a tank and committed to the water with expressions of regret for the departure of the god till next year. On the day of Ganesha's feast Hindus are prohibited from looking at the moon; and, if by accident they should see it, they get their neighbours to revile them, in hope that the calamity likely to follow may be limited to this abuse.

Rushipanchumi.

Rushipanchumi.—This feast is held on the day following *Vinayakachaviti* for the worship of the seven rishies or sages. It is particularly observed by Brahmin females, especially among the followers of the Mardhava sect. The females bathe in the morning and abstain from food and drink till the evening, when they perform their vows in the worship of the goddess "Suraswati" through the family priest. Cloths and other presents are at the close of the ceremony given to the other Brahmin females, who are invited for the particular purpose.

Atshatadiya.

Atshatadiya.—This festival follows two days after *Rushipanchumi*. Gauri, the wife of Shiva, is worshipped. The day is observed as a fast by Brahmins of all classes. Cakes made in the shape of pebbles are eaten at night.

Anantapadmanabhuni Chaturdasi.

Anantapadmanabhuni Chaturdasi.—This is a religious ceremony observed by males only. At the break of day the Brahmin bathes and solemnly puts down a vase, which is the preliminary rite in all religious celebrations. The Brahmin Purohitan then consecrates the vessel by reciting certain Vedic formulas. After the close of the ceremony the Brahmin is presented with cloths and money, and then a rich dinner is given him. This ceremony is performed only by those who have previously made a vow. No man that has not before had the observance kept in his family can perform it again, unless he find unexpectedly anywhere a silk thread. He must not be presented with it by any one.

Muhalayapatshamulu.

"*Muhalayapatshamulu.*"—This is a religious ceremony observed on account of deceased ancestors for a full fortnight during the dark half of Bhadrapad every year. Every Hindu is directed by the laws of Menu to perform an annual ceremony for his deceased parents once every year. This fortnight is

intended for these cases in which individuals have either forgotten the dates of the deaths of their ancestors, or on behalf of those ancestors for whom they do not annually perform such a ceremony. Each man fixes any one day of the fortnight for the performance of these ancestral rites as it suits his convenience best, and then invites some Brahmins and commences the ceremony at about noon when the sun reaches the zenith. The Brahmins personate the deceased ancestors and lay their feet upon the ground besmeared with cowdung and receive the adoration of the householder. Water and fire are offered to the universal gods and to the manes of the ancestors. Food consisting of rice and milk is also offered to them. At the end the chief actor walks round the plot of earth exalted by this temporary consecration, and so terminates the ceremony. If the householder is other than a Brahmin, rice, vegetables, and other necessary articles are presented to the Brahmins who recited the incantation; and, if the householder is a Brahmin, the guests eat fully, express themselves satisfied, and depart. "Mahabharani," "Madhiastami," and "Vetipata" are the principal days of the fortnight when the Brahmins are bound to perform this ceremony.

Navaratrams.

"*Navaratrams*" literally means the nine nights. This is an annual festival celebrated both in temples and in the houses of wealthy persons for nine successive nights, commencing from the first day of the increase of the moon in the month of Ashvija (September, October) of every year. Both morning and evening the pial school boys decorate themselves with all kinds of jewels and rich apparel and proceed through the streets preceded by their master, singing and shouting from house to house in search of presents, holding cross-hilted wicker daggers in their hands. During these nine nights the goddess Durga is worshipped.

Durgashtami.

"*Durgashtami*," the eighth day of the feast, is the principal day for worshipping that goddess. The ninth day of the feast is called *Maharnavami* when Saraswati, the goddess of learning, is worshipped. Books of all kinds are taken out and placed in some consecrated spot, and then worshipped by the old and young in the presence of the "Purohitan," the family priest, who pronounces the usual formulas. The tenth day is *Dasahra* or "*Ayudhapuja*," the feast of arms closely allied to the "Saraswati-puja." At this time every artizan, every laborer, all classes in short, offer sacrifices to the tools and implements which they use in the exercise of their various professions. The tools are now considered as so many gods and receive adoration. In former times it was a very remarkable feast observed by warlike princes, who gave public shows with a distribution of prizes. In this district all the Zemindars and Polygars during the nine nights place all their arms, both offensive

and defensive, in a centre hall and worship with great solemnity the goddesses Durga, Saraswati, and Lalita. On the tenth day, the Zemindars, &c., parade through the streets in all the pomp of eastern luxury, and worship on that evening the "Jammichetta", or "the *Mimosa suma Roxb.*" On the tenth day Hindu children are initiated in the rudiments of literature, and the old and young of both sexes purchase new cloths and adorn themselves with all sorts of jewels.

Depavali.

"*Depavali*," *or feast of lights.*—The feast lasts five days, beginning with the 13th of the dark half of *Ashwijam*, during which houses are cleaned, white-washed, and illuminated. A quadrangular plan is made in front of the house and painted different colors, and is called Rangali. The 13th of the dark half of Ashwijam is called *Dhan Tryodashi*. On the day a light is made and dedicated to Yema. The next day is "*Narakachaturdasi*," a social festival held in commemoration of the auspicious day when the giants, Balachekravarti and Narakasura, were slain by Vishnu. As this event is said to have taken place in the evening, the people at that time express their joy by illuminating their houses with lights and letting off fireworks. To this day the Hindus get up early in the morning, anoint their bodies with oil, and bathe in hot water. This is observed by men of all classes, both rich and poor. New clothes and ornaments are put on, and the children are decorated. Every house is adorned with rows of lamps. Sweetmeats of all kinds are made and freely distributed among relatives. Next day the feast that falls on the new moon of *Kartika* is sacred to Saraswati, the goddess of learning, the same as Lakshmi, the goddess of wealth. On the evening of this day fireworks of every description are again let off for great rejoicings. The females abstain from food or drink of any kind till the evening, when they worship the goddess "Gauri" at their homes through the officiating Brahmin, who performs the usual ceremonies. After the close of this ceremony the females take their meals.

Nagula Chaviti.

"*Nagula Chaviti*" is a religious feast observed by females only. Early in the morning the females bathe in cold water and carry in a brass plate a tumbler of water, flour, fruits, &c., and proceed to a snake's hole and worship the snake, imploring the favor of Subbaroydu, the God of snakes. The females abstain from ordinary food and partake only of fruits, sweetmeats, and water. On the following morning they take milk and pour it into the snake's hole, and then return home.

Kartika Somavaralu.

"*Kartika Somavaralu*," *i.e.*, the Mondays of the month of Kartika which fall in October and November of every year. On these Mondays males and females abstain from food or drink till the evening, when they bathe in cold

water and proceed to a Shiva's temple with cocoanuts and fruits, and after worshiping Shiva they return to their homes and then take their meals.

Chelukudvadasi.

"*Chelukudvadasi*" is the twelfth day of the lunar fortnight of the month of Kartika, when females perform certain vows in their houses, and worship the goddess "Lakshmi." After performing the necessary ceremonies through a Brahmin priest, the females take their meals.

Kartika Puruvami.

"*Kartika Puruvami*" is a festival held on the full moon of Kartika in honor of Vishnu's victory over the demon *Tripurasura*. It is a religious feast observed by males and females, who observe entire abstinence from food, worship the God Shiva in temples, and take their meals on the following morning.

Dhanurmasaum.

"*Dhanurmasaum*" is one of the twelve Tamil calendar months. This is also called "*Suniamasaum*," *i.e.*, an empty month. During this month no marriages can be performed, but all the Vaishnuvites perform many ceremonies early in the morning. They bathe in cold water and worship Vishnu and make offerings of colored rice, butter, and fruits. In all Vishnu temples the same course is pursued. This is a religious month, and the Pongal and other feasts fall in the same.

Mokkotiyekadasi.

"*Mokkotiyekadasi*" is the most important religious feast during the year. On this day both Vaishnuvites and Smartas bathe early in the morning, and, dressed in fresh apparel, proceed to Vishnu temples where they offer prayers to the God Vishnu, who is then, at 4 A.M., carried through the gates supposed to be those of salvation to the central portico. The temple is crowded with men devoting themselves to religious thoughts; every hour is supposed to be "laden with the fragrance of sanctity." Children and grown men oppressed with any kind of sickness press to the front to be touched by the priest in the name of the God. On this day men abstain from food or drink of any kind; occupy themselves in reading religious books and singing religious songs either in concert or singly; some at their houses, and others in the temples. On that night also they are not allowed to sleep, but they are kept occupied either with the ceremonies in the temples or witnessing dramatic performance in the houses or streets. Early on the following morning the people bathe again, and after offering up their prayers, take a hearty meal in company with friends and relatives. During the previous and following ten days ceremonies are performed in Vishnu temples at evening and through the nights. Pandals are erected in the temples, decorated with lustres and globes, and the idol adorned in a variety of ways is carried round and round the pandal, accompanied by a set of Brahmins reciting Vedic incantations.

Bhogipanduga.

"*Bhogipanduga*."—On this day the Hindus, both old and young, anoint their bodies with oil and bathe in hot water early in the morning; and in the streets, in front of each house, large fires are lighted and men sit round them. The following day is the great "Pongal," which is the feast of joy and amusement. This is the day on which the sun leaves the sign of Capricorn and proceeds towards the Equator. The day is celebrated with public rejoicings. Grand preparations are made for the feast: "houses are got up regardless of expense; breaches are repaired; white-wash is freely used; the rude external decorations of the walls are painted afresh; and the sacred signs of the Vaishnuvite faith are carefully picked out above the threshold. The potter plies his wheel incessantly, for every house must now be furnished with new utensils. The rice merchant is busy with cadjan and style, buying up new grain from needy cultivators, for in every house new rice only may be used." Relatives from distant countries are invited, and presents of cloths are freely distributed among them. Alms also are liberally given to the Brahmins and to dependants. Although the feast continues for seven days, the first three days are the principal ones. On the second, *i.e.*, the Pongal day, new rice mixed with milk, green gram, sugar, and other things are boiled in a new earthen vessel in the centre of the house in an open yard. If the rice boils well the people suppose it is a good "Pongal," promising future happiness; but relatives, friends, and acquaintances in this district do not visit each other as in the southern districts, saluting and inquiring whether "it has boiled." The third day is the cattle feast, when all the cattle are adorned with bells, and their horns painted in various colors. Rice and milk are boiled and presented to the cattle.

Magha Sankuranti.

"*Magha Sankuranti*."—Held on the 5th of Pushya (December, January). From this day when the sun reaches the most southern sign of the Zodiac till the time he leaves the most northern sign is called *Uttarayanum*, and the other half of the year *Dakshinayanum*. The days of the former are considered lucky, and marriages and the ceremonies of investiture with the sacred thread are then performed, while the days of *Dakshinayanum* are considered to be unlucky.

Maghapu Audivaramulu.

"*Maghapu Audivaramulu*," *i.e.*, the Sundays of the month of Magha (January, February). On these Sundays the females bathe early in the morning and worship the goddess Gouri and abstain from ordinary food, being satisfied with flour, milk, and fruits.

Rathasaptami.

"*Rathasaptami*," from *Ratha* car, and *saptami* seven. This is a religious feast celebrated on the 7th of the month Magha (January, February), the day on which a

new sun is supposed to have mounted his car. Men and women bathe in the mornings either in rivers or tanks, placing on their heads the green leaves of the gigantic swallow-wort (Jilledu aku). This is done in honor of the sun. Ancestral rites, *i.e.*, ceremonies for deceased ancestors, are also performed in company with a Brahmin, who pronounces the muntrums. On this day the present *Manwantaram* or reign of a distinct Manu began. There are 14 *Manwantarams* in each *Kalpah* or grand period of creation and destruction, and the present is the 7*th Manwantaram* of this *Kalpah*.

Vyasa Purnavami.

"*Vyasa Purnavami*" is the full moon on which the Brahmin priest sits either on the bank of a river or under the Poplar-leaved fig tree (*Ficus Religiosa*) and reads out the history of the celebrated Rishi "Vyasa." The people sit round him, and, after they have heard that whole story, present him with cloths and money.

Shevaratri.

"*Shevaratri*," is celebrated on the 14th day of the moon's wane in *Magha*. The 14th of every dark fortnight is observed by Shivites, but this is a special day. Many centuries ago, so the story runs, a mighty but wicked hunter went into a jungle for the purpose of hunting, and in the night climbed up a bael tree (*Ægle marmelos*) for his safety. In order to make himself more secure he broke off all the branches near him and threw them on the ground. They fell upon a "Lingam," emblematic of Shiva. That god considering this to be an act of worship sent a chariot of fire to bring the worshipper to the abode of the gods, there to dwell for ever. To commemorate this, and, in the hope that Shiva may again repeat the same act of favor to his worshipper, the Hindus of the Shiva sect sit up all night watching for the chariot. Every hour of that day is considered by them to be holy. All the members of the family bathe once or twice in the day, and at night visit the temple, where the shrine is illuminated. A Brahmin pours water over the lingam, and decorates it with flowers. He then reads over the 1,000 names of the god, and at each name the worshippers cast leaves of the bael tree over the image. Old and young abstain from food or drink, and offer up prayers to the god Shiva, and keep the vigil from 8 P.M. to 5 A.M. Early on the following morning they bathe again and take their meals, after worshipping Shiva once more.

Holipanduga.

"*Holipanduga*" is an annual festival held on the full moon of *Phalguna* (February, March), and observed by the Mahrattas, Rajputs, and Bondiles in this district. It is supposed that "Maumaduda" (Cupid) having given cause of offence to Shiva, the latter opened his third eye, and fire emanating from it burnt the god of love to ashes. His wife then offered up prayers to Shiva and requested him to bless her again with her husband. Shiva was pleased with her prayers, the legend runs, and gave her back her lord, but he is visible to no others. In commemoration of this event the people observe this festival. On one of the festival days the Bondiles and Mahrattas make a picture like Cupid and burn it in fire prepared for the purpose. This feast is observed once a year as a charm against the painful arrows of Cupid. The *Holi* feast is principally in honor of Krishna, the day previous being called *Dola* or *Dolaiatra* in commemoration of the god's sportive swinging. The day is held as a complete Saturnalia. Red powder mixed with water is squirted over every one; rude jests are passed; women addressed in ribald language; and persons are sent on bootless errands as on the 1st of April in England. At the close of the festival a pile is lighted in every village, on which a cake is placed, and the right of offering this is considered an honorary privilege. The ras or circular dance by boys is performed on this day in commemoration of Krishna, dancing with the cowherdesses (gopis).

Local Festivals.

Nellore Taluq.

Nellore.—There is an annual festival of Mulastaneswaraswami held annually about February, at which about 5,000 visitors attend.

There is also another festival of Stree Ranganaikaswami held about March, at which about 10,000 persons come into the town. The larger part camp in the open bed of the river, which is dry at that time. Cholera occasionally breaks out.

Mulamudi.—There is an annual festival held here in honor of Vedagiri Narasimhaswami about May. The attendance is estimated at 25,000.

Jonnavada.—There is an annual festival about April held here in honor of Malikharjanaswami, at which some 10,000 persons usually come in.

Buchireddipalem.—The annual festival here in honor of Kodanda Ramaswami is held also about April. The most number of visitors may be about 8,000.

Sangam.—In April also an annual festival is celebrated here in honor of Sangamesvaraswami, where about 2,000 persons collect.

Vengollu.—In honor of Ramalingaswami an annual festival is held here about February, where the attendance is about 4,000.

Atmakur Taluq.

Someshwaram.—The festival of Someshvaraswami is annually celebrated here about May, attended by about 2,000 persons.

Kotitirtham.—About the month of February the festival of Koteswaraswami is held here; attendance about 1,000.

Yakasiri.—A nine days' festival in honor of Stree Nageshwaraswami is held annually in the month of Chaitrum (April), to which about 2,000 come.

A festival is annually held here in the month of Bhadrapadam (August), which lasts twenty days in honor of Streeswami Nadhaswami.

Mannarpolur.—In honor of Stree Kodanda Ramaswami about 1,400 persons are collected to attend a festival held in Chaitrum (April), which lasts nine days.

Another festival of nine days is held in the month of Jastam (July) in honor of Mallari Krishnaswami, which draws about the same number.

Vatambedu.—There is a festival of seven days celebrated annually here in honor of Prasanna Kanmeswaraswami in the month of Chaitrum (April), but only attended by about 150 persons.

Kota Polur.—There is an annual festival here on the night of Shevaratri in the month of Magham (February), attended by about 200 persons.

Podile Division.

Podile.—The festival of Stree Vumamaheswaraswami celebrated on Shevaratri in the month of Magham (February) draws about 3,000 visitors.

Garladinne.—The festival of Stree Velugondrajaswami is annually celebrated in the month of Phalguna (April). It lasts for twelve days. The number of visitors is about 10,000.

Podile Hill.—The marriage festival of Stree Lakshmi Narasimhaswami is celebrated annually in the month of Phalguna (April), but only collects about 200 visitors.

Darsi Division.

Kudichedu.—The marriage festival (Kalyanam) in honor of Stree Kalahastiswaraswami and Stree Vallabha Rajaswami is celebrated in the month of Magham (February), and lasts during the dark fortnight. Visitors about 300.

Chundavaram.—The annual festival of the village goddess Ankalamma Jatara is celebrated in the month of Visaka (May). Visitors about 500.

Donokonda.—At the same time the festival of the village goddess Ganganamma Jatara is celebrated here.

Potokamur.—The marriage festival of Chennakeswaraswami and Mallaswaraswami is celebrated in the month of Jeshtam (July). It lasts ten days, and the number of visitors is about 1,000.

Pallapudi.—The marriage festival of Kodanda Ramaswami is annually celebrated for nine days in the month of Chaitra (April). About 200 persons attend it.

Lakkavaram.—The marriage festival of Mallaswaraswami is celebrated in the month of Magham (February).

List of Principal Festivals in the Nellore District.

Taluqs.	Villages.	Names of the Feirs and Festivals.
Gudur ...	Gudali	Annual festival of Somesvaraswami.
Rapur ...	Podalakur... ...	Do. of Vighnesvaraswami.
	Kalichedu... ...	Do. of Siddheswaraswami.
	Mamudur	Do. of Narasimhaswami.
Nellore ...	Nellore	Do. of Ranganaikaswami.
		Do. of Mulastaneswamswami.
	Buchireddipalem ...	Do. of Srikodanda Ramaswami.
	Mulamudi... ...	Do. of Narasimhaswami.
	Jonnavada ...	Do. of Malikharjanaswami.
	Sangam	Do. of Sanganeswaraswami.
	Vangollu	Do. of Ramalingaswami.
Kavali ...	Bitragunta ...	Do. of Venkateswaraswami.
Kanigiri ...	Kanigiri	Do. of Martundeswaraswami.

Mahomedan Feasts and Festivals.

Mahomedan festivals—Moharram.

Moharram (Arabic "most sacred"). This is a fast and solemn mourning, commencing on the evening when the new moon of the first month (Moharram) becomes visible. It lasts, including the *Ziyarat* or "visiting the grave," till the twelfth day, but the fast is for ten days, hence termed Ashura (Arabic ten). Houses are set apart for the mourning ceremonies and are called *Ashur-khana*, "ten day house." The moment the new moon is seen a spade is struck into the earth, and at the spot a pit is dug two or three days after for a bonfire. The striking the spade is called *kudali marna* and the bonfire *allawa*. At night men dance round the fires, fencing with swords and springing through and through the flames with cries of "Ya Ali, Shah Hassan, Shah Hussein," &c. Parties parade the street on the seventh and eighth days, beating their breasts and shouting "Hassan, Hussein." They visit the *Ashur-khanas*, carrying panjas of Imam Kasim and Hussein, when the story is read and verses chanted in honor of the two brothers—in memory of whom the fast is held—Hassan and Hussein. They stand up in lines and beat their breasts until utterly exhausted. The lower classes have, on these occasions, much mummery, leading about men in chains dressed like tigers, men personating Negroes or Sidis. These are led about the streets and alms are solicited. Hassan and Hussein were the sons of Ali, the cousin, and Fatimah, the daughter of Mahomed. Of these two brothers, the elder, Hassan, was poisoned by Yazid, the son of Marwiah, and the younger, Hussein, was murdered with all his retinue at Karbala in Turkish Arabia in the year 46 A.H., Zanul Abidin, eldest son of Hussein, alone escaped. Other *panjas* are paraded on the ninth night called *Shar Gast*. On the tenth night a representation of *burak*, the horse or mule on which Mahomed ascended to heaven, is

brought out. On the tenth a bier called *tabut* or *taziyah* is carried in procession. It is daily decorated and lighted up, and intended to represent Hussein's tomb at Karbala. It is during this procession that encounters frequently take place between the Mussulmans and Hindus, and between different processions, for it is a point of honor not to give way. The magistracy usually appoint different routes or different lanes for the several processions. The Shiahs alone observe the fast, and these rites are strongly condemned by the Sunnis and Wahabees. Before the martyrdom of Hassan and Hussein this fast was observed as a feast, and is still reckoned one of the lesser *ids* or festivals.

Akhira Chaper Shambar.

Akhira Chaper Shambar.—A lesser *id* or minor festival held on the last Wednesday of the second month (Safar) on account of Mahomed having recovered a little on this day during his last illness and taken a bath for the last time. It is usual to write out seven benedictions, wash off the writing while the ink is fresh and drink it. On this day it is proper to bathe, wear new clothes, prepare sweetmeats, walk in gardens, and repeat prayers.

Bari Wafat.

Bari Wafat, or great death.—A fast is held on the 13th of the third month (*Rabiul Awwal*) in commemoration of the death of the prophet, which took place on the 12th. On this day the *Kadam-i-rasul*, prophet's foot, the impression of a foot on stone, or the *Mu-i-mubarak*, sacred hair of Mahomed, is brought forth and honored. From the 1st and 12th processions take place at night.

Pir-i-dastgir.

Pir-i-dastgir.—A festival on the 11th of the fourth month (*Rabius Sani*) observed by the Sunnis, in honor of a famous saint who has 96 names. He is better known as *Saiyid Abdul Khadir Jelam* or *Ghilam*, and as *Pir Piran*. He was a celebrated doctor of the Sufis; born in Ghilan, who taught at Bagdad, where his tomb is still held sacred. The Persian poet Sadi studied under him and mentions him in the third story of the second chapter of the *Gulestan*. On the day of this festival, as well as during the ravages of cholera or any plague, it is usual to carry a large green flag in his name. Vows are made to this saint for offspring. His sister's son, Saiyid Ahmed Khabir, is the patron of the remarkable religious mendicants called *Gurzmer Chiragham Zendar Shabi Madar*. A festival on the 17th of the fifth month (*Jamadul Awwul*) in honor of *Badiud-den*, a Syrian saint, who is said to have fixed his abode at Mokkhanpur in Oude, and to have lived to a great age, or to be yet living, whence his name of *Zindah* (living). His tomb there or cenotaph is visited annually by many pilgrims, and the feast lasts 17 days. *Dam Madar*, "the breath or spell of Madar," is supposed to be a charm against bites of snakes, the violence of fire, and in short all evil. His flag is black, and black cows are sacrificed in his name.

Khadir Wali.

Urs-i-Khadir Wali.—A festival on the 11th of the sixth month (*Jamadol Akhir*) in honor of *Khadir Wali* or Kharajah *Minnud-din Chisloti*, one of whose shrines is at Nagur near Negapatam, and another at Ajmere. This saint was born in Sijistan in the year 527 A.H., and lived to the age of 108. He reached Ajmere during the reign of the emperor Kutub-din Shah, where he married the daughter of Saiyid Hussein Meshhadi, though himself a Sunni, and she a Shiah. A magnificent mosque was built near the tomb at Ajmere by the emperor Jahangir in 1027 A.H. He is greatly reverenced by the Moplahs.

Miraji-i-Mahomed.

Miraji-i-Mahomed celebrates the ascension of Mahomed on the 27th of the seventh month (Rajab), when the angel Gabriel mounted him on *burak* and conveyed him to heaven. Fatihas are offered throughout the month in the name of Mahomed.

Shab-i-Barat.

Shab-i-Barat, or night of record, is a festival held on the 16th of the eighth month (*Shaban*), when it is said that the actions of men for the ensuing year are recorded. It is passed in mirth with illuminations and the discharge of fireworks, and is an important festival in this part of the country. The whole night should be spent in reading the koran, and a fast is observed next day.

Ramzan-ka-Rozah.

Ramzan-ka-Rozah.—The Mahomedan lent which commences from the morning that succeeds the evening when the new moon of the ninth month (*Ramzan*) is observed from 2 to 4 A.M. (a meal may be taken), and from that time till sunset it is unlawful to eat, drink, or have connubial intercourse. On the 20th or 21st the Shiahs celebrate the night of Ali, as he is said to have died in one of these nights; it is uncertain which: the Sunnis celebrate it on the 21st. On the 3rd fatihas are offered in the name of Fatima-ul-Zahora, wife of Ali. On the night of the 27th it is said that the koran descended from heaven, and it is, therefore, called the *Tailatul Kadr*, or night of power. A vigil should be kept all night. On this night the sect of the *Ghari Meledis* have dreadful encounters with the Sunnis and Shiahs, and those who are killed are supposed to be rewarded as martyrs.

Idul Fiti.

Idul Fiti, the festival of breaking fast, or *Ramzan Ki Id*, the festival of Ramzan, sometimes called the festival of alms, is held on the 1st of the tenth month (*Shawwal*). On this day all Mussulmans bathe, put on new clothes, apply antimony to the eyes, and perfume themselves. They then distribute the *fiti* or *Sadkah*, (alms), which is 2½ seers of wheat, dates, grapes, or any grain used for food given to the poor or to religious mendicants. All then proceed to the *Idgar*, the Shiahs repeat "God is great," "There is no

God but Ali." The priest ascends to the steps of the *mimbar* or pulpit and reads the *Khutbah* or Friday sermon, preceded, however, by a short thanksgiving. He then recounts the virtues of the Sultan-ul-Islama, or sovereign recognized by Mahomedans, and prays for him. The king should be he whose coin is current; but in India the king of Delhi has been prayed for, and not the British Sovereign. After that a general prayer is offered, and the congregation rise with a shout of *Din* "faith" and fire off muskets. The evening is spent in rejoicings. Naib girls attend in the men's apartments, and the *Dominis*, a class of singers, who, exhibit before females only, present themselves in the seraglios.

Charagban-i-Baudar Namaz.

Charagban-i-Baudar Namaz.—A festival on the 16th of the eleventh month (Zi-Kadah) in honor of a saint called *Baudar Namaz*, 'slave cherisher,' or Gisu daraz, 'the long-ringleted.' His shrine is at Kolburgah in the Nizam's territories. Houses are lighted on the 16th night, and fatihas are offered on the 17th.

Bakrid.

Bakari Id or *Bakrid* or *Id-i-Kurban* from the Arabic *Bakar*, a bull, and *Kurban*, a sacrifice.—A feast held on the 10th of the twelfth month (Zi-Hijjah) in honor of Abraham intending to offer up Ishmail, whom, and not Isaac, the Mussulmans say, he was called on to sacrifice. On this day sheep and cows are sacrificed; for those who offer them will be carried with lightning speed over the *Pul-Serat*, or bridge of trial, into heaven. In the morning all attend at the *Idgah*.

Local Festivals.

Urus.—At Rahmatabad, a hamlet of Anasaumudrum in the Atmakur Taluq, there is an annual festival held from the 22nd to the 28th of the third month in honor of Khaju Rahmtollah Nabi Rossulden. This is termed *Urus*. It is resorted to by Mussulmans from 30 or 40 miles and fatihas are offered; vows are also made to the Pir for offspring, &c. The place is regarded with peculiar sanctity. During the feast there are offerings and illuminations, and the ex-zemindar feeds his co-religionists.

On the 27th of the same month there is an *urus* held at Kassarum in the Gudur Taluq in honor of Syed Ahmed Sahib Khadir, *alias* Kolesha. Vows are also made to the Pir. The Shrotriemdar entertains the visitors of his own faith for two days.

Castes.

Caste—Origin in successive conquests.

The system of caste that prevails throughout India appears to have had its origin in the successive waves of conquest that passed over the country. The general theory is that the Sacae or Skuthoi or Scythean race entering India from the north-west about 3,500 years ago cleared the country of its forests, and, driving before them the aboriginal inhabitants, settled down to the occupation of the soil. The second race, the Kshatriyas, one of the great warrior tribes, another branch of whom had founded the empire of Darius, poured into India and raised the famous cities of Kanooj, Magadha, and Palibothra. The Brahmins, a third race of invaders, brought with them a more northern blood, being an Aryan tribe, and also a creed replete with the wild extravagances of northern imagination. Another division of the same tribe is supposed, about the same time, to have traversed Europe and occupied the great islands of Scandinavia. The victorious Brahmins in India having conquered the Kshatriyas with a dread of the renewal of the contest seem to have conceded to them a place only second to themselves. The tribes of Scythic origin formed the great bulk of the nation, and the more wealthy and powerful were apparently raised from their fellows and formed into a separate class of Vysayas or merchants. These classes were recognized before the institutions of Menu, which perpetuated the distinctions by political, religious, and social laws. The rationalistic creed of the Buddhist appears to have been an upheaval of an earlier faith, and open war was declared between Brahmins and Buddhists. A portion of the Kshatriyas seem to have yielded to the Brahmins; but the Buddhists relied upon the co-operations of their co-religionists in the extreme south. These advanced to the aid of the Northern Kshatriyas, and the balance of power became so equal that Rama found it necessary to rouse the wild tribes of the Deckan (Hanuman and his monkeys). The Buddhist power was defeated and driven south, and Rama with the assistance of the Deckan tribes made use of, and probably improved, the causeway called Adam's Bridge, and, passing into Ceylon, defeated Ravana in his own stronghold.

We have now especially to treat of the origin of castes in Telingana. Whereas we find in the North of India that the Sudras were a despised, and, therefore, probably a conquered race, in this part of the country; their position is one of honor, from whence it is inferred that the Aryan tribes, who came here instead of conquering the Scythean race they found in occupation, made terms with them and settled down among them, and added them to the three classes of Brahmins, Khsatriyas, and Vysayas already recognized.

Hindu Yugs.

The four ages of the Hindus are the Satya Yug, the Treta Yug, the Dwapara Yug, and the Kali Yug or present age. These ages correspond in their nature to the golden, silver, brazen, and iron ages of the Greeks. Mr. Fergusson says, "it is needless now to refer to the absurd system of the Yugas or astronomical eras invented with the present Hindu system shortly before the Mahomedan invasion; but there is one date of the Kali Yuga

3100 B.C., which forms no part of the astronomical system, but on the contrary appears to be a fixed historical date representing whether, correctly or not, the first eruption of the sacred races into Hindustan."

The following account of the different castes has been furnished by Bomma Teperumal Chettiar :—

Changes in manners and customs.

"It appears that the conquered tribes of Scythic origin were dark in color, but caste did not exist in India as it does now. The Brahmins of that early period are represented as a profession, and not as a caste. They were, besides, but one of several orders of priests. Their ranks were not closed against the rest of the community; thus Visvamitra, one of the chief writers in the Vedas, was from the 'Rajas' or warrior caste, but was afterwards admitted into the Brahminic order. We have abundance of evidence in the Rig-Vedas, &c., to show that the Brahminical religion was a subsequent development, and that an earlier and much simpler religion preceded it. The system of caste, the forbidding of widow marriages, abstaining from the use of flesh and wine, the Brahminical priesthood, the burning of corpses, &c., are all observed by the present Hindus; but in the pre-Brahminical period the people of this country lived upon flesh, indulged in wine, observed no caste distinctions, re-married their widows, and buried their dead, &c. Sankaracharry, the founder of the Smarta sect, expounds a passage in the Vedas to the effect that 'Kshatriyas and the other castes were at that time one and the same, that there was no distinction of orders, and that Brahminism alone existed as a separate class.' As the Brahmins increased in influence they protected their own supremacy by raising up the several distinctions of caste, and connected these distinctions with religion. To Brahmins are assigned the duties of reading the Veda, of teaching it, of sacrificing, of inviting others to sacrifice, of giving alms (if they be rich, and, if indigent, of receiving gifts). To defend the people, to give alms, to sacrifice, to read the Veda, to shun the allurments of sensual gratifications are, in a few words, the duties of a Kshatriya, which word literally means the protection from wounds. 'To keep the herds of cattle, bestow largesses, to sacrifice, to read the scriptures, to carry on trade, to lend at interest, and to cultivate land are prescribed or permitted to a Vysaya.' 'To serve the before-mentioned classes, without depreciating their worth,' is assigned to a Sudra. Such were the laws of Menu, and the distinctions received a religious sanction, it being declared that the Brahmins emanated from the mouth of Brahma, the Kshatriyas from his arms, the Vysayas from his thighs, and the Sudras from his feet. The first three castes are called twice-born classes—a distinction which is conferred by the investiture of a thread on each individual attaining a certain age. The various duties enjoined to the four castes in the laws of Menu are

not at present strictly followed by them. The Sudras are not in Southern India considered as degraded class. The Vysayas of the present day do not follow all the injunctions issued to them by the Vedas and Puranas. They follow trade, distribute charity, and read the Vedas, but the protection of cattle and the cultivation of land have been left to a branch of the Sudras called (in this part of the country) Kapus, the sub-divisions of which will be noticed hereafter. The Brahmins no longer live exclusively upon the charity of the other castes, but earn their own bread by the sweat of their brow.

Divisions of Brahmins.

"The Brahmins are divided into two great divisions—Gouda and Dravida—each consisting of five sub-divisions as mentioned below. The former came more recently from the north of the Vindyah Mountains, and the latter belong to the south, the country of Dravida. Goudas are divided into Sharwarya, Kanukubja, Gouda, Utkala, and Maidhili. In each of these five classes there are ten sub-divisions, and, although there are no great differences between them, still intermarriages are forbidden among most of them. There are Brahmins Kshatriyas, Vysayas, and Sudras among the five classes of the Goudas. The second and fourth live upon animal food, while the Matsus of the Gouda class live upon fish only. Of the five divisions of Goudas, Sharwarya and Kanukubja are to be found in this district.

"The Dravida Brahmins are divided into Andhra, Dravida, Karnata, Maharastra, and Ghurjara. In each of these classes there are many sub-divisions. With the exception of Ghurjaras all the classes of the Dravidas are found in the Nellore District. The Andhras are of two classes, viz., Vaidikulu and Niyogulu. The former are again divided into Velanadu and Viginadu, Mulikinadu, Kasalanadu, Balagulnadu, Telaghanyulu, Karana Kammalu, Pesalavayulu, &c. Niyogi Brahmins have many sub-divisions—Pragnadu, Auruvelu, Pesalvaya, Auruvela Kammelu, Kammelu, Nandavarikulu, &c.

"All the names ending with the affix nadu are derived from their chief places of residence. The term Vaidikulu signifies those who are set apart for religious duties or studies, and implies abstinence from secular pursuits. Niyogulu on the other hand are secular Brahmins. These and the Vyaparis are two classes of seculars, and are so far separate that they cannot intermarry. The Niyogis wear mustaches and smoke. They are skilled in arts, and are employed as tutors, as village clerks, &c. Most of the Telugu poets have been Niyogis.

"Dravida Brahmins are again divided into five classes, viz., Vadamala, Benhuchcheranam, Arawa Dravidulu, Yennayantar, and Tilla Muvvayirtar. Among the Vadamala, there are three divisions, viz., followers of Yajur-Vedam, Rig-Vedam, and Sama-Vedam.

"There are three sub-divisions among the Benhuchcheranam class—

Kandamanikyam, Molaghu, and Moshanadu. Of these, the first class are called in Nellore Pudur Dravidas; the second are called Tammagunta Dravidas; the third class are called Kanasima Dravidas, who are not found in this district. The other Dravidas are found all over it.

"The Karnataka came originally from Mysore, Canara, &c. Many of them are in Government service in this district, as also Maharastras or Mahratta Brahmins. There are different religionists in the five classes of Dravidas. Vaishnuvaites, Smartas, Mardhavas, and Saktas are all found among them. The Mardhavas of the Maharastra class are of two sub-divisions, viz., Hyderabadilu and Desustulu. The former appears to have come from Hyderabad, Berar, and Beder, and the latter from Aurungabad, Poona, Khandesh, &c.

"The Yazur Veda, one of the four chief Vedas, is divided into two branches—Sukla Yuzapu and Krishna Yuzapu. The followers of the former branch are called Pradhamasakalu, and are found in all the five Dravidas and the five Goudas. The rites, observances, &c., are all different from those of the other Dravidas. Pradhamasakas are always detested by the other Brahmins, and are never admitted into their company on any occasion. There are three sub-divisions among them, viz., Katyayamulu, Yagnavarkulu, and Maddhiumdinulu, differing only in their observances.

Kshatriyas.

"The Kshatriyas, as a race, have lost most of their pre-eminent and distinguishing characteristics. The class is found represented by the Andhra Kshatriyas, who claim descent from the solar race and the Garuda Kshatriyas, the Rajputs, Bondilies, Sings, &c. Among the present Kshatriyas there are ten sub-divisions, viz., five Goudas and five Dravidas as among the Brahmins. The men of this class are now chiefly employed as sepoys, peons, or menial servants, very few of them holding high positions. But in tributary States the descendants of the old Kshatriyas hold a higher place in society. There are said to be no descendants of the fire race in the Nellore District. The Andhra and Gouda Kshatriyas are chiefly to be found in the taluqs of Ongole, Kandukur, and Nellore.

Vysayas.

"The Vysayas are divided into two classes, viz., Komaties and Beries. the former belong to the right hand and the latter to the left hand sects. The two branches above named of the Vysayas are also distinguished as those who burn and who do not burn their dead (*vide* Kanyaka Parameswari Purunam). The word Komati is rather an honorary title than the name of a class. It means ku-mati=good intellect=a man of sense, a clever man. Bhaskaracharry is the patron saint of this class. Intermarriages between these tribes are entirely forbidden. Komaties are to be found in almost every village of this district. The other Beries are found at Krishnapatam, Gangapatnam in the Polur Division, and some other

places. Komaties are also called Banians, a corruption of the word Banias, which means a trader.

Sudras.

"The Sudras form a most complicated caste, and include the bulk of the population and the great majority of the industrial classes. The caste consists of various sub-divisions. Menu says that a Sudra is one who is void of both internal and external purity and who is not allowed to perform the Upanayanam, *i.e.*, the ceremony of investiture with the thread. In this rite a forehead mark is applied (made with a paste of cummin seed and sugar) which is denominated the 'Upanayanam' or extra eye—mental eye. Among the Sudras are included all the lower classes, which are of two kinds, viz., 'Anuloma' and 'Veloma.' The former term is applied to those born of a higher-caste male and lower-caste female, and the latter *vice versâ*; as, for instances, a barber is the offspring of a Brahmin and a Vysaya girl; Bhuttrazulu are born of a Vysaya male and a Kshatriya female; the Pariahs or Chandalors are the offspring of a Sudra male and a Brahmin female. Chandalu means savage, base.

"The base by birth" it is said, 'may in time attain heaven, while the base in heart never can.' A goldsmith is the offspring of two mixed castes; the Sudra Karnams in the villages of this district are the offsprings of a Vaisya male and a Sudra female; a Chuckler is born of a Pariah male and a Boya female. In this manner the various sub-divisions among the Sudras are the results of intermixture of various castes. Of these, Balijas, Kapus, Kummars, Kummas, and Velamas, &c., appear to be the most respectable.

Divisions of Sudras.

Bulijas have many sub-divisions, viz.:—

Name.	Occupation.
1. Gazula Bahgalu ...	Make and sell glass bracelets.
2. Ralla do. ...	Trade in rubies.
3. Pagadalu do. ...	Deal in corals and pearls.
4. Vada do. ...	Sailors.
5. Lingar do. ...	Traders.
6. Perika do. ...	Trade in sacks (gunnies.)
7. Valasa do. ...	Traders.

8. Naidus or Kapus are cultivators and traders; they have several sub-divisions, viz.:—

1. Desuri Kapulu ...	——
2. Pakanati do. ...	——
3. Panta do. ...	——
4. Pedakanti do. ...	——
5. Motati do. ...	——
6. Are do. ...	——
7. Palle do. ...	Aviri Pallelu. Vanne do.

8. Challakuti Kapulu ... ——
9. Konide do. ... Found at Atmakur.
10. Rachu do. ... Found in the northern parts.
11. Yerra do. ... } Found in the western parts.
12. Velama do. ... }
13. Neratu do. ...

"All these Kapus are called Reddies. Kummars are pot-makers, and there are no sub-divisions in this class.

"Kummars are divided into (1) Gumpakammelu and (2) Illellanikammelu. These follow different professions.

"Velamalu have three sub-divisions, viz.—(1) Arava Velamalu, (2) Tenugu Velamalu, and (3) Gona Velamalu.

"Gollalu have the following sub-divisions, viz.:—

1. Puni Gollalu... ... Attend cattle.
2. Yerra do. ... Do.
3. Arava do. ... Do. also Government employment.
4. Peddeti do. ... Earn their livelihood by begging and flattering.

"Patra Yarkarlu are said to have branched out from the Kannika Gollalu and to have assumed the titles of Poligars and Nayúdus.

"Kansalavaudlu follow five avocations, viz., carpenters, ironsmiths, braziers, goldsmiths, and stone-cutters. Kamasalavaudlu have many sub-divisions—(1) Pakunati, (2) Kumma = Sakalu, Dravidas, Murikinadu.

* Salavandlu ... ... } Weavers.
Padmasalelu ... ... }
Jandravandlu ... ... }
Togatavandlu ... ... }
Satuvandlu ... ... }

Gaundlavandlu ... ... } Work oil-mills.
Gandlavandlu ... ... }
Ventedduluvandlu ... ... }
Rendedduluvandlu ... ... }

Muttarazuvandlu have no sub-divisions; these are hunters, fishermen, bearers, and palanquin bearers.

Thontavandlu ... ... Worship Chondamal, a goddess. Weavers.
Bestavandlu ... ... Are chiefly palanquin bearers and fishermen.
Baitukammers ... ... Are all ironsmiths, and hold a very low position.

Jangams ... ... } Beggars and tailors.
Viramustivandlu ... }
Dasarivandlu ... ... } Are all Vaishnuvites, and earn their livelihood by begging.
Gudavándlu ... ... }

* These are also called Dewangulu.

* Bogamvandlu ... } Dancing and theatrical caste.
Jakkalavandlu—wizards }
Satanis ... ... Vaishnuvites. Flower sellers and beggars sub-divided into (1) Ekatshulu, (2) Chatmalsulu, and (3) Ashtabhukkulu.

Boyalu ... ... } Hunters and mercenaries.
Patravandlu ... ... }
Yakurivandlu ... ... }
Chenchuvandlu ... ... A wild tribe.
Yerikalavandlu ... ... A wandering tribe; they sell baskets and gather forest leaves for medicinal purposes.
Lumbadies ... ... Are a wandering tribe. They are traders; buy and sell salt, paddy, oil seeds, &c.
Sukarivandlu ... ... Sell beads, &c.
† Beldurlu ... ... Bricklayers.
Pallevandlu ... ... Garden, &c., servants.
Vaddevandlu ... ... Dig channels, drive carts, and cut stones, &c.
Upparavandlu ... ... Construct mud walls, dig channels, and do all earth work.
Bhuttrazulu ... ... } Earn their livelihood by flattering and telling stories.
Kanivandlu ... ... }
Kaikalavandlu ... ... Weavers.
Domarulu ... ... A tribe of gypsies. These are tumblers, rope-dancers, and buffoons. They eat cats and crows, &c.
Pailvandlu ... ... } Perform mountebank tricks. They are jugglers and conjurers.
Garadivandlu ... ... }
Medarivandlu ... ... Make mats, tatties, bamboo boxes, sieves, &c.
Jinigavandlu ... ... Make toys, pictures, and models of paper or pith.
Muchchivandlu ... ... Painters, book-binders, paper-fitters, makers of saddles, toys, and trunks.
Mangalavaridlu ... ... Barbers and rude musicians.
Chakala Vallu ... ... Washermen, and serve as musalchies or torch bearers and bearers.
Jettiez ... ... Shampoo and rub ointments to cure nervous pains, &c.
Rangareezvandlu Cloth-dyers.
Itavandlu ... } Toddy-drawers.
Idigavandlu ... ... }
Manduluvandlu ... ... Sell drugs and powders.

* These are also called Nagavasulu or Kalavantulu.
† Also called Kamatics and Koltevandlu.

Itevandlu	Exhibit different shows, such as wrestling, ascending high posts, walking on ropes, &c. The women act as common prostitutes just like Dommara females.
Gangereddulavandlu ...	Train bulls to play and exhibit in public.
Budibudukalavandlu ...	A certain class of mendicants; frequent houses early in the morning and flatter people and beg.
Vituguivandlu	Hunters.
Pamuluvandlu	A certain class of beggars. They tame snakes, monkeys, and exhibit them to the public.
Vipravinodulu	A certain class of mendicants. They always beg from the Brahmins.
Runzavandlu	These are also beggars. They beg from goldsmiths and others of that class.
Panasavandlu	Beg from Kamasalies, and none else. These come from other districts.
Chambadivandlu ...	Fishermen and boatmen.
Túlivandlu, *alias* Puttapuvandlu.	These live near the sea coast. They are boatmen and fishermen.
Sarangulu	Sailors.
Bandavandlu	Beggars.
Jogalavandlu	
Banjaries	Trade in salt.
Dudakulavandlu	Clean cotton. These are all Mussulmans.
Katikilu	Sell mutton. These are all Mahomedans.
Yanadulu	Yanadies, a wild race.
(1) Vinayanadulu ...	
(2) Kuppalayanadulu ...	

The following have been noticed as the chief criminal classes in the Nellore District. (See Police Weekly Circular, 22nd February 1868, page 65.)

Criminal classes.

Upparas and Wudders ...	Tank diggers.
Sukalies	A sort of gypsies.
Boyas	Men of the woods; huntsmen.
Pichigunllavandlu ...	A kind of gypsies.
Bandevandlu	A class of beggars.
Pedditigolas and Kaludongalu.	Cut purses.
Mutarazuvandlu	A tribe descended from feudal tenants, who were holders in black mail.

OUT-CASTS.

Malavandlu (Pariahs) ...	Cultivate lands; serve as servants; they are also ryots as well as village watchers.

(1) Paidimalalu	Cultivate lands; serve as servants; they are also ryots as well as village watchers; also spin cotton.
(2) Pakanati Malalu ...	Cultivators and village watchers.
(3) Murikinada Malalu ...	
* (4) Kapudu Malalu	Sell straw, carry grain, &c., for hire.
(5) Arava Malalu (Tamil Pariahs.)	Serve as servants under gentlemen and horse-keepers, &c.
(6) Malamushtilu	——
Madigavandlu or Cobblers.	Skinners, tanners, and shoe makers.

The Mala and the Madiga are considered to be the out-casts, "who cannot strictly be placed in any caste system, although they worship, after their own fashion, Hindu deities, and gradually adopt Hindu prejudices as they rise in the world."

Among the Mahomedans there are four classes, viz.—(1) Hanaphe, (2) Shaphai, (3) Maliki, and (4) Humbli. Of these, the first two classes are found in this district. There are no great differences among them; their avocations vary according to their position in society. Intermarriages are also not forbidden among them.

Mahomedan Divisions.

* These appear to have come from Hyderabad; they speak Mahomedan language.

CHAPTER IX.

SOCIAL CHARACTERISTICS, MANNERS, AND CUSTOMS.

Dwellings.—Domestic furniture.—Dress.—Ornaments.—Music.—Physical characteristics and employments.—Moral character.—Domestic celebrations.—Punyahavachanam.—Sixteen periods of life.—Garbhadana.—Simantam.—Punsavanam.—Jatakarma.—Navaghabadana.—Namakarma.—Totla or cradle feast.—Anaprasanam.—Chudakarma.—Choulam.—Upanayanam.—Upakarma.—Veda Chetrishtaya.—Godanam.—Snatakam.—Vivaham marriage.—Different kinds of marriages.—Marriage token.—Expense at weddings.—Brahmin marriages.—Madhuparkam.—Donation of the bride.—Talambralu.—Saptapatha.—Nayudus marriages.—Marriages of Kapus.—Arivehi.—Alaka.—Gola marriages.—Sali marriages.—Chakalis marriages.—Kamasalis marriages.—Mala marriages.—Madiga marriages.—Garbhadanam.—Shristiparti.—Petra medham.—Nityakarma.—Silastapanam.—Silashakam.—Sutravisachanam.—Vapanakarma.—Silodwasanam.—Ekahvanam.—Shodasam.—Sapindikarnam.—Swargapathyam.—Mourning ceremonies performed by girls, performed by married women, performed after loss of children, in the advance of life, by the childless, by mothers. MAHOMEDAN MANNERS AND CUSTOMS.—Birth customs.—Marriage customs.—Funeral customs.

Dwellings.

THE villages in the Nellore District are generally small, and the dwellings mean, consisting mostly of three or four detached huts—one serving as a sleeping room for the family, another for a working room and kitchen, and a third for a store room for goods and chattels. The houses are generally built of mud and thatched; but in the northern parts of the district (Ongole and Podile, &c.,) the roofs are of terraced, earth laid on beams, with wattle and daub between. Whenever there is rain, these roofs require to be attended to as the mud cracks with the heat, leaving crevices, which have to be filled up from time to time. The ordinary description of hut is circular in shape, from about 12 to 20 feet in diameter; the walls are of mud, or wattle and daub, the roof pointed in the centre and thatched. There is but one door, and no other means of ventilation. With the general improvement in the condition of the people, improved dwellings may be everywhere seen, but in this respect the prejudices of caste still operate. Though a low-caste man may acquire wealth, the prejudices of his neighbours will not allow him to build a house with beams to support a roof, or to use tiles instead of thatch. We have known an instance of a Pariah bold enough to attempt to build himself an improved dwelling who had his habitation pulled down as soon as it was approaching completion. The Brahmins' and Komaties' houses are generally the best in every village, but many wealthy ryots are also beginning to build themselves houses with brick and chunam, tiled, provided with windows and open court yards.

Except during the rains the cattle are generally kept in the open air, but at that season they are admitted within doors, and among the poorer classes form a part of the family. Among the richer there are cattle sheds in the house enclosures.

Among the wealthier the apartments of the females are always distinct, and the Mahomedan practice of women being shut up is followed. Among the middle and lower classes, however, the women mix freely in society, attend the market, assist in cultivation, bring water and firewood to the house, cook the food, attend to the cattle, and perform all the ordinary in-door and out-door avocations of life.

Domestic furniture.

Some of the houses of the well-to-do are ornamented with carved wood-work and ornamental devices on the walls. In some may be seen framed and glazed pictures, chiefly representations of the Hindu divinities. Both woollen and cotton carpets are also beginning to be more freely used, though mats are most common. The articles of furniture are generally confined to a few wooden cots, the bottoms of which are made of laced rope or tape, a few stools and boxes; sometimes a large jar or two for grain, a few brass bell metal, tin and earthern pots, and dishes for culinary purposes. Food is generally eaten on leaf plates, as caste prejudice requires that any earthen vessel which has been used for eating be broken and never used a second time for the same purposes. This prevents the demand which we might otherwise expect for Staffordshireware, since the Mahomedans are the only class of the native population who use crockery.

Food.

Rice is the staple article of diet with those that can afford it, and the consumption of rice has very much increased of late years with the improving condition of the people. The ordinary food of the working classes is cholum, or, as it is here called, jonna, raggi, suzza, varaga, &c. In the northern portion of the district where less rice is grown the people generally live on jonna and varaga, with pachadi, a mixture of pulse, tamarind, chillies, &c. The Brahmins and Komaties live on grain, vegetables, and fruits, while the lower classes alone eat animal food. Ghee and butter-milk and milk are largely consumed by those who can afford it. The lower classes drink conjee, or the water in which rice is boiled. The use of spirits (arrack) and fermented liquor (toddy) is common among the lower orders, and indulged in also to some extent in private by those whose caste prejudices compel them to keep this taste a secret one.

Dress.

The dress of the people is simple and unchanged for centuries. That of the men consists of three pieces—an upper and under cloth and a turban—though among the poorer classes and the wild races this is reduced to a single cloth tied round the waist. On the feet sandles are usually worn. The dress of

the women consists of a single cloth varying in length from 12 to 16 cubits and in breadth from one to one and a half yards. Young girls and prostitutes wear a half jacket. But custom prohibits widows and all elderly women from doing so. The cloths are dyed of various bright colors, and tied in different ways to distinguish caste. The hair of the women is usually worn, put up in a knot at the side of the head, bulged out with an artificial chignon of wool or hair, or it is worn in plaits, which have also their length and size increased by artificial plaits interwoven.

Ornaments.

The ornaments of the higher classes are of gold and silver, sometimes set with precious stones and pearls. Those of the lower orders of brass or bell metal set with glass or pebbles. The men wear pearl and gold ear-rings and waist girdle of gold or silver wire, with rings for the fingers, bracelets, and necklets. The women wear circular and half-moon ornaments of gold on the top of their heads and great varieties of necklaces, bracelets, armlets, and finger rings. The *addiga* or bracelet of red coral is very general, and to this the marriage *thali* is usually attached.

Nose ornaments are also worn of rubies or diamonds, or a curve of pearls. On the legs are worn anklets of silver or brass and toe rings of the same metals. On the arms glass bracelets are worn of all colors. These are manufactured in large quantities in this district, and even exported.

Music.

The musical instruments of the people are drums clarionets, cymbals, kettle drums, trumpets, flageolets, flutes, lutes, and violins with five strings, but all of very rude descriptions. In this art the Telugus have not made so much advance as the Tamilians in the south, and noise is considered more essential than harmony.

The following is a list of Telugu musical instruments with the names of their English equivalents :—

Pillangovi or Alagoja...	A flageolet.
Tappetlu	A large drum.
Kommulu	A bugle or trumpet.
Tutara	A kind of trumpet.
Danka	A pair of kettle drums carried on a horse.
Damaram	A kettle drum.
Nagara	A large kettle drum.
Nowbat	A large kind of kettle drum.
Dhanalasankhamulu or Srichurnamulu.	Trumpets usually blown in pairs before a priest or in the temple.
Suriavadiem	A tambourine or small double tabour.
Runja	A brazen drum.
Pambujollu	A kind of drum used by conjurors and Pariahs and beggars.

Jamidikavadiem ...	A kind of tabour.
Tambura ...	A sort of lute.
Sarangam	A kind of fiddle with five wires played with bow.
Mendangam or Maddela	Double drum.
Chitikelu	Castanets, small shells of ivory or hard wood which dancers rattle in their hands.
Veene...	A lute.
Mukhavine	Jew's harp.
Nagaswaram	A hautbois, a kind of clarionet.
Pamunagaswaram	A pipe used by snake players.
Dappu	A large drum.

In all religious ceremonies and on the occasions of celebrating marriages, &c., music is an essential accompaniment. Attached to most pagodas of any size or possessing endowments, there are companies of dancing girls married to the presiding deity, but who live by prostitution and who attend at private houses on all occasions of feasting or celebrations of any sort. Jugglery and theatrical representations are among the favorite amusements of the people. The plays are generally based on Hindu mythology, and are regarded as religious performances. They are acted at nights in the centre of a village or street, the spectators sitting round in a circle.

Physical characteristics and employments.

The Nelloreans are generally a fine, well-made, and strong race, but there are great differences in the various castes. The Brahmins, Mahomedans, and higher classes of Kapus are very fair in complexion, particularly the women. There are intermediate shades of brown, and the lower classes generally are very dark. The Brahmins are generally most intelligent and well educated, but wily, cunning, and deceitful. The Komatics give their children a certain amount of education sufficient for the practical business of trade, and no more. They devote the whole of their energies to the making of money, many of them with considerable success. The general occupation of the people is agriculture, and the ryots as a class are an independent and well-to-do body of men. Improved irrigation has done much for the country, and there is manifest improvement in the condition of the people. There are no great manufactures in the district, though weaving is carried on to a considerable extent. As the practice of arts and trades is hereditary, we find, as might naturally be expected, that the various handicraftsmen are extremely dexterous, but generally quite defective in ingenuity. With a few of the simplest and rudest tools they turn out the same gold, silver, and brass ornaments that they have used from generation to generation; they sculpture or carve or cast in stone and wood and metal the traditional representations of their gods; they draw and paint the same figures, and work out the same designs which their forefathers

did, and weave the same descriptions of cloth as they have always worn.

Moral character.

Sensuality is a vice common to all classes, and the women of the lower orders are notorious for their want of chastity. In this respect the women of Atmakur Taluq have gained an unenviable notoriety, and are also affected with the worst forms of disease. So well is this known that simply as a sanitary precaution it is customary to select married men who have families for Police Constables to serve in the Atmakur Taluq.

An intelligent Native of Madras who has been resident in the Nellore District for some years considers that the chief characteristics of the people are utter want of truth, habitual deceit and fraud, accompanied by cowardice, ingratitude, discontent, insatiable greed, and a want of all benevolence and hospitality to strangers. Their distinguishing virtues he characterises as gentleness, meekness, and unlimited self-control.

Domestic celebrations.

It is proposed very briefly here to describe some of the ceremonies attending domestic celebrations, especially in regard to births, marriages, and deaths, or the progress from the womb to the grave. We are indebted for much of this information to Bomma Teperumal Chettiar, Sub-Division Sheristadar of Cuddapah; Popuri Suray Garu, Head Clerk, Collector's Office, Masulipatam; and S. Strinivasa Rau, Taluq Sheristadar of Udayagiri.

There are 16 domestic celebrations in the course of a man's life, the celebration of which among the then higher castes were regulated by the Vedas, but these practices are now mixed up with Puranic observances. All these ceremonies are begun with the performance of the rites of purification (Punyahavachanam, literally something said on a good day) which may here be described once for all. They consist (1) of bathing the body [snanam], (2) seating the chief parties upon wooden seats in the midst of the assembled guests and the announcement of the ceremony about to be performed (sankalpam), and (3) the worship of Ganesa, the god of wisdom, son of Shiva, who is adored in the shape of a cone of turmeric powder placed upon rice contained in a vessel of any metal, except iron, which is considered inauspitious. The adoration is performed by throwing upon the symbal a few grains of rice dyed red with a mixture of turmeric and lime (akshatalu).

Punyahavachanam.

Sixteen periods of life.

There are differences of opinion as to which ceremonies are properly comprised within the 16, but the most commonly accepted list is (1) Garbhadana, (2) Simantam, (3) Punasavanam, (4) Jatakarma, (5) Namakarma, (6) Anaprasana, (7) Chavulam, (8) Upanayanam, (9) Upakarma, (10, 11, 12, and 13) Veda

Vrittumu[illegible] ...natakam, (15) Vivaham,

(16) Piti[illegible].

The fi[illegible]e 16 celebrations is properly *Garbhadana*, and refe[illegible] to conception; but we have placed this afterwa[illegible] in connexion with marriage.

Garbhadi[illegible]

In the fourth month of pregnancy this [illegible]ny is performed some wealthy f[illegible] has greatly fal[illegible] into disuse [illegible]gnifies royal treatme[illegible] A feast is given to all the [illegible]ons and friends of the famil[illegible] After the ceremonies [illegible]n, while the woman is seated the midst of a circle [illegible]iends, a dealer in glass bangles is called i[illegible] and bangles are purchased for her and put on the woman. From th[illegible] time she is not to renew her bangles until after her delivery. Gla[illegible] bangles are also distributed on the occasion among the visitors. Th[illegible] object of the ceremony is to secure greatness for the woman's offsprin[illegible]

Simatam.

Pumsavanam.

This ceremony, which is also now but seldom practised, is required to be performed in the sixth month after conception its object being to secure that the fœtus in th[illegible] womb may be a boy. After the usual ceremonies of purification th[illegible] sacrificial fire is lighted and offerings (homam) made by throwing int[illegible] it boiled rice and ghee. The Purohit or family priest then takes th[illegible] tender twig of the banian tree, upon which there may be two figs and an unburst leaf to symbolize a male fœtus, and crushes it in his hand squeezing out the juice into the right nostril of the pregnant woman while he repeats certain *mantras* or incantations to procure male offsprings. These rites are followed by the usual presents to Brahmins and feasting.

Jatakarma.

Birth-rite.—As soon as a child is born the father ought to go and perform the Jatakarma. He should proceed at once to a tank or river and plunge into the water in such a way as to raise the limpid fluid around him in a shower of drops. These drops are supposed to represent the Petrude-vatalu or ancestry of the house, or perhaps their blessings scattered on their descendant who has done his duty in keeping up the family and perpetuating a line of successors to continue to perform the rites and offer the oblations which ancestral manes expect. The father ought then to return home, and, after the usual ceremonies of purification, he should light the sacrificial fire at the threshold of the chamber in which the child was born, and throw into it from time to time bran, onion, husk, and mustard seed. Practically in these degenerate days the father contents himself with a share, and, as it is found very inconvenient to practise the rites of the *Jatakarma* in a house where ordinary domestic arrangements have been upset by the arrival of a little stranger, these rites are often deferred until

child attains its eighth ye.., and are then celebr simultaneusly with the Upanayanam, or investiture of th ed thread. Several of the other rites to be hereafter noticed also very often put off till the same period, and this saves exp ses when the cost of several celebrations are combined in one. Among weathy families it is a common practice to distribute sugar among relations, friends, and B[illegible]ins upon the birt of a child. The practice of burning brain, husks, and mustard seed at the threshold of the birth chamber is constanti[illegible]ctised by the women of every family for ten days, but without the r[illegible]tion of any *mantras*; and all through the second, fourth, sixth, eigh[illegible]nd tenth nights a strict watch is kept to keep off certain evil spirits, who, it is believed at this time, are constantly looking for an opportunity to take the infant's life. One of these spirits is known as Yennamma. She is believed to assume the form of a beetle, and the lively dread she inspires in the female mind in this part of the country is very great. In a former state, the legend runs, this Yennamma was the virtuous daughter of a venerable and holy Brahmin. She had the misfortune to be given in marriage to a Chendala, a man of the lowest caste, whose real condition was not known, and by him she had a family of children. By some means or other she one day came to discover her husband's real caste, and the horror and ignominy of this discovery so worked upon her mind that she arose in the dead of night, and, while all were asleep, she set fire to the dwelling and was consumed with them in the conflagration. This unhappy mother is supposed, as an evil spirit, to be jealous at the sight of happy maternity, and to be perpetually bent on infant destruction. All night long the old women keep their vigil at the door of the room, where the newborn infant is deposited, and repeat Yennamma's legend over and over again. There are also two other evil spirits—Korremma and Kotamma—who are much propitiated by females on the eleventh day after childbirth.

When the Jatakarma is duly performed on the day of an infant's birth the father will invite his relations and friends with Brahmins and astrologers. The child's horoscope is drawn out and his nativity cast with reference to the benign and malign aspect of the nine stars; and, if these are unpropitious, their adverse influences have to be counteracted by prayers and offerings. The astrologer is an important personage in Hindu society, and the practice of drawing up horoscopes, which are afterwards carefully preserved, is very general. When the aspect of the nine stars is pronounced to be evil, the ceremony of *Navagtrabadharna* is performed during the ten days from birth up to the naming of the child. On the eleventh day, in the rites of *Namakarma*, after the usual purifications, *Japam*

Navagtrabadharna.

is performed by the repetition of certain prayers a certain number of times, and libations of water (*Argham*) are offered to the nine stars for a tenth of the number of times the *Japam* is performed, and then ghee, boiled rice, and the tender twigs of certain trees are offered to the sacrificial fire for a tenth of the number of time that the libations of water were made. This needs some explanation. When male deities are to be propitiated, the rig or prayer is repeated, say 10,000 times. Then follows the libation of water (*Argham* or *Turpanam*), and with this the prayer has to be repeated $\frac{1}{10}$ of 10,000, *i.e.*, 1,000 times, and then with the offerings by fire (*Homam*) the prayer here to be repeated $\frac{1}{10}$ of 1,000, *i.e.*, 100 times. In the case of propitiating a male deity the order is *Japam*, *Turpanam*, and *Homam*; but, when a female deity is to be propitiated, the order is reversed—*Japam*, *Homam*, and *Turpanam*; but the same ratio of progression is maintained in the repetitions of the rigs.

In propitiating the nine stars the further ceremonies count in spreading a small quantity of rice upon a plate, and upon it are placed nine cocoanuts to represent the nine stars, and offerings are made of rice dyed red, betel nut, and coins. A special invocation and propitiation of each star separately then follows, and for this purpose there are nine distinct species of grain or pulse, the offering of each of which is specially connected with a particular star. Betel nut and coins accompany each offering, and a further quantity of rice is again offered to the particular birth star which presides over the nativity then being celebrated. It may be observed that in all these ceremonies the use of Vedic *mantras* is confined to the three higher castes. As the Sudras are restricted from the service of Brahmin priests and the repetition of Vedic *mantras* and sacrifices by fire, they have in comparatively recent times adopted the use of Puranic *mantras* on the occasions of their religious and domestic celebrations.

The naming of a child usually takes place on the eleventh day after birth, unless there be any serious cause to necessitate postponement of the ceremony. As in all festive occasions preparations are made for the event by whitewashing the house and ornamenting the walls by perpendicular lines of red ochre four or eight inches in width, and at an equal distance apart from each other over the lintel of every doorway mango leaves or twigs are strung; the thresholds are besmeared with turmeric, and intricate and ingenious designs are represented on the ground before the doorway in rice powder, ornamented with circular dots of red turmeric. Formerly it used to be the custom for the chief members of the family, male and female, to adorn themselves in their gayest dresses and to put on their ornaments and proceed, with music played before them, to the houses of relations, friends, and Brahmins, leaving at each oil,

Namakarma.

green gram pounded, sugar and sometimes sugarcane, saffron, and red turmeric. This practice was equivalent to issuing invitations for the approaching festival. The more common practice in these days is to send round these gifts by a servant, who is accompanied by a single elderly female member of the family whose husband must be living, and she alone undertakes the duty of distribution.

At early dawn on the eleventh day after the child's birth the relations and friends invited resort to the parents' house. The females proceed at once to visit the mother, and, surrounding the charpoy (bedstead) on which she and her infant are lying, first propitiate the evil spirits hovering around. The infant is then bathed, while sacred hymns are being sung, and it is then taken and placed in some open place where it can be seen by all. The mother also bathes in hot water, and is then dressed in her brightest cloth and decorated with all the jewels she possesses or can borrow. Women for three months after child-birth wear their cloth tied in a peculiar manner as a sort of bandage to support the lower part of the body, and they also at such periods wear a covering on the head. A married woman never does this at any other time, but it is prescribed for widows. When all is ready, the house is thrown open to visitors, and a large number of their relations, friends, and Brahmins, many of whom live by begging, press in for the purpose of partaking of the charity distributed on such occasions. The company seat themselves on carpets and mats, and some of the elder Brahmins repeat prayers from the Vedas, until the father, mother, and infant enter together. They are seated on wooden seats in the centre of the assembly, and the music strikes up. There is sometimes dancing, and the parents and their child receive the blessings of all Brahmins present. The Purohit or family priest then comes forward, and, taking three *kalasams* or small vessels of any metal, except iron, fills them with water and drops into each some mango and betel vine leaves. He then decorates the vessels with marks of turmeric and sandal-wood paste. The *kalasams* are then placed on a plate of boiled rice, on which a triangle is first described, and beside this is placed a cone of turmeric paste. After obtaining the permission of the elder Brahmins, the Purohit then causes the father to make offerings of flowers and red rice to the symbol of Ganapati and to repeat after him certain *mantras* for the removal of the uncleanness which his offspring is considered to have contracted in that stage of existence passed in the mother's womb. The parent then takes the water in the *kalasam* and sprinkles it all over the house to complete the rite of purification. The chief ceremony of the day then succeeds. A small quantity of rice is brought in a plate, and with a piece of gold there is written on the rice the month of the nativity, the name of the presiding star, and the name proposed to be given to the child; the piece of gold is also placed upon the rice,

and the father makes an offering to the inscription of flowers, red rice, and sandal-wood paste; and, after receiving the benedictions of all the Brahmins present, he utters the name of the child three times in its right ear and touches with his nose the crown of the child's head. The Brahmins bless the child and its parents, and in their turn receive gifts of sandal-wood paste (*Gandam*), betel nut, and pieces of money. Sometimes they are also presented with new cloths and partake of a feast. On some occasions of this kind the elder members of the family—the grandfather and grandmother, as representing the ancestry of the house—are honored by having their feet washed. Often a deputation of aged Brahmin women or female relations come in at the close of the proceedings with a vessel containing water reddened with a mixture of turmeric and chunam. They surround the father, mother, and child and chant songs, accompanied by a chorus, in which all the women join. They then bless the trio and receive in turn betel nut and pieces of money. This closes the day's proceedings, and the party disperses.

Tottla or Cradle.

The cradle feast is a female ceremony, which is not included among the regular sixteen celebrations of a man's life. It takes place on the 21st day after a child's birth. A woman after childbirth is considered impure until she bathes in the sea or in a river. On the early morning of the 21st day after her delivery she celebrates her return to the ordinary avocations of life. Accompanied by a band of female friends and music, holding in one hand a few small twigs of the mango and in the other a vessel used to draw water, she goes to the well to which she usually resorts, and, letting down her vessel with a rope, draws it up full of water. This custom is only conferred to some families. In the afternoon of the same day the female relations and friends of the family assemble at the house and decorate a cradle suspended to a rafter of the roof. The mother then enters and places herself on one side of the cradle, while a Vaidiki Brahmin's wife places herself on the other, and taking in her hands the stone pestle used in all households for grinding up condiments, she passes it under the cradle to the mother, who receives it and passes it back over the cradle again to the hands of the Brahmin woman. This is done three times. Afterwards the child is placed in the cradle and rocked and lulled to sleep by songs, accompanied by the chorus of all the women present. The senior female member of the family (the hostess) then distributes betel nut and sandal-wood paste among her guests and besmears their feet with turmeric powder.

Annaprasana.

The next regular festival is the weaning, the giving of the first spoonful of food to the child—rice-taking as the literal translation of the term is. In the case

of a boy this event takes place on the sixth, eighth, or tenth month; in the case of a girl on the fifth, seventh, ninth, or eleventh month. A lucky day having been selected by consulting the astrologers, on the morning of the day the parents invite their relatives and friends to come to a feast in their house. The guests assemble, and with them come Brahmins. As soon as all are assembled, the parents enter, richly dressed, and wearing ornaments, and are seated in the midst of the gathering on wooden seats, the mother holding the infant in her arms. There is music playing, and, after the usual ceremonies of purification and the adoration of *Ganapati* in the symbol of a cone, a small cup of gold or silver is brought forward with *Parmanqam* or *Payasam*, which is a mixture of rice boiled with milk and sugar. This cup is generally presented by the maternal uncle of the child, whose peculiar office it properly is to take the child in his arms at this stage. Seating himself in the midst of the assembly and receiving the cup of *Payasam*, over which the priests repeat certain *mantras*, he takes a gold ring, and, dipping it into the consecrated pap, touches therewith the infant's tongue. The parents of the child then pay their respects to his maternal uncle, who has performed this service, by presenting him with a new cloth, betel nut, sandal-wood paste, &c. The Brahmins who are present bestow their benedictions on the infant, and receive in return offerings of betel nut and small pieces of money, and the party disperses.

Annaprasanum is a practice recognized by all classes. It is at this domestic festival that occasion is often taken to try and obtain an omen for the child's future life. A number of things are spread upon the ground, say, a sword, a book, an inkstand, a ledger, food, &c. The child is put down on the floor and is anxiously watched to see towards what object it will first crawl, and this is hopefully regarded as an indication of his future tastes, pursuits, or achievements. When the infant goes straight to the food, it is considered as an omen of evil portent.

Chudakarma.

The first cutting of the hair. This is a ceremony which has much gone out of practice. When it is separately performed, it is in the child's second year, but it is often deferred and performed simultaneously with *Upanayanam* on the attainment of the eighth year. It is performed usually only in the case of boys, but parents sometimes dedicate to some deity by a vow the hair on a girl's head. On such occasions the operation is performed in the temple of the divinity to whom the vow is made. Such vows are often performed at the temple of Venkataswarlu at Tripati. The only other occasion on which a woman has her head shaved is when she becomes a widow. When the *Chudakarma* is regularly performed in the case of a boy, an auspicious day is selected for the ceremony.

The parents and child bathe and anoint themselves with oil; invitations are issued to relatives and friends; the house is cleaned and decorated in the usual manner. After the elaborate designs have been drawn upon the ground at the principal entrance to the dwelling, squares, and lines with green gram meal, mixed with turmeric, upon red stained earth, a quantity of grain is spread thereon, and upon that is laid out a new cloth. Upon this the maternal uncle takes his seat, and, taking the child in his arms after the usual ceremonies of purification, he, with a pair of scissors, cuts a few hairs three times from the child's head. The cutting is sometimes mere dumb show, two blades of durbha grass being used for scissors. A barber who is in attendance does the rest, shaving the child's head, leaving only the top knot, which is always religiously preserved. It is only when a man assumes the ascetic state that, in token of deserting a wordly life, he cuts off his top knot of hair. As soon as the child has had its hair removed, the relatives and friends present each take a handful of small coins and pass them three times round the head of the child to drive away all evil spirits, and then throw the coins into the barber's cup; a new cloth is also given on such occasions to the barber. Then the females bring in a plate of turmeric and chunam water of red color, and hold it before the child to avert evil, and then throw it away. During the whole of the ceremony instrumental music is performed. Finally, all the Brahmins present bestow their benedictions on the child, and, after receiving betel nut, sandal-wood paste, and small coins, take their leave.

Choulam.

The next domestic occurrence to be noticed is boring the child's ears. This ceremony, as a separate observance, has gone greatly out of fashion. It is usually like the last delayed until the time for the investiture with the sacred thread arrives. One cause of this is that a child who has undergone any of these ceremonies is entitled to ten days' mourning in case of its death, whereas one whose hair has not been cut and whose ears have not been bored is only entitled to three days' mourning; and lengthened periods of mourning entail much practical inconvenience. *Choulam* when separately performed is often carried out in the fifth year of a boy, though the birth-day of the third year is considered a particularly auspicious day. After the house has been decorated and invitations issued, a carpet or mat is spread in some apartment of the house, and the mother seats herself upon it, taking the child on her lap. The assembled females sing, and, after the usual ceremonies of purification, a goldsmith is introduced, who, with a gold or copper wire, bores the lobes of the child's ears and fastens the wire into a ring. Cocoanuts are then brought forward and broken close to the child's ears on each side and given to the goldsmith. Lastly, the evil spirits are propitiated with a plate of turmeric and chunam water, which is brought forward and thrown away.

Upanayanam, or investiture with the sacred thread, is practised exclusively by the three higher castes. The name signifies the extra eye in allusion to the caste mark, which is on this occasion first applied to the child's fore-head with a paste of cummin seed and sugar. Another explanation of the term *Upanayanam* is that it means the *sending* of the boy to the guru or teacher. This is one of the most important ceremonies in the life of a Hindu. The rite is administered to Brahmin boys on the sixth, seventh, or eighth year from conception and to Vaiyayas at the time of their marriage generally. Any of the previous ceremonies which may have been deferred are first performed. After the usual ceremonies of purification the boy is invested with a pseudo thread of nine strands in earnest of the succeeding investiture which confers on the novice the privilege of purifying himself by touching his lips with water (*Achamanam*). The next step is *Nandi Shradham,* honor with love. This is performed in honor of the *Pitrudevatas,* or ancestors of the family. The *Devatas* and *Pitrudevatas* are supposed to be invited to the feast, as well as living friends and relatives; and, as their representatives, it is the practice to feed a certain number of Brahmin boys, not less than five. Then follows the investiture with the true sacred thread. The thread is first passed round the assembly, and each person lays his hands upon it as a witness to the ceremony and as a symbol thereby conferring blessings on the recipient. The boy's parents, or, in their absence, some other relative, with his wife, places the thread over his neck and leaves it hanging across his right shoulder. At this stage of the proceedings fire is brought into an apartment specially set apart for the purpose, and the boy taking a twig of durbha grass (*Samita*) in his hand throws it into the fire, with a prayer for long life, learning, wisdom, and virtue. He is then made to stand upon a stone colored with saffron, in token that he may be established firm as a rock, and while still standing on this stone an undercloth is wound round his waist and an uppercloth thrown over his shoulders. Up to this time he is not supposed to have assumed the use of cloths, but to go about naked in the innocency of childhood. He is then girded with a strand of durbha grass, signifying the communication of power to subdue his enemies. Lastly, a strip of deer skin is thrown around his neck. Then follow eleven *homams* or offerings to fire, and thereafter the boy's father, usually who represents the *guru* or preceptor, draws him towards him and communicates to him in a whisper the mystic words of initiation, termed the Gayitri, "we meditate upon the form of Him who is the most desired and the most excellent, of Him who is the Giver of Light and Creator of the Universe." A wand of the *Baten* frondosa (Telugu *Modugu*) tapering to appoint with tender leaves upon it is next placed in the boy's hand, as this is supposed to convey the gift of memory to aid him in the

Upanayanam.

acquisition of learning. The boy is then made to repeat a certain form of declaration of his faith and virtue in presence of fire as a witness. This fire is kept burning until the night of the third day, and, on the morning of the fourth day, low seats are prepared for three invisible impersonations—*Om,* the mystic title of deity; diligence (*Shradha*); and wisdom (*Medha*)—who are worshipped and honored with offerings by fire.

By the celebration of the rites of *Upanayanam,* a Brahmin boy is supposed to have been sent to his guru or teacher, but he has no right as yet to commence the study of the Vedas. He is supposed to have been reading grammar and other sciences during the interval between *Upanayanam* and *Upakarma,* though he need not have completed their study. *Upakarma* is the further rite to be performed before the study of the Vedas is begun. This ceremony takes place on the full moon day of the month *Shravanam* (August). Early on that morning the boy's head is shaved for the first time since *Upanayanam,* and after bathing, the usual ceremony of *Punyahavachanam* takes lead. Then the nine *Rishies,* as the propagators of the Vedas, are worshipped, and *homams* are offered in the sacrificial fire. The boy is then seated in front of the guru, or it may be his father who takes the *guru's* place, and the five first *adhyayas* or chapters of the Vedam of his particular sect are repeated by the boy, as they are rehearsed to him by his preceptor. He then throws aside his old thread assumed at *Upanayanam* and puts on a new one. All the relations and friends who have been invited to the ceremony offer the boy their congratulations or benedictions, and the women wave lights in front of him.

Upakarma.

Veda Chetrishtaya.—The rites of *Upanayanam* invest the youth with the character and garb of the student, and after *Upakarma* he his supposed to enter upon a course of study of the Vedas. There are four Vedas, the reading of each is supposed to occupy twelve years, so that the whole course would extend over forty-eight years. Then their own appropriate ceremonies prescribed for the commencement of each of the Vedas, and each stage as it is reached is regarded as entering upon a new period of life. These ceremonies, however, in their original form, are now quite obsolete. The Ve[illegible] these days are seldom read in a systematic manner.

Veda Chetrishtaya.

Godanam.—This is the ceremony of the presentation of a cow to a Brahmin, or money in its stead; but, as a separate and distinct rite, it has fallen into complete disuse, although it finds a place among other ceremonies, as in celebrating funeral obsequies to be hereafter noticed.

Godanam.

Snatakam or undertaking a resolution. With the performance of *Upanayanam*, the youth is supposed to enter upon the life of a student and to go to the *guru* or teacher to be instructed in the mysteries of the Vedas. *Snatakam* celebrates the student's return home with the undertaking of a resolution to enter upon the married state—the condition of a householder. As a boy is ordinarily eight years of age when he is invested with the sacred thread, and as the course of studentship theoretically extends over four times twelve years, he must be supposed to be fifty-six years old before he settles down. Practically, however, in these days, the father assumes the position of the guru; the boy stays in his father's house; and, as the celebration of his nuptials is celebrated while he is still a child, *Snatakam* is merely a preliminary to the marriage celebration, and, as a mere matter of form, the youth puts on the garb of a student for the purpose of throwing it off with the performance of certain further rites and the repetition of certain *mantras*.

Snatakam.

After *Punyahavachanam*, or the usual rites of purification, the young aspirant ties a woollen thread and mango leaf round his wrist, in token of a supposed resolution to enter the married state. Fire is brought forward and placed in a convenient part of the house, and, as at the rite of *Upanayanam*, he throws into it a blade of durbha grass. He is then divested of the student's garb. During his course of studentship he is supposed never to have anointed his body with oil. He does so now; brushes his teeth for the first time with a small stick of the *Ficus racemosa* (Telugu, *Medi*). Hitherto he is supposed to have used only the third finger of his right hand for a tooth brush. Next the youth proceeds to bedaub his person with sandal-wood paste; he adorns himself with gold and jewels; and ties his cloth in the fashion peculiar to married men. He is presented with ear-rings, and, touching them with ghee, makes eight offerings of ghee on the fire, and places the rings in his ears. Garlands of flowers are flung round his neck; his eyes are colored with antimony (*Surma*); he puts on shoes, and assumes, finally, the use of an umbrella; and thus equipped is supposed to start for Benares, but is stopped by an offer from the relatives of his future bride.

Vivaham Marriage.—According to Menu, among the Hindus, a girl should be given in marriage before she is eight years old, *i.e.*, before attaining puberty. The law censures the delay of marriage beyond the tenth year. If a husband is not provided for her within three years after she has become marriageable she may choose a husband for herself. The parties must be of the same class, but must not be descended from the same paternal ancestors within the sixth degree, nor must they belong to the same

Vivaham Marriage.

gotra or family. Menu has given minute directions to be followed in the selection of a wife.

There are eight forms of marriage—1st, the Brahma; 2nd, Devas; 3rd, Rushies (or Arska); and 4th, Prajapates, which are appropriate for Brahmins, and based upon disinterested motives; 5th, Gŭndharva; 6th, Rukshasas, which are appropriate for Kshatriyas, and are founded, the former on reciprocal desire, and the latter on conquest; 7th, Asirra, which is practised by Vaisyas and Sudras, wherein the consent of the party giving away the girl is obtained by a pecuniary consideration; and 8th, Paisacha when the marriage may have been effected through fraud practised upon the girl, and which is reprobated by all classes.

Different kinds of marriages.

Among three higher castes the ceremony termed *Saptapada* or the seven steps is the binding ceremonial of marriage after the gift and acceptance of the girl. The tying of the *Mangala sootram* or *Thali*, or nuptial token by the bridegroom round the neck of the bride, is a practice general in South India, but not sanctioned by the Sastras. Among the Sudras and lower castes this is esteemed the only ceremony essential to the validity of a marriage.

Marriage token.

The celebration of marriages among the Hindus is attended with great expense, and families will involve themselves irretrievably in debt to celebrate their marriages with proper *éclat*. By many this is felt to be a pernicious custom, but as the dignity and respectability of each family is judged by the amount of its expenditure on the weddings of its members, so it remains a practice for members of each community to vie with each other in the reckless extravagance that fashion sanctions on such occasions, utterly regardless of the consequences. As these are the occasions when the greatest display is made, and the wealth of families is brought forward, it has been suggested that a marriage tax would neither be unpopular or unproductive. If the tax were imposed as a per-centage on the declared expenditure on each wedding, it might perhaps be a matter of family pride to furnish data for fixing the assessment sufficiently high.

Expense at weddings.

The marriage ceremony being usually performed when one or both of the parties are mere children, it amounts, in fact, to a betrothment, although the tie is indissoluble. The bride is left under the care of her parents until she attains a marriageable age, when she is sent away to her husband with a dowry called "*Stridhana*," Telugu, *Sare*.

Each caste has its own peculiar marriage customs. These, as practised by the Telugu people of the Nellore District, are given below, from the basis of which we are indebted to the "Kalyana Shatanku"—an account of the marriage

Brahmin marriages.

ceremonies of the Hindus of South India by the Rev. J. F. Kearns, a missionary of the S. P. G. in Tinnevelly. His account refers to the Tamil people indeed, but, with some differences which have been made, describes also the customs of the Telugus. Among the *Brahmins* the most minute directions regulate every act. Frequently the young man and girl are treated as bridegroom and bride a few days before the actual celebration of the *Vivaham*. This consists chiefly in their being invested with the costume peculiar to this stage of life (*Snatakam*). This may be done either at the bride's or bridegroom's house, or in the house of relations who may pay them this compliment. Each time the individual is bathed with oil, entertained with a feast, and presented with new cloths.

On the day previous to the tying of *Thali* or *Mangala sootram* (the auspicious thread), the former being the marriage token resembling a leaf of gold, and the latter the thread on which it is suspended, round the bride's neck, the bride's people take a quantity of rice, pulse, and vegetables, and new cloths to the bridegroom's house when Snatakam is being performed, the supply being intended for their dinner. This is presented with invitation (Shubalakha). After having partaken of this food at an appointed time a procession, consisting of the bridegroom in a palanqueen, accompanied by his male and female relatives, start, with music playing, and proceed to the bride's house, and when the bridegroom's party start the bride's friends often start also to meet the bridegroom on the way, and do him honor.

When the bridegroom, carried in state, reaches the door of the bride's house, a matron carries forth a brass pot of water for him to wash his feet, and a ring of married women, with plate lights of camphor, or, in the case of those who cannot afford camphor, a cotton wick floating in oil, sing a benedictory song. He is conducted into the house with the repetition of *mantras*, and is seated on a wooden stool covered with a new cloth, and a vessel of water is placed by his side for the purpose of purification (*Achamanam*) preparatory to the coming ceremony. A ring of women surround him and, waving their plate lights, sing a *Mangalaharti*, and one of the performers anoints his head with a drop of sweet oil, applied with her right thumb. The bridegroom is then bathed with oil. The regular *Punyahavachanam*, as already described, then follows. A thin bandage of wool or gold is then twined round the bridegroom's wrists for good luck to keep off evil spirits, and the bride's parents present him with a sacred thread in addition to the one he already wears.

While this is going on in one part of the house, the bride in another apartment is being bathed by her female relatives and adorned with ornaments. When her toilet is finally completed, she is seated in a new bamboo basket filled with grain facing the east, and a black stone, to

represent the Goddess Gouri, is placed before her, in order that she may offer her prayers for an agreeable husband.

As a pure matter of form, keeping up the fiction of *Snatakam*, the bridegroom now formally engages a certain number of Brahmins to select for him an agreeable wife. These Brahmins have nothing, however, to do beyond receiving the remuneration awarded them for their imaginary services. The bride in her turn does the same, declaring and proclaiming her descent, and also that of her intended husband.

The bride's parents now approach the bridegroom and wash his feet, pronouncing certain invocations, and gently strike his hands with a *kurch*, a tuft of durbha grass dipped in water (*Arghya*). He is also presented with water to be sipped (*Achamanam*), new cloths, and other presents.

Madhuparkam.

The next ceremony is a very singular one—*Madhuparkam*, or tasting cow's flesh. It is considered one of the greatest sins a man can commit to kill a cow, or taste its flesh, and it is also laid down that to eat curds, ghee, and honey together is an equal sin. One of the practices at every marriage is *Madhuparkam;* but, as beef is not so easily procurable, it is represented by curds, ghee, and honey, given in a bell-metal vessel to be eaten. A *mantram* is afterwards recited for the object of restoring to life again the cow, whose flesh is supposed to have been tasted. After this the elements and all the spirits are propitiated by just looking on a small quantity of rice and curds placed in the same bell-metal vessel.

Donation of the bride.

Now follows the gift of the bride. The bride is carried on seated upon the basket of grain, and two persons extemporize a screen, by holding up a cloth before her, to hide her from the bridegroom's view. Her father then places cocoanuts and other fruits in her hands, and takes her hands in his own, while the mother-in-law pours water upon his and her hands, and so the father delivers the girl's hands into the hands of the bridegroom; and after repeating at full the names and designations of the bridegroom, the bride, and himself, he declares, "I give unto thee this damsel adorned with jewels and protected by the Lord of Creatures." The bridegroom replies, "I take her." The bride's father next gives him a piece of gold, saying, "I this day give thee this gold as a fee for the purpose of completing the solemn donation made by me." The bridegroom again replies, "I take it," and recites the text, "Who gave her? To whom did he give her? Love (or free consent) gave her. To love he gave her. Love was the giver. Love was the taker. Love? May this be thine. With love may I enjoy her."

All this time the temporary screen separates the contracting parties; but when this stage is reached, as a sign of the accomplishment of the

gift, and a ratification of the same, the bridegroom sprinkles some cummin seed and sugar on the bride's head, who does the same in turn upon him. The screen is then removed with the repetition of certain mantras, and, during the following recital of three texts, the bridegroom sprinkles Ganges' or other holy water on the bride's head through some golden implement. The bride's father now presents her with two new cloths, and these she is bound to wear till the fifth day, as the bridegroom also wears those presented to him. The bride's father should tie a knot in the bridegroom's upper cloth over the presents given with the bride, while the affianced pair are looking at each other, and a knot should be tied with the skirts of the bride and bridegroom's mantles after repeating, "you must be inseparably united in matters of duty, wealth, and love." The young couple now adorn the *Thali*, the marriage token, and he ties it round the bride's neck. There is also another trinket (*Bashikam*) worn on the bride's forehead whenever she and the bridegroom are hereafter seated together in any ceremony.

Talambralu.

This is common to all castes. Then follows *Talambralu*, or the shower of pearls, which consists in bride and bridegroom showering pearls on each other's heads. The pearls are usually represented by grains of well cleaned rice. According to the correct ritual, the tying of the *Thali* should take place at the bride's house; then both parties should proceed in state together to the bridegroom's house, when their hands should be joined, and it is this leading home with pomp that gives the name *Vivaham* to the whole marriage ceremony. Practically, however, in these days the contracting parties also join hands in the bride's house, and the procession is deferred till after the fifth day.

After they have been formally affianced, the bride and bridegroom walk forth, while he addresses her in set terms calling down blessings upon her head. Then he enters the principal apartment and prepares a fire and the implements of sacrifice. A priest walks round the fire, bearing a jar of water, and stops on the south side of it; another does the same and places himself on the right hand of the priest. The bridegroom then throws four double handfuls of rice mixed with imitation leaves covered with lac into a flat basket, and places near it a stone used in culinary operations for grinding curry stuff. He then causes the bride to be clothed with a new waist-cloth and scarf, while he recites certain prayers. The bride then goes to the western side of the fire, and while she steps on a mat she recites, "May our Lord assign me the path by which I may reach the abode of my lord." Seven areca nuts are then placed in a line on the north-east side of the sacrificial fire, and the bride is made to tread upon each with her right foot,

Saptapatha.

touching it with the second toe. This ceremony is termed *Saptapatha*, or the seven steps. A *homam* or offering by fire is then made with fifteen twigs of the *Butea frondosa* (Telugu, *Moduga*) and sixteen libations of ghee. Then follow three *homams* of parched paddy made by the bride assisted by her brother. At the offering of the first, the bridegroom, bride, and priest all walk round the fire; at the second the bridegroom and bride alone. Each time the bride treads upon the stone which has been used to represent the Goddess *Gouri*, while the bridegroom or the priest on her behalf recites the prayer, "Ascend this stone; be firm like this stone; distress my foes; and be not subservient to my enemies." Twelve oblations are then made with specified prayers, then thirteen more during the recital of as many portions of a single text, then eighteen more are offered, while as many different texts are to be meditated upon, and then the bride offers the oblation of rice mixed with artificial leaves covered with lac.

With *Saptapatha* the marriage is considered complete and irrevocable as soon as the bride has taken the seventh step, but not before. Each step has a distinct object—the first, for obtaining food; the second, for obtaining strength; the third, for solemn acts of religion; the fourth, for obtaining happiness; the fifth, for the sake of cattle; the sixth, for the increase of wealth; the seventh, for the obtaining priests to perform sacrifices. The bridegroom then addresses the bride, "Having completed seven steps be my companion; may I be thy associate; may none interrupt thy association with me; may such as are disposed to promote our happiness confirm thy association with me." The bridegroom then addresses the spectators, "This woman is auspicious, approach and view her, and, having conferred (by your good wishes) auspicious fortune on her, depart to your respective abodes." The bridegroom's purohit, who has stood near the fire, bearing a jar of water, then advances to the spot where the seventh step was completed, and pours water first on the bridegroom and then on the bride's head, reciting the prayer, "May water and all the gods cleanse our hearts; may air do so; may the divine instructress unite our hearts."

In the evening of the same day, as soon as the stars appear, the bride sits down on a bull's hide, which must be of a red color, and must be placed with the neck towards the east and the hair upwards. The bridegroom sits down near her, and makes oblations with certain prayers, each time pouring the remainder of the ghee on the bride's head, to obviate all defects and blemishes in the bride. They then rise up, and he shows her the polar star, reciting the following text:—"Heaven is stable, the earth is stable, these mountains are stable, may this woman be stable in her husband's family." The bride salutes the bridegroom, naming herself and family, and adding a respectful interjection. The bridegroom replies, "Be long lived and happy." Matrons then pour water, mixed with leaves, upon the bride and bridegroom, out

of jars which had been previously placed on the altar, and the bridegroom makes oblations of rice boiled in a small cup and offered twice in the fire. The bridegroom afterwards eats food prepared without manufactured salt, and during the meal recites certain prayers.

On the three subsequent days the married couple must abstain from manufactured salt, live chastely and austerely, and sleep upon the ground. From the first night up to the night of the fourth day fire is worshipped by the newly united couple morning and evening, as can only be done by husband and wife together. On the third day there is a general assembling of relations and friends. The rulers of the eight corners of the universe are worshipped. All those who are present then bestow their benedictions on the newly married pair, and bear testimony to the celebration of the union. The bridegroom then makes a sacrificial fire, and offers in the fire eight oblations with appropriate prayers. He then prepares another fire and sits down with the bride on the right hand and makes twenty oblations with prayers. The remainder of each ladleful is thrown into a jar of water which is afterwards poured on the bride's head.

On the morning of the fifth day the bridegroom and bride and their friends bathe in oil. The two former prepare a sacrificial fire and worship. Then a square diagram is drawn with flour and saffron, &c. The figure has four lines of four colors on each side with the representation of a lotus leaf in the middle. This is done with the object of dismissing with due form the thirty-three crores of devatas invited to attend the wedding. Four large colored pots are placed at the four corners, and a light at each. Thirty-two smaller pots with thirty-two smaller lights are placed all round with thirty-two balls of flour. A thread of yarn is then carried round the space enclosed by the four pots nine times. The bride and bridegroom are made to cross over this thread and seated in the space enclosed. The yarn is then removed over them and dipped in saffron water and given away to some barren woman, who accepts it with the hope of thereby obtaining the much coveted gift of children.

Nayudus' marriages.

The marriage customs among the Nayudus have a good deal of the Tamil element about them. A brief description of these rites will suffice. On the day selected by the astrologer as auspicious, the bridegroom's relations take with them a new cloth for the bride, a string of glass beads, the dowry, betel, saffron, sandal-wood powder, and flowers to the bride's house. They are entertained, and this being over, the bride is caused to bathe, and afterwards she is taken to a room where they adorn her with flowers, saffron, and sandal-wood paste, tie a string of beads round her neck, and put on the new cloth which the bridegroom's relations have brought. They then serve out betel to the whole assembly; this they call the betel of confirmation.

Half the marriage is solemnized, they say, on this day. The amount of dowry given by the bridegroom's father is now placed in a palki, or in a plate adorned with flowers and odoriferous stuffs, carried round the village and brought back. The bride's father takes the dowry.

On the auspicious day for the wedding, some of the bridegroom's friends and relations go to the bride's house to conduct her to the *bridegroom's*. The bride is adorned with costly ornaments, dress, and flowers, taken round the village in a palki in solemn procession, and brought to the bridegroom's house. A loud sound of drums and trumpets announces her arrival. Near the dwelling house a sort of fold is fenced in, and within it a temporary shed is erected. A pole is then erected, and upon it a few branches of the *margosa* tree are tied, by the side of which the bridegroom stands. Some of his female relatives approach, and, dipping their forefingers in milk or oil, touch his forehead, shoulders, and chest, after which a portion of rice is tossed over his head; he is then seized by a finger and led into the house. Ten or fifteen earthen pots are next procured, which are ornamented with lines drawn by colored chalk upon the outer surface; this is placed in a convenient place one over the other, the females of the house meanwhile chanting in Telugu.

At the directions of the guru the bridegroom retires to a room to adorn himself. The servant having previously cleansed it with cow dung forms a cone to represent *Venayakudu*, and, placing it in a corner, offers it a measure of rice, plantains, cocoanuts, and betel. A barber brings a cup of milk with which he washes the feet and cuts the toe nails of the bridegroom in the presence of his relations. The milk which remains he carries round to the assembled guests, many of whom throw money into it. The carpenter prepares a branch of any milk or fig tree in the south-west corner under the pandal and offers cocoanuts and plantain to the symbol of *Venayakudu*, and the bridegroom, in his full dress and ornaments, plants the branch and seats himself on the earthen dais. The guru utters some *mantrams* and finishes the ceremonies.

The bridegroom and bride then go in procession to the altar of their god and worship him by breaking cocoanuts. On their return they sit on the dais facing the east, the bride being on the bridegroom's left. The *thali* is put in a small wooden box; the guru first blesses it and sends it round the assembly to get the blessing of the old men present. This done, the guru receives the *thali* back, and approaching the dais directs the bridegroom to stand up facing his bride. The bridegroom with his right foot treads upon the bride's left foot—a cloth is held between them for a screen—the bridegroom receives the *thali* from the guru and puts it on the bride's neck from the other side of the screen, and his sister ties it round the bride's neck. Drums are beaten and trumpets blown. In the presence of the assembly the bride's father

comes forward and says, "I have given my daughter in marriage to M. N.'s son." This he says three times, and pours water on the joined hands of the couple. After this they tie their hands with a colored handkerchief and seated on two stools, the bride wearing the Bashikam on her forehead, their respective friends pour milk on their heads and give them sacred ashes with which to besmear their foreheads. They then walk round the dais three times, and retire into a room, where the friends of the bridegroom sing eduiatory songs. At night the newly-married couple are taken in procession round the villages.

On the third day a lighted candle is placed on the dais, a symbol of *Ganesha* at the bottom of the lamp, and offerings made to it. The bride then bathes and cooks some rice. The rice being ready, the bride and bridegroom stand facing the east; their friends take two dishes of the rice and wave them before the face of the couple, and then throw a handful of rice behind them to avert the evil eye; the remainder of the cooked rice is given to the barber and the washerman.

On the fifth day a new plough is made by the carpenter with which the bridegroom turns up the earth for about two or three yards around. The bride levels the earth thus turned up, and then sows some seed in it. The bride's brother pricks the bridegroom with an ox goad, and the bridegroom's sister fills up the holes into which the bridegroom had dropped the seed; while doing so, the bride asks the bridegroom's sister, "Why do you fill the holes that I made?" To this she replies, "If you give your daughter in marriage to my son, I will open them." Thus saying, she runs before the couple, and makes a feint of preventing them entering the house; when asked to open, she answers, "Yes, if you will promise to give your daughter in marriage to my son." If her request is complied with, she opens the door and lets them in.

This has reference to a practice very common in this caste—a man's marriage with his niece, his sister's daughter.

Marriages of Kapus.

The marriage rites, as practised among the Kapus or Talagas, the great bulk of the Sudra population in a Telugu District, have their own distinctive features, and require to be separately noticed.

Pradhanam (literally the chief thing). This is the bridegroom's father asking the bride in marriage for his son. The bridegroom's father invites his relatives and friends on some particularly-selected day to accompany him to the house of the intended bride's father for this purpose. Her father, also, invites his relatives and friends for the occasion to give a fitting reception to the expected party. The bridegroom's friends go in procession to the bride's house, attended with music, and matrons bear before them an unequal number—it may be three or five—of brass trays of betel nuts, cocoanuts, plantain, dates, and other fruits. When the procession arrives at the house of the girl who is sought

in marriage, the figure of a square is marked out with chunam upon the floor of a room where the performance is to take place. In the north-east and south-east corners of this square two brass lamps are placed, and the assembly are seated on mats and carpets around. In the centre of the square two wooden seats are placed, and to the south a third for the purohit or priest. The girl whose hand is sought in marriage is now led to one of the seats by an elderly matron and made to worship *Ganesha* in the usual symbol of a cone made of turmeric paste and placed upon a betel vine leaf, laid again upon a quantity of rice on a brass tray. This tray is then removed and another brought forward, upon which are laid the jewels brought by the bridegroom's party as presents, and the intended bride worships the gold as symbolizing Lakshmi, the goddess of wealth. She is then invested with a new cloth and these same jewels brought by the bridegroom's party, and presents are distributed with money to the Brahmins present. They in return bestow their blessings. Then betel leaf and betel nuts and fruits are given to the bride elect and the elderly matron who chaperones her. These they receive by lifting up a fold of the cloth in front to form a sort of receptacle to hold them, and thereupon they retire. The bride's father now approaches the bridegroom's father, and asks him, "Why hast thou come hither?" The other replies, "I came to perform the *Pradhanam*, to ask thy daughter in marriage for my son." To this the bride's father rejoins, "I give my daughter," and thereupon presents the other with sandalwood paste and garlands in token of a confirmation of the agreement. The bridegroom's father makes a similar return presentation, saying, "I take thy daughter." Sandalwood paste and betel nuts, &c., are then distributed among the relatives and guests, and the proceedings conclude with a dinner after which the bridegroom's party retire. It is to be observed that the bridegroom to be takes no part whatever in these proceedings. He remains at his own house when the deputation goes forth to solicit the hand of a bride for him, and at the opening ceremony the wooden seat designed for him beside the bride elect is empty.

Before setting out for the bride's house, the bridegroom intendant lights a lamp in an earthen saucer in honor of the deity Venkata-swarlu and feeds five, seven, or nine young unmarried boys of his own caste, who are termed *Baladasulu*, or young servants of God. After partaking of food, in which the invited relations and friends join, the bridegroom is placed in a palanquin and with him one of the *Baladasulu* or groomsmen. Thus he is carried to the house of the bride, music accompanying him, and the females bringing up the rear. In the palanquin with the bridegroom are placed a saffron-colored cloth and the *thali*, or marriage-token. When the bridegroom alights at his intended's house, he is received with the same ceremonies as are

observed towards Brahmins, and is seated in the reception hall. Meanwhile, a wooden seat is placed in the centre of the room, by the sides of which paddy is strewn, and over which and the paddy a cloth is thrown. The bridegroom is then invested with a new cloth and seated on the seat prepared, and the bride placed beside him. Their cloths are then tied into a knot together. A barber now approaches with a brass cup of water, and a plate containing turmeric-colored rice is placed upon the ground. Each of the visitors takes up a few grains of rice and sprinkles them on the head of the couple, and wave round their heads some small pieces of coin to avert the evil eye. The coins so used are thrown into the barber's cup. The barber then cuts the toe nails of the bridegroom. This, with Sudras, answers to the ceremony of shaving the head adopted by Brahmins. Having done his office, the barber is dismissed with presents. The bride, bridegroom, and a number of matrons then bathe in oil, and the two former are dressed and adorned for the following ceremonies :—

The place where the barber has cut the bridegroom's nails having been cleaned up, the bride's father brings with his own hands a quantity of clay with which to construct the marriage dais, which is raised under a pandal or temporary shed. Plantain trees are put down by each post, and garlands, green leaves, and flowers are hung around. At each corner a lamp is lighted, and a quantity of paddy is spread over the dais. Below the dais, but not upon it, a wooden seat is placed, and a washerman spreads a cloth over it. On this the bride and bridegroom are seated, and the usual rites of *Punyahavachanam*, commencing with the worship of *Ganesha*, are gone through. Around the wrists of bride and bridegroom is tied a woollen thread, on which mango leaves are intertwined for luck. The bride's parents now come forward, and the bridegroom, who has been seated facing the east, now turns, so as to face the west, to receive the coming gift. The presentation of the bride is made much in the same way as among Brahmins, except that in place of Vedic *mantras* sentences from the Puranas are substituted. The bride's father then says to the bridegroom's father, "I have given my daughter in marriage to your son." A cloth is held up between the bride and bridegroom as the donation is made, and then removed. The couple unite hands and walk round the dais thrice. Then the veil being again held up between them, the bridegroom places his right foot upon a black pounding stone, and the bride puts her left foot three times upon his right. Then she treads with her right foot upon the stone, and he places his left foot upon it three times. The bridegroom sprinkles some cummin seed and sugar on her head, and she does the same upon his. The temporary screen is then again removed and the bride puts on the saffron-colored cloth brought her as a present by the bridegroom's father. Bride and bridegroom look up

at the sky to catch a glimpse of the polar star, and then enter the apartment when the marriage feast commences.

Ariveni.

Ariveni or *Aireni*.—This is a practice only observed at the weddings of Sudras. Previous to the marriage day a potter is called on to make from 9 to 21 pots, the largest of which is about 12 feet in circumference and the smallest a foot. These pots are colored outside with ornamental designs. The bride's relatives take two or three platesful of rice, pulse, and cakes under a canopy and offer the same to the pots. The offering is taken by the potter. The pots are then brought to the dwelling of the bride, and red colored rice is whirled round each to avert the evil eye and then thrown away. The pots are brought into the house and ranged each upon a settle of paddy. Lights are kept burning near this day and night, which lights are not to be allowed to go out. When the married couple have risen from the seat of gift, they repair to the pots and worship them, and repeat the ceremony morning and evening for five days. Each morning and evening some matrons take the smaller pots to a well in the neighbourhood under a canopy, accompanied with music, and, after worshipping the well, they fill the pots with water and bear it to the house. This water is for the bride and bridegroom to bathe with. Both morning and evening the bride and bridegroom are seated upon a bedstead, and benedictory hymns are sung around them. The ceremonies of the fifth day follow much the practice of the Nayudus.

Alaka.

Alaka or offence. This is a very singular custom common to the weddings of all classes. In the middle of the celebrations on the fourth night the bridegroom and his party make a pretence to take offence at something done by the bride's people. They stop the proceedings and withdraw in affected anger. Whereupon the bride's relations and friends follow them with presents, seeking a reconciliation, which quickly succeeds, and then both parties return together to the bride's house, with much show of rejoicing.

Gola marriages.

Among the *Golas*, or shepherds, when a marriage is under consideration, the intended bride and bridegroom are taken to a Brahmin who, receiving a fee, casts their horoscopes and names an auspicious day. Or they may go to a temple, and, while waiting there, should they hear the voice of a lizard, it is considered a good omen. The bridegroom's party go to the bride's house, with presents of a bridal cloth, three cocoanuts, betel, eleven plantains, eleven pieces of saffron, and some oil. The oil is rubbed on the bride with the saffron. She is then taken in a palki in procession through the village, worshipping the different deities whose shrines she meets in her progress, and then starts for the house of the bride-

groom. On approaching his relations go out with butter-milk and jaggery to invite them to come in. Having received the bride, the bridegroom proceeds to adorn himself, and the Brahmin priest names the auspicious time for the celebration of the marriage.

When the bride enters the room with her ornaments upon her, ready for the marriage, her relations pay to the bridegroom's sister what is called "Bridegroom's gold." When the bridegroom sets out for the house of the mother-in-law, he is seized on the way by his companions, who will not release him until he has paid a piece of gold. On the fourth day, when the custom of sprinkling saffron water on the guests is over, the bridegroom is seated on the marriage dais facing the east with the bride on his right. He then takes the *thali* from a small wooden box, gives it to the old men for their blessing, and then taking it back again, simply puts it on the bride's neck, while his sister ties it.

Sali marriages.

Among the *Salilu*, or weavers, when a marriage has been determined on, both parties seek an auspicious day on which to determine the dowry to be paid for the bride and to arrange other preliminaries in the presence of their nearest relations and friends. On the day fixed the bridegroom's relations go to the bride's house with a cloth, saffron, and betel nut. On arrival they are entertained, and the bride's party asks if all the nearest relations are come, and the bridegroom's party puts the same question to the other. The arrival of any expected is waited for. When there is ill-feeling among the families, near relations take this opportunity to display their feelings, knowing that they will be earnestly besought to honor the occasion with their presence. The same thing may be noticed in other castes.

The bridegroom's uncle asks the bride's uncle to settle the dower, who, in reply, requests the other to commence the business, and he accordingly mentions the sum. The bride's uncle again asks which sort of marriage the other would like, whether with palki or without. If the one with palki is chosen, the bridegroom's uncle ties sixteen pagodas or other little pieces of gold in a white piece of cloth, and, with the consent of all, gives it to the bride's uncle with cocoanuts, plantains, betel, and odoriferous stuffs, which he takes with the consent of all his relations and gives it to the bride's father. The bride bathes, puts on the new cloth brought, and is adorned with jewels, saffron, and flowers.

On the marriage day some of the bride's relations go to fetch the bridegroom, who is adorned with ear-rings and flowers, and placed in a palki, and carried in procession round the village, after which he sets out for the bride's house.

At the request of the bridegroom's father the guru sits upon the marriage dais facing the north, and directs the bridegroom to adorn himself, who then bathes and comes to the guru and sits on a wooden seat below the dais. The guru then utters some *mantras*. The bride is also brought to the dais. The wedding cloths are also brought and blessed by the guru, and the bride's father gives them to her and the bridegroom. Having put them on, they again come to the dais and seat themselves facing the east. The *thali* is brought in a dish placed upon some betel nuts and given to the guru, who blesses it, and at an auspicious moment gives it to the bridegroom, who holds it out towards the bride's neck, round which his sister ties it. This done, the bride's father comes forward and says, "I have this day given my daughter to M. N.'s son in marriage in the presence of this Brahmin, our guru, and you my relations and friends." He repeats this thrice. Just at this time some one places twelve pieces of gold, or as many as may have been bespoken, in the bridegroom's hands, and pours water over them. In some cases the bride's father makes a ring of pure gold and presents it to the bridegroom. The young couple walk round the dais three times, and then retire to a room, where there is prepared a kind of sweetmeat, of which the bride gives three times to the bridegroom who eats it, who in return gives her of the same three times, and she eats it. Next day both bride and bridegroom are seated facing the east. The bride's brother rubs oil on the bridegroom, and the bridegroom's sister rubs down the bride. Then follows a feast for the relations of both parties.

Chakalis marriages.

Among the *Chakalis*, or Washermen caste, when a marriage is arranged, an astrologer is consulted to name a lucky day, when the bridegroom's party determine on a visit to the bride's house, taking with them four to six measures of rice. Two or three of the chief men of the caste assemble and consult with them with reference to the intended marriage. If there are no objections to it, both parties then name a day on which the bridegroom's relations shall give the dowry. On the day fixed the bridegroom's relations take with them Rupees 6-4-0, an odd number of cocoanuts, a quantity of saffron and betel leaves. The bride's uncle being present receives one rupee from the dower, and then a day is named for celebrating the marriage.

A marriage dais under a pandal is erected. On the wedding day a certain number of men go to the bride's house to fetch her, pay her the dower bespoken, and give betel in discharge of what is called "village money." They then set out with the bride and place her somewhere outside the bridegroom's village, and some men of the bridegroom's relations take betel with them for the bride's men, and bring them home.

The head of the caste then calls for the *thali*, which is brought in a basket with seven measures of rice, garlands, the bridal cloth, and the

new cloth for the bridegroom. He blesses the *thali* and bridal cloth and returns them to the bridegroom. The bridegroom gives them to the bride's mother's brother's daughter, who dresses the bride (while the bridegroom is being adorned in the pandal), and then he ties the *thali* himself round the bride's neck, and there ends the marriage ceremonies. The friends of each party make presents, and have them proclaimed as they are being given and received. This practice is common to all classes. With all his ornaments and garlands the bridegroom parades the street, breaking cocoanuts to the gods, and when approaching the door the bride's sister, to avert the effects of the evil eye, waves lighted camphor, or a common oil-plate light. The bridegroom sits down on the dais, while the bride is carried by her uncle three times round him, and at last placed upon his left side. The couple unite their hands, walk round the dais three times, and then go into a room where there are three new colored pots, which they both hold together and take to the cooking apartment, and there they both, as a form, boil rice and serve it out afterwards, but the work is really done for them.

Kamasalis marriages.

Among the *Kamasalis* (the smiths and carpenters,) the marriage practices more closely resemble those of Brahmins. The relations of the bridegroom first go to the bride's parents or guardians and ask their consent to the proposed union. If consent is given, a day is fixed, on which the relations of the bridegroom go to the bride's house, where all her relations are present, with cocoanuts, plantains, a cloth for the bride, betel, turmeric, &c. On the same occasion the amount of the dower is settled. The bride bathes and is adorned with flowers, turmeric, &c., and puts on the new cloth brought for her, and she receives the articles which the bridegroom's party have brought.

On the auspicious day appointed for the marriage the relations of the bride go to the bridegroom's house, and fetch him in a palanquin. A Brahmin is sent for, who performs the ceremonies near the dais on which the bride and bridegroom are seated. After the recital of the *mantras* before the young couple, he sends for their uncles and blesses them. The bridegroom then ties a pilgrim's cloth upon him, places a brass water pot on his head, holds a torn umbrella in his hands, and starts out from the pandal, and says he is going on pilgrimage to Benares, when the bride's brother runs after him, and promises that he will give him his sister in marriage, swearing thrice to this effect. The bridegroom, satisfied with this promise, abandons his pretended journey, takes off his pilgrim cloths, and gives them, with the umbrella, to the Brahmin.

The couple seat themselves on the dais, and the Brahmin, having repeated some *mantras*, gives a sacred thread to the bridegroom to

place over his shoulders. He then blesses the *Mangala sutram*, and hands it to the bridegroom, who ties it round the bride's neck, his sister or other elderly matron seeing that it is properly tied. The bride's father comes forward, and, placing his daughter's right hand in the bridegroom's right, pours water on them. The other ceremonies are exactly similar to those practised by Brahmins.

Mala marriages.

Among the Malas or Pariahs, as among all the lower classes, girls are married at any age. An auspicious day having been selected, the preliminary of Pradhanam, or the bridegroom's father asking for the bride, is gone through much in the same way as described in the case of Chakalis or washermen. Among well-to-do Malas the bridegroom goes with pomp and music to the bride's house, but the more common practice is for the bride to come to the bridegroom's. She and her party halt in the open street before the house, where the relations and friends of both parties meet, and then they seat themselves around her on mats. Two matrons, one to represent each party, then go and fetch two pots full of water for them set aside for the ceremony of *Ariveni*, and then they exchange their pots as a symbol of the coming interchange. The women of one party throw saffron on those of the others, singing benedictory songs, and dancing women of the Mala caste are brought forward to exhibit themselves, and there is often a display of fireworks. After this the party enter the bridegroom's house. Then a pandal or temporary shed is erected with a dais under it, and by the side of the dais four wooden seats are placed for the bridegroom and his bestmen and for the bride and her bridesmaid. All four are seated facing the east. Two baskets of paddy are brought and placed in front of the parties, and the grain is husked by matrons beating it out in an ordinary pounder. The bridegroom's father then approaches her and applies turmeric-colored rice to her forehead, and whirls round her head, to avert the evil eye, a copper pie piece which is then dropped into the barber's cup. This is repeated by the rest of the assembly. The barber then pares the bridegroom's toe nails, and as a mere form touches his chin with a razor, next taking two rice pounders, and he dips the ends in milk and ghee and touches the shoulders of bride and bridegroom as a signal to retire for bathing, while he salutes them with the words, "good be to you." The couple then bathe in oil and are invested with new cloths. Coming forward again to the dais, they stand there, and an ornament (*Bashikam*) is fastened to each of their heads to hang over the forehead; a cloth is thrown over the dais, and a cloth is held up as a temporary screen between bride and bridegroom, the former facing the west and the latter the east. Silver rings are then put on the bride's toes, and she puts her right foot on the dais, and the bridegroom places his left foot upon her right. Twisted strands of cotton thread are then tied round

the wrists of each. A brass tray filled with clean rice, which has been provided jointly by both parties, is then brought forward. Upon it is laid a betel vine leaf, and upon the leaf the *Thali* or marriage token is laid. The priest takes up the *Thali* and pours the rice into the screen-cloth which is held to receive it. The bridegroom takes a double handful of rice and gives it into the bride's hands, and she does the same to him in return. This is done three times to signify the execution of a contract. The *Thali* is handed round and blessed by all those present, and the bridegroom receiving it ties it round the bride's neck. He and she then throw clean rice used to represent pearls over each other's heads. Turning round, so that both face the west, the skirts of the cloths are then tied into a knot. The assembly then congratulate them with the words, "may all good and prosperity attend you." The bride's father makes the bridegroom a present of a gold ring, new cloths, and other things, according to his circumstances. The guests also make presents to the bride and bridegroom. After this the fathers of both parties walk round them three times, each carrying one of the *Ariveni* pots, and all come out into the street to look at the polar star, to which a libation of water is poured forth from the Ariveni pots. After worshipping the star, all return into the house again. Married women and girls meet the newly-married couple on the threshhold, waving plate lights before them.

Morning and evening for five days *Ariveni*, the goddess of the pots, is worshipped, and the last day when she is dismissed a goat or fowl is sacrificed. On the second day the bridegroom is conducted on horseback, and the bride in a palanquin, round the town or village. On the third and fourth days nothing is done beyond giving dinner. On the fifth day the wrist bands of the united couple are untied, and after this they repair together to the bride's house. The other ceremonies are common to all the lower castes, and have been already described. It is a common custom after the marriage for the bridegroom's sister to ask in marriage for her son the hand of the bride's future daughter.

Madiga marriages.

The marriages of the Madigas or Chucklers, viz., skinners and tanners, are performed much in the same way as those of the Malas, whose practices they seem to follow. Indeed, the feeling of the right hand castes in regard to the left hand, the goldsmiths, &c., finds its exact counterpart in the feeling between the Malas and the Chucklers. The right hand party resent the use by the left of palanquins and show at their marriages, and so the Malas are very jealous at the Chucklers carrying the bride and bridegroom in state through the streets, or using tinkling ornaments, &c. Riots sometimes occur when a strong feeling of opposition is raised to resent what they consider innovations. The marriages of the Madigas are usually conducted with much brawling and noise, owing to the quantity of

spirits consumed on such occasions, and among the lower orders generally divorce is very common, and resorted to for very light trifles.

Garbhadanam.

Garbhadanam, or the womb gift.—This is properly the first of the sixteen ceremonies comprised in a man's life, as it is prescribed for the sake of conception; but, as in place of time it follows the ceremony of betrothal, and is, in fact, the real marriage rite, it is entered in this place. At the celebration of *Vivaham* the bridegroom is indissolubly united to his betrothed; and, though both parties may be children, if the husband dies before she attains her full age, she remains a widow for life, and cannot, according to Hindu practice, be married to another. As at the time of celebrating Vivaham the bride is always a child, and the bridegroom often is so too, a season of separation extending to several years necessarily intervenes before the marriage is consummated by the parties living together. The ceremony performed on this occasion is known as *Punassandhanam* or rejoicing. On the morning of an auspicious day selected for the purpose the bridegroom proceeds with his relatives and friends to the house of his father-in-law. There he bathes in oil, and the bride is also similarly bathed in oil, dressed in her richest cloths, and adorned with ornaments. They are brought into the midst of the assembly and seated on wooden seats. After the celebration of *Punyahavachanam* in the usual manner, the re-united couple first are made to atone for the sin of having intermitted the daily worship of fire during the period of their separation, the rite requiring husband and wife to perform it together, which was impracticable. The expiation is made by making gifts of money and libations or *homams* of ghee. After this they receive the congratulations of the assembly, and a company of married women form a ring round them, waving the light plate of camphor, or whatever it may be, and singing songs, termed *Mangalaharti*.

After partaking of the evening meal, the [illegible] ceremonies of *Garbhadanam* are proceeded with. They commence as usual with *Punyahavachanam*. Then cocoanuts and other fruits are distributed to Brahmins with a view to securing a fruitful union. Several *mantras* are now repeated, which ought to be repeated by the bridegroom when in company with his bride in the nuptial room. These *mantras* are appropriate speeches accompanying the gift of fruits, betel nuts, &c. After receiving the blessings of all present, the bride and bridegroom are led into the nuptial chamber and seated on a bed facing each other. Here fruits and betel nuts are distributed to the married women who have brought the parties in, and after they have again waved the plate lights before them and given them their best wishes, the matrons withdraw and leave the wedded pair in the room alone. On the second night the distribution of fruits and betel nuts is repeated, and on the third night cloths and fruits are also given away. In the afternoon the

wedded couple are dismissed, the bridegroom taking the bride to his own house, and the bride's presents are sent with her.

During the period of the catamenial discharge a woman is always considered impure and is precluded from entering the dwelling house, and day and night has to remain outside the door. Women at their *accouchements* are attended by the matrons of the family, and also so-called midwives, who, however, are grossly ignorant and totally untrained. As no medical aid is called in on such occasions, there can be no doubt that many lives are sacrificed in childbirth which the discoveries of science, as applied to obstetrics, might have saved.

Shristipurti.

Shristipurti.—The custom of *Shristipurti* is sometimes practised upon the attainment of the sixtieth year. On the morning of that day the sexagenarian bathes, and is shaved, repeating certain *mantras*. After the usual rites of Punyahavachanam, he makes thirty-six offerings of ghee in the fire (*homam*), and then follows the ceremony of *Sarvaprayachettam*, or general repentance. It is a sort of preparation for death, and consists in repeating certain *mantras* and drinking holy water with *tulasi* leaves. This rite is also sometimes administered to the dying *in extremis* like extreme unction. At night the celebrator of his sixtieth birthday worships sixty *Kalasams*, or small vessels of water, employed to represent his age. The whole day he observes as a fast, as does also his wife if she be living, and during the whole night he ought to remain awake, repeating *mantras*. Next morning he makes a general offering in the fire of cocanuts, silk, and various odoriferous stuffs, and finally gives a feast. The custom is said to have been originally performed by *Vasista*, one of the Munees, but is now gone much out of practice.

Pitru Medham.

Pitru Medham (funeral obsequies).—With regard to the condition of a future state Hindu ideas are very conflicting. There is the pure philosophic idea of dissolution derived from the Vedas, the material being dissolved into its original elements, and the transmigration of the soul into another form, until it finally attains annihilation, or absorption into deity. But the popular belief is founded on Puranic notions, a life continuing after death and a passing from earth to heaven or hell.

The practices of cremation and interment we find connected with philosophic ideas in regard to organic dissolution. According to the Hindu system there are five elements. Of these two, ether (Akasam) and air (Vayu) are invisible to the eye. These are only worshipped by Ascetics. When they die it is considered indifferent what becomes of the corpse; it may be buried or thrown into a stream or exposed to the air. The Lingayets worship earth (*Prudhivi*); therefore, they are buried. Water (Apa) has no peculiar worshippers in the south,* but the

* The worship of rivers, as Ganges, Kishna, &c., is Puranic, the rivers being personifications of female divinities.

great body of Hindus worship fire, and, therefore, with them their body is burnt.

The Puranic ideas, however, are the most popular. The Sastras teach that after death the soul becomes united to an aërial body, about the size of a person's thumb, and passes to the seat of judgment, where it is tried by Yama, the Indian Pluto, who decides upon its future destiny.

At the time of receiving punishment the body is said to become enlarged and capable of enduring pain. It remains, however, in the same aërial vehicle till the last *Shradha* is performed, twelve months after death, which is said to translate the soul to the heaven of the *Pitris*, where he enjoys the reward of his meritorious actions, and afterwards in another body enters into that state which the nature of his former actions assigns to him. If the *Sradha* cannot be performed, the deceased remains in the *Preta* state, and cannot enter another body (*Ward's View of the History, Literature, and Religion of the Hindus*).

The great desire, therefore, of every Hindu to have sons, and which leads to the practice of early marriages, is based upon the belief that it is necessary to have a son to perform those religious rites, which alone can deliver the soul from *Put* or Purgatory, and which leads to the custom of adoption by those who are denied offspring themselves.

When a person is near the point of death, he is always laid upon the ground to die, and often taken outside the house, because the house in which a death has occurred must, under certain circumstances, be shut up for two months. So far are these ideas carried in Nellore, that we have known a native gentleman of the highest respectability actually taken out into the street to breathe his last, but ordinarily more humanity and affection are exhibited. The idea of defilement by contact with the dead is, however, very strong in Nellore, and the way in which this exhibits itself often surprises those who have come from other localities. Thus a corpse is often deserted by the relations, and the offices for the dead are left to be carried out by persons of the same caste indeed, but who are hired for the purpose. As a single instance, some years ago, a young Brahmin, employed in the Collector's Office, was drowned while bathing in the Mulapett tank in Nellore. The body was taken out of the water at 9 A.M., but, though many of his relations lived in the immediate neighbourhood, none came to the spot except his parents, and none would assist in preparing the last funeral rites. The body lay at the same spot till midnight, when a cart was lent by a Sudra, a stranger, to take the corpse to the river side to be burnt. It is only the nearest relatives, or most intimate friends, that follow the dead to the funeral pyre, and, when any meet such a procession in the street, it is usual immediately to turn aside and take a circuitous route, to avoid coming in contact with it.

Immediately after death the ordinary custom is for the attendants to lay out the body on a plank or upon several wooden seats put in a row, one leaning against the wall to support the head; the corpse is bathed with cold water and then covered with a single piece of cloth, which in the case of the rich will be a piece of silk or a shawl. The head alone is left uncovered. The son or nearest relation of the deceased, who is to perform his funeral rites, bathes himself, undergoes a complete shaving, and puts on new cloths which are wet with water. The removal of the body to the place of cremation may be at any time after three hours have elapsed from the time of death. It is carried in an open bamboo litter, which is borne on their shoulders, either by some of the relations, or more usually by hired bearers. The funeral pile of dry wood is prepared upon the ground, and upon this the corpse is laid. The son or nearest relation sets fire to the pile and makes eight libations of ghee thereon to feed the flames. When the body is consumed, he collects the bones and carefully preserves them to be sent to the nearest sacred river; the ashes are sometimes collected the same day and taken and thrown into the nearest water. The collection of the ashes should, however, be made in what is selected as an auspicious time before the seventh or ninth day. Those who have attended the burning of the dead are required to bathe and pour out a libation or drink-offering (*turpanam*) in name of the deceased before they return home.

The various ceremonies that now follow are termed *Nityakarma*, or the daily rites, which are performed for ten days, commencing from the burning of the deceased's body. In these ceremonies the deceased is represented visibly by a small smooth rounded stone, and to this stone the honors to be paid to the manes of the dead are ostensibly offered.

Nityakarma.

Silastapanam, or the placing of the stone.—The stone selected to represent the deceased is taken to a particular place outside the town where all such funeral rites are performed. The stone is placed in a cup of lotus or other leaves and consecrated by the repetition of *mantras*, by means of which the spirit of the dead is supposed to enter into the stone. The person who performs the funeral obsequies bathes three times the first day, six times the second, and so on, increasing by three the number of times each day till the tenth.

Silastapanam.

Silashakam, or the pouring of water upon the stone.—There are three distinct objects sought to be accomplished by this—to quench burning (*tapa*), to allay desire (*trishna*), and to satisfy hunger (*kshut*). For the first of these objects, the stone receives on the first day three libations of water with gingelly seeds, and the number of libations is increased by three each day;

Silashakam.

for the second object, the stone is placed upon a scarf, and receives three separate libations of water, and each succeeding day the number is increased by three; lastly, hunger is to be appeased each day of the ceremonies by offering to the stone upon Darbha grass a morsel of boiled rice, the ground having been duly consecrated by the repetition of *mantras* and the application of cowdung, water, and gingelly seed. The rest of the boiled rice which has been brought is mixed with curds and ghee, and, after being offered in due form to the stone, is left to the crows and vultures to eat. If on any day the appropriate rites are neglected, they have to be performed along with, and in addition to, those of the next day. The stone is each day carefully brought home wrapped up in the scarf, and taken again to the place where the rites are performed. In the case of Brahmins the ceremonies are continued for ten days, and in the case of the other castes for fifteen.

During the ten or fifteen days a morsel of rice is daily offered to the deceased at the spot in the house where the body lay, and from a beam over where his head was placed is suspended the first day, or from the time when the *Nityakarma* commences, a small earthen pot, with a hole in the bottom of it, through which a piece of cotton cloth is passed. The pot is filled with water which saturates the cloth and drops continually upon the place where the dead lay.

Every other day rice, pulse, vegetables, ghee, &c., are distributed to Brahmins. If anything is omitted to be done on its proper day, the rites have to be performed cumulatively on the ninth day.

Sutravisarchanam, or divestiture of *Mangalasutram* or *Thali*.—This is the marriage symbol in the shape of a leaf of gold worn by the wife. This rite is performed on the tenth day by Brahmins, and on the fifteenth day by other classes. The widow's relatives and friends assemble on that day and adorn her with flowers and the best cloths and jewelry in her possession, place her in a particular spot, weep for her awhile, and embrace and condole with her. She is then taken in a dhooly or palanquin to the place outside the town, where the dead are burnt, and the marriage symbol is removed from her neck by another widow. If she is a Brahmin her head is also shaved. She is then brought back again to her house as she was taken, and is provided with a new white cloth by the nearest relative of her husband or her own.

Sutravisarchanam.

Vapanakarma, or the shaving act.—On the same day, the tenth with Brahmins, and fifteenth with other castes, the son of the deceased, or other person who performs his obsequies, visits the places where the daily rites have been performed during the previous nine days. Here he and the nearest relations of the dead, who are younger than he, have their heads and moustaches

Vapanakarma.

shaved and they bathe. Then the celebrator of the funeral rites ties a piece of cloth round his loins, and resumes the use of a caste mark, which has been given up during the time of mourning; but, if he is a Vishnuvite, he paints two white marks only on his forehead, omitting the central yellow one; and, if he is a Shivite, he draws three horizontal lines on his forehead with ashes. This done, the priest and others resort to a tank or river, and the son or his representative boils some rice and offers it mixed with curd to the deceased. It is left to be eaten up by the crows, and it is considered an exceedingly bad omen if the crows do not come and eat it up. At the conclusion of this rite ten Brahmins are present, each with a peculiar kind of present or a piece of money to represent the same: these are *Godanam*, or the gift of a cow with its calf; *Bhudanam*, or the gift of a piece of land; *Tiladanam, some oil seeds with a piece of money*; *Hiranyadanam*, a piece of gold; *Ajyadanam*, ghee with a piece of money; *Vastradanam*, a pair of cloths with money; *Dhanyadnam*, raw rice; *Guddadanam*, sugar or jaggery; *Rupeadanam*, a gift of silver; *Lavanadanam*, salt. These ten Brahmins are intended by means of their several influences conjointly to contribute to the tranquil immigration of the soul to the first station in the other world, the three stages being designed after *Vasu*, *Rudra*, and *Aditya*. The soul is not finally emancipated from the intermediate state until three generations of its descendants have passed into the unseen state—the son, the grandson, and the great grandson.

Silodiwasanam.

Silodiwasanam, or casting away of the stone.—On the tenth day a general libation of water with gingelly seeds is made by all the relatives of the deceased in honor of the manes of the deceased, but at a distance and apart from the stone which has been used to represent him throughout the preceding rites. Finally, the celebrator of the obsequies takes the stone and flings it over his shoulder into some stream or tank. Those who can afford it make a present of a cow or money to a Brahmin. After *Silodiwasanam* has been performed, ten libations of ghee are offered in fire for the removal of mourning. This is followed by *Punyachavachanam*, or purification, which is repeated on the eleventh and twelfth days, but the ceremonies differ from those which are practised on joyous occasions. On the tenth day the deceased's representative offers two libations of ghee in the fire (*anamda purna*) offerings of gratitude, and receives the blessings of all those who are present. On the eleventh day a plantain or other leaf is laid upon the ground, and some raw rice is spread upon it. The *Purohit*, or family priest, then makes a cone of saffron paste as the symbol of Ganesa or Vinayakudu and places it on a leaf. He then takes a brass pot full of water, having some mango leaves in it and a cocoanut upon its mouth. With rice, powdered turmeric, and sandalwood paste, he makes four dots upon the brass vessel and adorns it and the symbolic cone with flowers. He then offers incense with the repetition of *mantras*. This done, the purohit purifies the celebrator of the funeral rites, who has been in an unclean and polluted state since he set fire to the pile as well as every place where he has trodden.

Ekahvanam.

Ekahvanam, or the invitation to one Brahmin.—If the celebration is among Brahmins a single Brahmin is invited to come and partake of dressed food, and cloths are also presented to him and other things. Among Sudras and other castes raw-rice, ghee, &c., are given instead of cooked food to the Brahmins, with the other usual presents, viz., a stool, a pair of sandals, &c., according to the circumstances of the family. The receiver is supposed to take upon himself the sins of the deceased, and, having received the presents, he turns away from the donor, and for 21 days avoids seeing either him or the locality where he resides. Among those who can afford it there is another singular ceremony which also conveys the idea of substitutory expiation and recalls the old Jewish rite of the scape-goat. Early on the morning of the tenth day of the funeral celebration a bull-calf is taken and branded with the symbol of the deity whom the celebrator specially worships, and, after the repetition of certain *mantras*, the animal is left loose and allowed henceforth to wander at its own will wherever it pleases. It is never put to work or killed, and is allowed to trespass even among cultivated fields. Such bulls are common everywhere, and are regarded as sacred. The sins of the deceased are supposed to be laid upon the animal, and it bears them away. Sometimes a sort of marriage ceremony is gone through between the scape-bull and a young female calf, but the female calf is not let loose.

Shodasam.

Shodasam, or the feeding of 16 *Brahmins.*—Before the heir touches any food on the eleventh day, he must feed 16 persons, or more commonly 18. These represent the 12 months of the first year, the 3rd, 12th, and 24th fortnights, and *Vasu*, *Rudra*, and *Aditya*. When Vasu, Rudra, and Aditya are reckoned as one class, the number is 16, but, when taken separately, the whole number is 18.

Sapindi Karnam.

Sapindi Karnam, or the mixing of the ball of rice.—The representative of the deceased after this invites seven Brahmins, one to represent Vishnu, two the Vishwedevas, three the deceased's three last ancestors, and one to represent himself. These guests are seated, honors are paid to them, and *mantras* are repeated: then they are presented with new cloths and other things according to the circumstances of the family and are fed sumptuously. Three brazen cups are then taken to represent the

deceased and his two immediate ancestors. They are filled with water, and the water in the deceased's vessel is three times poured into the other two, with the repetition of *mantras*; the object of this is to indicate that the deceased is being united to his immediate ancestors, the third having been aided by the celebration of the regular funeral rites to the attainment of heaven. When the seven Brahmins have finished their meal, the celebrator of the obsequies prepares three large balls of boiled rice, pulse, ghee, &c., and another fourth mass he rolls out into a long cylindrical form. The last represents the deceased, and the three balls his three ancestors. The celebrator then breaks up the roll into three pieces and mixes the materials with the three balls, reciting certain *mantras* and prayers.

The deceased is now considered to be fairly one of the *Pitridevatas*, his way through the lake of fire having been made easy by the gift of a cow (*Godana*) and the other presents to Brahmins, and now the eldest of his three ancestors is considered to have no more claim on his relatives in this nether world for the performance of more ceremonies for the relief of his soul except the last, which is now performed as *Swarga Pathyam*, or the road to heaven. This is performed by presenting a Brahmin with a pair of new cloths, rice, ghee, pulse, and vegetables, together with some money, whereby the great-grandfather of the deceased is intended to be supported in his progress to heaven.

Swarga Pathyam.

In conclusion, the celebrator of the rites and all those who have attended their performance assemble and dine together in his house if he be a Brahmin, or, if he belong to another caste, they resort for the purpose to a Brahmin's house, who prepares a repast according to the number of guests expected, and the relatives of the deceased's heir present him with cloths, which are passed through the hands of a priest to be consecrated. As they leave, on the way they perform, if Vishnuvites, a service at the first temple they pass. As soon as they reach the house of the deceased, the company are served again with betel nuts, &c., and, having condoled with the widow and the heir, they take leave and disperse.

Formerly in this part of the country the practice of widows burning themselves with their deceased husbands was largely practised, and some of the sites are still perpetuated where these *Satees* have been held by a shed or rough temple being built over the spot. In some cases women who have thus sacrificed themselves have been deified and raised to the position of village goddesses. The position of the Hindu widow is a truly lamentable one. Compelled to eat alone after the rest of the family, to dress in the coarsest cloths, to abstain from the use of all ornaments, to practise rigid fasts, to serve as a menial in the household, and forbidden to re-marry, it is no wonder that many of

this class should betake themselves to an immoral course of life, and that the term "widow" should be almost synonymous with "prostitute." And here is a fruitful source of crime: the widow endeavours to conceal her pregnancy as long as possible, and probably has resort to any means of procuring abortion, or else the birth is concealed, and the infant is deserted or put out of the way. Sometimes, on the other hand, the family avoid disgrace by getting rid of the widow, it may be by directly foul means, or by harshness and cruelty and taunts that drive her to commit suicide. A plunge into a dark well at night, a body found next morning, a coroner's inquest, and the usual verdict "found drowned."

Mourning (*Asuchi*).—The terms for mourning for the dead are rigidly prescribed and carried out by the Hindus. Thus for a child that dies before the navel string is cut, mourning till sunset. Up to the investiture with the sacred thread a child is mourned for for three days, and, after the celebration of the *Upanayanan*, he is entitled to a full period of ten days' mourning. On the first day of mourning the celebrator of the funeral rites is shaved, and on the last he and all the men junior in age to the deceased bathe and shave off all the hair on the face. The others only bathe. During this period the mourner abstains from putting a colored caste-mark on his forehead, repeating the *Vedams* or prayers, or from wearing bright-colored clothes. They will also subject themselves to many fleshly mortifications, conjugal abstinence, giving up the use of a bed or mattress and sleeping on the floor, abstaining from the use of betel nut, tobacco, and condiments in dressing food, not using a looking glass, and touching no relatives or friends except fellow-mourners. For a Sanyasi or Ascetic who has adopted a religious life no mourning is made, and he is buried and not burnt.

Mourning.

In regard to the practice of mourning when great distances intervene, it is prescribed that when the nearest relative, or he who is bound to perform the funeral rites, hears of the death of his father or other relation, he must observe a full ten days' mourning; but for others the ten days' mourning is reduced to 24 hours when large rivers or any one of the seven great mountains intervene if the news arrive after the conclusion of the established period of mourning. The seven mountains above alluded to are—1, Surachala; 2, Sivetachela; 3, Vindhyachela (the Vindhyan range); 4, Himachala (the Himalayas); 5, Meru or Kinchinginga (supposed to be at the north pole); 6, Venkatachala (the Tripati Hills); 7, Raivata.

While in mourning a person is considered as unclean, and is not, therefore, entitled to give and receive gifts of any kind except where it is enjoined for the salvation of the dead, in which case it is all giving and *no* receiving of gifts. From the 11th day all the mourning

relatives of the dead are clean except the actual performer of the funeral obsequies. He is clean from the 13th day, on which day he and the other members of the family bathe in oil, purify the house by means of *Punyahavachanam*, color the floor of the house with chunam and saffron for the first time after 12 days, hang over the door strings of mango leaves or leaves of other trees sanctioned by the *Sastras* or custom. He also gives a dinner to a party of relatives and neighbours, using luxuries for the first time again after 12 days. He then wears new apparel presented by his maternal uncle or his father-in-law, or some other elderly relative in the absence of either, and in the absence of any of these, obtained at his own cost. If the presiding star had an evil aspect when the death took place, the house, or that part of it where the dead had been laid, is shut up and left unoccupied two months, and re-opened for habitation in the third month with due ceremony, the opening part of which consists in *Punyahavachanam*. If the son or other relative of the dead is strict in matters of religion, he maintains a half-mourning till the end of the first year. During this time he still sleeps on the floor, practises conjugal abstinence, does not accept dinners, and does not join any pleasure party, *e. g.*, dancing notches, &c. The same course is generally followed by the other castes, except that with them their period of mourning is 15 days instead of 10. A son who performs the funeral rites for his father ought to give his daughter in marriage within the first year of his father's death, as this is one of the enjoined gifts in order to obtain heaven for the soul of the departed.

Ceremonies performed by Women.

Having briefly described the ceremonies usually performed by the Hindu in the successive stages of his life, we propose briefly to notice the ceremonies performed by women. Usually brought up without education, their minds are left totally uncultivated, and their occupations are then entailed by domestic service. Unable to read or write, unacquainted with the mysteries of the Vedas, they fall back upon the stories of the *Puranas* and *Tantras* which they hear repeated, but their chief devotion is performed to the several consorts of Shiva and to village goddesses. A very favorite one is Gauri, in honor of whom many of the rites hereafter noticed are performed. These ceremonies give a vivid idea of the hopes and fears, the aspirations, and the forebodings of Hindu womanhood.

Ceremonies performed by girls.

The following ceremonies are practised by girls after betrothal and before union with their husbands.

Atlataddi.—On the third day after the full moon, an early meal before sunrise, the worship of Gauri in the afternoon, and the presentation of ten cakes to ten matrons upon the dismissal of the deity invoked. The object is to secure a young agreeable husband.

Uppu—Salt.—This consists in making a present to any matron of a pot of salt, full to the brim, at the end of the year, with the view to secure a long enjoyment of the married state.

Akshayabanddr.—This consists in making a present of a pot full of turmeric to any matron at the end of the year with a view to avert the calamity of widowhood.

Udayakunkuma consists in putting the red kunkuma mark on the foreheads of five matrons before sunrise, with the object of being always able to wear the same mark on her own forehead, *i.e.*, never to become a widow.

Padiharukudumulu consists in the presentation of 16 cakes once a year for sixteen years to a matron. This is for the attaining of wealth.

Kartika Gauri Devi.—Exhibiting to a matron the antimony box with a preparation of which the eyes are trimmed to give the brilliancy, and wearing on the head turmeric rice (*akshatalu*). The object of this is said to be to give sight to blind relatives.

Kandanomi consists in abstaining for a year from the use of arum and presenting a matron with a silver and gold representation of a kanda to be worn on the neck. The object to be attained is that she who performs the rite may never have to shed tears.

Gummadi Gauri Devi.—This is the presentation at the end of the year to a matron of a pumpkin in the morning and another in the afternoon, with a silver one at food time, and a gold one to be worn round the neck. This is for the prolongation of married life.

Gandala Gauri Devi.—This is the distribution of 25 different sorts of things, 25 of each to be distributed to matrons at the rate of five of each sort to each. The object of this is to avert evil accidents of all kinds which may threaten the husband.

Chittibottu.—This consists in making the kunkuma marks on the foreheads of five matrons in the morning for the attainment of wealth.

Isalla Chukka.—Rubbing butter-milk, saffron, kunkuma, and sandalwood paste on the threshhold of the door. The object is the same as in the last.

Tavita Navomi.—To avoid touching bran for any purpose for the prolongation of married life.

Nitya Srungaram.—Offering betel nut and putting the kunkuma mark on the face of a matron for the purpose of securing perpetual beauty.

Nallapusala Gauri Devi.—This is the presentation to a matron of 100 round black beads with one gold one, the object being again to avert widowhood.

Mocheti Padmam.—This consists in the worship of some deity and the making of the forehead mark (*bottlu*) for four matrons in the first year, eight in the second, and so on increasing the number by four each year for 27 years, being the number of certain stars. This presentation has to be made in silence. The object is the attainment of enduring wealth.

Mogamudosellu.—The performer washes her face 13 times daily in a brass vessel and offers to some matron some rice, a pearl, and a coral.

Undrallatadde.—On the 13th day after the full moon, taking food before sunrise, the girl worships the goddess Gauri in the afternoon, and, at the time of dismissing the deity invoked (*Udyapana*), she presents five round cakes to as many matrons. The object of this is to secure her future husband's affections.

Vara Lakshmi, or the worship of the goddess Lakshmi, for the attainment of wealth and salvation, or to make the best of both worlds.

Vavilu Gauri Devi.—In order to avert the risk of all accidents for her future lord the devotee on each of the four Tuesdays of the month Sravana worships the goddess Gauri Devi, and distributes Bengal gram to married women.

Savitri Gauri Devi.—The offering of nine different articles on nine different days after the sun has entered the solstice, the sign of Capricorn. This is also practised to secure a husband's affection.

Icaldikutimangalavaram.—This is a piece of self-mortification, and consists in eating on every Tuesday for one year nothing but cold rice boiled the previous day and feeding a matron with the same.

Ceremonies after attaining marriageable age.

The following are some of the ceremonies practised by young women after attaining a marriageable age:—

Prabatcha Adivaram.—This is offering worship to a married couple and limiting the taking of food to a single meal on Sunday. This is done with the object of having children.

Apadaleni Adivaram.—Taking but one meal every Sunday and making a presentation to five matrons of five cakes with a flat basket of rice, body jackets, and other things. This is for the procuring of wealth.

Adivaram (*Sunday*).—This consists in total abstinence from some one article of food for one year, another article the next year, and so on for five years; also limitation to a single meal every Sunday, and the presentation of cloths to Brahmins upon the dismissal of the deity invoked for worship. The object of this seems to be to secure re-union with the husband after death.

Chappitti Adivaram is abstinence from salt on every Sunday for a year with a view to secure the longevity of children.

Udayapadmam.—To take for one year a daily bath and to draw the representation of a lotus with rice-flour every morning near the sacred Tulasi plant (*Ocimum sanctum*) which is kept in many Hindu households, growing on an altar of masonry. The object of this is to restore a dead husband to life again, *i.e.*, to secure re-union in another life.

Krishna Tulasi.—To avert widowhood those who perform this rite present thirteen pairs of cakes in a gold cup to a Brahmin.

Kartika Chalimidi.—This custom is the distribution of Chalimidi, which is flour mixed with sugar water, for three years; in the first year one and a half seer of rice, in the second year two and a half seers, and in the third year 26 seers, the object sought being to restore life to children that may die, *i.e.*, restoration in another world.

Kailasa Gauri Devi.—This custom is to grind one and a half viss of turmeric without assistance in perfect silence, and then distribute it among 101 matrons, the object being to avert widowhood.

Dhairya Lakshmi.—As a charm against tears matrons light a magic light which must have a cotton wick of the weight of one pagoda, and instead of a quarter of a viss of ghee clarified butter.

Dhanapalalu.—This consists in giving four different sorts of grain for five years to a Brahmin to atone for the sin of the catamenial discharge.

Nadikesudu.—This is the distribution of five seers each of nine different sorts of grain, which must be dressed and eaten in the house. This is done for the procuring of wealth.

Nityadhanyamu consists in daily giving a handful of grain to any Brahmin with the object of averting widowhood.

Phalala Gauri Devi.—This is performed by the presentation of 16 fruits of 16 different species to any married woman with the view of securing healthy offsprings.

Pamidipuvulu (*gold flowers*).—With the view to avert widowhood and secure influence with their husbands, young wives practise the daily worship of 13 flowers for a time and afterwards present to a Brahmin the representations of 13 flowers in gold, together with a lingam and panavatta (the seat of the lingam).

Muppadimudu[illegible] namulu (*thirty-three full moons*).—To avert widowhood cakes are offered on the occasion of 33 full moons; on the first one cake is eaten, on the second two, and so on up to thirty-three.

Mudukartelu, the three [illegible]ons.—For the attainment of wealth women light 700 cotton wicks steeped in oil at the three festivals of full moon *Sankuratri* (the time when the sun enters the zodiacal sign of Capricorn) and *Shivaratri*.

Magha Gauri Devi.—The worship of the goddess Gauri in the month of Magham with a view to avert widowhood.

Vishnukanta.—For the same purpose thirteen pairs of cakes are offered in a new pot to some married woman.

Vishnuvidiga.—To atone for the sin of the catamenial discharge, food, according to this custom, is eaten without salt on the second day after every new moon.

Sokamulevi Somavaram.—The taking of food without salt every Monday for the restoration of children removed by death.

Chitraguptulu.—This consists in burning twelve wicks daily in oil for the attainment of happiness in a future state.

Sukravaram (Friday).—For the acquisition of wealth, women sometimes limit themselves to one meal on Fridays, and feed five married women on each occasion of dismissing the deity invoked for worship (*Udyapana*).

Saubhagyatadde.—To avert widowhood another practice is on the third day after every new moon to distribute unassisted and in silence one and a quarter viss of turmeric among 13 matrons.

Kshirabdhi Dvadasi is keeping a fast day specially devoted to the worship of Vishnu with a view to secure happiness in a future state.

Chinuku.—A woman takes a stalk of Indian corn fresh pulled up, and with it pounds rice flour mixed with milk in a mortar. This is to avert widowhood in this world and to secure happiness in the next.

Ceremonies performed by those who have lost children.

Women who have lost children frequently perform the following two ceremonies for restoration to life or restoration in a future state :—

Kundella Amavasya (*Hares new moon*).—To give 13 different things to some married woman every new moon for 13 months.

Kadupukadalani Gauri Devi.—The presentation of 13 pairs of cakes to 13 matrons.

Ceremonies performed after cessation of catamenial discharge.

The following ceremonies are often performed after the cessation of the catamenial discharge to atone for the sin contracted by their occurrence.

Annamumuttani Adibaram.—The eating of yams and other roots every Sunday for three years or under certain conditions a longer period.

Rushipanchami.—On the fith day of Bhadrapada month to eat five Balusu leaves (*Cantherium parviflorum*) and to drink a handful of ghee.

Gomayani.—To eat three balls of cowdung every morning for a year.

Lakshvattulu.—To burn one lac of wick lights.

Lakshmivarapu Ekadasi.—From the time when the eleventh day after new moon falls on a Thursday to observe a fast and to worship the Tulasi plant (*Ocimum sanctum*) for eleven days.

Margasira Lakshmivaram.—The mistress of a family will often devote herself to the worship of Lakshmi on every Thursday of the month of Margasira in order to propitiate the goddess of wealth.

Somisomavaram.—This is special worship performed on every new moon that falls on a Monday with the giving away of 360 articles, two

or three on each occasion. This is performed with the view of attaining atonement for sins and happiness in a future state.

Ceremonies performed by the childless.

There are many ceremonies performed by women to whom Nature has denied the much-coveted joys of maternity.

Among these may be noticed—

Asvalhapradakshinam.—In villages is often to be seen a Margosa tree (*Azadirachta Indica*) round which a parasite pipul tree (*Ficus religiosa*) has twined itself. The above ceremony consists in a woman walking round and round this tree several times daily for a long period.

Ceremonies performed by mothers.

Polala Amvasaya.—This is a new-moon rite practised to secure long life to children.

Mahomedan Manners and Customs.

Birth customs.

The following brief account of the birth and marriage customs of the Mahomedans is based on Herkloth Imaum-i-Islam and Murray's Handbook for India with alterations to suit the local practices of the Nellore District :—

Satwasa or seventh month.—This is a custom observed on the occasion of a woman's first pregnancy, but greatly fallen into disuse in this part of the country. On the completion of the seventh month, when the family can afford it, there are great rejoicings. The woman is dressed in new green cloths and decked with flowers. She is carried across a small channel which is dug for the purpose in the house, and fatihas are offered in the name of *Nabi* the Prophet in order to secure a happy delivery. The repetition of this ceremony in the ninth month, with the keeping up of merry-night vigils called Ratjaga, is not at all practised in this district as it is in some other parts of India. The knife with which the child's navel string is cut is kept by the child till it is bathed on the 40th day. The child is previously bathed also on its birth, and on the 6th, 12th, 20th, 30th, and 40th days. To the woman *Achwani* or caudle is often administered for six days. If the woman be of a strong constitution she is allowed food on the day of delivery, otherwise on the third day. No dog or cat is allowed to enter the room where the new-born child is.

The birth of a boy is always hailed with much greater rejoicing than that of a girl. After the infant has been wrapped in swaddling clothes the summons to prayer must be uttered aloud in the right ear and the Mahomedan creed in his left. Some man of pious repute must dip his finger in honey or sugar and insert it in the infant's mouth before it is put to the breast.

The child is named on the seventh day, when the *Chehti*, or sixth-day ceremony, is observed. Presents of sweetmeats are made to friends. The infant is shaved and the hair weighed with silver or copper,

according to the circumstances of the family, and the money is then distributed among Fakirs (religious mendicants). Should the infant be sick on the sixth day the operation of shaving is delayed till the 40th. The hair is simply burnt, without any offering of prayers as in some places. With regard to the naming of the child, of course it belongs to its father's tribe, hence if the father be a Saiyid the first name is Saiyid or Mir. After mature age this is often dropped. Certain names are peculiar to certain families or tribes.

Thus Shekhs will have *Khwajah, Ghulam Ali, Bakhsh, Din, Abd,* &c., added to their surnames. Mughals are marked by the names *Mirzah, Beg, Agha,* or *Aka.* Pathans by *Khan* as the last name. If the father be a Shekh and the mother a Saidyani, *Sharif* is added or prefixed. If the father be a Mughal and the mother a Saidyani the offspring are called *Khwajah Zadah. Saheb, Miyan,* and *Jan* are loving titles given by parents, but often supersede the true names. Female surnames by Saidyanis are *Begam, Bibi* or *Bi, Nissa,* and *Shah;* for Mughalanis *Khanam,* or Pathanis *Khatun* or *Banu,* but, when illegitimate, *Bai* is invariably subjoined.

The choice of the particular name for the proper class is decided usually by drawing lots from a number of selected names.

On the 40th day, termed *Chilla,* certain ceremonies are performed for the purification of the mother, and not until these are done may she pray, touch the Koran, or enter a mosque.

Marriage customs.

Marriage customs.—Marriages are often contracted at a very early age and solemnized when the youth is 16 and the bride 13 or 14, but there is no restriction as to ages, and marriages are contracted according to the circumstances and wishes of their families. When a youth is desirous of marrying he or his parents send out some female emissaries, called *Medowatniyan,* who report the charms or the riches of such and such maidens. The ceremonies attending betrothment are the distribution of betel leaves, the sending of presents to the bride called "Sugar-bringing solicitation or wooing," in which the bridegroom goes on horseback attended with musicians and persons carrying presents to the house of the bride, the sending of sweet cakes by the bride to the bridegroom, treading the threshold when the bride's mother gives a handkerchief, a gold ring, and some money to the bridegroom. Subsequent to these there are various ceremonies of anointing and bathing, after which the wedding garments are prepared. Then follow eight ceremonies, the most important of which are the carriage of the bridegroom's wedding gifts to the bride and the conveyance of the bridal paraphernalia to the bridegroom's house; after these the *Shabgasht,* or nocturnal perambulation, takes place. This is the grandest ceremony of all. The bridegroom, gaily dressed and attended by musicians and a company

of friends, rides on horseback to the mosque, where he offers three short prayers and then proceeds to the bride's house. It is usual to oppose his entrance until he bestows a present on some of the bride's friends; and, on entering the courtyard, he dismounts, and is carried by a man whose advance is also resisted till further presents are given. The marriage ceremony is performed by the *Kazi* or his deputy. Bride and bridegroom are represented by Deputies or Vakils. After removing the two veils from the bridegroom's face the kazi causes him to repeat after him in Arabic, first, a form of deprecation, then the 109th, 112th, 113th, and 114th chapters of the Koran, then the five creeds, then the articles of belief, and lastly a thanksgiving. After this the bridegroom repeats the marriage contract, and the *Kazi* then offers a supplication that the couple may be as loving as Adam and Eve, Abraham and Sarah, &c. A plateful of dates and sugarcandy is then whirled round and scattered upon the heads of all present, whereon a regular scramble ensues. After this the husband is taken into the woman's apartment to see his bride for the first time.

Funeral customs.

Funeral customs.—When a man is dying a reader of the Koran is sent for, who reads the chapter called *Surali-i-yasin* and two creeds. Sweet sherbat is then poured down the throat of the moribund person to facilitate the exit of the spirit. The corpse is washed and about six hours after life is extinct is placed in a coffin. Powdered camphor is rubbed on the hands, feet, knees, and forehead, these parts having, in the method of prostrating at prayer, daily touched the ground. Shiahs place with the coffin a little sand brought from Kerbela.

The body is wrapped neatly in a winding sheet of calico on which, in the case of the rich, have been written particular chapters of the Koran. The religious man sometimes prepares his own winding sheet, keeping it ready and occasionally taking out the monitor to add another verse or chapter. The corpse is placed in a coffin. The coffin is carried first to a mosque by the relations, who repeat very low all the way, "There is no God but Ali, and Mahomed is the prophet of God," or another creed or sacred verse.

The *Kazi* reads the service for the poor and friendless, and the nearest relation or any other is asked to do so in other cases. Then some one calls twice, "The funeral service is beginning," on which any persons within hearing run to the spot and reverently take part in the service. All stand up in three rows with an *Imam* in front. The service consists of four confessions of faith and one benediction, after which the nearest relative calls out, "All have leave to go." The body is then taken to the grave and laid on its back with the head to the north and turned on the side with the face towards Mecca or the west. Each person then takes up a little earth, and after repeating

ing the 112th chapter of the Koran or the verse, "We created you of earth and return you to earth, and we shall raise you out of the earth on the day of resurrection," puts the earth softly into the grave. *Fatihas* for the dead are then offered, first, for the person just interred, then for all the dead in that burying ground. It consists in saying, "I offer this prayer for such a one." Alms are then distributed, and all depart. On the 3rd, 10th, 20th, 30th, and 40th days after the demise the grave is visited and various ceremonies are performed. On the third day a portion of the Koran is read by each person present near the grave, and after six, nine, and twelve months *fatiha* is recited.

CHAPTER X.

SOCIAL CHARACTERISTICS.

TENURES.—LANDLORD AND TENANT.—LAW OF INHERITANCE.—Earliest recognition of rights in soil.—Right acquired by reclamation.—Communal rights.—Sovereign rights.—Feudal rights.—Land taxed to support Military and Police.—Practice of Polygars.—Money and grain payments.—System of tankas.—Evasions and deductions in payment of Military and Police followers.—Amaram tenures of service.—Practice of inheritance and succession.—Kattubadi tenure.—Takavi or advances.—Katnams.—Ghair katnams.—Succession.—Mera fees.—Profits of peons.—Fiscal arrangements.—Mahomedan increase of taxation.—Vissabadi tenure.—State assumption of right on waste lands.—Proprietary rights in land.—Land revenue system.—Tirwa modes of assessment.—Money rates.—Varum division of crops.—Privileged classes.—Jodi or quit-rent.—Inams.—Devadaya.—Dharmadaya.—Panulu maniem.—Cheruvu maniem.—Amara kattubadi.—Resumptions of Inams.—Imposts.—Mamul katnams.—Ghair mamul katnams.—Abkári.—Tax on trades.—Ground rent.—Sayer.—Kanali fees.—Russums.—Law of Inheritance.—Primogeniture.—Equal divisions of property.—British system of assessment and treatment of Inams.—Joint renting system.—Madras Act VIII. of 1865.—Relations of landlord and tenant.—Terms used in connexion with the different tenures of land.

Earliest recognition of rights in the soil.

ACCORDING to all accounts the Aryan races brought to India an advanced system of agriculture. As they drove before them and subjugated in the north the Scythian tribes, who they found settled there before them, or as they made terms and settled down in the south among the representatives of these same tribes, they evidently introduced improved methods in the cultivation of the soil. With a pastoral community, as with a hunting one, rights in land are generally undefined. In the laws of Menu we find the dawn of a new state of things; the recognition of a right in the soil vested not in a community, not in the sovereign, but

Rights acquired by reclamation.

in him "who cut away the wood or who cleared and tilled it." A primitive state of society this—the law of the settler in the bush—one race driving another before them and acquiring the rights of possession in their hunting and

Communal rights.

pasture grounds by the simple fact of reclamation. More than this the institutes of Menu show that the rights of the agricultural class in their origin were in no way feudal, and that what, as members of a community, they contributed

Sovereign rights.

to the support of order and government was paid not as *rent*, but as a *tax* "as the price of protection." This tax was a portion of the produce, an eighth, sixth, or twelfth, according to the difference of soil and expense of cultivation. In case of war or other great emergency this tax was increased to

one-fourth, which was the maximum limit. In the Northern Circars, in the kingdom of Vizayanagar, and very generally throughout this part of the country, the demand was confined to one-sixth, the medium in Menu.*

Feudal rights.

And yet in this part of the country, as throughout a great part of India, we find that each kingdom consisted of a number of principalities under the protection of military chiefs, who professed allegiance to the sovereign and were looked upon as sovereigns by their vassals. These chiefs built themselves forts and held their land on military tenure; but, unlike the feudal barons of Europe, they claimed no proprietary right in the soil, nor did they regard the cultivators as their serfs. The land belonged to him who tilled and cultivated it. The burdens imposed upon the cultivators by the feudal lord were an additional tax for the maintenance of the military establishment, and the sovereign who appointed Desayis and Poligars only assigned to them his share of the revenue within a certain tract. The Desayis, or Desmukhis as they were also called here, and the Poligars had each their respective duties to perform, both towards the paramount power and towards the community. They were required to keep up large or small bodies of troops continually equipped for military service; they had to provide for the protection of their own communities, to resist and suppress marauders, to bring to justice offenders against person and property, and to make good the loss of property stolen. In return for the due fulfilment of these duties they became, not landed proprietors, but proprietors of rent in permanence.

Land taxed to support Military and Police.

To show how the great Poligars maintained their large establishments for military service and police, we extract the following interesting particulars from a letter from Mr. Stratton, Collector of the Western Pollams, addressed to the Board of Revenue and dated 14th December 1800. These extracts will explain two systems of tenure peculiar to this district—those of the Amaram and Kattubadi Peons:—

Money and grain payments.

"It will, however, be first necessary to explain the three modes observed by the Poligars of defraying the amount of their respective establishments, which are, first, in money, secondly in grain, and thirdly by an assignment of land. This last mode is, however, peculiar only to part of their military establishment, which I shall hereafter advert to; but, in describing first the inconveniences and detriment arising from their grains and money payments, my remarks may be considered equally applicable to their personal, revenue, and military establishments, although, from the

* The Zemindar and Ryot, *Calcutta Review*, No. XII.

comparative extent and importance of each, they are intended the more particularly to apply to the military.

"Money payments may be distinguished as nominal and actual, for none of the Poligars' dependants actually receive the exact amount at which their services are engaged. This distinction arises from the importance they all attach to the name of high rates of pay, for they are certain of only receiving the half or a third of their stipulated wages from the various unfair advantages resorted to by the Poligars to lessen the amount. If they feel themselves aggrieved they are at liberty to quit their service; but, being always kept three or four months in arrears, the hope of ultimately obtaining some part of their pay generally prevents them from resorting to that expedient. During this time they exist on the precarious pittance they either derive from charity, loans, &c., or on what they exact by oppression, for which the importance they assume as the Poligar's peons is a sufficient sanction.

"The money payments of the Poligars to their servants are extremely rare, but the mode most generally resorted to, and considered equivalent to a money payment, is to give eight or ten peons an order to the amount of their pay on a renter or ryot who may have fallen three or four years in arrears on account of revenue. The order is sometimes on such persons who may have been fined by way of punishment and omit, within the period limited, to pay the amount. To procure these orders or tankas the peons are obliged to resort to corruption, for they find it their interest to bribe the sumpredy, or gumastah, who is the channel of communication with the Poligar, to procure them an order on some person who may be able to satisfy their demands, and, whenever the order is passed, their demands are considered adjusted whether they prove successful or not in recovering the amount.

System of Tankas.

"To this end the peons make up their account for delays, for it is not to be expected that they can instantly enforce what the Poligar's rapacity has been unable to compel; but if their exigencies are particularly pressing, and from the character and circumstances of the person on whom the tanka is given there is any probability of the amount being discharged by his being allowed three or four months for the purpose, they are then enabled to sell their tankas at a discount of fifty or sixty per cent., which are sometimes circulated in this manner through the country from one purchaser to another, its relative value being regulated as the circumstances of the person in question are considered thriving or otherwise.

"In case the peons do not dispose of the order they wait accordingly in a body on the person to whom it refers and, during their importunities for payment, exact from him batta at the rate of one

seer of rice and one piece daily per man. In this manner the renter's or ryot's means are exhausted, the impatience of the peons increases as their batta is discontinued, till at last, irritated by despair, they plunder the poor unhappy man's effects, sell his house, and in this manner reduce him and his family to want. Compromise is, however, sometimes effected by the assistance of friends and relatives who sell his ploughs and cattle, with the amount of which and their own contributions they rid him of the importunities of the peons by paying them a half or two-thirds of their demands, but the consequences are equally lamentable, as the poor sufferer's industry is damped and his means exhausted beyond the chance of recovery.

"With respect to the grain payments of the Poligars there are also some peculiarities deserving of your notice. When any peon or other description of servants are engaged partly for nominal money wages and partly to be paid in grain, they invariably receive the particular quantity of grain stipulated at the market price of the day, notwithstanding that their money wages may be at the same time discharged by grain at an advance of one or two hundred per cent. above the bazaar rate. This practice makes the peons and other description of servants anxious to serve for a certain stipulation of grain only, but you will see, gentlemen, on a reference to the statements inclosed, that that indulgence is but sparingly bestowed by the Poligars to a very small number of their dependants.

Evasions and deductions in payment of Military and Police followers.

"As I have already observed that tankas are issued in lieu of money payments, so it is necessary also to remark that tankas on amildars, renters, and ryots for any quantity of grain is considered equivalent to a money payment which peons can only obtain by the same course of bribery through the Poligar's servants already adverted to. The same distress ensues if the man is unable to make good their demands in its full extent, but, in case the grain is at hand, as the peons are unable to transport it and to pay all the charges of customs, cart-hire, measuring fees, &c., they are under the necessity of selling off the grain at a price considerably below its value. Thus they in their turn find others ready to take advantage of their distress.

"This practice of issuing grain tankas is peculiar to the Venkatagiri and Kalastry Zemindaries, but prevails more in the former. The Venkatagiri Poligar besides imposes his own grain on his peons at an uniform advanced price for the whole year, which, in the accounts I send, appears to have been at sixty-six per cent. above the bazaar rate for Fusli 1207, but the Kalastry Poligar makes a practice of issuing grain from his stores at any rate which may suit his convenience, which, you will perceive by the statements enclosed, varies from

150 to 197 per cent. above the bazaar rate. I understand that no grain tankas are issued in the Bomraz and Sydapur Zemindaries, but for that reason the money tankas are more common. The consequences of both these practices are equally ruinous; for, as the Poligars defraud and oppress their dependants, they, in their turn, consider that conduct a sufficient sanction for them to prey on the community.

"Another usage peculiar to the Bomraz Pollam is to deduct two or three months' pay from every description of servants to make up any deficiency in the crops from drought or other causes. In these cases the Venkatagiri and Kalastry Poligars impose their grain on their dependants at a higher rate than usual so as to make the difference nearly equal to their loss. The ill-consequences already drawn from this desolating system may, therefore, be considered to press equally alike on the same scale throughout the Western Pollams.

"Having now, gentlemen, brought under your notice the most glaring abuses incident to the Poligars' payments in money and grain, it remains to treat on the last mode already adverted to, viz., their assignments of land which solely apply to their military establishment, and are to be considered under two distinct tenures named Amaram and Kattubadi.

"The term Amaram implies ease, and under that relative application [illegible] construed into favorable rent. Whole villages under this tenure are made over to peons in the proportion of eight or ten to each village, who are then considered as the Mirasidars of the village, and are jointly bound to make good the demand or rent originally stipulated, which is never after raised. It is of course the interest of these peons to encourage the ryots under them by unequivocally giving the just share of the produce of their labor they are by custom entitled to, or they would desert their villages and resort to others where their rights were better respected.

Amaram tenure of service.

"It must not, however, be supposed that it is a practice of the Poligars to bestow in this manner fine productive villages on their peons, on the contrary they select those in a state of ruin and decay, which for the first two or three years they enjoy free from any imposition, beyond the original demand or rent stipulated; but, as by their means tanks are repaired, water courses opened, and the cultivation in proportion increased, they are gradually called on by the Poligars for katnams or nuzzars, which they are compelled to pay under threats of being ejected from their villages, till at last, by degrees, they pay nearly equal to the full value of their villages, notwithstanding that, under the original grant, they were led to expect the most favorable terms.

"These villages are divided into equal allotments agreeably to the number of peons in each, which are made annually in some villages by

mixing good, bad, and indifferent land in each lot, that the profits of all may be nearly equal. On these allotments being changed, much altercation and jealousy ensue: the differences of the peons in these cases are sometimes settled by the interference of the Poligars, but most commonly by the Curnams and head inhabitants of the adjoining villages, who are called in to adjust them by arbitration. In some villages the allotments are made less frequently, in others the first allotments made on the original grant are never changed, each man binding himself to rest satisfied with the spot assigned him to cultivate.

Practice of inheritance and succession.

"When any share of a village falls vacant by death or otherwise, the son of the former occupant succeeds without any other form than his name being registered at the Huzur Cutcherry and by the Curnam of the village. If he should happen to be an infant, his share of land is cultivated by his relatives during his minority. If there should happen to be no son, the next male heir or relative waits on the Poligar and obtains a sunnud, without which he could not succeed to the inheritance, and when there is no male heir the land reverts to the Poligar; but when it may have been enjoyed by a family for several generations, a portion of it is sometimes given to the nearest surviving female relative as inam, which also, on her death, reverts to the Poligar.

"I shall now take notice of the principal obligations of the Amaram tenure, which, however, are not exacted from the peons by any muchilka, the only form observed is their names being registered at the Huzur Cutcherry and the rent they are bound to pay for their respective villages.

"It is understood that they are to attend the Poligar, on his summons, within the period he may require; any neglect or delay in complying not satisfactorily explained is punished by dispossession from their lands, or otherwise as suits the Poligar's pleasure. The Amaram Peons, being of the higher class, are allowed to serve with such arms as they prefer. In case a peon from sickness, minority, or other causes cannot attend, he must provide a sufficient man to serve in his room. While in attendance on the Poligar they are entitled to a seer of rice and one pice batta daily per man: they also receive the same rate of batta on being detached on any duty unconnected with the concerns of their villages; but it is understood that they are most strictly to watch the police within the respective limits of each, and, in case of any irregularity or thefts, they are bound to answer to the complaint, and to make good the amount of all stolen effects.

Kattubadi tenure.

"The other mode of the Poligars of paying their peons by assignments of land, termed Kattubadi Inams, implies gifts to bind. The Kattubadi Peons are all ryots

to whom spots of jungle and waste lands are assigned to cultivate in lieu of a stipulated money payment, the proportions of which in the several Zemindaries are as follows:—In the Venkatagiri Zemindary it is usual to give to Kyjitamvandlu, or Pike Peons of the Velama, Kamma, and Rachavar castes, eight gorrus of jungle land, or, what is considered equivalent to that quantity of jungle land, three gorrus of punji and 15 kuntas of nunji of waste arable land which may have been neglected. The Velugulu or Match-lock Peons of the Gola, Pulli, Boya, and Malavandlu castes, which are considered inferior to those above mentioned, are allowed only four gorrus of jungle, or, instead of jungle, two gorrus of punji and ten kuntas of nunji of waste arable land. In the Kalastry Zemindary the first class of peons get of waste arable land one gorru of punji and 30 kuntas of nunji; the second class half a gorru of punji and 20 kuntas of nunji. In the Bomraz Zemindary the first description of peons get 100 kuntas of punji and 30 of nunji, and the second description about half that quantity of both punji and nunji. In the Kalastry and Bomraz Zemindaries, in case jungle land is assigned to the Kattubadi Peons, their allotments are then made to bear a just proportion to those of waste arable land above mentioned.

"The measurement of these allotments varies in each Zemindary; for instance, 24 kuntas make a gorru and 76 square feet to a kunta; in the Bomraz Zemindary gorrus are not in use, and only 64 square feet are allowed to a kunta: the difference in the quantity of land forming the several allotments in each Zemindary is not, therefore, so great as at first may appear.

Takavi or advances.

"The Kattubadi Peons generally receive an advance of takavi for the first two or three years, which, as their means enable them, they re-pay to the Poligars; while poor they are obliged to call in foreign aid to cultivate their lands and to give up half the produce to the person whose ploughs they use: as their lands prove productive the Poligars exact

Katnams.

from them katnams or presents annually, which are paid in different instalments, and may be considered as the rent of their lands. The amount first levied is considered mamul katnams or customary presents, and is ever after collected.

"The mamul katnam is not, however, the only exaction to which they are subject, for as the peons in the course of time purchase ploughs and, by cultivating their own lands, enjoy the whole produce, the Poligars exact from them additional katnams nearly equal to their gains. In case they refuse to pay the amount the Poligars choose to impose, they are dispossessed and other spots of waste and jungle land assigned them to cultivate. Under this severe threat they, therefore, in general agree to pay the amount of katnams imposed—

provided it is not exorbitantly oppressive—sooner than have to resign all the fruits of their industry. The last grievance under the head of katnams which the peons have to complain of is termed ghair katnams, or extraordinary presents, which are levied on them every three or four years on any particular occasion, such as the Poligar's marriage, or the marriage of any of his relations, the consecration of a pagoda, &c. In respect to all these undefined exactions it must be understood that the Amaram and Kattubadi Peons, with every description of inhabitants in the Western Pollams, suffer equally alike.

Ghair katnams.

"The Kattubadi lands, in respect to inheritance, descend in the same manner as allotments in Amaram villages from father to son, and so on to other degrees of affinity in the male line, and, in default of heir, escheat to the Poligars. The obligations of the Kattubadi tenure are, also, similar to those of Amaram, with this distinction that the peons, when engaged, are bound to serve either with pikes or match-locks as may be stipulated to be provided at their own expense. They are bound to do the kavali duties of the limits assigned them, and make good all thefts within those limits: when detached beyond them on any duty, or in attendance on the Poligar, they, in like manner as the Amaram Peons, are entitled to the same rate of batta. It is also understood by all [illegible] Kattubadi Peons that when they any way particularly distinguish themselves in battle that they will be handsomely rewarded."

Succession.

With reference to the additional fees charged on the peons, and their actual emoluments, Mr. Stratton further writes:—

"As previous to the division of the gross produce between the ryot who cultivates the land and the peon, several deductions are usual on account of fees both on cutting the crop and on measuring the grain. I have also still, with a view to uniformity in the comparison, taken the rate of deductions peculiar to a village in the Bomraz Pollam. These deductions or Mera fees vary in every village from 10 to 15 per cent. on the gross produce of both punji and nunji. In the present instance those of the village in question amount to nearly 10 per cent., and I was induced to select a village where these deductions are lowest, to show the utmost profit a Kattubadi Peon can possibly derive from his land when cultivated by means of another man's plough. For the same reason I have avoided taking notice of the several exactions of the Poligars from his gains under the head of mamul and ghair katnams, &c.

Mera fees.

"Under all these favorable circumstances, calculating on the produce of these several allotments of land which is estimated at a reasonable valuation, the net amount derived by the peons on the largest allotment amounts to 8 star pagodas $6\frac{4}{16}$th annas annually, and on the smallest to 3 star pagodas $4\frac{4}{16}$th annas after deducting all charges of cultivation, &c., as particularized in the account. When it is considered that the amount of the larger share is but just equal to a man's subsistence, it cannot be expected that he could pay any part of his net earnings to the Poligar; but, as all do not enjoy the larger allotment, we should, in the consideration of the question, rather calculate on the medium of the two descriptions of allotments to the first and second class of peons in each Zemindary, which puts it still further out of the power of the several occupants to pay any part of the produce of their lands to the Poligars. In this case, as it is seen, that the Kattupadi Peon in the Venkatagiri Zemindary only derives 6 pagodas $15\frac{2}{16}$th annas annual wages, in the Kalastry Zemindary 5 pagodas $11\frac{4}{16}$th annas, and in the Bomraz Zemindary 5 pagodas $6\frac{6}{16}$th annas.

Profits of peons.

"The various occupations of a family in India, when pressed by necessity, need not make it paradoxical how any man can subsist on so small a pittance, as, from the father to the son, and the mother to the daughter, in almost every stage of life, they are all variously employed as coolies, hewers of wood, spinners, &c., by which means the efforts of their joint industry in the end nearly proves equal to the subsistence of all."

To revert now to the subject of the land revenue, in considering the arrangements made for the collection of the tax on land from the cultivators of the soil, we find the machinery to have been of the simplest, and yet of the most efficient, kind. The management of the fiscal affairs of every village was in the hands of its headman, the Reddy, subject to the control of the Desayi or Desmukhi, the chief of the district, assisted by the Stalla and Grama Curnams. Each of these officers kept accounts and registers which were useful to refer to for the adjudication of disputes. The head of the village acted as Collector, Judge, and Magistrate either by himself or with the aid of a punchayet. Thus prompt summary justice was administered to the people without expense. The remuneration of the Village and District Officers granted by Government was in the shape either of a remission of the tax of the lands held by them, or assignments of rent free lands (inams), or in contributions from the villagers—Kalavasams, Meras, and Russums. These offices in time became hereditary.

Fiscal arrangements.

"When the Mahomedans entered upon possession of the country they did not disturb the village municipal institutions, but they levied heavier taxes on the land. Theoretically limiting the land tax to one-third or one-half of the gross produce, or a supposed equivalent in money as laid down in the

Mahomedan increase of taxation.

Hidaya, by one pretext or another they raised their exactions on the non-Mussulman ryots. Several districts were incorporated into one great fiscal division and committed to the charge, usually, of a renter, who again made a composition with groups of villages, or villages separately. This introduced a sort of village rent system. The chief men in the village made themselves responsible for the rent, and took upon them the management of the fisc. One system of cultivation which we find to have been very prevalent in the Nellore District was the Visabadi tenure, by which the lands of a village would be held by the community in common, and shares allotted to the different members by quarters, eighths, sixteenths, thirty-seconds, and sixty-fourths. Where this system prevailed, and also under other tenures, it was often customary for the residents of a village periodically, say every five or six years, to exchange all their lands so as to secure an equal division of soils, good and bad. There are still remains of the Visabadi system in the number of partners we find in occupation of the same fields; but with the introduction of the Revenue Survey the greater number of ryots are glad to take the opportunity of coming forward to have individual holdings for the first time demarcated and recognized as such in their puttahs.

Visabadi tenure.

"We have spoken of the increased rate of the land tax under Mahomedan rule; there was also another means by which the revenue was augmented—the annexation of deserted lands to the fisc, and the right granted to dispose of all waste lands in which no rights of ownership already existed. Although it is a principle inculcated in the Hidaya that 'whoever cultivates waste lands does thereby acquire the property of them,' the claim of right of the disposal of all lands not occupied led in time to the recognition of the State as *de jure* and *de facto* lord paramount of the soil. 'The State may keep the monopoly of land wholly in its own hands, taking rent through public officers, or the monopoly may be handed over to a more or less numerous body of landed proprietors. The State may also put a limit on its own demand and may enforce a limit on the demands of others with whom it shares its monopoly, as against the actual tillers of the soil.' The ultimate test of proprietary right in land is the receipt of rent, and it will be found that those persons to whom the law gives the right of enjoying the whole or part of the rent, as such are virtually in the position of owners of the soil.* Such were the exactions under the Mahomedan rule that a proprietary right in the soil almost ceased to exist. It is true that the original assessment was

State assumption of rights in waste lands.

Proprietary rights in land.

* The Tenure of Land, *Calcutta Review*, No. 83.

probably when once fixed subjected to no variations, yet the additions which were successively made to it in the shape of imposts (katnams) were enormous."

The following account of the sources of revenue in the Western Pollams is extracted from a letter from Mr. Stratton, the Collector, to the Board of Revenue, dated 14th July 1801, and illustrates both the systems usually pursued in these parts of raising the revenue, and also the different species of tenures:—

Land Revenue system.

"Land revenue is levied in three different modes, viz., 1st, by tirava or money assessment; 2ndly, by varam or share of produce; and 3rdly, by jari or quit-rent.

"Tirava has its etymology from the Hindu word tirpu, signifying finished, settled; this in its relative sense implies that all arable lands belonging to every village have a tirava or fixed money valuation sanctioned by mamul or custom of long observance. This valuation depends entirely on partial causes, the mode observed in settling the tirava being as follows:—When a ryot is desirous to cultivate any tract of waste or jungle land, it is made over to him on cowle for a term of years on the principle of a russeed or progressive increase, the Curnam or Village Register and Reddy or head inhabitant fixing the sum in conjunction with the Circar servants, to be paid annually with every necessary consideration to the labor incident to clearing the ground. At the expiration of the cowle, when the ground is supposed to be brought to the highest pitch of improvement by successive cultivation and the application of manure, a fixed tirava, in reference to the valuation of that kind of arable land under the village, is then settled by the general concurrence of the Circar servants, the Curnam, the Reddy, and some of the principal villagers, which is considered mamul tirava ever after, and registered accordingly in the Curnam's accounts.

Tirava.

Mode of assessment.

"This tirava or valuation so regulated by partial causes must necessarily vary in every village and on every species of land, but the rates in each are well known to every inhabitant belonging to it. The Circar, however, seldom levies the revenue conformable to the registered mamul tirava. By the term Circar it must be understood I allude to the power immediately over the ryot, either the Poligar's servants if the country be under Amani, or the renters, if under rent. In some few instances less than the mamul tirava is levied from favor towards particular individuals; but, as more is most commonly exacted on all lands, this circumstance gives rise to constant altercation between the

Money rates.

Circar and the ryots, which leads to the consideration how far the mamul tirava has been settled on just and equitable principles.

"Had this valuation on all lands been settled at once at any one particular era by authority during the plenitude of power of either the Hindu or Mussulman Government in the Carnatic, its justness at present might with reason be questioned, since the produce in former times, owing probably to fewer restraints on agriculture, might have been more equal to the wants of the population of the country than at present; but as, on the contrary, I understand that the mamul tirava has been settled at different periods as waste lands were gradually brought under cultivation, with the previous reference to the actual [illegible] of arable land of the same description, I am, therefore, induced [illegible] such premises to conclude that if there be any exception to the [illegible] tirava it should rather be viewed as operating partially than [illegible]ally over the country.

When the mamul tirava is only required of the ryot he never complains, but makes good his payment with cheerfulness; but, as I find the Circar almost invariably exacts more, I have now to explain by what means the ryot is enabled to pay the advanced demand which may be reduced to three, viz.:—

"1*st*.—From the difference in the quality of land he engages to cultivate, which, when taken at the tirava assessment, it is not customary to measure annually, but often to take at guess, by which means the ryot contrives to get more land than is stipulated in his engagement.

2*ndly*.—From the difference in the quantity of the soil, there being a particular rate of tirava on each kind of land, he contrives to get the first sort for the assessment usual for the second, and so on with the rest, which of course yields him a greater advantage.

3*rdly*.—From the difference in the price of grain, for when the price is high he is enabled to pay his rent with some reserve of profit for himself; but if low he loses all prospect of gain, it not being in his power to husband the produce until the price rises, but on the contrary he is either obliged to sell the whole quantity early in the season to discharge the dues of the Circar, or he mortgages his grain at an enormous interest for the purpose, which proves equally detrimental to his hopes.

"If the ryot has not an opportunity of taking advantage of the exactions of the Poligars or renters, in respect to tirava from one of the above-mentioned expedients, he sells his plough and effects and absconds.

"It may be expected that I should state by what means the ryot is enabled to take advantage over the Circar by the difference in the quantity of land and quality of the soil above the terms stipulated.

The Village Curnam and Reddy generally point out to the ryot the land he is to cultivate and endeavour to bring him to adequate terms—the Curnams may settle with him without the concurrence of the Reddy, but the Reddy is not competent to make any settlement without the Curnam. It is the interest of both the Curnam and the Reddy to favor the ryot, from whom they derive their principal advantages; and, although they make a show of holding out for the Circar interest, they invariably, in the end, sacrifice that interest, as they largely participate in the profits of the ryots from these collusions. In this manner is the tirava levied on punja and nunja land, the average rates of which, peculiar to each Zemindary, shall be hereafter specified.

"When the ryot does not cultivate for a tirava or money valuation, he then divides the produce with the Circar, which brings me to the second mode in which the lawful revenue is collected, denoted by the term varum, implying share, which is regulated by two considerations, viz., first, the caste and condition of Mirasidars, or persons having a preference to cultivate particular lands; and secondly, by the labor incident to that cultivation.

Varum—Divisions of crops.

"*First*.—The first consideration in respect to caste refers to Brahmins, who, from the prejudice of custom and religion, never follow the plough, and are, therefore, under the necessity of entertaining people to cultivate their land. In consideration of this additional expense they are liable to, they are allowed a larger proportion of the produce. On this principle pundits, who rank among the first class of Brahmins, get in ten parts about the proportion of six, and the Circar four. The higher castes of Rachavar, Velamvar, and Kammavar, who are much favored in these countries from the Poligars being of the same castes, share as pundits. There are again persons who, from once having been in better circumstances, are, from shame also, restrained from following the plough, and, equally with Brahmins, entertain ryots for the purpose. They are, therefore, in some instances indulged with a larger share of the produce. It must be understood that the proportions above stated are not exact in every instance over the country, some being more and some less; but by forming this standard it is meant to convey an idea how the produce is distributed among the several classes of people above mentioned.

Privileged classes.

"*Secondly*.—The second consideration in respect to varum, which refers to labor, relates to ryots who get a proportion of the produce equal to the labor incident to the cultivation when the land to be cultivated is under a tank equal to water two crops annually, or near a channel from a river, the Circar then gets something above half the produce.

Should the ryot, however, have much trouble in watering the crops, either by conducting it from tanks by water courses to any distance, or by raising water from wells for the purpose, he then gets the larger share. The varum on all arable land is in most instances registered in the Curnam's accounts in the same manner as tirava.

Jodi or quit-rent.

"The last item of land revenue I have classed under jodi* or quit-rent, which is now to be noticed. This assessment invariably falls on inamdars, who, in virtue of sunnud, prescription, or inheritance, stand in the light of the Circar with respect to the ryots under them, and enjoy the whole produce of their inams, with the reserve of a moderate fixed quit-rent payable annually either in money or grain as may be stipulated to the Circar. When this jodi or quit-rent is once fixed it ought, in justice, never to be raised, but the Poligars are no way scrupulous about encroaching on the right of their subjects as I have had frequent occasion to notice in the course of my inquiries.

Inams.

"As jodi relates solely to inamdars, and is levied, with a few exceptions, on all, it may be here necessary to notice the several descriptions of inams peculiar to these countries. They may be reduced under the following classes, viz., Devadayam, Dharmadayam, Punulu manialu, Cheruvu maniyam, Amaram, and Kattubadi.

Devadayam.

"*First.*—Devadayam are church lands assigned for the support of churches, which, when exempt from any quit-rent, are denominated Serva maniyam. These lands are not very extensive or valuable through this country, notwithstanding every village, however small, has a pagoda of its own with some lands attached to it for the expenses incident to its establishment.

Dharmadayam.

"*Secondly.*—Dharmadayam or charity lands comprise two classes, viz., first, Brahmadayam, or lands enjoyed by Brahmins which on favorable quit-rent are denominated Shrotriam inams; secondly, Khyrati or free alms to Moormen for the support of mosques.

Punulu manialu.

"*Thirdly.*—Punulu manialu or service gifts are lands enjoyed by Village Curnams, Reddies, and Barabullote, or village artificers of every description in virtue of their office for a stated service they are bound to perform.

Cheruvu maniyam.

"*Fourthly.*—Cheruvu maniyams are bestowed on any person who may have dug a tank at his own expense for the purpose of keeping its banks in repair and to reimburse him gradually for his first expense—they generally amount

* This word has been entered in the MS. as joree, and, being apparently a mistake in the copying, has been corrected.

to about ten per cent. on the whole produce of lands so brought under cultivation by means of the tank in question.

Amaram.

"*Fifthly.*—Amaram.

Kattubadi.

"*Sixthly.*—Kattubadi inams have already been fully explained in my report to your Board on the personal revenue and military establishments of the Poligars, under date 14th of December 1800.

Resumption of inams.

"With respect to these several descriptions of inams it must be understood that the Poligars are at liberty to resume the Amaram and Kattubadi inams without assigning any reason to the several occupants; but that they cannot justly resume the rest without there being a sufficient reason, such as profligacy of character in Brahmins, or neglect of duty in others who enjoy inams for any stated service to be performed.

Imposts.

"The second principal source of revenue now to be explained, viz., imposts, may be considered under the heads of first katnam or tribute; secondly, tax on castes; and thirdly, moturpha.

Mamul katnams.

"Katnams consist of mamul katnam or customary tribute, and ghair mamul katnam or extraordinary tribute generally denominated putti, literally signifying contrary to mamul or custom. First, mamul katnams are fixed stated exactions to which the inhabitants have been for some years past subject, but I do not understand they can be traced back to any very distant period. The mamul katnam is levied on two different modes, viz., first, on tirava, a stated sum being imposed on every pagoda of tirava the ryot agrees to pay for the land he cultivates; and, secondly, on varum, a stated sum being in like manner imposed on every candy of the ryot's share of the crop which is valued at a fixed rate.

Ghair mamul katnams.

"*Secondly.*—Ghair mamul katnam or putti is an oppressive exaction on inamdars and the ryots who cultivate their lands, and in some districts on ryots in general, which I shall hereafter distinguish for your information as particularly levied in each Zemindary.

"It is customary with the Poligars to rent the privilege of taxing every housekeeper of particular castes, who pay from one to three fanams yearly, and of transferring to the renters, who are invariably selected from the same castes, the power of levying fines for trespasses as punishment on any individual of the particular caste under them. If these fines exceeded a stated sum according to the terms of the rent, which varies from one rupee to one pagoda, they go to the Poligar, but otherwise are the profit of the renter. The castes so taxed in these countries consist of washermen, barbers, potters, blacksmiths, shepherds, laborers, &c.

"This practice of taxing castes, I understand, was first resorted to with a view to settle with facility and despatch caste disputes, which it was thought one of the same caste was most competent to effect in a satisfactory manner. The plan observed by all these renters, in respect to the tax paid by every housekeeper within their jurisdiction, is to compromise with them generally on a fair estimation, which amount these people afterwards distribute among themselves and are enabled to pursue their calling without any further molestation on that score; but with respect to fines for trespasses it is very different, and no family is safe from the reports of invidious informers, whom the renters employ to foment private enmities and jealousies to induce complaints by which their profits from fines, under a pretence of administering justice, are greatly enhanced.

"Under the head of moturpha may be ranked three species of taxation, viz.:—

"*First.*—The Abkàri, or tax on intoxicating drugs and spirituous liquors, the license of selling them being rented to particular individuals.

Abkàri.

"*Secondly.*—The tax on trades, such as weavers, who pay a stated sum on each loom, oil-mongers, on each oil-mill, &c., which is levied in proportion to their gains and varies in every village. The collection of these taxes is also in some instances under rent.

Tax on trades.

"*Thirdly.*—Ground-rent, which is levied on each house and is regulated by the caste and condition of the person inhabiting it, rent of cocoanut, mango, and tamarind groves, as also the rent of fish produced from tanks, &c.

Ground-rent.

"The collections on account of sayer or customs, the third principal source of revenue, are levied on three pretences, viz., first tirava, here implying rates of customs; secondly, Cavali or Police expenses; and thirdly, russums or fees in money.

Sayer.

"The sayer tirava, or rates of customs as originally imposed, are of very ancient date. They extend to the minutest article of luxury or common use, and the privilege of collecting them being generally rented, the rates are, I find, invariably raised at the numerous mandies established through these districts from the avidity of gain of every new renter, which has already operated to the serious detriment of all internal trade. The effects of such injudicious impositions in distressing the poorer classes of the community, by enhancing the price of all the necessaries of life, can be readily conceived, and, as it seems to be ultimately the intention of Government to assume the management of this branch of revenue, any further remarks from me on the abuses

incident to its collection on the present defective system may appear unnecessary.

"Kavali fees are partially levied in addition to the customs to defray the expense of maintaining Kavalgars on the roads for the protection of merchants. This collection is only made at custom chokies near passes and places particularly calculated for depredators to harbour in. These fees are distinctly stated with the tirava rates, but the collection of them proves oppressive from furnishing a fresh pretence for exaction from the fair trader for protection, when it frequently happens that no Kavalgars are maintained for the purpose, and the amount derived from those fees proves for the exclusive benefit of the Poligars or renters.

Kavali fees.

"Russums or money fees are allotted to various purposes: in some instances for the advantage of particular churches, in others for the support of choultries and for the convenience of travellers. These russums are imposed by the authority of the Poligars, and are levied by a per-centage on the original rates of sayer tirava. When the customs are under rent both russums and kavali fees are frequently included in the rent for stated distinct sums, which the renters either pay away for the purposes intended, or the Poligars receive the amount and defray the respective establishments."

Russums.

With regard to the law of inheritance the Hindu system prescribes generally in this district an equal division of both moveable and immoveable property among all a man's sons. The only exception to this practice is the case of the Zemindars and Poligars and the holders of inams to which service is attached, in these instances the law of primogeniture obtains. The eldest son succeeds to his father's honors and estates, or to his office and its emoluments. The equal division of property would lead to an endless frittering away of property, were it not somewhat corrected by the custom of undivided Hindu families, the eldest member of the family managing the family estates for the benefit of all.

Law of Inheritance.

Primogeniture.

Equal divisions of property.

The revenue system of the British Government is fully described in the chapter on the Revenue History of the district, where the Hindu and Mahomedan systems that preceded it are described more in detail. We find the lands generally assessed with reference to their powers of production, the assessment being usually calculated on a division of shares. The pymaish rates have been calculated with reference to the different descriptions of soils, but the rates have been found very unequal, and are now being entirely revised in the new Revenue Settlement at present in progress, based upon demarcation and survey. We have recognized four Zemin-

British system of assessment.

daries in the district. With this exception the ryotwari system prevails. All the inams, except the service ones, have been taken up by the Inam Commission, and where rights have been proved title deeds have been issued to the holders, the condition being the punctual payment of a certain quit-rent fixed, the holders having the benefit of enfranchising them at any time by the payment of so many years' quit-rent down. The service inams have not yet been dealt with, but those of village artizans will probably be enfranchised—and possibly service inams also—a village cess being substituted for the remuneration of the Village Government Servants—the Curnam, heads of villages, Vetties, Kavalgars, and Nirganties—the office of village shroff being abolished, and the inam resumed on the occurrence of death vacancies. The village service cess will be in lieu of the present kalavasams, or fees which village officers at present collect.

Treatment of inams.

In the Zemindaries the system of renting chiefly prevails. The Zemindars lease out their taluqs or villages generally for four or five years, and the renters generally sub-rent their shares, in many cases entering into a composition with the chief man of each village. Madras Act VIII. of 1865, the Rent Recovery Act, secures the tenant in possession, who cannot be ejected at the will of his landlord, and, in case of a dispute as to the rates proposed to be charged, the tenant is protected by the power he has of filing a summary suit before the Collector, who is to decide whether or not the landlord shows good grounds for a proposed enhancement for outlay on irrigation or similar improvements. The Zemindar's power to raise rents has hitherto been seldom disputed, but the ryots are beginning to understand more clearly now what their actual rights are, and the introduction of a fixed limited demand on the land will in time lead to the recognition of proprietary rights in the soil by holders under Zemindary, which have hitherto been conceded in the case of ryotwari holders.

Joint renting system.

Madras Act VIII. of 1865.

Relation of landlord and tenant.

Generally considered, the end of a system of land tenure is "common production, combined with just distribution of agricultural wealth." With the increase of population, and the consequent increase of prices, the value of lands is increasing, and a powerful stimulus is afforded to the development of the natural resources of the country.

Terms used in connexion with the Different Tenures of Land.

Agraharam ... A village held by Brahmins on favorable tenure.

Amani ... Land held under the immediate management of Government officers; not leased or rented out in contradistinction to Zemindary; also land when the Government share is received in kind in contradistinction to a money rent.

Amaraham ... Villages granted on favorable terms to encourage cultivation.

Ayen ... Regular, ordinary; applied to Government lands as distinguished from Zemindary or Inam.

Bhattavritti ... Applied to lands held rent free, or on favorable tenure for personal support, to which no service is attached.

Badu inam ... Allowance of grain at ten per cent. as inam.

Brahmadayam ... Or agraharam.

Cheruvu maniyam .. Land granted to support of tanks.

Circar ... Term applied to land paying full assessment in contradistinction to inam, which is wholly or partially exempt.

Dasvandam ... Applied to lands granted for the support of a tank.

Dehaut inam ... An entire village held as inam.

Devadayam ... Applied to lands granted for the support of religion endowments.

Devasthanam ... Temple endowment.

Dharmadayam ... Applied to lands granted for charitable purposes.

Guddaturu inam ... Inam granted for bringing waste into cultivation.

Inam ... Land granted rent free, or subject to favorable assessment.

Inamiti ... Inam lands bearing a small jodi.

Jaghire ... An assignment to an individual of a portion of territory, generally as a reward for military service.

Kubulati bunger ... Land undertaken for cultivation, but left waste for want of rain, &c.

Kandrika ... Applied to a portion of a village granted rent free or on favorable tenure.

Kattubadi ... Lands granted on favorable terms on the condition of military, police, or private service.

Kavali inam ... Land given as emolument for peons employed as watchers.

Kavali russums ... Watchers' fees in money or grain.

Kayam jodi ... Fixed quit-rent (generally at a low rate).

Khyrati inam ... A charitable grant to a Mahomedan.

Kudivaram .. The share of the produce which is the right of cultivator.

Lakhiraz ... Rent-free land; applied to land exempted, for some particular reason, from paying any part of the produce to the State.

Malguzary ... Lands held on other tenure than Zemindary, and paying revenue to Government.

Manovritti ... Land granted for maintenance.

Maniyam ... Land enjoyed on free tenure; usually applied to lands granted for village services.

Melvaram ... The landlord's share of produce.

Mirassi ... Hereditary right to offices and their emoluments.

Mokassa ... A village originally granted for service rent free or on payment of jodi or quit-rent.

Mutah	... A small Zemindary or permanently settled estate.
Pallikattu inam or Halla inam.	Inam granted for founding villages.
Punulu Maniyam	... Land granted for village service.
Poligar	.. A chieftain or head of a tract of country.
Polliem	... The territory of a Poligar.
Russum	... Customary gratuities, fees, or perquisites either in money or kind.
Russid cowle	... The grant of lands on progressive rates of assessment.
Ryotwari	... The lease of lands by Government direct to cultivators on annual assessment.
Shrotriam	... A village or extent of land granted on easy rent.
Sarva dumbala	... Free hold.
Sarva mokassa	... A mokassa held entirely free.
Yeomiah	... A money allowance or pension calculated originally at so much *per diem*.
Zemindary	... The grant of lands to proprietors on the paying of a fixed annual rent termed peishcush.

CHAPTER XI.

TRADE AND MANUFACTURES.

(*Compiled by* Messrs. A. M. Simpson *and* C. E. Plunkett.)

General trade.—Indigo.—Cotton.—Textile fabrics.—Blue salampores.—Want of carriage and communications.—Breeding cattle.—Special industries.—Number of looms.—Looms and consumption of twist throughout the Presidency.—Exports of country cloths.—Exports of raw produce.—Weaving power of the Presidency.—Quantity and rate of cotton twist imported into the Presidency for twenty years.—Cotton cultivation.—Cotton piece goods exported.—Quantity and value of raw cotton.—Land trade of Nellore.—Exports and imports for 1850.—Sea trade.—Weights and measures.—Original unit.—Goldsmith's weights.—Commercial weights.—Measures of capacity.—Village measures.—Authorized table ascending according to Mahomedan system.—Descending by Hindu system.—Circar measurement.—Superficial measurement.—Accurate table.

We have been favored with the following account of the trade and manufactures of the district by Mr. A. M. Simpson, who has resided thirty years in the district, and is the representative of one of the large mercantile houses in Madras:—

General trade.

The trade of the Nellore District consists, 1st, of the products and manufactures of the district, viz., grain of all kinds, oil seeds, indigo, turmeric, chayroot, red saunders and log wood,* cotton, saltpetre,† chillies, iron from ore found in the shape of black sand in some rivulets in the Western Taluqs and at Naidoopettah, Rapur Taluq, wood for ordinary building purposes, salt, salt fish, horns, hides, skins, coarse paper, coarse pottery, glass bangles, and firewood. Draught cattle of a very superior breed are raised in the Northern Taluqs. 2nd, of the products of other districts, viz., cotton, indigo, sugar, grain, and gram. 3rd, of imports from China, the Straits, Ceylon, Europe, and elsewhere, viz., iron in bars and plates, copper in sheets, zinc, tin, ironmongery, crockery, stationery, groceries and spices and oilman's stores, teak and other woods for building purposes, &c. The chief exports are indigo, cotton, grain, chillies, saltpetre, salt, firewood, oil seeds, cloths, handkerchiefs, and gunnies, &c.

Indigo.

Next to the Cuddapah District, the Nellore District is the most noted for the quantity and quality of its indigo. The finest nearly approaches the best of the

* Red saunders and log wood are sent down to Madras from Venkatagiri Zemindary by the canal and taken home for a mere nominal freight by ship captains as dunnage.

† Saltpetre used to be manufactured in large quantities at Ongole, but little is made now, and no Europeans are engaged in the trade.

Cuddapah District, but the average falls far below it. That made at factories belonging to European firms has of late years fallen off in quantity from about 5,000 maunds a year to 1,500, or perhaps less. This is chiefly owing to unfavorable seasons and to the gradual rise in the value of grain crops, and also to greater competition on the part of natives, who, increasing in skill and working with less expensive establishments, can probably afford to give more for the plant than Europeans. Native factories are scattered all over the district, but the greater part of the quantity produced is manufactured in the Ongole, Podile, and Kandukur Taluqs, which seem to be favorably situated as regards average rainfall. A considerable quantity is, however, produced in the Calastry and Venkatagiri Zemindaries. All the indigo now produced in the Nellore District is manufactured after the Bengal system, that is to say, from the green *plant*, stalks, and leaves together, in contradistinction to the old Madras system (which is still pursued at Cuddalore) of stripping the leaves from the plant and drying them in the sun before subjecting them to the process of manufacture. The quantity of indigo annually produced in the district amounts on an average probably to 10,000 maunds, which is equal to an area of cultivation of 30,000 acres. No sugar-cane is now grown in the district. The local wants of the district are supplied by imports from the Cuddapah and North Arcot Districts.

Cotton.

Before the North Arcot line of railway was opened, the bulk of the cotton grown in the Cuddapah and Kurnool Districts used to find its way through the Dornal Pass to the Nellore market, and was thence exported to Madras for the China and European markets. Now but little of that cotton comes to Nellore, and the trade is consequently confined to imports from the Kistna and Godavery Districts. The cotton grown in this district is of a poor indigenous description, and is used chiefly for making coarse native cloths. Experiments have proved that other cottons might be successfully raised, but these experiments have unfortunately been confined to garden cultivation. It is estimated that the average annual import of cotton from the Kistna and Godavery Districts amounts to about 1,500 candies. Of this quantity, 100 are retained for local use, and the remaining 1,400 are exported to Madras for the European market. Thirty or thirty-five years ago the Nellore District was rather famed for the fine quality of its cotton, but scarcely any is now grown that is fit for the European market.

Textile fabrics.

In former years, too, Nellore was noted for its textile fabrics, but there is now scarcely any worthy of note. The cloth now made is, for the most part, of the commonest description and far inferior to that made in other districts. At Kovur, about four miles to the north of Nellore, fine shirtings, pocket handkerchiefs, and muslins suitable for ladies' dresses are still

made in small quantities to order, and at Yapallaguntah, in the Udayagiri Taluq, an exceedingly fine muslin is to be had, but not a dozen pieces could be turned out in the course of a year. Fair tent cloth is to be had at Kandukur.

There is nothing else noteworthy now in the district in the shape of manufactures.

Blue salampores.

Formerly there was a large trade in blue salampores, but this was quite broken up by the West Indian Emancipation Act, the emancipated slaves refusing to wear the garb of their slavery. The heavy expense of land carriage, the absence of railway or canal communication, and the risk of sending goods down to Madras by sea on native craft uninsured (for no Insurance Office will accept the risk) operate greatly to keep the resources of the Nellore District undeveloped. Many parts of the district are in as primitive a state as they were in probably a century ago. There is throughout the district, except on the trunk and one or two other roads, a singular want of carriage, which can only be accounted for by the extreme paucity of passable roads in all seasons. Much improvement can hardly be expected until the large towns are connected with each other, and with the trunk roads, by good metalled roads. This, together with more attention to the irrigating powers of the district, which might be extended with great advantage to the people and to the revenue of the country, would place the Nellore District more on an equality with other districts in the Presidency than it is at present.

Want of carriage and communications.

Breeding cattle.

A very considerable impetus to the improvement of the breed of draught cattle has of late years been given by the establishment of cattle shows and prizes for the best specimens; but the natives require to be taught what are the points capable of improvement, and how they may be improved, and it might be worth the while of Government to nominate a gentleman to preside over these shows, who is well skilled in such matters and capable of instructing the natives how to improve defects.

Special industries.

The following statement shows the special industry or trade of the chief villages in each taluq :—

Taluqs.	Principal Towns, &c.	Special Industry or Trade carried on.
I.—Gudur ...	1. Chennur ...	Hempen cloths (Janapanaru pattilu)
	2. Mudumanir, ...	Weaving fine cloths.
	3. Rettapulli, ...	
	4. Vindur	Making mats called chiri sapaln with jamnm, a kind of grass, growing usnally in tank-beds.
	5. Irukam	Shell-pits. Dyeing cloths.
	6. Venad	Shell-pits.

Taluqs.	Principal Towns, &c.	Special Industry or Trade carried on.
I.—Gudur.—*continued.*	7. Pambali ...	Dyeing cloths.
	8. Pudnayadorum...	
	9. Beripett ...	Boat building.
	10. Kistnapatnam ...	Exports of corn by sea.
	11. Dugarazapatam...	Do. by Cochrane's Canal.
	12. Portalupallem ...	Manufacture and sale of brass vessels.
	13. Vallepedu ...	
	14. Chillalun ...	
	15. Munzulapin ...	
II.—Rapur ...	1. Rapur	Weaving and dyeing cloths; also making carts or country bandies.
	2. Sayidapenam ...	Stone-work, as images, &c., in a species of soap-stone found here. The workmen are noted for their skill in sculpture and ornamental work employed on native towers called Galegoparams.
	3. Chaganam ...	Making herspen cloths.
	4. Venkatrama-rajapett ...	
	5. Podalakur ...	Weaving thin cloths.
	6. Toderu ...	
	7. Marapur ...	
	8. Guddalur ...	Trade in cattle.
	9. Varilur ...	
	10. Pedagopenam ...	
III.—Nellore ...	1. Bucherediipalem	Cutting granite, which is generally used for pillars, &c., in pagodas; making brass and copper utensils; weaving cloths.
	2. Gundavaram ...	Making curtain cloths of cotton thread.
	3. Turimula ...	
	4. Nidimusali ...	
	5. Patur ...	Weaving cloths.
	6. Yallagapallem ...	
	7. Kovuru ...	
	8. Mulamudi ...	
	9. S. Mopur ...	
	10. Alagirpaud ...	
	11. Utakur ...	
	12. Mayipadu ...	
	13. Narayanared-dipett. ...	
	14. Mamidugu ...	
	15. Nellore ...	Weaving cloths and making brass and copper vessels, &c.
	16. Amancherla ...	
	17. Derasapallum ...	
IV.—Atmakur...	1. Kullur	Trade in pearls and corals brought from other districts.
V.—Kavali ...	1. China Annalur...	Weaving is carried on in these places on a small scale and of an inferior character.
	2. Chumadala ...	
	3. Mungamur ...	
	4. Kavali ...	
	5. Kaligiri ...	
	6. Annavaram ...	

Taluqs.	Principal Towns, &c.	Special Industry or Trade carried on.
V.—Kavali,—*continued.*	7. Siddana Condur...	Weaving is carried on in these places on a small scale and of an inferior character.
	8. Tullapallem ...	
	9. Bitragunta ...	
	10. Tummalapenta...	
	11. Anemadugu ...	
	12. Jattapalli ...	
	13. Jamaladinne ...	Manufacture of copper and brass utensils.
VI.—Udayagiri.	1. Udayagiri	Manufacture of brass, copper, and bell-metal vessels; also making country carts and cutting ratipaunu and ratinara, sculpturing stones.
	2. Totulacherumpallem.	Weaving pack-cloth.
	3. Siturampenam ...	Making brass vessels.
	4. Norravadu ...	
	5. Somalrepudi ...	Making bandies.
VII.—Kandukur.	1. Kandukur ...	Making curtain cloths.
	2. Yilaravu ...	Weaving tent cloths.
	3. Pedakandla-gunta. ...	
	4. Pokari ...	
	5. Chitukapad ...	
	6. Palakur ...	
	7. Karedu	Dyeing cloths.
VIII.—Kanigiri..	1. Gundlupulum ...	Making stone-wheeled bandies; also mills.
	2. Bommareddi-pett. ...	
	3. Nundanamantla...	
	4. Musanur ...	Making black blankets called cumbalies.
	5. Peda Alavalapadu ...	
	6. Komalagunta ...	
IX.—Ongole ...	1. Ongole	Exports of grain, dry and wet.
	2. Adanki... ...	Do. do. and oil.
	3. Kottapallem ...	Do. do. by sea.
	4. Santanutala-padu. ...	Dyeing yarns with red, blue, and black colors.
	5. Chennakarte ...	
	6. Valaparla ...	Weaving handkerchiefs.

The following statement shows the number of looms returned for the purposes of moturpha taxation during the five years prior to the abolition of the tax, and the number of looms at present at work, with details of the probable consumption of thread and estimated value of cloth manufactured.

Number of looms.	No.	No. of Looms.
Towns ...	15	762
Villages ...	1,338	12,327
Total ...	*1,353	13,089
Towns ...	15	836
Villages ...	1,393	13,893
Total ...	†1,408	14,729

The average number of looms during the five years previous to the abolition of moturpha was 13,089* in 1,353 villages, against 14,729† in 1,408 villages at present, showing an increase of 55 in the number of villages and of 1,640 in the number of looms.

The probable consumption of thread is given at 62,964 lbs. "foreign" and 1,262,253

lbs. "country," making the total quantity 1,325,167 lbs, the value of cloths manufactured being estimated at Rupees 9,32,974. If these figures can be relied on, the average return per loom now at work would be 90 lbs. of thread, 63 rupees worth of cloth.

Some of the Tahsildars have reported that the moturpha records having been included with records to be destroyed as useless, the details had to be collected from village servants. Others have not intimated the source from which they have collected the statistics. Probably in all cases the information was obtained from the Curnams.

The distinction of "villages" and "towns" entered in column 2 of the statement is nominal. The only places which deserve the designation of towns are Nellore and Ongole. The Tahsildar of Nellore has entered all under the head of villages.

The Tahsildars appear to have included hamlets also in the number of villages. The number entered in columns 3, 5, &c., is the total number of hamlets and villages in which looms were and are at work.

Comparative Return of the Weaving Power of the Nellore District.

Taluqs.	Villages or Towns.	Number of Cotton Hand Looms returned for the five years immediately preceding the Abolition of Moturpha.					
		Fusli 1266 or Official year 1856-57.		Fusli 1267 or Official year 1857-58.		Fusli 1268 or Official year 1858-59.	
		No. of Villages, &c.	No. of Looms.	No. of Villages, &c.	No. of Looms.	No. of Villages, &c.	No. of Looms.
1	2	3	4	5	6	7	8
Gudur	Villages	89	972	89	974	89	968
	Towns	...	...	...	...	...	...
Rapur	Villages	56	499	56	445	56	467
	Towns	...	...	...	...	...	...
Nellore	Villages	125	2,549	125	2,567	125	2,481
	Towns	...	...	...	...	...	...
Atmakur	Villages	90	1,173	90	1,204	90	1,185
	Towns	...	...	...	...	...	...
Kavali	Villages	54	672	54	787	54	769
	Towns	...	...	...	...	...	...
Udayagiri	Villages	64	618	63	619	63	571
	Towns	...	...	...	...	...	...
Kandukur	Villages	227	1,255	227	1,244	227	1,250
	Towns	...	...	...	...	...	...
Kanigiri	Villages	153	1,176	154	1,185	155	1,193
	Towns	...	...	...	...	...	...
Ongole	Villages	152	1,682	152	1,732	152	1,735
	Towns	12	649	12	670	12	714
Podile Division.	Villages	123	375	123	371	123	368
	Towns	...	...	...	...	...	...
Darsi Division.	Villages	82	663	82	651	82	660
	Towns	...	...	...	...	...	...
Venkatagiri Division.	Villages	84	523	84	524	86	523
	Towns	1	53	1	53	1	53
Polur Division.	Villages	39	127	40	128	41	128
	Towns	2	8	2	7	2	7
Total	Villages	1,338	12,269	1,339	12,431	1,343	12,298
	Towns	15	710	15	730	15	774
	Total	1,353	12,979	1,354	13,161	1,358	13,072

Comparative Return of the Weaving Power of the Nellore District.—Continued.

Taluqs.	Villages or Towns.	Number of Cotton Hand Looms returned for the five years immediately preceding the Abolition of Moturpha.					
		Fusli 1269 or Official year 1859-60.		Fusli 1270 or Official year 1860-61.		Average.	
		No. of Villages, &c.	No. of Looms.	No. of Villages, &c.	No. of Looms.	No. of Villages, &c.	No. of Looms.
		9	10	11	12	13	14
Gudur ...	Villages ...	91	990	94	1,015	91	984
	Towns ...	...	...	...	...	...	...
Rapur ...	Villages ...	56	467	56	447	56	461
	Towns ...	...	...	...	...	...	...
Nellore ...	Villages ...	125	2,483	125	2,482	125	2,512
	Towns ...	...	...	...	...	...	...
Atmakur ...	Villages ...	90	1,181	90	1,186	90	1,187
	Towns ...	...	...	...	...	...	...
Kavali ...	Villages ...	54	773	54	709	54	740
	Towns ...	...	...	...	...	...	...
Udayagiri ...	Villages ...	61	541	65	589	63	584
	Towns ...	...	...	...	...	...	...
Kandukur ...	Villages ...	227	1,271	227	1,268	227	1,258
	Towns ...	...	...	...	...	...	...
Kanigiri ...	Villages ...	155	1,176	155	1,186	154	1,183
	Towns ...	...	...	...	...	...	...
Ongole ...	Villages ...	152	1,773	152	1,801	152	1,745
	Towns ...	12	726	12	750	12	702
Podile Division.	Villages ...	123	376	123	373	123	373
	Towns ...	...	...	...	...	...	...
Darsi Division.	Villages ...	82	665	82	671	82	662
	Towns ...	...	...	...	...	...	...
Venkatagiri Division.	Villages ...	86	523	90	529	80	524
	Towns ...	1	53	1	53	1	53
Polur Division.	Villages ...	40	130	17	60	35	114
	Towns ...	2	7	1	5	2	7
Total ...	Villages ...	1,342	12,352	1,330	12,287	1,338	12,327
	Towns ...	15	786	14	808	15	762
	Total ...	1,357	13,138	1,344	13,095	1,353	13,089

Comparative Return of the Weaving Power of the Nellore District.—Continued.

Taluqs.	Villages or Towns.	Number of Cotton Hand Looms at present at work, viz., Fusli 1270 or 1869-70.		Probable Consumption of Thread.			
		No. of Villages, &c.	No. of Looms.	Foreign.	Country.	Total.	Estimated Value of Cloths manufactured.
		15	16	17	18	19	20
				lbs.	lbs.	lbs.	Rs.
Gudur ...	Villages ...	97	1,006	9,310	76,388	85,698	67,033
	Towns ...	...	...	...	...	...	...
Rapur ...	Villages ...	76	568	...	78,764	78,764	32,127
	Towns ...	...	...	...	...	...	...
Nellore ...	Villages ...	128	2,412	34,146	70,980	105,126	88,497
	Towns ...	...	...	...	...	...	...
Atmakur ...	Villages ...	92	1,285	4,212	105,669	109,881	56,806
	Towns ...	...	...	...	...	...	...
Kavali ...	Villages ...	60	856	700	63,500	64,200	41,088
	Towns ...	...	...	...	...	...	...
Udayagiri ...	Villages ...	68	647	...	60,614	60,614	43,222
	Towns ...	...	...	...	...	...	...
Kandukur ...	Villages ...	227	1,942	...	89,465	89,465	73,552
	Towns ...	...	...	...	...	...	...
Kanigiri ...	Villages ...	164	1,432	...	82,710	82,710	62,183
	Towns ...	...	...	...	...	...	...
Ongole ...	Villages ...	152	1,994	...	325,692	325,692	270,577
	Towns ...	12	729	12,528	95,240	107,768	80,981
Podile Division.	Villages ...	123	400	1,512	27,288	28,800	20,000
	Towns ...	...	...	...	...	...	...
Darsi Division.	Villages ...	82	710	...	83,040	83,040	35,500
	Towns ...	...	...	...	...	...	...
Venkatagiri Division.	Villages ...	78	487	...	58,040	58,040	36,604
	Towns ...	1	100	...	660	660	12,000
Polur Division.	Villages ...	46	154	506	33,697	34,203	12,246
	Towns ...	2	7	...	5,506	5,506	558
Total ...	Villages ...	1,393	13,893	50,386	1,160,847	1,211,233	839,435
	Towns ...	15	836	12,528	101,406	113,934	93,539
	Total ...	1,408	14,749	62,914	1,262,253	1,325,167	932,974

Looms and consumption of twist throughout the Presidency.

In the Board's Proceedings, dated 28th June 1871, No. 2,605, they have collected some valuable statistics of the whole Presidency which are thus abstracted :—

In their Proceedings, dated 11th April 1870, No. 2,415, the Board called for a return of the number of cotton looms at work in the country, and also an estimate of the probable consumption of twist (native and imported) with a view to estimate the probable home consumption of raw cotton, and to enable them to judge of the present condition and value of this industry within the Presidency.

To illustrate the past and existing condition of the cotton industry, a comparative statement of the average number of looms brought to account during the last five years (1856-57 to 1860-61) that the moturpha tax was in operation was prepared.

The accompanying Tabular Statement A. is the result of the inquiry into these different particulars.

The marginal abstract shows that there has been, on the whole, a decided advance in the number of looms at work in the country during the last ten years. The difference is, however, not so great as the figures would indicate. No returns for the earlier period are now extant in Canara and Madura, and there is reason to fear that the information from other districts on the same matter is somewhat fragmentary and imperfect. The real increase has certainly not exceeded one-third, but it may safely be assumed to be not below 20 to 25 per cent. This somewhat unexpected result is probably in the main due to the relief from the vexatious and inquisitorial tax which was abolished in 1861; for every other circumstance has been, on the whole, against the industry since that date, especially the high price of the raw produce.

Average number of looms from 1856-57 to 1860-61, Total ...	204,623
Number of looms at work in 1869-70	279,220
More (41·9 per cent.) ...	85,901

Tested by this criterion of the relative number of looms, the industry has declined in five districts only. How much of this apparent decline may be due to the inaccuracy of the accounts of 1856-61 cannot be determined, but, on the whole, some decline must be admitted.

Districts.	Number of Looms.			
	1856-61.	1869-70.	Less.	Per cent.
	Average.			
Cuddapah ...	19,431	18,706	725	4
North Arcot ..	20,071	15,037	5,034	26
South Arcot...	12,882	9,493	3,389	26
Tanjore ...	15,745	14,642	2,103	13
Malabar ...	4,957	4,904	53	1

In Cuddapah (a cotton district) a slight decline appears from the

statement; but it is noteworthy that the adjacent cotton districts of Bellary and Kurnool present a marked advance.

The weaving industry is apparently in a fairly healthy state throughout the country. There has been no abnormal increase of looms in the towns. The great bulk of all looms are still in villages and hamlets. There are at present 279,220 looms in all at work in the Presidency.

An endeavour has been made to ascertain approximately the quantity of twist worked up into cloth by these indigenous looms. Wide differences occur in the estimates of different districts, due, no doubt, in part to those inaccuracies and under-estimates to which an inquiry of this kind always leads; but, on the other hand, conditions differ widely. In some districts weavers cultivate, and weave only during the slack months, and many looms work half and three-quarter time, and so on; but, on the whole, the total of estimates, viz., nearly 31½ millions of pounds of twist, or 112 lbs. per loom a year, may be a fair approximation to the real condition of things. At all events over-estimate seems avoided.

	lbs.
Country-made twist ...	22,580,788
Imported do. ...	8,841,924
Total ...	31,422,712

Of this quantity, about 11½ millions of pounds, or 36½ per cent., was imported twist; the rest was country-made.

It is not a little remarkable, in endeavouring to test the accuracy of such an estimate, that the quantity of imported twist thus returned almost exactly accounts for the average imports of the last three years as shown in the marginal extract from Statement B. hereto appended.

	Import. lbs.	Official Value. Rs.
1868-69 ...	10,095,240	91,63,489
1869-70 ...	11,683,508	92,71,945
1870-71 ...	12,816,005	104,32,173
Average ...	11,531,584	96,22,536
At Rupees 0-13-4 per lb.		

It may also be observed incidentally that the Statement B. affords very interesting evidence of the steady advance in the import of twist during the last twenty years. A comparison between the average of the first three (1851-52 to 1853-54) and last three years (1868-69 to 1870-71) shows a more than four-fold increment during the period under review, and the official value has risen from 0-10-8 per lb. to Rupees 0-13-4. The imports of twist represent 1870-71 more than one million of sterling in the trade returns of the Presidency.

	Import of Twist. lbs.	Official Value. Rs.
1851-52 ...	2,647,246	17,89,259
1852-53 ...	2,567,125	16,90,978
1853-54 ...	3,086,901	20,08,813
Average	2,767,090	18,29,382
Official value per lb. ...		Rs. 0-10-8
Average 1868-69 to 1870-71 ...	11,531,584	96,22,536
Official value per lb. ...		Rs. 0-13-4

It is interesting also to observe the sorts* of twist imported. The great bulk is of those low numbers which are worked into the more ordinary native cloths, viz., the numbers between 20 and 42. This fact may possibly indicate the reason for the falling off in the number of looms in North Arcot, &c., and for the stationary condition of the weaving trade in Malabar. The finer native fabrics, such as Arnee muslins and Malabar Nair cloths, and the like, are being beaten out of the market, and the looms employed on these finer textures have ceased to work; but much of the ordinary serviceable clothing of the working people is still made up in the country.

* *Different Numbers of Twist imported into the Port of Madras in* 187[illegible]-71.

	lbs.	Value. Rs.
No. 16 to 32...	1,020,795	6,13,062
„ 33 to 42...	4,633,470	31,86,659
„ 43 to 52...	440,560	3,30,422
„ 53 to 100...	253,410	2,26,720
Total ...	6,348,235	43,56,863

The Board had an independent estimate made by experienced weavers in Madras of the probable quantity of twist used in a native loom in moderate average working throughout the year. They estimate the quantity at 162 lbs. a year per loom.

N.B.—They calculate that a single loom can turn out eight women's cloths per month, each cloth taking six skeins of twist of 3½ pollams each, in all 162 lbs. in 12 months of ordinary work.

The Honorable Mr. Macfadyen likewise aided the Board by inquiry, and finds "that of the most common numbers, say, Nos. 20 to 40, 5 lbs. per week keep one loom going. The lower numbers can be got through more quickly and the higher numbers more slowly, so that about 170 lbs. per loom per annum is not far off the mark." The Board were inclined, therefore, to think that the aggregate result of all the estimates submitted by the Collectors, viz., 112 lbs. per loom, or more or less 31½ millions of pounds of twist, is, on the whole, a tolerably reliable approximation and not over-estimated. Of this quantity, 22½ million pounds is country-made twist, 11 millions imported twist.

The next point is what quantity of raw cotton is represented by the above amount of country-manufactured twist? The same gentleman states that "from 6 to 6½ lbs. of cleaned cotton are required to make 5 lbs. of twist, the wastage being about 25 per cent." At this average the consumption of raw cotton in the manufacture of country twist (22½ millions of pounds) will be not less than 28 to 30 millions of pounds; or, allowing for somewhat greater wastage with country spindles and for some under-estimating both of looms and twist, probably 35 millions of pounds may be roughly estimated as the quantity of raw-cleaned cotton worked up into country-made twist for the use of native looms, exclusive of imported twist.

It will be observed that the out-turn of all looms amounts to more than 3½ millions sterling, or Rupees 125 per loom. There are no means of testing these figures, and the out-turn is probably much

under-estimated. It indicates, however, a very valuable indigenous industry.

Exports of country cloths.

The value of the annual export of country-made cloth is given in Statement D. for twenty years. It amounts to about £222,000. The details of articles are unfortunately not forthcoming.

To complete the statistical information contained in this paper, there is appended a Statement (C.) of the acreage under cotton during the last eighteen years, and a Statement (D.) of the exports (with official value) of raw cotton for the last twenty years. The exports by land are very small.

The acreage under cotton has fluctuated considerably, but a very large permanent increase has resulted within the eighteen years under review. The average area so cultivated during the last three years (1868-69 to 1870-71) was acres 1,528,756, against acres 920,913, the average of the first three of the eighteen years' series.

The exports and official values indicate likewise a permanent and very valuable advance. Between 1851-52 and 1853-54, the average export was 47,584,000 lbs., valued at Rupees 0-1-10 per lb.; between 1868-69 and 1870-71, 66,668,000 lbs., valued at Rupees 0-4-1 per lb.

Exports of raw cotton.

The calculation of the average yield of the cotton crop per acre is necessarily a difficult and uncertain process; but it may be observed that the average annual exports of raw cotton from this Presidency during the last three years was 66½ millions (66,667,812) pounds (Statement E). If to this be added, say, 35 millions of pounds devoted to other uses, the total yield would be, in round numbers, say, 105 millions of pounds of clean cotton a year. This accounts for an average yield of 65 to 70 pounds of clean cotton per acre of the average cultivation of the last three years—by no means an improbable, though it may be hoped a somewhat understated average.

A.

Return of the Weaving Power of the Presidency of Madras, 1869-70.

Districts.	Average Number of Looms as per Moturpha Returns during the five years from 1856-57 to 1860-61.			Number of Looms at work in 1869-70.			Difference.		Probable Consumption of Twist.			Average.	Value of Cloth manufactured.
	In Towns.	In Villages.	Total.	In Towns.	In Villages.	Total.	Less.	More.	Country.	Foreign.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
									lbs.	lbs.	lbs.		Rs.
Ganjam	757	3,735	4,492	1,227	6,080	7,307	...	2,815	642,760	188,735	831,495	114	8,87,198
Vizagapatam ...	264	7,023	7,287	234	33,770	34,004	...	26,717	886,194	176,496	1,062,690	31	9,59,807
Godavery	949	10,456	11,375	762	14,676	15,438	...	4,063	1,234,555	594,170	1,828,725	118	18,41,565
Kistna	4,081	10,640	14,721	4,321	15,319	19,640	...	4,919	1,637,699	439,170	2,076,869	106	21,07,051
Nellore	762	12,327	13,089	836	13,893	14,729	...	1,640	1,262,253	62,914	1,325,167	90	9,32,974
Cuddapah	258	19,173	19,431	256	18,450	18,706	725	...	1,103,897	354,371	1,458,268	78	11,55,213
Bellary	4,975	12,099	17,074	9,077	14,216	23,293	...	6,219	3,350,151	856,596	4,206,747	181	61,41,013
Kurnool	446	7,536	7,982	759	13,706	14,465	...	6,483	1,721,064	48,298	1,769,362	122	14,80,093
Chingleput	2,612	5,596	8,208	2,800	6,181	8,981	...	773	214,353	758,281	972,634	108	9,78,651
North Arcot	7,948	12,123	20,071	4,836	10,151	15,037	5,034	...	787,871	1,278,029	2,065,910	137	24,53,690
South Arcot	...	...	12,882	3,414	6,079	9,493	3,389	...	471,203	613,404	1,084,607	114	11,84,332
Tanjore	6,479	10,266	16,745	5,421	9,221	14,642	2,103	...	556,681	529,447	1,086,128	74	24,77,181
Trichinopoly ...	330	4,722	5,052	534	6,204	6,738	...	1,686	599,711	139,371	739,082	110	6,40,920
Madura	No returns.			3,808	9,745	13,553	...	13,553	*1,471,955	* 262,829	*1,734,784	*128	15,20,929
Tinnevelly	7,460	6,579	14,039	9,463	14,586	24,049	...	10,010	3,347,242	242,660	3,589,902	149	31,47,358
Coimbatore	1,801	10,349	12,150	1,562	11,651	13,213	...	1,063	1,900,044	197,715	2,097,759	159	17,64,518
Salem	6,840	8,228	15,068	9,614	9,367	18,981	...	3,913	1,259,374	1,378,845	2,638,219	139	46,22,789
South Canara ...	No accounts.			69	1,978	2,047	...	2,047	20,101	97,205	117,306	57	91,048
Malabar	75	4,882	4,957	162	4,742	4,904	53	...	113,680	623,378	737,058	150	6,97,323
Total ...	46,007	145,734	204,623	59,205	220,015	279,220	11,304	85,901	22,580,788	8,841,924	31,422,712	112	350,83,653

Note.—The entries on the first three columns are not quite correct, as the returns of some taluqs or villages were not forthcoming.

* An obvious error in the Madura returns has been corrected by probable average.

B.

Statement showing the Quantity and Value of Cotton Twist imported into the Madras Presidency for the past twenty years.

Years.	lbs.	Rupees.	Years.	lbs.	Rupees.
1851-52 ...	2,647,946	17,89,259	1861-62 ...	6,177,535	38,05,750
1852-53 ...	2,567,125	16,90,078	1862-63 ...	4,023,301	25,85,638
1853-54 ...	3,086,501	20,08,813	1863-64 ...	6,978,675	46,32,792
1854-55 ...	3,242,427	21,10,022	1864-65 ...	6,418,914	61,70,796
1855-56 ...	3,929,839	22,68,071	1865-66 ...	6,522,650	71,61,022
1856-57 ...	4,205,740	22,70,388	1866-67 ...	7,165,098	79,39,122
1857-58 ...	3,505,233	21,45,307	1867-68 ...	9,196,894	83,36,638
1858-59 ...	6,147,607	35,46,077	1868-69 ...	10,095,240	91,65,489
1859-60 ...	7,366,788	41,59,590	1869-70 ...	11,633,508	92,71,945
1860-61 ...	7,035,001	38,84,960	1870-71 ...	12,816,005	104,32,173

C.

Memorandum showing the Cotton Cultivation in the Madras Presidency during the past several Fuslies.

Fuslies.	Extent cultivated.	Fuslies.	Extent cultivated.	Fuslies.	Extent cultivated.	Fuslies.	Extent cultivated.
	Acres.		Acres.		Acres.		Acres.
1262...	983,040	1267...	932,180	1272...	1,309,324	1277...	1,486,891
1263 ...	911,489	1268...	1,041,846	1273...	1,766,212	1278...	1,341,365
1264...	868,210	1269 ...	1,076,658	1274...	1,747,501	1279...	1,758,022
1265...	797,501	1270 ...	1,060,558	1275 ...	1,395,697		
1266...	938,047	1271...	1,020,184	1276...	1,316,944		

D.

Statement showing the Value of Cotton Piece Goods exported from the Madras Presidency for the last twenty years.

Years.	Value.	Years.	Value.	Years.	Value.	Years.	Value.
	Rs.		Rs.		Rs.		Rs.
1851-52...	29,08,934	1856-57...	20,25,290	1861-62...	20,75,600	1866-67.	23,55,722
1852-53...	35,21,516	1857-58...	20,87,224	1862-63...	19,56,766	1867-68.	33,68,592
1853-54...	31,41,024	1858-59...	23,67,187	1863-64...	16,37,787	1868-69.	23,00,271
1854-55...	26,98,406	1859-60...	20,61,318	1864-65...	16,63,893	1869-70.	22,18,150
1855-56...	21,45,918	1860-61...	18,74,689	1865-66...	20,47,177	1870-71.	21,62,098

E.

Statement showing the Quantity and Value of Raw Cotton exported from the Madras Presidency for the last twenty years.

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	lbs.	Rs.		lbs.	Rs.
1851-52 ...	55,359,[illegible]52	40,35,217	1861-62 ...	86,544,471	1,70,40,215
1852-53 ...	76,067,[illegible]98	86,65,071	1862-63 ...	62,374,133	2,38,12,852
1853-54 ...	31,325,6[illegible]0	37,85,382	1863-64 ...	72,490,886	4,47,18,112
1854-55 ...	28,849,3[illegible]5	31,10,425	1864-65 ...	73,101,578	4,04,18,937
1855-56 ...	21,013,4[illegible]1	25,21,351	1865-66 ...	120,034,216	4,84,16,348
1856-57 ...	53,988,0[illegible]5	72,22,286	1866-67 ...	24,367,331	94,37,789
1857-58 ...	55,015,309	87,71,724	1867-68 ...	47,026,932	1,23,86,389
1858-59 ...	38,652,542	61,17,902	1868-69 ...	89,181,858	2,13,96,827
1859-60 ...	82,512,521	95,97,135	1869-70 ...	63,474,448	1,91,25,050
1860-61 ...	78,822,027	112,91,211	1870-71 ...	42,347,132	1,06,04,132

The following information regarding the land and sea trade of Nellore has been furnished by Mr. C. E. Plunkett :—

Land trade of Nellore.

The land trade of the Nellore District is extremely limited and altogether local, and it is comparatively of little importance. Grain forms the chief commodity of export. There are, however, no returns available by which this trade can be gauged even approximately at the present time. In former years when the sayer or land customs duty prevailed, regular accounts of the imports and exports by land were kept at the various chowkies or tannahs then in existence, but this duty was abolished in 1844, or twenty-seven years ago, and figures taken from the returns then kept will give no possible criterion of the trade of the present day. Tobacco appears in former years to have been the chief article of export.

The foregoing account by Mr. Simpson, the leading and, in fact, the sole European merchant in Nellore, of the trade and manufactures of the district embraces every point of importance, and there is but little to add to it. There is no doubt that, as remarked by Mr. Simpson, there has been a very great decline in both respects of late years in the district. The manufactures have fallen, because the people of Nellore are chiefly an agricultural race—farmers of the land, in fact, who have greater regard in the cultivation and produce of their fields rather than to excel as artizans or in works of art or skill. They have no enterprize or natural desire for such works. The land trade has gone down, because it consisted formerly to a great extent of the produce of other districts, whereas now, as already remarked, it is almost entirely local; those districts have been opened out of late years by railways and other means of communication, and have thus found easier and more direct facilities for the transport of their produce to

large markets without its being required to pass through Nellore at all as it was wont to do in former years, *e.g.*, the cotton of Kurnool and Cuddapah, to which Mr. Simpson alludes, used before to be brought to the Nellore market, first across the Dornal Pass, and thence on to Madras; but now it is taken by the railway direct to Madras itself without coming near to Nellore at all. Again, almost all the cotton from the great cotton-growing tract in the Kistna District, known as "the Palnad," used similarly in former years to pass through Nellore on its way to Madras for shipment; but, since the opening of the Kistna and Godavery canals, it is taken now, *vid* Guntoor and Bezwarrah, on by boat to either Cocanada or Masulipatam, whence it is shipped direct across sea for the market to which bound.

Sea trade.

The sea trade of the Nellore District is almost wholly a coasting one on native dhonies and craft, and it is seldom that any of the ports on the Nellore coast is visited by vessels or ships of larger size and importance. In former years there was a large trade in salt with Calcutta and Chittagong; but, owing to the perilous nature of the cargo—the heavy duty, and the circumstance that salt is now made in Bengal also—this trade from here has almost altogether ceased, and, in fact, during the last three years our shipments of salt have been *nil*.

Kottapatnam and Itamukkula, the two northernmost ports in the district, are really the only ports at which there is a trade by sea of anything like consequence or deserving of notice. They have a varied trade, mostly in grain, Indian condiments, pulses, palmyra rafters, &c., with most of the home ports on the Coromandel Coast, and not unfrequently with Akyab, Colombo, and other places beyond the limits of the Madras Presidency. Occasionally oil seeds, &c., have been exported for America from Kottapatnam by Messrs. Arbuthnot and Co., of Madras, but this is a rare and quite an uncommon occurrence. The accompanying statements of imports and exports for the last four years from Fusli 1277 (A.D. 1867-68) to Fusli 1280 (A.D. 1870-71) exhibit in one view the annual trade of our ports, and give a very fair and comprehensive return of the sea trade of the district.

As regards actual revenue receipts the duty collected is most limited, and is shown below for a series of ten years. The sea customs revenue of the district, it will thus be seen, is comparatively trifling, and could hardly be less. During the last two years there was literally no revenue from duty, and this state of things results from the fact that we have barely any trade with other than home ports, and that this trade is wholly in free goods, the natural products of the district, and that it is very seldom that dutiable articles are either exported or imported. Grain used to be shipped a few years ago in large quantities to other ports; but, owing to favorable seasons everywhere in the last

year or two, its exportation has considerably decreased, owing to a fall in prices, and the trade of our ports has, of course, simultaneously gone down.

	Duty on Imports.	Exports.
	Rs.	Rs.
Fusli 1271 (A.D. 1861-62)	56	409
„ 1272 („ 1862-63)	16	748
„ 1273 („ 1863-64)	...	278
„ 1274 („ 1864-65)	...	...
„ 1275 („ 1865-66)	...	41
„ 1276 („ 1866-67)	24	98
„ 1277 („ 1867-68)	4	417
„ 1278 („ 1868-69)	17	191
„ 1279 („ 1869-70)	...	...
„ 1280 („ 1870-71)	...	...

An account of the several ports of the district and the nature of their trade, their position, and description is given in Chapter I.

Statement showing the Land Trade of the Nellore District for the period from 12th July 1842 to 11th July 1843 (Fusli 1252), or the year before that in which the Sayer or Land Customs Duty was abolished.

Chowkies.	Districts.	Exports. Tobacco.	Betel.	Ghee.	Total Value.	Imports. To-bacco.	Betel.	Bangh.	Total Value.
		Putties.	Bundles	M.	V. Rs.	Put-ties.	Bundles	M.	V. Rs.
Chirella ...	Guntoor ...	...	...	...	... ...	87	504	...	... 3,073
Addanki ...	Guntoor ...	...	...	...	... ...	9	593	...	... 338
Santemutalapaud.	Guntoor ...	...	...	...	... ...	7	...	...	... 241
Ongole ...	Cuddapah ...	...	...	...	... ...	...	...	4	4 75
	Guntoor ...	...	...	...	... ...	190	...	...	... 5,784
	Total ...	...	...	...	... ...	190	...	4	4 5,859
Kandukur ...	Guntoor ...	...	...	...	... ...	63	...	...	... 2,183
Pamuru. ...	North Arcot...	64½	...	...	1,680 ...	...	...	...	... ...
	Madras ...	¾	...	...	28 ...	...	...	...	... ...
	Guntoor ...	3	...	...	136 ...	...	...	...	... ...
	Cuddapah ...	91	17	...	2,372 ...	...	...	...	... ...
	Bellary ...	20	...	...	527 ...	...	...	...	... ...
	Kurnool ...	6	...	...	158 ...	...	...	...	... ...
	Total ...	185	17	...	4,901 ...	...	...	...	... ...
Idayagiri ...	North Arcot..	259	...	...	6,743 ...	...	...	...	... ...
	Cuddapah ...	2	...	...	64 ...	...	...	...	... ...
	Bellary ...	½	...	...	6 ...	...	...	...	... ...
	Bangalore ...	1½	...	...	48 ...	...	...	...	... ...
	Kurnool ...	¼	...	...	6 ...	...	...	...	... ...
	Total ...	263	...	...	6,867 ...	...	...	...	... ...
Nellore ...	Guntoor ...	...	...	...	... ...	5	...	...	... 108
	Cuddapah ...	...	...	...	... ...	52	...	...	... 1,699
	Total ...	...	...	...	... ...	57	...	...	... 1,807
Kalu-aya ...	North Arcot..	604	...	...	15,613 ...	...	...	...	... ...
	Madras ...	12	...	...	317 ...	...	...	...	... ...
	Cuddapah ...	1/6	...	...	8 ...	...	...	...	... ...
	South Arcot ..	...	...	33	109 ...	...	...	...	... ...
	Total ...	616 1/6	...	33	... 16,047	...	...	...	... ...
Rapur ...	North Arcot...	1,022	...	...	26,947 ...	...	...	...	... ...
	Madras ...	35	...	...	915 ...	...	...	...	... ...
	Total ...	1,057	...	...	27,862 ...	...	...	...	... ...
Venkatagiri ...	North Arcot...	846	160	...	21,856 ...	...	1,780	...	... 278
	Madras ...	43	60	...	1,119 ...	...	...	...	... ...
	Guntoor ...	...	...	...	... ...	3	...	...	... 109
	Cuddapah ...	...	...	...	... ...	56	...	...	... 1,840
	Total ...	889	220	...	22,975 ...	59	...	...	... 2,227
	Grand Total.	3,010 1/6	237	33	... 78,652	172	1,780	4	4 15,728

Statement showing the Land Trade of the District of Nellore from the 12th Jul 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Lan Customs Duty was abolished.

Chowkies.	Districts.	Exports. Tobacco.	Betel.	Saltpetre.	Skins.	Cloths.	Ghee.		Indigo
		Puttics.	Bundles	Mds.	No.	Bags.	Mds.	Viss.	Mds.
Chirella ...	North Arcot ...	10	...	...	...	...	...	...	...
	Madras ...	...	...	...	...	91½	...	...	...
	Guntoor ...	...	...	...	...	...	...	...	...
	Total ...	10	...	...	...	91½	...	...	...
Addanki ...	Guntoor ...	...	...	...	...	...	...	...	...
Podile ...	North Arcot ...	50	...	...	...	...	...	...	...
	Cuddapah ...	9½	...	...	...	...	...	...	...
	Kurnool ...	½	...	...	...	...	...	...	...
	Total ...	59⅝	...	...	...	...	...	...	...
Santenutala-paud ...	Guntoor ...	...	...	...	...	...	...	...	...
Ongole ...	Madras ...	...	...	81	9,425	...	...	...	...
	Guntoor ...	...	...	...	...	...	...	...	...
	Cuddapah ...	...	...	...	...	...	...	...	...
	Masulipatam ...	...	...	...	...	...	...	...	...
	Total ...	...	...	81	9,425	...	...	...	...
Kandukur.	North Arcot ...	11	...	...	...	...	...	...	...
	Madras ...	...	...	...	...	68	...	...	...
	Guntoor ...	...	...	...	...	...	...	...	...
	Cuddapah ...	...	...	...	...	...	...	...	...
	Bellary ...	½	...	...	...	...	...	...	...
	Total ...	11½	...	...	...	68	...	...	...
Pamuru ...	North Arcot ...	105	...	...	...	...	...	...	...
	Madras ...	...	...	2½	255	31	32	2	269
	Guntoor ...	¼	111	...	...	...	...	...	...
	Cuddapah ...	8¼	...	...	...	...	...	...	...
	Bellary ...	13½	...	...	...	...	...	...	...
	Kurnool ...	1¼	298	...	...	...	...	...	...
	Total ...	129¼	409	2½	255	31	32	2	269
Sitarampu-ram ...	Cuddapah ...	...	...	...	...	...	...	...	...

Statement showing the Land Trade of the District of Nellore from the 12th July 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Land Customs Duty was abolished.—Continued.

Chowkies.	Districts.	Exports.—*Continued.* Oil Seeds.	Dyes.	Bangh.	Dye-root called Surie Chukka.	Sandal wood.	Margosa Oil.	Total Value.
		Cwt.	Cwt.	Mds.	Mds.	Mds.	Mds.	Rs.
Chirella ...	North Arcot ...	...	...	...	...	...	...	352
	Madras	...	...	...	...	...	...	9,156
	Guntoor ...	...	...	...	...	...	...	...
	Total ...	...	...	...	...	...	...	9,508
Addanki ...	Guntoor ...	...	...	...	...	...	...	...
Podile ...	North Arcot ...	...	...	...	...	...	...	1,058
	Cuddapah ...	...	...	...	...	...	...	241
	Kurnool ...	...	...	...	...	...	...	4
	Total ...	...	...	...	...	...	...	1,303
Santenutala-paud ...	Guntoor ...	...	...	...	...	...	...	...
Ongole ...	Madras	...	...	...	...	...	...	3,022
	Guntoor ...	...	...	...	...	...	...	...
	Cuddapah ...	...	...	...	...	...	...	...
	Masulipatam ...	...	...	...	...	...	...	...
	Total ...	...	...	...	...	...	...	3,022
Kandukur ...	North Arcot ...	...	...	...	...	...	...	418
	Madras	...	62	...	...	...	...	7,020
	Guntoor ...	...	...	...	...	...	...	...
	Cuddapah ...	...	...	...	...	...	...	...
	Bellary	...	...	...	...	...	...	14
	Total ...	...	62	...	...	...	...	7,452
Pamuru ...	North Arcot ...	...	...	...	...	...	...	2,220
	Madras	50½	...	...	...	...	...	11,402
	Guntoor ...	...	...	...	...	...	...	26
	Cuddapah ...	...	...	...	...	...	...	246
	Bellary	...	...	...	...	...	...	352
	Kurnool ...	...	...	...	...	...	...	48
	Total ...	50½	...	...	...	...	...	14,294
Sitarampuram ...	Cuddapah ...	...	...	...	...	...	...	...

Statement showing the Land Trade of the District of Nellore from the 12th July 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Land Customs Duty was abolished.—Continued.

Chowkies.	Districts.	Exports.—*Continued.* Tobacco.	Betel.	Saltpetre.	Skins.	Cloths.	Ghee.		Indigo.
		Puttics.	Bundles.	Mds.	No.	Bags.	Mds.	Viss.	Mds.
Udayagiri	North Arcot	181	...	...	...	...	...	...	...
	Madras	...	...	...	100	17	...	...	320½
	Total	181	...	...	100	17	...	...	320½
Sangam	Madras	...	...	...	...	213	1	2	60¼
Nellore	North Arcot	...	...	...	...	...	...	...	...
	Madras	...	...	...	1,600	623	...	...	2,564½
	Cuddapah	...	...	...	...	...	...	...	...
	Guntoor	...	...	...	...	...	...	...	...
	Total	...	...	...	1,600	623	...	...	2,564½
Vuttukuru	Madras	...	...	...	...	365	...	...	...
Kaluvaya	North Arcot	546	...	...	...	...	...	...	...
	Madras	...	...	...	...	...	...	...	502½
	Total	546	...	...	...	...	...	...	502½
Rapur	North Arcot	708	...	...	...	...	20	...	95
	Madras	...	...	...	...	291½	...	...	...
	Total	708	...	...	...	291½	20	...	95
Kota	Madras	...	...	...	...	15	34	2	...
	Nellore Town	...	...	...	...	...	...	...	...
	Total	...	...	...	...	15	34	2	...
Venkatagiri	North Arcot	408	522	...	...	...	...	...	...
	Madras	...	...	...	400	5	3	...	...
	Guntoor	...	...	...	...	...	...	...	...
	Cuddapah	...	...	...	...	...	...	...	...
	Total	408	522	...	400	5	3	...	...
Sulurpetta	Madras	...	...	...	...	43	9	2	24
	Grand Total	2,053½	931	83½	11,780	1,763	109	...	4,380

Statement showing the Land Trade of the District of Nellore from the 12th July 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Land Customs Duty was abolished.—Continued.

Chowkies.	Districts.	Exports.—*Continued.* Oil Seeds.	Dyes.	Bangh.	Dye-root called Surile Chukka.	Sandal wood.	Margosa Oil.	Total Value.
		Cwt.	Cwt.	Mds.	Mds.	Mds.	Mds.	Rs.
Udayagiri	North Arcot	...	...	...	...	...	...	4,712
	Madras	...	...	...	½	...	...	10,717
	Total	...	...	...	½	...	...	15,429
Sangam	Madras	...	...	...	...	...	...	38,867
Nellore	North Arcot	...	...	...	...	...	...	...
	Madras	...	...	...	...	...	...	1,39,288
	Cuddapah	...	...	...	...	...	...	...
	Guntoor	...	...	...	...	...	...	...
	Total	...	...	...	...	...	...	1,39,288
Vuttukuru	Madras	...	...	...	...	...	...	36,474
Kaluvaya	North Arcot	...	...	...	...	...	...	14,074
	Madras	...	...	...	...	...	...	12,550
	Total	...	...	...	...	...	...	26,624
Rapur	North	...	...	...	...	...	...	19,858
	Madras	...	...	...	...	...	...	29,150
	Total	...	...	...	...	...	...	49,008
Kota	Madras	...	...	...	...	...	...	1,644
	Nellore Town	...	...	2½	...	...	12	39
	Total	...	...	2½	...	...	12	1,683
Venkatagiri	North Arcot	...	...	...	...	...	...	10,640
	Madras	...	...	...	...	9,010	...	3,384
	Guntoor	...	...	...	...	...	...	...
	Cuddapah	...	...	...	...	...	...	...
	Total	...	...	...	...	9,010	...	14,024
Sulurpetta	Madras	68	...	...	...	...	...	5,312
	Grand Total	118½	62	2½	¼	9,010	12	3,62,288

Statement showing the Land Trade of the District of Nellore from the 12th July 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Land Customs Duty was abolished.—Continued.

Chowkies.	Districts.	Imports. Tobacco.	Betel.	Bangh.	Opium.	Total Value.
		Putties.	Bundles	Mds.	Mds.	Rs.
Chirella	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Guntoor	40½	...	...	...	1,359
	Total ...	40½	...	...	...	1,359
Addanki	Guntoor	4½	19	...	...	163
Podile	North Arcot	...	...	...	...	...
	Cuddapah	...	...	...	...	...
	Kurnool	...	...	...	...	...
	Total ...	...	...	...	...	...
Santeuutalapaud ...	Guntoor	2	...	...	...	72
Ongole	Madras	...	...	...	...	...
	Guntoor	129½	...	...	...	4,632
	Cuddapah	...	...	2	...	6
	Masulipatam	4	...	...	1½	386
	Total ...	133½	...	2	1½	5,024
Kandukur	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Guntoor	95	...	...	...	3,323
	Cuddapah	...	...	...	...	...
	Bellary	...	...	...	...	...
	Total ...	95	...	...	...	3,323
Pamuru	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Guntoor	...	...	...	...	...
	Cuddapah	...	...	...	...	...
	Bellary	...	...	...	...	...
	Kurnool	...	...	...	...	...
	Total ...	...	...	...	...	...
Sitarampuram ...	Cuddapah	¼	...	..	...	8

Statement showing the Land Trade of the District of Nellore from the 12th July 1843 to the end of February 1844 (Fusli 1253), when the Sayer or Land Customs Duty was abolished.—Continued.

Chowkies.	Districts.	Imports.—Continued. Tobacco.	Betel.	Bangh.	Opium.	Total Value.
		Putties	Bundles	Mds.	Mds.	Rs.
Udayagiri	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Total ...	...	...	...	...	...
Sangam	Madras	...	...	...	...	...
Nellore	North Arcot	...	192	...	...	12
	Madras	...	...	...	...	...
	Cuddapah ...	99⅜	...	...	...	3,277
	Guntoor ...	...	...	...	...	100
	Total ...	102⅜	192	...	...	3,389
Vuttukuru	Madras	...	...	...	...	...
Kaluvaya	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Total ...	...	...	...	...	...
Rapur	North Arcot	...	...	...	...	...
	Madras	...	...	...	...	...
	Total ...	...	...	...	...	...
Kota	Madras	...	...	...	...	...
	Nellore Town	...	...	...	...	...
	Total ...	...	...	...	...	...
Venkatagiri	North Arcot	...	173	...	...	27
	Madras	...	...	...	...	...
	Guntoor	4¼	...	...	...	147
	Cuddapah	32¼	...	...	...	1,064
	Total ...	36½	173	...	...	1,238
Sulurpetta	Madras	...	...	...	...	...
	Grand Total ...	414½	384	2	1½	14,581

Statement of Imports and Exports for the Fusli
for the Sea Ports in the

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.	Pondicherry.	...	...	...	...	...	...
		Ganjam ...	Akyab ...	...	...	...	...
			Sonnapur	...	...	...	...
			Barwah ...	...	...	...	...
			Pundy ...	...		...	...
			Bapanadu ...	...	...	...	...
			Calingapatnam..	...	...	...	...
		Vizagapatam.	Bimlipatam ..	...	...	...	...
			Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
			Nursapur ...	...	...	...	...
		Kistna ...	Masulipatam...	...	...	...	...
			Kottapatnam.	...	...	...	...
			Nizampatam...	...	...	...	...
			Epurpolliem ...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...
			Kristnapatam..	...	...	...	...
			Pudi	...	...	...	...
		Madras ...	Madras ...	2,18,000	...	140	1,800
		South Arcot.	Cuddalore ...	500	...	...	...
			Total ...	2,18,500	...	140	1,800
Itamukkala.	Pondicherry.	...	...	...	...	...	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Vizagapatam.	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Coringa ...	...	...	...	...
			Nursapur ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	20	...
		Nellore ...	Pakala ...	...	...	...	...
		Madras ...	Madras ...	3,38,000	10,050	...	555
			Total ...	3,38,000	10,050	20	555
Pakala ...	Pondicherry.	...	...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Nellore ...	Itamukkala ...	...	...	...	...
			Ramapatam ...	...	...	...	...
		Madras ...	Madras ...	13,000	...	100	...
			Total ...	13,000	...	100	...

year 1277, *or from* 1*st July* 1867 *to* 30*th June* 1868,
District of Nellore.

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.		lbs. Avoirdupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
318	80	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
704	272	...	...	...	...	...	24	...	...	...	...	...	...	...
383	...	...	...	...	1	3	20	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
165	320	...	...	...	...	...	...	...	...	...	...	...	...	...
527	50	22	480	...	...	...	...	...	...	...	...	...	...	...
138	372	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,339	326	...	...	...	10	3	16	...	...	...	...	...	...	...
265	424	28	104	...	...	...	...	...	...	...	...	...	...	...
6,237	288	...	...	...	1	2	26	...	...	...	...	...	...	...
2,475	136	...	...	...	...	...	...	...	36	2	...	...	1	...
536	428	2	350	...	...	...	...	...	...	...	...	...	3	...
322	334	4	214	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	384	...	...	...	...	...	...	...	...	...	...	...	...	...
1	288	...	...	...	1	...	10	...	...	...	...	...	2	16
...	...	...	164	...	...	...	...	...	...	...	...	...	...	...
19	12	322	310	...	316	2	16	...	...	84	236	710	1	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13,580	164	381	122	...	332	2	...	...	86	86	239	711	2	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,009	46	...	...	...	...	...	...	...	...	...	...	...	1	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
705	100	...	...	...	...	...	...	...	...	...	...	...	...	...
641	202	...	...	...	...	...	...	...	...	...	...	...	...	...
399	162	...	...	35	...	...	...	...	...	...	...	...	...	...
920	132	...	232	112	2	...	22	...	...	...	11	...	2	14
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	56	13	90	224	187	3	...	...	...	...	1,000	424	3	18
3,709	198	13	822	371	189	3	22	...	...	...	1,011	425	2	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
468	64	...	...	3,000	...	2	19	...	...	...	...	...	...	...
...	...	...	...	...	2	3	1	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
32	43	...	...	...	19	3	...	...	...	...	...	109	1	26
500	107	...	...	3,000	23	...	20	...	...	...	...	109	1	26

Statement of Imports and Exports for the Fusli 1868, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.			English.		
		Districts.	Ports.	No.	Cwt.	Qrs.	lbs.
Kottapatnam.	Pondicherry.	...	...	391	...	...	...
		Canjam ...	Akyab ...	...	...	...	...
			Sonnapur ...	...	...	...	...
			Barwah ...	...	12	3	12
			Pundy ...	...	...	...	...
			Bapanadu ...	...	...	...	...
			Calingapatam..	...	...	...	...
		Vizagapatam.	Bimlipatam ...	...	...	...	...
			Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Cocanada ...	150	8	...	4
			Coringa ...	...	...	...	...
			Nursapur ...	...	4	2	...
		Kistna ...	Masulipatam...	...	...	...	...
			Kottapatnam...	500	2	...	2
			Nizampatam...	...	3	...	24
			Epurpolliem ...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...
			Kristnapatam..	2,200	8	3	16
			Pudi	...	...	...	...
		Madras ...	Madras ...	29,362	4	1	24
		South Arcot ...	Cuddalore ...	...	...	...	...
			Total ...	32,603	43	3	26
Itamukkula.	Pondicherry.	...	...	...	...	...	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Gopalpur ...	...	...	...	...
		Vizagapatam.	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	8	3	20
		Godavery ...	Coringa ...	...	...	...	...
			Nursapur ...	...	...	...	...
		Kistna ...	Nizampatam...	250	1	3	6
		Nellore ...	Pakala ...	...	...	...	...
		Madras ...	Madras ...	30,490	75	...	...
			Total ...	30,740	85	2	26
Pakala ...	Pondicherry	...	...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Nellore ...	Itamukkula ...	...	...	...	...
			Ramapatam ...	75	...	...	...
		Madras ...	Madras ...	450	...	...	...
			Total ...	525	...	...	...

year 1277, *or from* 1*st July* 1867 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	57
...	...	...	...	...	...	...	...	...	2,400
...	...	...	...	...	...	...	...	...	...
...	...	...	...	100	400	...	...	...	10,612
...	...	...	...	...	400	...	...	...	3,975
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,367
...	...	...	...	...	...	10	1	...	7,234
...	...	...	...	...	...	...	...	...	1,332
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	42	1	18	10,240
...	...	...	...	8	...	...	...	...	3,314
...	...	...	...	...	10	...	...	...	58,606
68	...	...	...	...	405	1	2	...	21,915
15	...	...	...	...	...	...	...	...	7,476
...	...	...	...	366,561	...	...	...	...	2,152
...	...	...	...	...	...	...	...	...	...
...	...	...	...	7,000	...	...	...	...	215
4	...	...	...	8	219	2	2	20	605
...	...	...	...	...	...	...	...	...	1
731	...	3	5	4,477	4,015	121	1	25	2,47,345
...	...	...	...	...	...	...	...	...	500
818	...	3	5	378,154	5,449	178	1	7	3,80,356
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	262	...	...	...	...
...	...	...	...	...	...	...	...	...	15,070
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	6,086
...	...	...	...	...	...	...	...	...	6,190
...	...	...	...	118,642	853	...	...	...	4,081
...	...	...	...	...	...	...	...	25	9,704
193	...	...	...	1,900	687	28	...	26	3,64,221
193	...	...	...	120,542	1,802	28	1	23	4,05,352
...	...	...	...	...	...	...	...	...	...
...	...	...	...	168	...	...	...	...	...
...	...	...	...	60	...	...	...	...	...
...	...	...	...	9	...	...	...	...	82
...	...	...	...	23	1	...	...	...	24
...	...	...	...	260	1	...	...	...	15,061
...	...	...	...	...	...	...	...	...	19,063

Statement of Imports and Exports for the Fusli 1868, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Ramapatam.	Pondicherry.	...	...	...	...	...	...
		Godavery ..	Cocanada ...	...	...	...	...
		Nellore ...	Kottapatnam...	...	...	...	...
			Pakala ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Tummalapenta.		Madras ...	Madras ...	...	...	...	...
Zuvvaladinne..		Madras ...	Madras ...	...	...	...	...
Iskapalli ...		...	Calcutta ...	...	...	...	...
		Kistna ...	Epurpolliem ...	...	...	...	...
		Nellore	Kristnapatam.	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi ...		Madras ...	Madras ...	8,000	...	...	...
Kristnapatam		Vizagapatam	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Coringa ...	...	...	...	...
		Nellore ...	Kottapatnam...	...	...	...	...
			Iskapalli ...	...	...	...	...
		Madras ...	Madras ...	50,900	...	...	...
			Total ...	50,900	...	...	...
Pamanji ...		Ganjam ...	Sonnapur ...	...	...	...	...
		Vizagapatam...	Bimlipatam ...	...	...	...	...
		Madras ...	Madras ...	2,000	...	...	...
			Total ...	2,000	...	...	...
Pudi ...		Godavery ...	Coringa ...	...	...	...	...
		Kistna ...	Kottapollem ...	...	...	...	...
		Nellore ...	Kottapatnam...	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ..	630400	10,050	260	2,355

year 1277, *or from* 1*st July* 1867 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils and Ghee.			Metals.			
English.		English.		lbs. Avoir-dupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Qls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
662	84	...	128	...	1	...	...	...	...	...	...	16	...	...
662	84	...	128	...	1	...	...	...	...	...	...	16	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	7	1	8	...	...	...	47	3	2	18
369	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	...	...	3	...	...	...
369	...	...	...	1	...	...	...	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	21	12	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
57	...	21	12	...	...	...	...	...	...	...	...	...	...	...
18,878	53	543	456	3,372	553	3	22	...	86	66	1,300	1,266	1	16

Statement of Imports and Exports for the Fusli 1868, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Ramapatam.	Pondicherry.	...	...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Pakala ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Tummalapenta.		Madras ...	Madras ...	...	...	...	...
Zuvvaladinne..		Madras ...	Madras ...	...	...	...	...
Iskapalli ...		...	Calcutta ...	...	...	...	...
		Kistna ...	Epurpolliem...	150	2	...	26
		Nellore ...	Kristnapatam.	400	...	...	...
		Madras ...	Madras ...	1,750	...	...	...
			Total ...	2,300	2	...	26
Ponnapudi ...		Madras ...	Madras ...	1,250	...	...	...
Kristnapatam		Vizagapatam	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Coringa ..	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Iskapalli ...	...	...	...	...
		Madras ...	Madras ...	75	...	...	...
			Total ...	75	...	...	...
Pamanji ...		Ganjam ...	Sonnapur ...	...	...	...	...
		Vizagapatam.	Bimlipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Pudi ...		Godavery ...	Coringa ..	...	...	...	...
		Kistna ...	Kottapollem. .	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Total ..	...	...	...	...
			Grand Total...	67,493	131	3	22

year 1277, *or from* 1*st July* 1867 *to* 30*th June* .
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	Rs.
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	421	10	2	...	...	13,273
...	...	...	...	421	10	2	...	...	13,273
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	60
...	...	...	...	...	...	...	...	...	263
...	...	...	...	...	...	...	...	...	347
1	...	...	...	2	...	...	...	...	8,388
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	3,280
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	45	...	...	...	51,385
...	...	...	...	...	45	...	...	...	54,665
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,000
...	...	...	...	...	...	...	...	...	2,000
...	...	...	...	...	...	...	...	...	2,532
...	...	...	...	11,000	...	...	...	...	68
...	...	...	...	...	...	...	...	...	...
...	...	...	...	11,000	...	...	...	...	2,007
1,012	...	3	5	510,379	7,307	208	3	2	8,65,704

Statement of Imports and Exports for the Fusli
1868, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.	Pondicherry..	...	...	...	...	...	...
		Ganjam ...	Akyab ...	8,000	...	...	...
			Somapur ...	...	...	...	...
			Bariwah ...	...	...	...	...
			Pundy ...	4,000	...	...	...
			Bapanadu ...	...	...	...	...
			Calingapatam..	...	...	...	...
		Vizagapatam	Bimlipatam ...	...	...	...	...
			Vizagapatam...	1,000	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
			Nursapur ...	11,600	108	...	...
		Kistna ...	Masulipatam...	2,000	...	...	...
			Kottapallem ...	900	...	...	...
			Nizampatam ..	6,900	...	...	...
			Epurpolliem ...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...
			Kristnapatam.	...	...	...	...
			Pudi ...	...	...	...	...
		Madras ...	Madras ...	...	...	100	3500
		South Arcot....	Cuddalore ...	...	...	...	...
			Total ...	34,400	108	100	3500
Itamukkula.	Pondicherry..	...	...	...	...	...	...
		Ganjam ...	Ganjam ..	10,500	...	...	...
			Gopaulpur ...	...	...	...	...
		Vizagapatam	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ..	Coringa ...	2,000	...	...	...
			Nursapur ...	...	...	...	...
		Kistna ...	Nizampatam ..	18,000	...	...	...
		Nellore ...	Pakala ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	1400
			Total ...	30,500	...	...	1400
Pakala ...	Pondicherry..	...	...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Nellore ...	Itamukkula ...	...	...	...	...
			Ramapatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...

year 1277, or from 1st July 1867 to 30th June
District of Nellore.—Continued.

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits & Condiments.				Oils & Ghee.			Metals.			
English.		English.		lbs. Avoirdupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	lbs.		Cwt.	Qrs.	lbs.
87	252	320	414	20,686	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	5	7	21	...	...	...	6
...	...	...	...	...	...	...	...	5	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	...	13	7	20	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	6	7	21	...	...	...	...
...	...	...	...	35,200	...	...	...	...	...	...	...	...	...	...
...	...	32	72	...	...	1	22	...	...	...	...	105	2	6
2	476	...	...	...	1	2	22	61	...	...	...	...	...	25
...	...	...	...	2,576	4	1	24	...	...	...	...	13	1	10
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6,321	351	6,173	80	247,996	205	2	10	82	4	58	1	1	2	...
120	407	81	156	24,102	...	1	22	...	...	...	...	...	...	...
6,606	86	6,616	222	339,650	213	2	16	173	11	78	1	120	2	19
32	98½	...	...	...	83	...	...	...	...	...	...	...	...	...
3	468	...	...	...	...	...	...	2	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	468	...	...	...	...	...	...	5	...	...	...	...	...	...
...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
4	174	...	...	...	...	...	...	10	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	476	2	372	...	12	...	11	31	7	21	...	1	...	25
...	...	...	...	...	...	3	16	...	...	...	...	...	...	...
4,393	98	2,065	396	10,752	1,494	3	26	40	...	...	...	...	...	...
4,440	282½	2,068	268	10,752	1,590	3	25	98	7	21	...	1	...	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
128	4	...	...	...	...	...	...	...	...	...	...	...	...	...
18,178	64	7,183	69	...	85	2	24	...	...	...	...	...	...	25
18,306	68	7,183	69	...	85	2	24	...	...	...	...	...	...	25

Statement of Imports and Exports for the Fasli
1868, for the Sea Ports in the

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Kottapatnam.	Pondicherry..	...	...	...	...	...	...
			Akyab ...	...	2	...	25
		Ganjam ...	Sonnapur ...	5,800	...	...	...
			Barwah ...	2,500	...	...	...
			Pundy ...	6,100	...	...	...
			Bapanadu ...	1,000	...	...	...
			Calingapatam.	...	...	...	...
		Vizagapatam	Bimlipatam ...	...	...	...	...
			Vizagapatam..	4,700	...	...	...
			Pentacotta ...	900	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Coringa ...	7,050	...	...	...
			Nursapur ...	...	...	...	...
			Masulipatam...	900	...	...	...
		Kistnae ...	Kottapallem...	811	36	2	19
			Nizampatam...	4,350	...	1	...
			Epurpolliem ...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...
			Kristnapatam..	...	...	...	...
			Pudi	...	...	...	...
		Madras ...	Madras ...	...	118	1	19
		South Arcot. ..	Cuddalore ...	16,990	...	...	...
			Total ...	51,191	157	2	7
Itamukkula.	Pondicherry..	...	...	...	...	...	...
		Ganjam ...	Ganjam ...	75	...	...	...
			Gopalpur ...	...	...	...	...
		Vizagapatam	Vizagapatam...	...	3	1	11
			Pentacotta ...	...	...	...	...
		Godavery ...	Coringa ...	...	...	...	...
			Nursapur ...	...	...	...	...
		Kistna ...	Nizampatam...	4	17	1	21
		Nellore ...	Pakala ...	...	...	...	...
		Madras ...	Madras ...	5,850	159	...	18
			Total ...	5,929	179	3	22
Pakala ...	Pondicherry..	...	...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Nellore ...	Itamukkula ...	...	...	...	...
			Ramayapatam...	...	...	...	...
		Madras ...	Madras ...	400	4	...	2
			Total ...	400	4	..	2

year 1277, or from 1st July 1867 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	9,822
...	...	...	...	...	...	...	...	...	8,099
...	...	...	...	1	6	11	...	...	1,161
2	...	...	...	...	...	...	...	...	712
...	...	...	...	...	...	...	...	...	5,000
...	...	...	...	...	...	...	...	...	250
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
32	...	...	...	...	...	13	1	9	2,293
...	...	...	...	...	...	...	...	...	289
...	...	...	...	...	...	...	...	...	...
14	...	...	...	20,001	...	6	2	19	1,889
...	...	...	...	...	...	...	...	...	11,726
4	...	...	...	25	3	...	...	...	7,759
182	...	...	...	6	432	39	...	...	2,900
19	...	...	...	1	...	...	...	...	8,075
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
185	2	...	...	244	1,425	848	2	20	2,16,627
10	...	...	...	...	3	...	...	...	5,169
448	2	...	...	20,278	1,869	918	2	20	2,81,742
...	...	...	...	...	...	...	...	...	1,461
90	...	...	...	...	2	170	3	6	14,193
...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	8	3	20	471
...	...	...	...	...	...	...	...	...	...
80	...	...	...	...	2	9	3	8	2,767
...	...	...	...	...	...	...	...	...	...
114	...	...	...	5	2	20	...	10	20,422
...	...	...	...	89	...	...	...	...	70
35	...	...	...	601	157	21	1	2	1,06,240
329	...	...	...	608	163	230	3	18	1,45,624
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
26	...	...	...	...	...	15	2	8	255
									79,266
26	...	...	...	...	...	15	2	8	79,521

Statement of Imports and Exports for the Fasli
1868, for the Sea Ports in the

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Ramapatam	Pondicherry.	...	...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Nellore	Kottapatnam..	...	...	...	...
			Pakala ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Tummalapenta		Madras ...	Madras ...	...	...	...	...
Zuvvaladinne		Madras ...	Madras ...	...	...	...	...
Iskapalli		...	Calcutta ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
		Nellore ...	Kristnapatam.	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi ...		Madras ...	Madras ...	...	...	...	...
Kristnapatam		Vizagapatam	Vizagapatam...	...	...	...	...
		Godavery ...	Pentacotta ...	...	...	...	...
		Nellore ...	Coringa ...	...	...	...	...
			Kottapatnam..	...	...	...	...
		Madras ...	Iskapalli ...	...	...	...	...
			Madras ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Ganjam ...	Annapur ...	...	...	...	...
		Vizagapatam...	Bunlipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Pudi ...		Godavery ...	Coringa ...	...	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Total ...	...	...	...	...
			Grand Total...	64,000	108	100	4,000

year 1277, or from 1st July 18[illegible]7 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses.		Fr[illegible]s and Condiments.				Oils and Ghee.			Metals.			
English.		English.		Imp. Ad[illegible].	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	lbs.		Cwt.	Qrs.	lbs.
...	...	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
154	46	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
2	148	...	...		...	...	...	...	...	...	...	...	...	...
150	194	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
...	...	...	...		...	...	...	...	...	...	...	...	...	...
761	296	...	...	...	2	3	24	3	2	18	...	...	...	...
761	296	...	...	18,120	2	3	24	3	2	18	...	...	...	...
1,095	168	...	...	...	13	3	18	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	492	...	...	12½	...	3	16	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20,459	324	...	...	...	6	2	4	...	...	...	...	...	...	...
20,459	516	...	...	1[illegible]	7	1	20	...	...	...	3	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
74	250	...	...	...	...	...	...	...	...	...	...	...	...	...
74	250	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	161	...	...	...	...	...	...	...	...	...	...	...
...	...	...	164	...	...	...	...	...	...	...	...	...	...	...
52,801	160½	16,568	823	3635341½	1,014	2	15	875	6	75	4	121	3	13

Statement of Imports and Exports for the Fusli
1868, for the Sea Ports in the

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.			English.		
		Districts.	Ports.	No.	Cwt.	Qrs.	lbs.
Ramapatam..	Pondicherry.	...	...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Nellore	Kottapatnam..	...	...	...	...
			Pakala ...	...	...	...	...
		Madras ...	Madras ...	350	...	...	...
			Total ...	350	...	...	...
Tummalapenta.		Madras ...	Madras ...	...	...	...	...
Zuvvaladinne..		Madras ...	Madras ...	...	...	...	...
Iskapalli ...		...	Calen[illegible] ...	...	...	...	...
		Kistna ...	Epurpalem ..	...	...	...	...
		Nellore ...	Kristnapatam.	...	...	...	...
		Madras ...	Madras ...	66	...	...	...
			Total ...	66	...	...	...
Ponnapudi ...		Madras ...	Madras ...	...	...	...	...
Kristnapatam		Vizagapatam	Vizagapatam...	...	...	...	...
			Pentacotta ...	...	...	...	...
		Godavery ...	Coringa ...	1	...	...	...
		Nellore ...	Kottapatnam..	45	...	...	...
			Iskapalli. ...	4	...	...	...
		Madras ...	Madras ...	8	...	...	...
			Total ...	58	...	...	...
Pamanji		Ganjam ...	Sonnapur ...	...	...	...	...
		Vizagapatam...	Bimlipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	0 ...	...	...	...
Pudi ...		Godavery ...	Coringa ...	...	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ...	57,994	341	2	3

year 1277, or from 1st July 1867 to 30th June
District of Nellore.—Continue

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									rs.
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	316	...	10	4,026
...	...	...	...	...	...	...	...	...	1,586
...	...	...	...	...	...	...	...	...	...
...	...	...	...	333,150	12	...	...	...	4,129
...	...	...	...	333,150	...	316	...	10	9,741
...	...	...	...	21,080	...	...	...	...	171
...	...	...	...	25,185	...	...	...	...	235
...	...	...	...	...	...	...	...	...	270
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	...	...	9,390
...	...	...	...	...	1	...	...	...	9,660
...	...	...	...	...	...	...	...	...	21,445
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	4	...	...	...	22
1	...	...	...	...	272	...	...	...	316
...	...	...	...	...	...	...	...	...	40
...	...	...	...	...	154	...	...	...	1,29,411
1	...	...			430	...	...	...	1,29,789
...	...	...	...	...	...	895	...	10	1,487
...	...	...	...	...	...	1,401	3	4	4,446
...	...	...	...	...	...	...	...	...	1,490
...	...	...	...	...	...	2,296	3	14	7,123
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	24
...	...	...	...	...	...	...	...	...	24
804	2	...	...	400,301	2,475	3,778	...	14	6,85,375

Statement of Imports and Exports for the Fusli 1278, or from 1st July 1868 to 30th June 1869, for the Sea Ports in the District of Nellore.

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.	Pondicherry..	...	...	...	...	...	...
			Akyab ...	...	...	...	...
			Calcutta ...	...	...	...	...
			Balasore ...	...	...	...	...
			Mauritius ...	...	...	...	...
		Nellore ...	Itamukkula ...	...	...	...	...
			Kristnapatam..	...	...	...	...
			Epurpolliem...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Kottapollem...	...	...	...	...
			Nagayalanka...	...	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
		Vizagapatam...	Vizagapatam...	...	...	480	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Pundi ...	...	...	...	...
			Barwah ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	5,000
			Total ...	...	...	480	5,000
Itamukkula.	Pondicherry..	...	...	...	...	...	...
			Balasore ...	...	...	...	...
	False Point..	...	...	...	...	...	...
		Madras ...	Madras ...	...	...	20	500
		Nellore ...	Kottapatnam..	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
			Tallapoodi ...	...	...	...	...
		Ganjam ...	Pundi ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Vizagapatam..	Vizagapatam...	...	...	...	...
			Total ...	...	...	20	500
Pakala ...	False Point...	Madras ...	Madras ...	35,000	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
			Total ...	35,000	...	...	...

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.		lbs. Avoirdupois.	English.			English.			No.	English.		
Quarters.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
676	250	...	...	...	...	...	...	...	...	...	...	...	...	...
202	24	...	...	...	...	...	...	...	...	...	...	...	...	...
284	59	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	170	...	...	...	...	...	7	...	...	...	...	...	...	...
1,404	224	...	278	1,100	...	...	...	...	...	...	...	3	...	6
240	498	1	172	...	...	...	...	...	...	...	1	...	...	2
454	360	...	...	...	...	...	...	...	...	...	...	...	...	...
1,333	422	...	...	...	...	...	...	...	...	...	...	...	...	...
2,163	241	...	...	...	...	...	...	...	...	...	...	...	...	...
326	344	...	...	...	...	...	...	...	...	...	...	...	...	...
653	158	...	...	...	8	3	20	...	...	...	...	...	...	...
1	320	...	84	600	6	3	14	...	...	...	1	3	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
75	384	22	186	19	517	2	21	...	258	6	1,610	1,147	3	22
7,824	457	24	220	1,719	533	2	6	...	258	6	1,612	1,154	...	2
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
555	480	...	...	...	...	...	...	...	...	...	...	...	...	...
191	276	29	424	...	...	...	...	...	...	...	...	...	...	...
78	196	2	230	14	95	3	13	...	...	...	19	569	1	1
16	200	...	...	...	...	...	...	...	...	...	...	...	...	...
444	466	17	356	...	...	...	...	...	...	...	...	...	...	...
1,006	316	340	128	...	1	2	...	...	...	...	...	...	...	...
1,110	304	1	320	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	3	2	18	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	464	...	328	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,406	222	392	286	14	101	...	3	...	...	...	19	569	1	1
7	108	...	...	...	...	...	...	...	...	...	...	72	...	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	108	...	...	...	...	...	...	...	...	...	...	72	...	12

Statement of Imports and Exports for the Fusli 1869, *for the Sea Ports in the*

1M

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Kottapatnam.	Pondicherry..	...	...	1,049	...	...	...
			Akyab ...	...	...	...	...
			Calcutta ...	...	...	...	...
			Balasore ...	...	...	...	...
			Mauritius ...	...	...	...	...
		Nellore ...	Itamukkula ...	1,722	...	...	...
			Kristnapatam.	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Nizampatam...	...	...	...	25
			Kottapollem...	...	...	...	12
			Nagayalanka...	...	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Cocanada ...	...	...	...	...
			Coringa ...	...	4	1	16
		Vizagapatam..	Vizagapatam...	...	...	...	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Pundi ...	...	...	...	...
			Barwah ...	...	...	...	...
		Madras ...	Madras ...	79,160	419	3	22
			Total ...	81,931	424	2	19
Itamukkula.	Pondicherry..	...	...	...	...	...	...
	False Point...	...	Balasore ...	...	...	...	...
		...	...	...	...	...	...
		Madras ...	Madras ...	31,640	100	...	20
		Nellore ...	Kottapatnam..	14	...	...	...
		Kistna ...	Nizampatam...	85	...	...	...
			Masulipatam...	300	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
			Tallapoodi ...	...	...	...	...
		Ganjam ...	Pundi ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Vizagapatam..	Vizagapatam...	...	...	...	...
			Total ...	32,039	100	...	20
Pakala ...	False Point...	Madras ...	Madras ...	7,125	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
			Total ...	7,125	...	...	...

year 1278, *or from* 1*st July* 1868 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	234
...	...	...	...	...	...	...	...	...	4,700
...	...	...	...	...	...	...	...	...	2,464
...	...	...	...	...	...	...	...	...	3,820
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	220
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	4	...	...	...	77
...	...	...	...	908	164	539	...	...	11,910
1	...	...	...	198,774	130	...	...	...	3,908
...	...	...	...	...	...	...	...	...	3,710
...	...	...	...	...	50	...	...	...	13,378
...	...	...	...	...	...	...	...	...	20,906
...	...	...	...	...	...	...	...	...	3,609
6	...	...	...	15	300	...	...	...	5,837
...	...	...	...	...	99	30	...	14	1,136
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,392	...	...	...	4,821	2,910	532	2	...	4,29,005
1,399	...	...	...	204,518	3,657	1,101	2	14	5,04,914
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	300	...	...	...	8,390
...	...	...	...	...	...	...	...	...	1,818
80	...	...	...	2,604	678	17	4	21	2,21,140
...	...	...	...	20	...	...	...	...	167
...	...	...	...	108,368	121	...	...	...	3,497
...	...	...	...	...	317	...	...	...	12,295
...	...	...	...	...	...	...	...	...	10,022
...	...	...	...	235	...	...	...	...	644
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	10	...	...	...	40
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
80	...	...	...	111,227	1,426	18	...	21	2,58,013
11	...	...	...	3,740	52	26	3	4	39,950
...	...	...	...	5,000	...	...	...	...	10
11	...	...	...	87,400	52	26	3	4	39,960

Statement of Imports and Exports for the Fusli 1869, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Ramapatam..	Ceylon ...	Kistna ...	Colombo ...	...	...	...	...
		Vizagapatam.	Vizagapatam ..	...	...	...	...
			Pentacotta ...	...	...	...	...
		Nellore ...	Kristnapatam..	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne.	,,	,,	Colombo ...	...	...	...	...
Iskapalli ...	,,	Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi ...	,,	Madras ...	Madras ...	...	...	...	...
Mypaud ...	,,	Madras ...	Madras ...	7,550	...	...	...
Kristnapatam.	,,	Vizagapatam ...	Pentacotta ...	...	...	...	...
		Madras ...	Madras ...	47,750	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
		Nellore ...	Kottapatnam..	...	...	...	...
			Colombo ...	...	...	...	...
		Kistna ...	Epurpolliem ...	...	...	...	...
			Total ...	47,750	...	...	...
Pamanji ...	,,	Madras ...	Madras ...	5,000	...	...	...
		Vizagapatam..	Bimliputam ...	...	...	...	...
			Vizagapatam ..	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Total ...	5,000	...	...	...
Tupili ...	,,	Madras ...	Madras ...	4,700	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	4,700	...	...	...
			Grand Total ...	90,000	...	500	5,500

year 1278, *or from* 1st *July* 1868 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
				lbs.	English.			English.			No.	English.		
English.		English.		Avoirdupois.	Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
Quarters.	lbs.	Qrs.	lbs.											
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
444	176	113	468	...	...	...	...	...	...	...	...	...	...	...
4	248	...	...	...	...	...	...	...	...	...	...	...	...	...
4	240	...	...	...	...	...	...	...	...	...	...	...	...	...
453	164	113	468	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	1	1	8	...	...	...	13	...	...	...
...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
365	196	3	304	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	24	...	...	...
38	348	77	465	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	18	8	12	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
404	44	81	269	...	...	...	...	18	8	12	24	...	...	...
...	...	...	328	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	328	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12,095	495	613	71	1,733	635	3	17	18	266	18	1,673	1,795	1	15

Statement of Imports and Exports for the Fusli 1869, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Ramapatam..	Ceylon ...	Kistna... ...	Colombo ...	...	...	...	...
		Vizagapatam..	Vizagapatam ..	...	...	...	..
			Pentacotta ...	...	...	...	...
		Nellore ...	Kristnapatam.	...	...	...	..
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne.	,,	,,	Colombo ...	...	...	...	...
Iskapalli ...	,,	Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi...	,,	Madras ...	Madras ...	50	...	...	...
Mypaud ...	,,	Madras ...	Madras ...	...	...	...	...
Kristnapatam.	,,	Vizagapatam ...	Pentacotta ...	...	...	...	...
		Madras ...	Madras ...	59	...	...	...
		Kistna... ...	Nizampatam...	...	...	...	...
		Nellore ...	Kottapatam..	1	14	2	16
			Colombo ...	...	3	...	...
		Kistna... ...	Epurpolliem...	...	...	...	...
			Total ...	60	17	2	16
Pamanji ...	,,	Madras ...	Madras ...	...	...	...	...
		Vizagapatam..	Bimlipatam ...	...	...	...	...
			Vizagapatam...	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Total ...	...	...	...	...
Tupili ...	,,	Madras ...	Madras ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ...	121,205	542	1	27

year 1278, *or from* 1st *July* 1868 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	..	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	3,382
...	...	...	...	...	7	...	...	...	8
...	...	...	..	100	...	27	58	...	180
...	...	...	...	100	7	27	58	...	3,570
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,000
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,000
...	...	...	...	...	...	...	...	...	13,225
...	...	...	...	...	...	...	...	...	7,567
...	...	...	...	...	...	...	...	...	3,280
1	...	...	...	4	2	...	...	...	48,102
...	...	...	...	6,000	...	...	...	...	2,225
...	...	...	...	...	...	...	...	...	112
...	...	...	...	2,000	...	...	...	...	27
...	...	...	...	...	...	...	...	...	...
1	...	...	...	8,004	3	...	...	...	53,846
...	...	...	...	20	3	...	...	...	5,015
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	20	3	...	...	...	5,015
...	...	...	...	...	...	...	...	...	4,700
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	4,700
1,491	...	...	...	332,609	5,148	1,188	...	11	9,37,810

Statement of Imports and Exports for the Fusli
1869, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.	Pondicherry	...	...	...	...	...	...
			Akyab ...	...	...	...	...
			Calcutta ...	...	...	...	...
			Balasore ...	...	...	...	...
			Mauritius ...	...	...	...	...
		Nellore ...	Itamukkula ...	...	...	...	...
			Kristnapatam.	...	...	...	...
		Kistna ...	Epurpolliem.	...	...	...	...
			Nizampatam...	...	...	...	...
			Kottapollem...	...	...	...	...
			Nagayalanka...	...	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Narsapur ...	...	...	...	...
			Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
		Vizagapatam..	Vizagapatam...	...	...	...	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Pundi ...	...	...	...	...
			Barwah ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	4,200
			Total ...	...	...	...	4,200
Itamukkula.	Pondicherry..	...	...	...	...	...	...
			Balasore ...	...	...	...	...
	False Point...	...	...	...	...	...	...
		Madras ...	Madras ...	...	...	...	100
		Nellore ...	Kottapatnam..	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
			Tallapoodi ...	...	...	...	...
		Ganjam ...	Pundi ...	...	...	...	...
			Gopalpur ...	...	...	...	...
		Vizagapatam..	Vizagapatam..	...	...	...	...
			Total ...	...	...	...	100
Pakala ...	False Point...	Madras ...	Madras ...	...	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
			Total ...	...	...	...	...

year 1278, *or from* 1*st July* 1868 *to* 30*th June*
District of Nellore.—Continued.

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.	Oils and Ghee.			Metals.					
English.		English.		lbs. Avoir-dupois.	English.			English.			No.	English.	
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	202	190	474	11,942	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	1,622	426	...	...	...	...	...	...	...	...	...	...	...
...	...	67	100	...	...	...	...	...	...	...	...	...	...	...
2	272	26	440	10,472	89	...	...	...	462	42	...	...	...	...
16	200	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	50	22	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	174	11	488	...	...	3	...	...	...	...	5	2	...	10
...	...	...	...	...	4	...	...	...	239	47	5	1	...	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	304	208	...	...	3	16	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	8	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	100	42	280	22,904	2	3	3	...	1,562	78	...	67	...	17
1	484	2,282	221	504	1	3	2	...	805	78	2	12	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	554	200	...	...	...	...	...	...	...	...	...	...	...
...	...	580	80	...	...	...	...	...	401	51	...	2	...	22
7,696	209	10,069	464	101,472	183	2	18	...	5,022	72	15	3	1	12
7,768	141	15,753	381	147,294	282	3	11	...	8,543	140	37	87	3	18
...	...	...	...	...	166	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,763	236	5,423	10	...	779	1	11	...	602	14	3	...	...	25
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	10	...	...	...
...	...	17	28	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	34	136	...	...	...	...	...	...	...	...	...	...	...
11	240	...	...	...	6	2	24	...	196	88	8	290	...	14
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	95	128	...	...	...	...	...	401	51	3	55	3	4
...	...	...	25	...	2	...	26	...	...	...	...	...	...	...
1,774	476	5,569	327	....	954	1	5	...	1,200	28	26	346	...	15
1,445	264	6,718	21	...	...	...	...	7	11	81	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,445	264	6,718	21	...	...	...	...	7	11	81	...	...	...	...

Statement of Imports and Exports for the Fusli 1869, *for the Sea Ports in the*

FX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Kottapatnam.	Pondicherry.	...	...	...	...	...	...
			Akyab ...	...	...	...	...
			Calcutta ...	6,000	...	...	...
			Balasore ...	...	...	...	...
			Mauritius ...	...	4	2	...
		Nellore. ...	Itamukkula ...	14	...	...	...
			Kristnapatam.	1	4	1	20
		Kistna ...	Epurpolliem...	200	...	...	...
			Nizampatam...	21,090	5	2	...
			Kottapollem...	5,950	7	1	11
			Nagavalanka...	...	...	...	...
			[illegible]am...	80	...	...	...
			Masulipatam ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Coringa ...	14,520	11	3	24
		Vizagapatam..	Vizagapatam ..	10,420	15	...	...
		Ganjam ...	Ganjam ...	...	...	...	...
			Pundi ...	975	...	...	...
			Barwah ...	60	...	...	...
		Madras ...	Madras ...	2,084	121	1	7
			Total ...	61,394	470	...	6
Itamukkula.	Pondicherry.	...	...	...	...	...	...
			Balasore ...	...	...	...	...
	False Point...	...	...	...	...	...	...
		Madras ...	Madras ...	272	31	2	...
		Nellore ...	Kottapatnam..	1,722	...	...	...
		Kistna ...	Nizampatam...	5,225	...	...	...
			Masulipatam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
			Tallapoodi ...	7,161	23	2	18
		Ganjam ...	Pundi ...	...	...	...	...
			Gopaulpur ...	17,450	5	1	12
		Vizagapatam..	Vizagapatam...	4,000	...	...	...
			Total ...	35,830	60	2	2
Pakala ...	False Point...	Madras ...	Madras ...	42	...	...	...
		Kistna ...	Kottapollem...	...	...	...	...
			Total ...	42	...	...	...

year 1278, *or from* 1*st July* 1868 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
...	...	...	...	...	...	...	...	...	Rs. 4,749
...	...	...	...	...	...	...	...	...	...
...	...	...	...	2	218	...	...	...	33,733
...	...	...	...	...	...	...	...	...	1,350
...	...	...	...	...	22	...	...	...	2,168
...	...	...	...	...	...	...	...	...	105
...	...	...	...	20	...	...	...	...	116
...	...	...	...	...	...	4	1	20	170
...	...	...	...	...	...	...	...	...	...
100	...	...	...	21	1	2	...	10	10,782
28	...	...	...	2	30	4	...	27	6,421
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	8,249
...	...	...	...	...	...	...	...	...	7,900
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	22	...	...	9,468
113	...	...	...	...	...	9	...	...	56,635
151	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	11,887
...	...	...	...	...	...	...	...	...	12,127
...	...	...	...	...	...	...	...	...	...
322	...	...	...	107	40	665	1	8	2,91,245
720	...	...	...	153	311	707	...	9	4,56,606
...	...	...	...	...	...	...	...	...	1,162
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
174	...	...	...	3	67	...	...	...	88,694
...	...	...	...	...	...	...	...	...	220
3	...	...	...	...	...	...	...	...	10,792
...	...	...	...	...	...	...	...	...	106
...	...	...	...	...	...	...	...	...	1,800
...	...	...	...	...	...	...	...	...	688
50	...	...	...	...	13	3	2	23	9,618
...	...	...	...	...	...	...	...	...	...
105	...	...	...	...	...	83	3	8	6,202
...	...	...	...	...	...	...	...	...	307
332	...	...	...	3	80	42	2	8	1,19,619
127	...	...	...	...	223	68	...	9	88,767
...	...	...	...	...	...	...	...	...	...
127	...	...	...	...	223	68	...	9	88,767

Statement of Imports and Exports for the Fusli 1869, for the Sea Ports in the

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Ramapatam..	Coylon ...	Kistna... ...	Colombo ...	...	...	...	...
		Vizagapatam..	Vizagapatam ..	...	...	...	...
		Nellore ...	Pentacotta ...	...	...	...	...
		Madras ...	Kristnapatam..	...	...	...	...
			Madras ...	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne.	„	„	Colombo ...	...	...	...	...
Iskapalli ...	„	Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ..	...	...	...	...
Ponnapudi ...	„	Madras ...	Madras ...	...	...	...	...
Mypaud ...	„	Mad..s ...	Madras ...	...	...	...	...
Krishnapa. tam.	„	Vizagapatam ...	Pentacotta ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
		Kistna	Nizampatam ...	...	...	...	...
		Nellore ...	Kottapatnam ..	...	...	...	...
			Colombo ..	...	...	...	...
		Kistna	Epurpolliem ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...	„	Madras ...	Madras ...	...	...	...	...
		Vizagapatam ..	Bimlipatam ...	...	...	...	...
			Vizagapatam ..	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Total ...	...	...	...	...
Tupili ...	„	Madras ...	Madras ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ...	...	...	...	4,800

year 1278, or from 1st July 1868 to 30th June District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils and Ghee.			Metals.			
English.		English.		lbs. Avoir-dupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
540	432	...	...	...	...	...	...	...	...	...	...	...	...	...
540	432	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,547	349	245	290	...	...	...	...	71	85	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3,547	349	245	290	...	...	...	...	71	85	...	...	...	...	...
2,358	430	...	...	...	1	3	9	...	...	...	...	...	...	...
4,040	444	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8,466	110	77	465	...	24	1	4	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	492	...	...	...	...	...	...	...	...	...	12	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8,466	102	77	465	...	24	1	4	...	...	...	12	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1,339	1	4
...	...	...	...	...	...	...	...	...	...	...	...	1,013	1	16
...	...	...	...	...	...	...	...	...	...	...	...	1,982	...	16
...	...	...	...	...	...	...	...	...	...	...	...	658	1	26
...	...	...	...	...	...	...	...	...	...	...	...	4,993	1	6
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	892	3	12
...	...	...	...	...	...	...	...	...	...	...	...	892	3	12
29,934	138	28,610	274	147,294	1,263	1	1	78	984	51	75	6,320	...	23

Statement of Imports and Exports for the Fusli 1869, for the Sea Ports in the

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Ramapatam..	Ceylon ..	Kistna... ...	Colombo ...	...	...	...	...
		Vizagapatam..	Vizagapatam ..	...	...	...	...
			Pentacotta ...	...	...	...	...
		Nellore ...	Krishnapatam..	...	...	...	...
		Madras ...	Madras ...	70	...	...	...
			Total ...	70	...	...	...
Zuvvaladinne.	,,	,,	Colombo ...	...	...	...	...
Iskapalli ...	,,	Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi ...	,,	Madras ...	Madras ...	35	...	...	...
Mypaud ...	,,	Madras ...	Madras ...	...	...	...	...
Krishnapatam.	,,	Vizagapatam ...	Pentacotta ...	..	...	...	...
		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam ...	...	...	...	...
		Nellore ...	Kottapatnam..	57	..	...	...
			Colombo ...	..	...	...	...
		Kistna... ...	Dpurpolliem...	...	...	...	...
			Total ...	57	...	...	...
Pamanji ...	,,	Madras ...	Madras ...	...	...	...	...
		Vizagapatam..	Bimlipatam ...	...	...	...	...
			Vizagapatam...	...	...	...	...
			Gopaulpur ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Total ...	...	...	...	...
Tupili ...	,,	Madras ...	Madras ...	...	...	...	...
		Vizagapatam ...	Vizagapatam...	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ...	97,428	530	2	8

year 1278, or from 1st July 1868 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	311	56	...	273
...	...	...	...	...	...	8	12	25	2,591
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	48,215	105	324	56	...	6,829
...	...	...	...	48,215	105	674	...	25	9,693
...	...	...	...	...	...	219	2	16	150
...	...	...	...	...	30	144	...	26	30,274
...	...	...	...	...	...	1,391	...	8	351
...	...	...	...	...	30	1,535	...	34	30,625
...	...	...	...	...	...	172	...	6	47,452
...	...	...	...	...	...	...	...	...	37,853
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	7	...	...	...	80,986
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	2	1	...	...	250
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	33
...	...	...	...	1	9	1	...	...	81,279
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,700
...	...	...	...	...	...	...	...	...	3,238
...	...	...	...	...	...	...	...	...	6,240
...	...	...	...	...	...	...	...	...	2,209
...	...	...	...	...	...	...	...	...	14,387
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,800
...	...	...	...	...	...	...	...	...	2,800
1,179	...	...	...	48,372	788	5,346	3	18	8,89,371

Statement of Imports and Exports for the Fusli
1870, for the Sea Ports

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.			Poory ...	...	...	...	...
			Lakshmipuram.	...	...	...	...
			Akyab... ...	...	...	...	...
			Balasore ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	4,800
		Nellore ...	Kristnapatam...	...	...	...	...
			Itamukkula ...	...	...	...	...
		Kistna ...	Epurpolliem ...	...	...	...	...
			Nizampatam ...	...	...	...	...
			Kottapollem ...	...	...	...	...
			Nagayalanka ...	...	...	...	...
			Masulipatam ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
		Ganjam ...	Barwah ...	...	...	...	...
			Pundi ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	4,800
Itamukkula..		Madras ...	Madras ...	...	...	...	200
		Nellore ...	Kottapatnam ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
		Kistna ...	Nizampatam ...	...	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	200
Pakala ...		Madras ...	Madras ...	12,000	...	...	...
		Nellore ...	Kristnapatam...	...	...	...	...
		Kistna ...	Kottapollem ...	...	...	...	...
			Total ...	12,000	...	...	...
Ramapatam..		Kistna ...	Masulipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
		Nellore ...	Kottapatnam ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Tummala-penta.		Godavery ...	Nursapur ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...

year 1279, or from 1st July 1869 to 30th June
in the District of Nellore.

PORTS.

Grains.		Oil Seeds & Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.			English.			English.				English.		
Qrs.	lbs.	Qrs.	lbs.	Pds. Avoir. dupois.	Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.	No.	Cwt.	Qrs.	lbs.
1,121	380	...	...	...	...	...	...	...	...	...	...	...	...	...
984	...	...	...	...	...	...	...	...	...	...	...	...	...	...
....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	213	60	423	6	1,804	2	3	...	117	...	1,797	3,575	...	11
108	120	...	...	...	...	...	...	...	...	...	...	...	...	...
117	212	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	450	...	...	...	...	...	13	39	...	26	1	22
395	140	...	...	15	...	...	...	...	...	...	...	...	...	6
27	440	1	160	...	...	...	...	...	...	...	1	...	1	2
1,844	266	...	...	...	...	...	...	...	...	...	...	...	...	...
674	120	...	...	...	...	...	...	...	...	...	...	...	...	...
7,334	168	...	...	...	13	...	20	...	...	...	...	...	...	...
327	412	49	100	...	...	...	...	...	...	...	...	...	...	...
1,213	300	...	...	...	...	...	...	...	...	...	...	...	...	...
1,023	262	12	150	...	42	3	12	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
775	292	...	...	...	1	1	24	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15,988	325	144	283	21	1,862	...	3	...	120	39	1,798	3,601	3	13
148	214	...	328	...	224	2	27	...	...	...	182	125	2	11
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
457	34	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
348	266	...	164	...	...	...	...	...	...	...	...	4	1	11
1,710	14	14	462	...	2	...	1	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,664	28	15	454	...	226	3	...	...	...	...	182	129	3	22
2	458	...	...	...	...	...	...	...	...	...	5	115	2	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	10	...	...	...	...	...	...	...	...	...	...	...
2	458	....	10	...	...	...	....	...	...	...	5	115	2	24
312	201	17	12	...	...	...	...	...	...	...	...	...	...	...
...	...	....	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
312	201	17	12	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statement of Imports and Exports for the Fasli 1870, *for the Sea Ports in the*

1M

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Kottapatnam.			Poory	...	...	...	...
			Lakshmipuram.	...	...	...	...
			Akyab... ...	...	...	...	...
			Balasore ...	...	...	...	...
		Madras ...	Madras ...	30,865	210	...	8
		Nellore ...	Kristnapatam...	...	...	...	...
			Itamukkula ...	122	...	...	...
		Kistna ...	Epurpolliem ...	...	6	2	10
			Nizampatam ...	...	...	...	...
			Kottapollem ...	...	...	...	...
			Nagayalanka ...	...	...	...	...
			Masulipatam ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
		Ganjam ...	Barwah ...	1,000	125	2	2
			Pundi ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	31,987	342	...	20
Itamukkula.		Madras ...	Madras ...	15,960	42	3	12
		Nellore ...	Kottapatnam ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
		Kistna ...	Nizampatam ...	2,625	...	...	...
		Ganjam ...	Gopaulpur ...	...	53	2	8
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	18,585	76	1	20
Pakala ...		Madras ...	Madras ...	480	...	...	...
		Nellore ...	Kristnapatam...	...	...	...	...
		Kistna ...	Kottapollem ...	...	...	...	...
			Total ...	480	...	...	...
Ramapatam.		Kistna ...	Masulipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
		Nellore ...	Kottapatnam ...	900	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	900	...	...	...
Tummalapenta.		Godavery ...	Nursapur ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...

year 1279, *or from* 1*st July* 1869 *to* 30*th June*
District of Nellore—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Firewood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	10,308
...	...	...	...	...	...	...	...	...	10,000
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,101	...	...	...	6,116	1,282	434	1	5	2,89,045
...	...	...	...	...	...	...	...	...	1,200
...	...	...	...	1	44	...	...	...	1,146
...	...	...	...	45,412	116	9	2	22	296
...	...	...	...	130,936	113	2	2	...	3,800
...	...	...	...	429,084	195	..	...	...	3,037
...	...	...	...	...	...	...	...	...	15,626
...	...	...	...	...	...	...	...	...	5,150
...	...	...	...	...	...	...	...	...	60,546
...	...	...	...	...	...	...	...	...	4,439
...	...	...	...	210	...	...	...	...	11,160
...	...	...	...	...	600	...	...	...	15,453
...	...	...	...	...	150	...	...	...	150
...	...	...	...	...	850	...	...	...	5,385
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,101	...	...	...	611,759	3,350	446	1	27	4,36,741
706	...	...	...	1,308	310	63	3	12	1,84,048
...	...	...	...	1	38	...	...	...	50
...	...	...	...	...	...	...	...	...	4,460
...	...	...	...	...	...	...	...	...	...
14	...	...	...	214,156	97	...	...	...	5,133
...	...	...	...	200	575	...	...	...	27,057
...	...	...	...	...	...	...	...	...	...
720	...	...	...	215,665	1,020	63	3	12	2,20,748
10	...	...	...	6,875	25	89	...	4	16,860
...	...	...	...	16	...	...	...	...	5
...	...	...	...	...	...	...	...	...	2
10	...	...	...	6,891	25	89	...	4	16,867
2	...	...	...	...	...	...	...	...	12,482
...	...	...	...	68	27	6	1	...	66
...	...	...	...	...	...	...	...	...	91
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
2	...	...	...	68	27	6	1	...	12,639
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...

Statement of Imports and Exports for the Fusli year 1279, or from 1st July 1869 to 30th June 1870, for the Sea Ports in the District of Nellore.—Continued.

IMPORTS.—*Continued.*

Ports.	Where to or from: Foreign Ports.	Home Ports: Districts.	Home Ports: Ports.	Bullion: Silver.	Bullion: Gold.	Jewellery: Silver.	Jewellery: Gold.	Grains, English: Qrs.	Grains, English: lbs.	Oil Seeds and Pulses, English: Qrs.	Oil Seeds and Pulses, English: lbs.	Fruits and Condiments: lbs. Avoirdupois.	Fruits and Condiments, English: Cwt.	Fruits and Condiments, English: Qrs.	Fruits and Condiments, English: lbs.	Oils & Ghee, English: Cwt.	Oils & Ghee, English: Gls.	Oils & Ghee, English: oz.	Metals: No.	Metals, English: Cwt.	Metals, English: Qrs.	Metals, English: lbs.
				RS.	RS.	RS.	RS.															
Zuvvaladinne.		Madras ...	Madras ...	...	...	...	...	2	148	...	...	...	...	...	...	...	...	...	...	...	...	...
			Colombo ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Rasangi ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	...	...	...	...	2	148	...	...	...	...	...	...	...	...	...	...	...	...	...
Iskapalli ...		Kistna ...	Nizampatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Colombo ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Balasore ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ponnapudi ...		Madras ...	Madras ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	8	...	...	...
Kristnapatam.		Madras ...	Madras ...	68,050	...	...	...	216	240	...	...	...	...	...	...	...	...	...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Kottapatnam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Colombo ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	68,050	...	...	...	216	240	...	...	...	...	...	...	...	...	...	...	...	...	...
Maypaud ...		Madras ...	Madras ...	18,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	3	8	...
			Colombo ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	18,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	3	8	...
Pamanji ...		Madras ...	Madras ...	5,000	...	...	...	...	...	...	328	...	...	...	...	...	...	...	...	...	...	...
			Bimlipatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Vizagapatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	5,000	...	...	...	...	...	...	328	...	...	...	...	...	...	...	...	...	...	...
Tupili ...		Madras ...	Madras ...	15,000	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pudi ...		Kistna ...	Nizampatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Godavery ...	Coringa ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Kistna ...	Masulipatam ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Grand Total ...	118,050	...	...	5,000	19,196	400	178	177	23	2,089	3	3	...	120	39	2,009	3,852	2	3

Statement of Imports and Exports for the Fusli
1870, for the Sea Ports in the

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Zuvvala-dinne.		Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Rasangi ...	...	...	...	...
			Total ...	...	...	...	...
Iskapalli ...		Kistna ...	Nizampatam ...	...	...	...	...
		Madras ...	Madras ...	1,200	...	...	...
			Colombo ...	...	...	...	...
			Balasore ...	...	...	...	...
			Total ...	1,200	...	...	...
Ponnapudi ...		Madras ...	Madras ...	1,500	...	...	...
Kristnapa-tam.		Madras ...	Madras ...	...	...	...	...
		Nellore ...	Ramapatam ...	...	...	...	...
			Kottapatnam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Maypand ...		Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	...	...	...	...
			Bimlipatam ...	...	...	...	...
			Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	...
Tupili ...		Madras ...	Madras ...	...	...	...	...
Pudi ...		Kistna ...	Nizampatam ...	...	...	...	...
		Godavery. ...	Coringa ...	...	...	...	...
		Kistna ...	Masulipatam ...	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ..	54,652	418	2	12

year 1279, or from 1st July 1869 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Firewood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
...	...	...	...	...	...	...	...	...	Rs. 145
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	145
...	...	...	...	815	...	...	...	...	11,116
...	...	...	...	...	...	...	...	...	980
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	815	...	...	...	...	12,096
...	...	...	...	...	1[illegible]	...	...	...	7,276
...	...	...	...	...	...	...	...	...	70,210
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	70,210
2	...	...	...	3	4	...	...	...	18,173
...	...	...	...	...	...	...	...	...	...
2	...	...	...	3	4	...	...	...	18,173
...	...	...	...	20	3	...	...	...	5,015
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	20	3	...	...	...	5,015
...	...	...	...	...	...	...	...	...	15,000
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
1,855	...	...	...	835.221	4,439	605	2	11	8,14,910

Statement of Imports and Exports for the Fusli 1870, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
			Poory ...	...	...	...	...
			Lakshmipuram.	...	...	...	...
			Akyab ...	...	...	...	...
			Balasore ...	...	...	...	...
		Madras ...	Madras ...	...	...	50	4,550
		Nellore ...	Kristnapatam...	...	...	...	...
			Itamukkula ...	...	...	...	...
			Epurpollem ...	...	...	...	...
			Nizampatam ...	...	...	...	...
Kottapatnam.		Kistna ...	Kottapollem ...	...	...	...	...
			Nagayalanka ...	...	...	...	...
			Masulipatam ...	...	...	...	...
			Nursapur ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
			Coringa ...	...	...	...	...
			Barwah ...	...	...	...	...
		Ganjam ...	Pundi ...	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	50	4,550
		Madras ...	Madras ...	...	...	25	2,050
		Nellore ...	Kottapatnam...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
Itamukkula..			Coringa ...	...	...	...	...
		Kistna ...	Nizampatam ...	...	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	25	2,050
		Madras ...	Madras ...	...	...	...	...
Pakala ...		Nellore ...	Kristnapatam...	...	...	...	...
		Kistna ...	Kottapollem ...	...	...	...	...
			Total ...	...	...	...	...
		Kistna ...	Masulipatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
Ramapatam..		Nellore ...	Kottapatnam...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Tummala-penta.		Godavery ...	Nursapur ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...

year 1279, *or from* 1*st July* 1869 *to* 30*th June*
District of Nellore.—Continued.

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils and Ghee.			Metals.			
English.		English.			English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.	lbs. Avoirdupois.	Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	50	...	4	...	...	...
6,293	54	2,890	468	20,384	899	...	7½	...	3,165	84	18	3	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	2	3	20	...	115	57	...	...	...	...
...	...	...	...	...	...	...	...	...	100	...	...	2	...	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	52	240	...	...	...	...	...	...	...	6	...	...	...
...	...	...	...	...	...	...	...	...	...	...	19	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	214	...	...	328	...	...	...	...	786	57	4	311	2	3
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	60	...	...	...	...	...
...	...	...	...	...	...	...	...	...	30	...	...	...	...	...
6,287	268	2,943	208	20,712	901	3	27½	...	4,307	103	55	316	3	16
1,698	138	4,128	104	...	1,182	2	1	...	100	44	17	...	3	19
117	212	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	26	3	3	5
15	126	...	...	...	3	3	17	...	501	95	2	82	2	7
4	124	...	...	...	1	...	13	...	100	46	1	...	...	...
...	...	...	...	...	...	1	7	...	14	42	1	...	...	...
4	460	...	...	...	...	...	...	...	100	44	1	1	1	22
1,840	60	4,128	104	...	1,187	3	10	...	817	21	48	88	2	25
...	...	5,226	338	...	...	...	...	7	11	81	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	5,226	338	...	...	...	...	7	11	81	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
964	472	13	290	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
964	472	13	290	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	3	27	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	3	27	...	4

Statement of Imports and Exports for the Fusli
1870, for the Sea Ports in the

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Kottapatnam.			Poory	...	...	...	...
			Lakshmipuram.	....	...	...	...
			Akyab... ...	...	...	...	...
			Balasore ...	1,500	58	2	8
		Madras ...	Madras ...	3,007	168	3	20
		Nellore ...	Kristnapatam...	...	...	...	...
			Itamukkula ...	...	...	...	...
		Kistna ...	Epurpolliem ...	510	...	...	...
			Nizampatam ...	1,350	2	...	22
			Kottapolliem ...	1,850	60	...	4
			Nagayalanka ...	...	...	...	...
			Masulipatam ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coconada ...	...	...	...	...
			Coringa ...	1,801	63	1	8
		Ganjam ...	Barwah ...	5,100	...	...	...
			Pundi... ...	500	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	3,220	1	1	20
		Vizagapatam...	Vizagapatam ...	1,010	...	...	...
			Total ...	19,878	354	...	26
Itamukkula ...		Madras ...	Madras ...	1,178	76	3	17
		Nellore ...	Kottapatnam ...	122	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	11,164	43	...	6
		Kistna ...	Nizampatam ...	1,470	...	...	...
		Ganjam ...	Gopaulpur ...	6,150	...	...	...
		Vizagapatam...	Vizagapatam ...	4,003	...	...	...
			Total ...	24,087	119	3	23
Pakala ...		Madras ...	Madras ...	38	1	2	7
		Nellore ...	Kristnapatam...	...	...	...	...
		Kistna ...	Kottapollem ...	...	...	...	...
			Total ...	38	1	2	7
Ramapatam..		Kistna ...	Masulipatam ...	...	...	...	...
		Madras ...	Madras ...	29	...	...	...
		Nellore ...	Kottapatnam...	...	...	...	...
		Vizagapatam...	Vizagapatam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	29	...	...	...
Tummala-penta.		Godavery ...	Nursapur ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Total ...	...	...	...	...

year 1279, or from 1st July 1869 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Firewood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	2,130
...	...	...	...	...	1	88	...	14	5,753
313	...	...	...	11	22	1,148	1	14	1,52,025
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	38	...	...	...	3
...	...	...	...	...	300	...	...	...	118
...	...	...	...	1	...	5	3	12	315
...	...	...	...	4	100	144	3	2	699
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	8,262
...	...	...	...	...	...	...	...	...	17,750
...	...	...	...	...	...	...	...	...	...
...	...	...	...	3	100	317	3	18	8,207
...	...	...	...	...	...	...	...	...	2,510
...	...	...	...	...	...	...	...	...	150
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	61	2	16	770
...	...	...	...	...	...	21	3	24	400
313	...	...	...	21	561	1,788	2	16	1,99,042
43	...	...	...	...	310	21	1	15	77,767
...	...	...	...	1	44	...	...	...	1,207
...	...	...	...	...	...	...	...	...	6,457
254	...	...	...	33	...	57	1	13	5,552
...	...	...	...	53	1	23	1	18	1,469
13	...	...	...	...	...	...	...	...	2,018
70	...	...	...	4	...	12	...	6	1,443
380	...	...	...	91	355	114	...	24	95,913
...	...	...	...	...	...	62	3	22	70,804
...	...	...	...	...	...	...	...	...	...
	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	62	3	22	70,804
...	...	...	...	...	...	...	...	...	...
2	...	...	...	83,830	...	7	3	...	12,521
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	1,616	2	3	5,525
...	...	...	...	...	...	513	...	...	290
2	...	...	...	83,830	...	2,136	5	3	18,336
25	...	...	...	379	9	...	...	...	2,642
...	...	...	...	77,952	...	...	...	...	155
25	...	...	...	78,331	9	...	...	...	2,797

Statement of Imports and Exports for the Fasli 1279, *or from 1st July* 1869 *to 30th June* 1870, *for the Sea Ports in the District of Nellore.*—Continued.

EX

PORTS.—*Continued.*

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Zuvvaladinne.		Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Rasangi ...	...	...	...	...
			Total ...	...	...	...	...
Iskapalli ...		Kistna. ...	Nizampatam ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Balasore ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi ...		Madras ...	Madras ...	...	...	...	...
Kristnapatam.		Madras ...	Madras ...	...	...	...	...
		Nellore ...	Ramapatanam ...	...	...	...	...
			Kotapatnam ...	...	...	...	...
			Colombo ...	...	...	...	...
			Madras Total ...	...	...	...	...
Maypaud ...		Madras ...	Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	...	...	...	...
			Bimlipatam ...	...	...	...	...
			Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	...
Tupili ...		Madras ...	Madras ...	...	...	...	...
Pudi ...		Kistna ...	Nizampatam ...	...	...	...	...
		Godavery ...	Coringa ...	...	...	...	...
		Kistna ...	Masulipatam ...	...	...	...	...
			Total ...	...	...	...	...
			Grand Total ...	...	...	75	6,600

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils and Ghee.			Metals.			
English.		English.		lbs. Avoirdupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
646	244	1,896	2	...	...	...	...	...	21	63	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
646	244	1,896	2	...	...	...	...	...	21	63	...	...	...	...
2,716	248	...	...	...	...	...	...	...	...	...	...	...	...	...
7,806	97	...	...	...	5	1	24	...	...	...	...	75	1	18
2	271	...	...	...	...	...	...	...	...	...	...	...	...	...
108	120	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	484	3	10
7,916	488	...	...	...	...	1	24	...	...	...	...	560	1	...
10,206	24	...	...	...	...	...	...	1	11	11	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	532	2	4
10,206	24	...	...	...	...	...	...	1	11	11	...	532	2	4
651	83	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1,457	2	10
...	...	...	...	...	...	...	...	...	...	...	...	857	...	16
651	83	...	...	...	...	...	...	...	...	...	...	2,314	2	26
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30,689	387	14,207	442	20,712	2,095	...	23½	8	5,169	29	107	3,889	2	17

Statement of Imports and Exports for the Fusli 1870, for the Sea Ports in the

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Zuvvala-dinne.		Madras ...	Madras ...	...	...	...	
			Colombo ...	...	...	...	
			Rasangi ...	...	...	...	
			Total ...	...	...	...	
Iskapalli ...		Kistna ...	Nizampatam ...	...	...	...	
		Madras ...	Madras ...	...	...	...	
			Colombo ...	...	...	...	
			Balasore ...	...	...	...	
			Total ...	...	...	...	
		Madras ...	Madras ...	...	...	...	
		Madras ...	Madras ...	...	...	...	
Kristnapa-tam.		Nellore ...	Ramapatam ...	...	...	...	
			Kottapatnam...	...	...	...	
			Colombo ...	...	...	...	
			Total ...	...	...	...	
Maypaud ...		Madras ...	Madras ...	...	...	...	
			Colombo ...	...	...	...	
			Total ...	...	...	...	
Pamanji ...		Madras ...	Madras ...	...	...	...	
			Bimlipatam ...	...	...	...	
			Vizagapatam ...	...	...	...	
			Total ...	...	...	...	
Tupili ...		Madras ...	Madras ...	...	...	...	
Pudi ...		Kistna ...	Nizampatam ...	...	...	...	
		Godavery ...	Coringa ...	...	...	...	
		Kistna ...	Masulipatam ...	...	...	...	
			Total ...	...	...	...	
			Grand Total ...	44,032	475		

year 1279, or from 1st July 1869 to 30th June
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber and Firewood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	28,340	...	...	...	...	75
...	...	...	...	...	...	473	3	20	451
...	...	...	...	...	800	...	...	...	20
...	...	...	...	28,340	800	473	3	20	546
...	...	...	...	...	...	...	...	...	28,304
...	...	...	...	...	...	447	3	3	310
...	...	...	...	...	...	3,690	...	...	546
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	4,137	3	3	29,160
...	...	...	...	...	...	51	...	...	28,151
...	...	...	...	89,150	...	...	...	...	80,353
...	...	...	...	...	...	...	...	...	27
...	...	...	...	...	...	...	...	...	1,080
...	...	...	...	...	...	...	...	...	1,454
...	...	...	...	89,150	...	...	...	...	82,914
...	...	...	...	...	100	...	...	...	1,06,832
...	...	...	...	...	...	...	...	...	318
...	...	...	...	...	100	...	...	...	1,07,150
...	...	...	...	...	8	71	...	26	7,890
...	...	...	...	...	...	...	...	...	5,197
...	...	...	...	...	...	...	...	...	2,880
...	...	...	...	...	8	71	...	26	15,967
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	389	1	14	2,019
...	...	...	...	...	...	357	...	16	1,776
...	...	...	...	...	...	1,082	2	10	5,883
...	...	...	...	...	...	1,829	...	12	9,209
720	...	...	...	2,04,316	1,833	10,665	1	19	6,24,839

Statement of Imports and Exports for the Fusli
1871, *for the Sea Ports*
year 1280, *or from* 1st *July* 1870 *to* 30*th June*
in the District of Nellore.

IM

PORTS.

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.			Colombo ...	...	...	...	...
			Balasore ...	...	...	...	...
			False Point ...	...	...	...	...
			Calcutta ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	300
		Nellore ...	Ramapatam ...	...	...	...	...
		Kistna ...	Epurpolliem ...	...	...	...	...
			Nizampatam ...	...	...	...	...
			Kottapollem ...	...	...	...	...
			Gangadipalem.	...	...	...	...
			Nagayalanka ...	...	...	...	...
			Masulipatam ..	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
		Ganjam ...	Barwah ...	...	...	...	...
			Calingapatam.	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
			Swarnapur ...	...	...	...	...
		Vizagapatam.	Vizagapatam ..	...	...	...	...
			Poory ...	...	...	...	...
			Total ...	...	...	...	300
Itamukkala.		Madras ...	Madras ...	...	...	...	3,200
		Nellore ...	Kottapatnam.	...	...	...	...
		Kistna ...	Nizampatam ...	...	...	...	100
			Epurpolliem ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	...	...	...	3,300
Palala ...		Madras ...	Madras ...	2,000	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Kistna ...	Epurpolliem ..	...	...	...	...
			Total ...	2,000	...	...	...
Ramapatam.		Kistna ...	Colombo ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	...
Juvvaladinne			Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
				lbs. Avoir. dupois.	English.			English.				English.		
English.		English.									No.			
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	401	...	...	...
1,243	60	...	...	...	...	...	...	...	...	...	...	...	...	...
16	200	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	331	40	100	1	909	1	16	...	14	42	1,917	2,730	2	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
423	469	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	348	...	...	...	...	...	...	...	...	...	...	...
203	236	...	...	...	...	...	...	...	...	...	...	...	...	...
1,724	176	...	...	...	...	...	...	...	...	...	...	...	...	...
358	424	10	180	...	...	...	...	...	...	...	...	...	...	...
16,846	42	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
510	348	...	...	...	...	...	...	...	...	...	...	...	...	...
7	490	29	14	...	...	...	...	...	...	...	...	...	...	...
645	6	...	...	...	48	1	8	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
503	200	...	...	...	...	...	...	...	...	...	...	...	...	...
22,509	482	80	142	1	957	2	24	...	14	42	2,318	2,730	2	...
452	484	..	...	259	47	1	1	...	...	...	147	32	2	7
...	...	8	256	...	...	...	...	...	71	85	...	...	...	...
307	168	...	...	...	...	...	...	...	...	...	8	...	1	9
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
228	20	...	...	...	...	...	...	...	...	...	...	...	...	...
354	120	7	272	...	...	...	...	...	...	...	...	...	...	...
1,342	292	15	28	259	47	1	1	...	71	85	155	32	3	16
14	134	1	484	...	1	3	4	...	...	...	...	64	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	134	1	484	...	1	3	4	...	...	...	...	64	...	19
...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statement of Imports and Exports for the Fusli 1871, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.			English.		
		Districts.	Ports.	No.	Cwt.	Qrs.	lbs.
Kottapatnam.			Colombo ...	...	...	...	..
			Balasore ...	...	...	...	...
			False Point, ..	300	...	...	...
			Calcutta ...	...	...	...	...
		Madras ...	Madras ...	12,700	108	...	...
		Nellore ...	Ramapatam...	...	...	...	...
		Kistna ...	Eparpolliem...	600	...	...	...
			Nizampatam...	...	...	...	...
			Kottapollem...	1,350	...	..	24
			Gangadipalem.	...	...	1	8
			Nagayalanka ..	...	...	...	...
			Masulipatam ..	...	...	...	...
		Godavery ...	Nursapur ...	320	...	...	...
			Coringa ...	...	...	...	...
		Ganjam ...	Barwah ...	...	...	...	...
			Calingapatam..	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
			Swarnapur ...	...	...	...	...
		Vizagapatam.	Vizagapatam ..	...	...	...	...
			Poory ...	...	..	...	...
			Total ...	15,770	108	2	4
Itamukkula.		Madras ...	Madras ...	4,053	...	3	16
		Nellore ...	Kottapatnam..	500	...	...	...
		Kistna ...	Nizampatam ..	...	...	...	...
			Eparpolliem ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	4,553	...	3	16
Pakala ...		Madras ...	Madras ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Kistna ...	Eparpolliem..	...	...	...	...
			Total ...	...	...	...	...
Ramapatam.		Kistna ...	Colombo ...	...	...	...	...
		Vizagapatam ...	Vizagapatam...	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne			Madras ...	...	...	...	...
			Colombo ...	...	...	...	..
			Total ...	...	...	...	...

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	...	...	...	8,200
...	...	...	...	...	...	...	...	...	14,220
...	...	...	...	906	5	8	3	4	347
...	...	...	...	...	...	...	...	...	...
2,340	...	...	...	9,060	...	1,178	5	11	1,80,043
...	...	...	...	...	9	...	...	...	18
...	...	...	...	...	...	...	...	...	120
...	...	...	...	33	1	...	...	...	2,993
...	...	...	...	268,985	222	...	...	...	1,402
...	...	...	...	...	...	...	...	...	1,386
210	...	...	...	...	...	...	...	...	10,782
1	...	...	...	...	...	...	...	...	3,132
...	...	...	...	1,079	4,000	...	...	...	1,11,745
...	...	...	...	54	...	...	...	...	64
...	...	...	...	18	15	...	...	...	6,244
...	...	...	...	...	110	...	...	...	780
...	...	...	...	...	...	...	...	...	9,888
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	4,650
2,551	...	...	...	280,135	4,362	1,188	...	15	3,56,014
690	...	...	...	2,343	725	3	2	8	1,54,415
...	...	...	...	...	...	...	...	...	187
8	...	...	...	60,058	117	...	...	...	2,737
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1,400
...	...	...	...	10	122	...	...	...	4,470
698	...	...	...	62,411	964	3	2	8	1,63,209
...	...	...	...	3,506	626	10	1	22	6,716
...	...	...	...	311	600	...	...	...	450
...	...	...	...	...	...	...	...	...	...
...	...	...	...	3,817	1,226	10	1	22	7,166
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	..	...	1	...	...	...	...	85
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1	...	...	...	...	85

Statement of Imports and Exports for the Fusli
1871, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Iskapalli ...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Motiepalie ...	...	...	...	...
			Total ...	...	...	...	...
Maypaud ...		Madras ...	Madras ...	12,750	...	...	...
		Kistna ...	Nizampatam ..	...	...	...	...
			Total ...	12,750	...	...	...
Kristnapatam.		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	3,550	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam ...	Bimlipatam ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
		Vizagapatam ...	Pentacotta ...	...	...	...	...
			Total ...	3,550	...	...	...
Pudi ...		Kistna ...	Epurpolliem...	...	...	...	...
Dugarazapatam		Nelloro ...	Kristnapatam.	...	...	...	...
			Grand Total..	18,300	...	...	3,600

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.		lbs. Avoir. dupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
...	82	...	...	...	...	...	24	...	...	...	...	5	...	27
...	82	...	...	...	...	...	24	...	...	...	...	5	...	27
...	1	...	...	...	11	3	27	...	...	...	20	17	...	8
		...	...	...	96	...	...	...	...	...	...	...	...	...
1	...	...	...	...	107	3	27	...	...	...	20	17	...	8
...	...	...	...	...	...	...	...	...	...	...	12	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	483	...	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	12	48	...	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
324	260	...	...	...	...	...	...	...	...	...	...	...	...	...
24,102	250	98	154	260	1,114	2	24	...	86	2	2,507	3,333	...	10

Statement of Imports and Exports for the Fusli 1871, *for the Sea Ports in the*

IM

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Iskapalli ...		Madras ...	Madras ...	2,000	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	2,000	...	...	...
Ponnapudi...		Madras ...	Madras ...	7,055	...	...	25
		Kistna ...	Motiepalie ...	...	...	...	...
			Total ...	7,055	...	...	25
Maypaud ...		Madras ...	Madras ...	34	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Total ...	34	...	...	...
Kristnapa-tam.		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	...	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam ...	Bimlipatam ...	...	...	...	...
		Codavery ...	Cocanada ...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
		Vizagapatam ...	Pentacotta ...	...	...	...	...
			Total ..	...	...	...	...
Pudi ...		Kistna ...	Epurpolliem...	...	...	...	...
Dugarazapatam		Nellore ...	Kristnapatam.	...	...	...	...
			Grand Total...	27,612	109	2	17

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.			Cwt.	Qrs.	lbs.	
...	...	...	...	...	...	...	...	...	Rs.
...	...	...	...	368	...	...	...	...	2,300
...	...	...	...	...	...	...	...	...	2,976
...	...	...	...	368	...	...	...	...	5,276
400	...	...	...	41	7	...	...	...	1,600
...	...	...	...	...	...	...	...	...	...
400	...	...	...	41	7	...	...	...	1,600
5	...	...	...	2	2	4	1	6	13,647
...	...	...	...	...	...	...	...	...	1,525
5	...	...	...	2	2	4	1	1	15,172
...	...	...	...	1,380	1	...	...	...	41
...	...	...	...	170	...	...	...	...	2,100
...	...	...	...	...	...	...	...	...	...
...	...	...	...	1,550	1	...	...	...	2,141
...	...	...	...	...	...	...	...	...	3,550
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	3,550.
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1,941
3,654	...	...	...	348,325	6,562	1,205	5	23	5,57,151

Statement of Imports and Exports for the Fusli EX
1871, *for the Sea Ports in the*

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Kottapatnam.			Colombo ...	...	...	...	...
			Balasore ...	...	...	...	...
			False Point ...	...	...	...	...
			Calcutta ...	...	...	...	...
		Madras ...	Madras ...	...	...	...	1,700
		Nellore ...	Ramapatam ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Nizampatam...	...	...	...	...
			Kottapollem...	...	...	...	...
			Gangadipalem.	...	...	...	...
			Nagavalanka..	...	...	...	...
			Masulipatam..	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	...	...	...	...
		Ganjam ...	Barwah ...	...	...	...	...
			Calingapatam.	...	...	...	...
			Gopaulpur ...	...	...	...	...
			Ganjam ...	...	...	...	...
			Swarnapur ...	...	...	...	...
		Vizagapatam..	Vizagapatam ..	...	...	...	...
			Poory ...	...	...	...	...
			Total ...	...	...	...	1,700
Itamukkula ..		Madras ...	Madras ...	...	...	...	1,700
		Nellore ...	Kottapatnam ..	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Epurpolliem...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	...	...	...	1,700
Pakala ...		Madras ...	Madras ...	...	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Total ...	...	...	...	...
Ramapatam.		Kistna ...	Colombo ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ..	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne			Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.

Grains.		Oil Seeds and Pulses.		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.		lbs. Avoirdupois.	English.			English.			No.	English.		
Qrs.	lbs.	Qrs.	lbs.		Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.		Cwt.	Qrs.	lbs.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	987	222	...	...	...	...	...	...	...	...	...	...	...
2,740	420	3,618	142	89,980	633	3	8	...	893	122	3	3	2	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	492	...	...	...	1	...	13	...	741	56	...	...	1	22
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
79	188	283	272	...	26	2	16	...	...	...	4	...	...	...
11	158	47	132	...	...	...	...	...	...	...	20	...	...	...
7	190	...	...	212	2	3	10	...	214	2	1	66	2	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	210	370	...	...	...	...	...	997	47	...	...	...	...
...	448	1,048	166	...	1	...	13	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2,840	396	6,195	304	90,192	665	2	4	...	2,845	227	29	70	3	4
25	164	1,675	210	...	2,705	2	6	...	395	93	12	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	2	2	20	...	57	43	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	164	1,675	210	...	2,707	...	26	...	452	136	12	...	...	...
...	...	358	308	...	...	...	...	4	7	11	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
...	...	358	308	...	...	...	...	4	7	11	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Statement of Imports and Exports for the Fusli 1871, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Gunnies and fibres.			
	Foreign Ports.	Home Ports.			English.		
		Districts.	Ports.	No.	Cwt.	Qrs.	lbs.
Kottapatnam.			Colombo ...	...	...	...	...
			Balasore ...	...	..	...	...
			False Point ...	...	...	...	...
			Calcutta ...	...	...	...	...
		Madras ...	Madras ...	12,715	365	3	10
		Nellore ...	Ramapatam ...	...	...	...	...
		Kistna ...	Epurpolliem ...	1,850	...	...	...
			Nizampatam ...	2,250	...	...	...
			Kottapollem ...	6	78	2	20
			Gangadipalem.	...	...	...	...
			Nagayalanka ..	...	...	...	...
			Masulipatam ..	300	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
			Coringa ...	4,400	10	2	...
		Ganjam ...	Barwah ...	...	...	...	...
			Calingapatam.	...	...	...	...
			Gopalpur ...	..	...	...	...
			Ganjam ...	...	...	...	...
			Swarnapur ...	...	...	...	...
		Vizagapatam.	Vizagapatam ..	9,117	4	1	24
			Poory ...	...	...	...	...
			Total ...	30,588	458	3	26
Itamukkula..		Madras ...	Madras ...	4,514	43	3	24
		Nellore ...	Kottapatnam..	...	...	...	...
		Kistna ...	Nizampatam ...	2,160	...	...	...
			Epurpolliem ...	...	35	2	24
		Godavery ...	Nursapur ...	2,500	1	1	10
		Vizagapatam ...	Vizagapatam ...	...	...	...	...
			Total ...	9,174	81	...	2
Pakala ...		Madras ...	Madras ...	211	...	...	...
		Godavery ...	Nursapur ...	...	...	...	...
		Kistna ...	Epurpolliem ...	...	...	...	...
			Total ...	211	...	...	...
Ramapatam.		Kistna ...	Colombo ...	...	...	...	...
		Vizagapatam ...	Vizagapatam ...	...	...	...	...
			Total ...	...	...	...	...
Zuvvaladinne			Madras ...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.				No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
									Rs.
...	...	...	...	...	...	485	...	...	194
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	12	...	...	...	14,741
130	...	...	...	7	6	424	3	26	95,024
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	230
...	...	...	...	1	2	4	...	...	1,121
...	...	...	...	1	62	10	...	22	1,104
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	9,420
...	...	...	...	1	...	1	...	8	15,633
...	...	...	...	1	...	25	...	...	1,736
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	1,830
130	...	...	...	2	...	8	3	20	17,234
...	...	...	...	...	...	...	...	...	...
260	...	...	...	13	82	959	...	20	1,58,247
15	1	3	4	1	7	14	2	26	40,851
...	...	...	...	...	...	...	...	...	...
...	...	...	...	31	...	2	2	20	394
...	...	...	...	...	...	...	...	...	160
...	...	...	...	...	...	...	...	...	384
...	...	...	...	...	...	...	...	...	...
15	1	3	4	32	7	17	1	18	4,16,789
...	...	...	...	...	50	51	2	26	4,867
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	50
...	...	...	...	...	50	51	2	26	4,917
...	...	...	...	...	...	135	...	...	67
...	...	...	...	...	...	2,209	2	12	6,036
...	...	...	...	...	...	2,344	2	12	6,103
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	290	...	...	195
...	...	...	...	...	...	290	...	...	195

Statement of Imports and Exports for the Fusli 1871, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Bullion.		Jewellery.	
	Foreign Ports.	Home Ports.					
		Districts.	Ports.	Silver.	Gold.	Silver.	Gold.
				Rs.	Rs.	Rs.	Rs.
Iskapalli ...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	..
Ponnapudi...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Motiepalie ...	...	...	...	...
			Total ...	...	...	.	...
Maypaud ...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Total ...	...	...	...	...
Kristnapa-tam.		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	..	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	...	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam ...	Bimlipatam ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
		Vizagapatam ...	Pentacotta ...	...	...	...	...
			Total ...	...	...	...	...
Pudi ...		Kistna ...	Epurpolliem...	...	...	...	...
Dugarazapatam		Nellore ...	Kristnapatam.	...	...	...	...
			Grand Total ...	...	...	...	3,400

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Grains.		Oil Seeds and Pulses		Fruits and Condiments.				Oils & Ghee.			Metals.			
English.		English.			English.			English.				English.		
Qrs.	lbs.	Qrs.	lbs.	lbs. Avoir-dupois.	Cwt.	Qrs.	lbs.	Cwt.	Gls.	oz.	No.	Cwt.	Qrs.	lbs.
687	21	...	...	...	...	...	...	...	14	42	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
687	21	...	...	...	...	...	...	...	14	42	...	...	...	...
4,177	186	...	...	...	...	1	22	...	10	94	...	...	...	...
360	400	...	...	...	...	...	...	...	...	...	...	...	...	...
4,538	86	...	...	...	...	1	22	...	10	94	...	...	...	...
7,764	208	...	...	...	...	...	...	...	...	...	...	11	2	24
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7,764	208	...	...	...	...	...	...	...	...	...	...	11	2	24
5,799	430	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
360	400	...	...	...	...	...	...	...	...	...	...	...	...	...
6,160	330	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1,801	1	10
...	...	...	...	...	...	...	...	...	...	...	...	3,110	3	17
...	...	...	...	...	...	...	...	...	...	...	...	716	2	7
444	343	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	806	3	14
444	343	...	...	...	...	...	...	...	...	...	...	6,525	3	12
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22,465	48	8229	322	90,192	3,374	...	24	4	332	6	42	6,608	1	12

Statement of Imports and Exports for the Fusli 1871, *for the Sea Ports in the*

EX

Ports.	Where to or from.			Gunnies and Fibres.			
	Foreign Ports.	Home Ports.		No.	English.		
		Districts.	Ports.		Cwt.	Qrs.	lbs.
Iskapalli ...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Epurpolliem...	...	...	...	...
			Colombo ...	...	...	...	...
			Total ...	...	...	...	...
Ponnapudi...		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Motiepalio ...	...	...	...	...
			Total ...	...	...	...	...
Maypaud ...		Madras ...	Madras ...	20	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
			Total ...	20	...	...	...
Kistnapa-tam.		Madras ...	Madras ...	...	...	...	...
		Kistna ...	Nizampatam...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
			Total ...	...	...	...	...
Pamanji ...		Madras ...	Madras ...	...	...	...	...
		Ganjam ...	Gopaulpur ...	...	...	...	...
		Vizagapatam ...	Bimlipatam ...	...	...	...	...
		Godavery ...	Cocanada ...	...	...	...	...
		Tinnevelly ...	Coilpatam ...	...	...	...	...
		Vizagapatam ...	Pentacotta ...	...	...	...	...
			Total ...	...	...	...	...
Pudi ...		Kistna ...	Epurpolliem...	...	...	...	...
Dugarazapatam		Nellore ...	Kristnapatam.	...	...	...	...
			Grand Total ...	39,993	540	...	...

year 1280, *or from* 1*st July* 1870 *to* 30*th June*
District of Nellore.—Continued.

PORTS.—*Continued.*

Cloths and Piece Goods.				Timber & Fire-wood.	Sundries.				Total Value.
No.	English.			No.	No.	English.			
	Cwt.	Qrs.	lbs.	No.		Cwt.	Qrs.	lbs.	
...	...	...	...	...	...	...	...	...	Rs. 6,485
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	400	...	...	280
...	...	...	...	...	...	400	...	...	6,765
...	...	...	...	...	...	...	...	...	3,221
...	...	...	...	...	...	...	...	...	2,400
...	...	...	...	...	...	...	...	...	5,621
...	...	...	...	280	...	...	...	...	69,943
...	...	...	...	...	...	...	...	...	...
...	...	...	...	280	...	...	...	...	69,943
...	...	...	...	78,580	...	...	...	...	47,873
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	2,100
...	...	...	...	78,580	...	...	...	...	49,973
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	6,211
...	...	...	...	...	...	20	...	15	11,012
...	...	...	...	...	...	...	...	...	2,528
...	...	...	...	...	...	...	...	...	2,465
...	...	...	...	...	...	...	...	...	3,157
...	...	...	...	...	...	20	...	15	25,374
...	...	...	...	...	500	...	...	...	1
...	...	...	...	...	...	...	...	...	...
275	1	3	4	78,905	639	4,083	...	7	7,43,928

Weights and Measures.

According to ancient works, the original unit of weights and measures in India is a mote dancing in a sunbeam, and a variable number of them is said to constitute some seed. Thus we find "*Abrus precatorius*," Tel. *Guruvinda Ginja*, in the table of goldsmith's weight in ordinary use in this district. This is the smooth scarlet seed with a black tip so constantly seen in all native jewellers' shops.

Original unit.

I.—*Table of Goldsmiths' Weights.*

2 Patikas	=	1 Beda or guruvinda ginja (seed).
2 Bedas	=	1 Dugalam.
2 Dugalams	=	1 Çavalam.
2 Çavalams	=	1 Pavu.
2 Pavus	=	1 Mada.
2 Madas	=	1 Pagoda (gold).
81 Pagodas	=	1 Seer = 24 Tolas = 180 Grains = 1 Rupee.

The pagoda or hún was a gold coin valued at Rupees 3-8-0, and which weighed 53·27 grains. The star pagoda coined at Madras, and valued at Rupees 3-8-0, weighed 52·56 grains. The rupee of the old native mints averaged about 175 grains. The Arcot rupee was coined at the Madras Mint, till 1818, at a weight of 176·4 grains. The present British rupee is 180 grains in weight, which is the tola of most Indian bazaars.

The usual table of commercial weight in the Nellore District is given as follows:—

II.—*Table of Commercial Weights.*

10 Kanack pagodas	=	1 Pollam	=	3 Tolas.
2 Pollams	=	1 Quarter seer	=	6 do.
2 Quarter seers	=	1 Half seer	=	12 do.
2 Half seers	=	1 Cutcha seer	=	24 do.
5 Seers	=	1 Viss	=	120 do.
8 Viss	=	1 Maund	=	960 do.
20 Maunds	=	1 Baruva or candy	=	19,200 do.

In the villages a system of weights was prevalent somewhat different from the above.

III.—*Village Table of Commercial Weights.*

7 Pollams	=	1 Seer	=	21 Tolas.
6 Seers	=	1 Viss	=	126 do.
8 Viss	=	1 Maund	=	1,008 do.
20 Maunds	=	1 Baruva	=	20,160 do.

The measures of capacity seem to have been founded on the weight of grain they would hold. The following is the ordinary table of the Nellore District:—

IV.—*Table of Measures of Capacity.*

2 Çattacks	=	1 Navattak.
2 Navattaks	=	1 Quarter seer.
2 Quarter seers	=	1 Half seer.
2 Half seers	=	1 Seer.
3½ Seers	=	1 Munta.
4 Muntas	=	1 Kunçum.
2 Kunçums	=	1 Irasa.
2 Irasas	=	1 Tum.
5 Tums	=	1 Yeddum.
2 Yeddums	=	1 Paudum.
2 Paudums	=	1 Candy or puti.

In the village we find prevalent a somewhat modified system.

V.—*Village Table of Measures of Capacity.*

4 Giddas	=	1 Solu.
2 Solus	=	1 Tavva.
2 Tavvas	=	1 Munika.
2 Munikas	=	1 Munta.
4 Muntas	=	1 Kunçum.

The tuvvas and manikas have been long replaced in towns by the Mahomedan pukka seer, a vessel containing, when heaped, 80 rupees weight of rice. Through the exertions of Mr. J. W. B. Dykes, Collector, a uniform system of weights and measures have been gradually introduced into this district, the merchants and traders generally agreeing to have only one unit, the contents of which should weigh ten tolas or 10 rupees weight of well-dried rice. An establishment has been entertained for stamping weights and measures according to this scale, whose operations have been extended to all the taluqs and divisions. The Zemindars of Venkatagiri and Kalastry have given their cordial co-operation to this arrangement.

Though one unit of measurement has been agreed to, there are still two systems for the smaller measures—the one rising up to the kunçum by the 14 seers of the Mussulmans, the other descending from that measure by the usual Hindu practice.

VI.—*Authorized Table of Measures according to the Mahomedan System.*

				lbs.		Avoirdupois.
10 Tolas	=	1 Navattak	=	¼	or	0·257
2 Navattaks	=	1 Quarter seer	=	½	or	0·514
2 Quarter seers	=	1 Half seer	=	1	or	1·028
2 Half seers	=	1 Seer	=	2	or	2·057
14 Seers	=	1 Kunçum	=	28¾	or	28·797
2 Kunçums	=	1 Irasa	=	57½	or	57·599
2 Irasas	=	1 Tum	=	115	or	115·198
20 Tums	=	1 Puti	=	2,300	or	2303·96

VII.—*Authorized Table of Measures descending on the Hindu System.*

		Tolas.	lbs.	Avoirdupois.
1 Kunçum	=	1,120	= 28¾	or 28·799
¼ Kunçum	= 1 Munta	= 280	= 7	or 7·158
⅛ Kunçum	= 1 Paddi or tavva	= 140	= 3½	or 3·579
1/16 Kunçum	= 1 Sola or sawa seer	= 70	= 1¾	or 1·799
3/32 Kunçum	= 1 Half sola or sawa seer	= 35	= ⅞	or 0·899
1/64 Kunçum	= 1 Quarter seer or sawa seer	= 17½	= 7/16	or 0·449

As to linear measures, there is the angulam or first joint of the thumb, then the cubit, Telugu *mura* being the length from the elbow joint to the top of the fingure of some tall man chosen as a standard. It exceeds the 18-inch cubit of England, and averages about 19·7 inches. The ordinary table is as follows:—

VIII.—*Table of Linear Measurement.*

	1 Angulam	= 1 Inch.
9 Angulams	= 1 Janna	= 1 Span.
2 Jannas	= 1 Mura	= 1 Cubit.
2 Muras	= 1 Gujam	= 1 Yard.
2 Gujams	= 1 Bara	= 1 Fathom.

For distances of greater length there is no defined measurement, but the people speak of one ghaus distance equal to what may be traversed in an Indian hour of 20 minutes and an amada as a stage of about eight miles.

As to superficial measurement the native practice was in ancient times to name an area of land after the quantity of grain that it was thought would sow it, or the quantity it was thought it would produce. Thus we have—

IX.—*Table of Superficial Measurement according to Quantity.*

16 Suras	= 1	Pura.
16 Puras	= 1	Visam or anna.
16 Visams	= 1	Gorru.

In converting visams into acres, one visam of dry land is roughly taken as equal to four acres, and one visam of wet land as equal to two acres. For accurate measurements the following table is in use:—

X.—*Accurate Table of Superficial Measurements.*

	1 Mura	= 19·68 Inches.	
32 Muras	= 1 Kunta	= 32½ Eng. ft.	= 2,756¼ Sqr. ft.
			= ·0633 Acres.
50 Kuntas	= 1 Gorru	= 137,812½ Eng. ft.	= 3·1637 Acres.
8 Gorrus	= 1 Kuçala.		

The gorru is often sub-divided into annas or 1/16th, and these again into 1/256th. The gorru is generally reckoned at 3⅛ acres, or 3·1250, which is sufficiently near approximation. It is said that it originally

denoted an area requiring 2½ tums of seed to sow it. The tum of 16 *heaped* muntas is about 56 pukka seers of rice. The word gorru means a kind of sowing machine or drill plough.

The old native measure for all but garden lands was with a rod of 32 cubits of 52½ English feet, as shown in the above table.

The garden or *jarib* lands were measured with a rod of 21 cubits = 34 29/64 English feet, but the resulting gorru is the same.

1 Rod square = 1,187 square feet = 1 Kunta = ·02725 Acres.
116 Kuntas = 1 Gorru of 137,693 sqr. ft. = 3·161 Acres.

Those surveyed villages which have been measured since the district came under British rule were measured with the chain of 33 feet.

1 Square chain = 1,089 Square feet = 1 Kunta.
40 Kuntas = 43,560 Square feet = 1 Acre.

In the Revenue Survey Gunter's chain only has been employed, measuring 66 feet with its multiple of cents.

CHAPTER XII.

AGRICULTURE.

(Contributed by Mr. CHARLES RUNDALL, *Revenue Settlement.)*

AGRICULTURAL STATISTICS.—Acreage under the various crops.—Acreage in detail under separately cultivated and mixed crops.—Acreage under various cultivated wet crops.—Jonna kyles.—Aruga kyles.—Wet paddy kyles.—Conversion of Madras measures into pounds.—Total yield of food grains.—Consumption and surplus produce. AGRICULTURAL IMPLEMENTS. SEASONS.—Statement showing seasons of different crops. WET CROPS AND THEIR CULTIVATION.—Paddy.—Jonna.—Gingelly and hemp.—Indigo. DRY CROPS AND THEIR CULTIVATION.—Spiked millet.—Gingelly.—Cholum.—Red gram.—Green gram.—Korra.—Chama.—Aruga.—Indigo.—Cotton.—Castor oil.—Paddy.—Raggy.—Cholum.—Variga.—Coriander.—Linseed.—Mustard seed.—Horse gram.—Black gram.—Alachanda and karamadi.—Hemp.—Bengal gram.—Castor oil. GARDEN CROPS AND THEIR CULTIVATION.—Spiked millet.—Chillies.—Raggy.—Tobacco.—Chayroot.—Summer Jonna.—Indian corn.—Sugar-cane.—Betel vine.—Plantains.—Turmeric.—Ginger.—Onions.—Sweet potatoes.—Yams.—Arum.—Colocasia.—Brinjalls.—Bendikayi.—Luffa gourds.—Snake vegetable.—Cucumber.—Gourds.—Water melons.—Greens.—Indian sorrel.—Jute.—Sour greens.—Spinach.—Fenugreek.—Manure.—Rotation of crops.—Agricultural laborers.—Pasturage of cattle.

Agricultural statistics.

THE agricultural statistics compiled by the Revenue authorities for the year 1870-71 supplies the most authentic information as to the crops and special products cultivated and of the acreage appertaining to each. This statement, which was published in the *Nellore District Gazette* of 16th September 1871, will be found in the Appendix to this Manual—III. Statistics of Production and Distribution, D. Agriculture, 1. Crops cultivated in acres.

Acreage under the various crops.

From the manner in which each crop or product is rendered in this statement, it would naturally be concluded by those not conversant with the agricultural system of the district that each is separately cultivated; but such is not the case, crops are as often mixed as separate; and, in order to place on record the actual mode adopted by the ryots, and to show the several crops which are collectively sown, the following statement has been drawn up from information collected by the Settlement Department during their operations in the several taluqs in various years. It does not, however, fully show the extent to which many of the crops are mixed, for where no crop could be observed on the ground, to check the Curnam's account for the current or preceding years as the case may have been, the Curnam's recorded particulars had to be accepted without question. With the jonna crop, for instance, pessara is much more extensively sown both in the principal and sub-division taluqs, than is to be gathered from the statement:—

Statement showing in detail the Acreage under the various separately cultivated and mixed Crops and Products.

Taluqs.	Years.	FOOD GRAIN AND CORN CROPS.																				
		Madura or Poda Jonna.	Madura or Poda Jonna with Kandi or Pessara.	Pure Jonna.	Pure Jonna with Horse Gram or Pessara or Indian Corn, or so mixed with it.	Aruga.	Aruga with Cotton, &c.	Aruga with Lamp Oil, &c.	Variga.	Aruga with Horse Gram.	Korra.	Korra with Cotton.	Korra with Horse Gram.	Raggy.	Raggy with Cotton, &c.	Chamalu.	Sazza.	Sazza with Pessara.	Sazza with Horse Gram.	Sazza with Cotton.	Sazza with Bengal Gram.	Korra.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
Principal Division.																						
Nellore ...	1867-68	...	...	3,137	2,624	2,544	...	404	...	557	...	...	...	3,891	...	...	...	...	...	...	...	...
Cudur ...	1867-68	...	...	13,637	196	2,127	...	267	...	1,045	...	...	...	3,931	...	...	...	...	...	...	...	...
Kapur ...	1867-68	...	...	29,436	2,834	8,159	890	20	...	1,371	...	...	...	1,156	...	...	...	...	...	...	...	...
Atmakur ...	1867-68	...	...	30,361	8,749	5,360	8,014	1,736	146	3,817	...	...	56	3,807	...	...	...	...	...	...	...	...
Kavali ...	1868-69	...	...	30,074	...	1,937	2,747	14	92	1,107	...	...	...	1,587	...	...	...	...	...	...	...	...
Udayagiri ...	1868-69	...	...	26,285	879	8,261	4,459	5	...	2,836	...	...	803	2,914	...	363	...	...	...	...	...	...
Total ...		...	...	156,193	14,782	29,493	16,114	2,516	240	10,733	...	...	859	10,746	...	363	...	...	...	...	...	...
Per-centage ...		...	...	5·42	5·11	10·20	5·57	0·87	0·8	3·71	...	...	0·29	5·79	...	0·13	...	...	...	...	...	...
Sub-Division.																						
Kandukur ...	1868-69	15,293	...	35,946	...	6,959	5,143	181	19,931	4,418	...	441	13	385	...	1,986	...	1,928	765	...	...	...
Kanigiri ...	1868-69	6,889	...	427	59	7,453	808	...	351	7,640	524	...	...	622	...	2,460	...	542	...	1,153	...	...
Ongole ...	1868-70	26,991	6,336	...	...	1,199	25	...	47,596	6,532	4	2,631	27	1,064	...	791	74	2,868	1,751	...	...	...
Total ...		49,123	6,336	36,373	59	15,611	6,036	181	67,878	18,650	528	4,786	40	2,071	...	5,237	74	4,633	1,916	1,152	...	...
Per-centage ...		17·15	2·23	12·70	0·2	5·45	2·10	0·6	23·70	6·5	0·18	1·67	0·1	0·72	...	1·82	0·3	1·62	0·37	0·40	...	...
Grand Total ...		49,123	6,336	192,566	14,841	45,109	22,150	2,697	68,118	29,333	528	4,786	80	2,930	...	4,537	74	21,379	1,916	1,515	...	...
Per-centage ...		1·11	33·46	2·60	7·84	3·85	0·47	11·84	5·18	0·18	1·67	0·1	0·51	7,541	0·93	1,515	0·26					
Grand Total ...		262,918			69,356			68,118			33,316				23,395							
Per-centage ...		45·68			12·16			11·84			5·14			1·31	4·4	0·26						

Statement showing in detail the Acreage under the various separately cultivated and mixed Crops and Products.—Continued.

	Taluqs.	Years.	Food Grain and Corn Crops.—*Continued.*										Seed and Special Products.									Total.
			Dry Paddy.	Kandi.	Bengal Gram.	Horse Gram.	Horse Gram with Lamp Oil.	Horse Gram with Cotton.	Minuma.	Pessara.	Karamadi.	Miscellaneous Crops.	Cotton.	Indigo.	Indigo with Cotton, &c.	Lamp Oil.	Coriander.	Chillies.	Tobacco.	Nuvvulu.	Chayroot.	Zamunu.	
			22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
	Principal Division.																					
1	Nellore	1867-68	...	...	...	1,036	...	...	219	983	566	1,316	47	...	...	2,063	...	150	79	136	...	...	20,022
2	Gudur	1867-68	...	...	108	716	...	...	65	250	378	449	25	22	...	1,104	...	616	184	588	...	...	25,781
3	Rapur	1867-68	...	...	...	757	...	...	...	206	...	897	197	...	...	1,990	...	87	6	...	...	...	42,998
4	Atmakur	1867-68	...	...	111	2,523	...	...	178	167	...	1,498	151	866	...	6,815	...	72	169	59	...	...	202,769
5	Kavali	1868-69	...	...	...	691	...	...	...	25	...	536	180	155	...	2,205	...	110	37	...	...	...	47,786
6	Udayagiri ...	1868-69	...	...	...	4,677	...	...	...	145	...	880	415	894	...	2,891	...	20	13	...	...	...	49,779
	Total ...		...	...	219	10,103	...	...	465	1,776	944	4,986	1,015	2,237	...	17,068	...	1,005	488	783	...	...	289,135
	Per-centage ...		...	...	0·8	3·50	...	...	0·16	0·61	0·33	1·73	0·35	0·78	...	5·90	...	0·35	0·17	0·27	...	...	100·0
	Sub-Division.																					
7	Kandukur ...	1868-69	220	...	190	6,314	84	...	6	34	...	...	277	5,560	74	7,257	...	185	175	...	...	...	114,210
8	Kanigiri	1868-69	...	...	...	3,468	...	...	...	...	...	...	745	315	...	1,593	4	22	4	...	...	...	35,093
9	Ongole	1869-70	3,273	96	600	5,823	228	52	377	79	...	12	3,276	11,020	682	9,892	2,337	794	682	...	50	54	137,088
	Total ...		3,493	96	790	15,605	312	52	383	113	...	12	4,298	16,904	756	18,747	2,341	1,001	861	...	50	54	286,391
	Per-centage ...		1·22	0·3	0·25	5·45	0·11	0·2	0·13	0·4	...	0·1	1·50	5·90	0·27	6·55	0·82	0·35	0·30	...	0·2	0·2	100·0
	Grand Total ...		3,493	96	919	25,708	312	52	848	1,889	944	4,998	5,313	19,141	756	35,815	2,341	2,006	1,349	783	50	54	575,526
	Per-centage ..		0·61	0·2	0·16	4·47	0·5	0·1	0·15	0·33	0·16	0·87	0·92	3·33	0·13	6·22	0·41	0·35	0·23	0·14	0·1	0·1	100·00
	Grand Total ...		3,493	96	919	25,672			848	1,889	944	4,998	5,313	19,307		35,815	2,341	2,006	1,349	783	50	54	575,526
	Per-centage ...		0·61	0·2	0·16	4·53			0·15	0·33	0·16	0·87	0·92	3·45		6·22	0·41	0·35	0·23	0·14	0·1	0·1	100·00

Statement showing the Acreage under the various Cultivated Wet Crops.

	Taluqs.	Years.	Food Grain and Corn Crops.								Seed & Special Products.				Total.
			Fine Paddy (Pishanam, Sannavari, &c.).	Coarse Paddy (Jewarakora, Moganam, Kesari, &c.).	Jonna.	Raggy.	Sazza.	Sazza with Raggy.	Sazza with Indigo, &c.	Miscellaneous Crops.	Indigo.	Nuvvulu.	Chillies.	Tobacco.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Principal Division.														
1	Nellore	1867-68...	44,595	27,473	1,045	1,280	40	...	...	670	...	46	223	59	75,350
2	Gudur	1867-68...	20,069	15,892	110	842	119	...	...	249	...	34	282	43	37,500
3	Rapur	1867-68...	1,137	763	100	121	75	...	...	388	23	...	7	...	2,914
4	Atmakur ...	1867-68...	4,567	2,710	2,680	584	138	...	...	1,251	581	...	71	...	12,582
5	Kavali	1868-69...	11,923	4,728	168	497	269	...	...	517	...	...	155	24	18,281
6	Udayagiri ...	1868-69...	276	123	199	393	255	...	...	220	152	...	...	...	1,609
	Total ...		82,477	51,599	4,293	3,717	905	...	...	3,295	756	80	688	126	147,936
	Per-centage ...		55·68	34·88	2·97	2·51	0·61	...	...	2·23	0·51	0·05	0·47	0·09	100·00
	Sub-Division.														
7	Kandukur	1868-69...	7,527	1,687	...	40	118	1,113	13	67	225	...	80	25	10,915
8	Kanigiri	1868-69...	269	117	...	9	...	4,462	47	21	55	...	...	...	4,976
9	Ongole	1869-70...	1,276	1,059	...	70	9	793	58	70	97	...	...	14	3,446
	Total ...		9,072	2,863	...	119	127	6,368	118	178	375	...	80	39	19,339
	Per-centage ...		46·91	14·81	...	0·61	0·66	32·93	0·61	0·92	1·94	...	0·41	0·20	100·00
	Grand Total ...		91,549	54,462	4,293	3,836	1,032	6,368	118	3,473	1,131	80	768	165	167,275
	Per-centage ...		54·73	32·56	2·57	2·29	0·62	3·81	0·07	2·07	0·68	0·04	0·46	0·10	100·00

The distribution of the different sorts of paddy under cultivation, and the other crops cultivated under irrigation, can be gathered from the subjoined statement, which has been compiled from details similar to the foregoing statement:—

The following statements, taken from the Settlement Report of the principal division of the district, exhibit the result of the very numerous experiments of produce made by the Revenue Officers and Revenue Settlement Department. The experiments are tabulated according to the classification of the land as carried out by the department, and the grain value it is proposed to assign to each description and quality of soil is as well shown. The crops for which these statistics have been abstracted are jonna, aruga, and wet paddy, which comprise the bulk of the wet and dry cultivation throughout the principal division taluqs. Similar details are not yet available for the sub-division. The particulars for wet paddy are furnished in two statements—the first relating to the anicut irrigation, the second to the tank irrigation. The measure referred to throughout the statements is the Madras measure :—

Class and Sort.		Jonna Kyles.								Average Grain Value assigned.	
		Good.		Middling.		Indifferent.		Average of all.			
		No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	3rd-class Villages	4th-class Villages.
			M. M.		M. M.		M. M.		M. M.	M. M.	M. M.
II. ...	1	...	...	...	...	...	...	...	...	350	325
	2	...	...	...	...	...	...	...	...	275	250
III. ...	1	25	452	31	294	30	168	86	296	300	275
	2	81	367	165	215	216	113	462	194	225	212
	3	43	274	103	146	84	79	230	145	175	166
	4	...	...	...	...	...	...	...	...	133	125
IV. ...	1	19	372	26	227	41	107	86	202	250	225
	2	177	284	335	146	374	71	886	142	166	150
	3	34	212	66	115	51	59	151	118	125	116
V. ...	1	2	371	8	156	13	69	23	125	166	150
	2	1	224	2	112	6	55	9	86	125	116
	3	1	224	1	74	...	...	2	149	90	80
VI. ...	1	...	...	...	...	...	...	...	...	190	175
	2	...	...	...	...	...	...	...	...	150	140
VII. ...	1	9	363	17	141	7	67	33	186	212	200
	2	53	272	175	126	169	59	397	117	130	120
	3	55	209	113	103	89	53	257	108	105	95
VIII. ...	1	1	219	1	102	...	...	2	161	166	150
	2	14	218	30	96	40	50	84	95	105	96
	3	7	155	4	72	2	44	13	113	90	80
Total No. of Kyles.		522	...	1,127	...	1,122	...	2,771	148	...	...
		Aruga Kyles.									
II. ...	1	...	...	...	...	...	...	...	...	600	550
	2	...	...	...	...	...	...	...	...	450	412
III. ...	1	...	...	...	...	...	...	...	...	500	450
	2	1	821	2	588	7	177	10	284	375	350
	3	...	...	1	182	...	...	1	182	300	275
	4	...	...	...	...	...	...	...	...	200	175
IV. ...	1	3	529	...	...	2	149	5	377	400	362
	2	7	507	22	262	29	128	58	225	300	275
	3	6	456	4	169	4	95	14	271	200	175
V. ...	1	3	515	2	248	4	103	9	271	300	275
	2	2	541	1	130	...	...	3	401	200	175
	3	...	...	...	...	...	...	...	...	120	112
VI. ...	1	...	...	...	...	...	...	...	...	312	275
	2	...	...	...	...	...	...	...	...	250	225
VII. ...	1	1	438	...	...	...	...	1	438	325	300
	2	11	418	32	234	35	107	78	293	212	180
	3	43	407	100	177	62	77	205	135	160	150
VIII. ...	1	...	...	...	...	...	...	...	...	275	250
	2	11	445	7	363	5	80	23	280	160	150
	3	3	312	11	120	4	58	18	138	120	112
Total No. of Kyles.		91	..	182	...	152	...	425	218	...	...

Class and Sort.		Wet Paddy Kyles—Anicut Villages.								Average Grain Value assigned.
		Good.		Middling.		Indifferent.		Average of all.		
		No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	No. of Kyles.	Average Outturn.	
			M. M.		M. M.		M. M.		M. M.	M. M.
II. ...	1	1	1,269	...	...	...	...	1	1,269	1,000
	2	...	...	...	...	...	...	...	...	850
III. ...	1	1	1,132	9	786	8	550	18	690	800
	2	11	914	23	606	26	348	60	551	725
	3	1	691	5	537	10	296	16	396	625
	4	...	...	...	...	...	...	...	...	550
IV. ...	1	7	1,359	10	805	3	447	20	945	850
	2	26	1,032	69	693	82	450	177	630	750
	3	21	892	14	533	5	385	40	703	650
V. ...	1	20	945	26	637	15	404	61	680	750
	2	4	628	8	467	6	271	18	437	650
	3	...	...	...	...	...	...	...	...	500
VI. ...	1	...	...	...	...	...	...	...	...	725
	2	...	...	...	...	...	...	...	...	650
VII. ...	1	1	821	1	606	...	...	2	714	800
	2	1	821	2	641	2	383	5	575	700
	3	3	771	2	504	...	...	5	664	625
VIII. ...	1	...	...	...	...	...	...	...	...	725
	2	...	...	...	...	...	...	...	...	625
	3	...	...	...	...	...	...	...	...	500
XII. ...	1	...	...	4	539	1	300	5	491	725
	2	2	653	1	471	1	261	4	495	650
XIII. ...	1	1	634	3	5[illegible]	3	350	7	457	650
	2	1	480	...	...	...	...	1	480	600
XIV. ...	1	...	...	...	...	...	...	...	...	600
	2	...	...	...	...	...	...	...	...	500
Total No. of Kyles...		101	...	177	...	102	...	410	629	...
		Wet Paddy Kyles.								
II. ...	1	...	...	...	...	4	648	4	648	1,000
	2	...	...	...	...	1	317	1	317	850
III. ...	1	13	1,053	32	753	39	399	84	635	800
	2	33	918	47	603	59	348	139	569	725
	3	21	727	24	458	14	279	59	511	625
	4	2	578	1	353	...	...	3	503	550
IV. ...	1	15	1,261	22	836	35	462	72	743	850
	2	90	1,092	132	672	153	389	375	658	750
	3	70	872	69	495	78	277	217	598	650
V. ...	1	14	872	11	576	14	395	39	617	750
	2	20	793	15	394	7	248	52	499	650
	3	1	606	...	...	...	...	1	606	500
VI. ...	1	...	...	...	...	1	392	1	389	725
	2	...	...	...	...	...	...	...	...	650
VII. ...	1	24	1,084	24	587	14	369	62	730	800
	2	74	964	75	528	66	335	215	619	700
	3	44	865	20	479	28	269	101	587	625
VIII. ...	1	5	929	1	520	1	279	7	778	725
	2	16	762	14	482	9	250	39	543	625
	3	4	551	2	298	...	...	6	456	500
XII. ...	1	14	920	12	530	3	395	29	695	725
	2	44	751	19	418	4	269	67	628	650
XIII. ...	1	95	878	89	502	20	299	204	657	650
	2	5	742	1	448	3	198	9	528	600
XIV. ...	1	3	807	1	415	...	...	4	709	600
	2	...	...	...	...	...	...	...	...	500
Total No. of Kyles.		607	...	620	...	563	...	1,790	618	...

The equivalent in pounds of the grain values thus assigned in Madras measures for each crop, according to the standard classification table, is rendered in the accompanying statement:—

Soils.			Jonna.				Aruga.				Wet Paddy.	
Main Series.	Sub-Divisions and their Sub-Numbers in the Standard Classification.	Sorts.	3rd-class Villages.		4th-class Villages.		3rd-class Villages.		4th-class Villages.		M. M.	lbs.
			M. M.	lbs.	M. M.	lbs.	M. M.	lbs.	M. M.	lbs.		
Exceptional.	II ...	1	350	1,018	325	940	600	1,389	550	1,273	1,000	2,263
		2	275	796	250	723	450	1,041	412	954	850	1,923
Regar Clay.	Pure III ...	1	300	867	275	796	500	1,157	450	1,041	800	1,810
		2	225	651	212	613	375	868	350	810	725	1,641
		3	175	506	166	480	300	694	275	636	625	1,414
		4	133	385	125	362	200	463	175	405	550	1,245
	Loamy IV ...	1	250	723	225	651	400	926	362	838	850	1,923
		2	166	480	150	434	300	694	275	636	750	1,697
		3	125	362	116	336	200	463	175	405	650	1,471
	Sandy V ...	1	166	480	150	434	300	694	275	636	750	1,697
		2	125	361	116	336	200	463	175	405	650	1,471
		3	90	260	80	231	120	278	112	259	500	1,131
Red Clay.	Pure VI ...	1	190	550	175	506	312	722	275	636	725	1,641
		2	150	434	140	434	250	579	225	521	650	1,471
	Loamy VII...	1	212	613	200	579	325	752	300	694	800	1,810
		2	130	376	120	347	212	491	180	417	700	1,584
		3	105	304	96	278	160	370	150	347	625	1,414
	Sandy VIII..	1	166	480	150	434	275	636	250	579	725	1,641
		2	105	304	96	278	160	370	150	347	625	1,414
		3	90	260	80	231	120	278	112	259	500	1,131
Arenaceous.	Loamy XII...	1	...	...	...	...	250	579	225	521	725	1,641
		2	...	...	...	...	225	521	200	463	650	1,471
	Sandy XIII...	1	...	...	...	...	225	521	200	463	650	1,471
		2	...	...	...	...	175	405	150	347	600	1,358
	Heavy Sand XIV ...	1	...	...	...	...	175	405	150	347	600	1,358
		2	...	...	...	...	120	278	112	259	500	1,131

Total yield of food grains.

The following statement is an attempt to estimate the total produce of the district from the available data of the acreage under each description of crop. According to the calculation the total grain produce of fusli 1280 is set down as 357,533 putties of all grains. To make adequate allowance for grain in the husk, from one-third to one-fourth require to be deducted.

	Putties.	Putties.	Putties.
Paddy	178,526—¼ or	44,631 =	133,895
Aruga	23,868—⅓ or	7,956 =	15,912
Horse gram		5,404	
		57,991	
		357,533	
		299,542	

Consumption.

In round numbers the district outturn of food grains in the year may be taken at three lakhs of putties. The population of the Government and Shrotriem villages is returned at 755,000. Allowing 2 lbs. *per diem* of grain as the allowance for each individual, we have 755,000 × 2 lbs. × 365=551,150,000 lbs.= 255,069 putties, the putty being equal to 2,160 lbs.

	Putties.
Outturn of food grains	300,000
Deduct consumption	255,000
	45,000
Deduct at five per cent. for seed grain and grain given to cattle	15,000
	30,000 surplus yield.

Surplus produce.

This estimate must, however, be accepted with caution as only something approximate :—

	Name of Crop.	Area.*	Average Yield per Acre.	Total. Putties of Grain.	Putties of Oil Seeds.	Other Putties.
	1	2	3	4	5	6
1	Paddy, first crop, irrigated	222,869	15½ Tums ...	172,725	...	...
2	Paddy, second crop ...	5,014	16 do. ...	4,011	...	...
3	Paddy, dry	7,169	5 do. ...	1,792	...	...
4	Cholum or Jonna ...	75,000	4½ do. ...	16,875	...	...
		288,887	8½ do. ...	50,555	...	...
5	Raggy	35,089	15 do. ...	26,317	...	...
6	Arnga	6,000	4 do. ...	1,200	...	...
		95,473	5½ do. ...	23,868	...	...
7	Sazza	30,000	3½ do. ...	5,750	...	...
8	Dholl	18,811	3 do. ...	7,924	...	...
9	Pessara	2,822	3 do. ...	423	...	...
10	Variga...	8,358	2½ do. ...	940	...	...
11	Karumadi	110,774	7 do. ...	38,771	...	...
12	Minumu	1,054	2½ do. ...	118	...	...
13	Korra	1,451	2½ do. ...	163	...	...
14	Bengal gram	12,231	4 do. ...	3,646	...	...
15	Cotton...	526	2 do. ...	59	...	...
16	Oil seeds	12,616	2 Mannds ...	...	...	1,262
17	Horse gram	53,812	2½ Tums ...	...	6,739	...
18	Tobacco	43,243	2½ do. ...	5,404	...	...
19	Chillies	2,930	10 Mannds ...	...	...	1,465
		3,376	10 do. ...	...	...	1,938
	Total ...	860,021	...	367,533	6,750	4,665

* Taken from the statistics published in District Gazette of the 16th September 1871.

Agricultural Implements.

Agricultural implements.

The following are the agricultural implements in general use and the corresponding English terms or explanation :—

Telugu.	English.
Nageli	Plough.
Gorru	Light plough with three shares.
Guntaka	Grubber and leveller.
Papatam	Three-pronged hoe.
Zaddigam	Drilling apparatus, which is fixed to and used with the gorru.
Dindu	Light beam-leveller.
Nalla-manu	Heavy beam-leveller.
Palla-manu	Toothed leveller.
Dante	Wooden hand-rake.
Goddali	Axe.
Gaddapara	Crowbar.
Chalagapara or Para chippa ...	Mamoti.
Dokudupara	Spud.
Kodavali	Sickle.

The plough is the ordinary Indian implement of the kind, but there are varieties, as, for instance, the wet and the dry plough : the former is a very light implement. Amongst the dry ploughs large and small descriptions will be observed. The largest and heaviest plough is met with about Ongole, and with the fine bullocks common to those parts the ploughing is much deeper than is usual elsewhere. The gorru, or light plough with three shares, is often used in light red and loamy soils to do the greatest portion of the ploughing work. It is used as a harrow also; and to convert it into a drill, the zaddigam, or drill head with three bamboo tubes fitted into it, has to be affixed, which is done by the lower end of the tubes being fastened into holes formed in each of the three shares. The apparatus is then tied on and kept in position by ropes. The guntaka, or grubber and leveller, is first used to eradicate weeds and roots and break up the surface soil, and sometimes as a pulverizer to break up the clods after the second or third ploughing of the soil; and for this purpose it is weighted with stones, and the ploughman stands on it also to give additional weight. It is usual also for it to follow immediately after the drill and fill up the furrows and smooth the soil. The papatam, or three-pronged hoe, is merely used between the lines of the young growing crops that may have been drilled. The soil is loosened and the grass worked up at the same time, and it is regarded by the ryots as a most useful implement. The dindu is a light beam-leveller, employed mostly in garden cultivation for setting firmly and smoothing

the surface of land sown with sazza or raggy. The nalla-manu, or beam-leveller, is required for wet cultivation, to make the surface of the wet ploughed fields even prior to the seed being sown. The palla-manu, or teethed leveller, is necessary in veligada and kudappa cultivation, to smooth the surface soil under the former when the seed is sown, and also to open up the soil a little when the crop is young under both systems, though chiefly under veligada.

Seasons.

Seasons.

The agricultural system varies throughout the district, according as the cultivation may be influenced principally by the south-west or north-east monsoons. Both the monsoons prevail more or less. The northern portion of the district, comprising the whole of the Ongole Taluq and the greater part of Kandukur and Kanigiri, viz., that to the north of Manneru, may be described as depending chiefly on the south-west monsoon, whilst the southern part of the district, that to the south of the line of the Manneru, may be considered to be subject primarily to the north-east monsoon. The influence of the south-west monsoon extends generally, for certain, to the line above delineated, but it so happens that some years a tract for twenty miles to the south of the Manneru will more or less fail to receive the heavy burst of either monsoon and fare very badly, whilst other years it will partake of the heavy burst of both monsoons and be well off. There are two different sets of crops corresponding to the season before referred to—the early crops (termed punasa or muduru in the vernacular) sown under the south-west monsoon, and the late crops (paira) cultivated under the north-east monsoon. The muduru crops are greatest in number, viewed solely in respect to the variety of the crops, whilst the paira crops cover the greatest extent, and, therefore, predominate as regards the bulk of the area under dry cultivation throughout the district generally. The prevalence of one or other monsoon according to locality similarly affects the extent of wet cultivated under the early or long and the late or short paddy crops, provided the irrigation supply is local in its nature and does not appertain to the Pennair. The season of each important cultivation operation for the several wet and dry crops of the district can be gathered from the annexed statement, which further furnishes similar particulars for the principal garden crops. The mode of cultivation, in the order in which each crop is usually undertaken with reference to season, is separately rendered in full detail for each crop.

Statement of the Seasons of the Different Crops.

Crop.		Name of Crop.	No. of Months to maturo	Ploughing Season.		Sowing Season.		Reaping Season.		Threshing Season.	
				Telugu Months.	English Months.	Telugu Months.	English Months.	Telugu Months.	English Months.	Telugu Months.	English Months.
1		2	3	4	5	6		8	9	10	11
Wet Crops.	1	Pishanam ...	6	Jeshthamu and Ashadhamu.	June and July.	Jeshthamu to Shravanamu	June to Aug.	Margashiramu and Pushyamu.	December & January.	Maghamu ...	February.
Punasa or Muduru.	2	Paddasannavari ...	6	Ashadhamu and Shravanamu.	July and Aug.	Ashadhamu to Bhadrapadamu.	July to Sept.	Maghamu ...	February ...	Phalgunamu.	March.
	3	Vadasannavari ...	5	do. ...	do	Shravanamu & Bhadrapadamu.	August and September.	do. ...	do.	do. ...	do.
	4	Tiravarangavari...	6	Shravanamu and Bhadrapadamu.	August and September,	do. ...	do.	do. ...	do.	do. ...	do.
	5	Mosanam	5	do. ...	do.	do. ...	do.	Pushyamu and Maghamu.	January and February.	do. ...	do.
	6	Kalingasambhavu..	4	Ashadhamu and Shravanamu.	July and Aug.	do. ...	do.	Margashiramu.	December ...	Margashiramu.	December.
	7	Iswarakora ...	5	Ashadhamu to Bhadrapadamu	August to October.	Bhadrapadamu to Kartikamu.	September to November.	Maghamu to Phalgunamu.	February and March.	Phalgunamu.	March.
	8	Peda Kesari ...	4	Kartikamu and Margashiramu	November, and December.	Kartikamu and Margashiramu.	November & December.	do. ...	do.	Chaitramu ...	April.
Palra ...	9	Potti Kesari ...	3	Pushyamu and Maghamu.	January and February.	Pushyamu and Maghamu.	January and February.	Phalgunamu and Chaitramu.	March and April.	do. ...	do.
	10	Potti Nallavari ...	3	do. ...	do.	do. ...	do.	do. ...	do.	do. ...	do.

Statement of the Seasons of the Different Crops.—Continued.

Crop.		Name of Crop.	No. of Months to mature.	Ploughing Season.		Sowing Season.		Reaping Season.		Threshing Season.	
				Telugu Months.	English Months.	Telugu Months.	English Months.	Telugu Months.	English Months.	Telugu Months.	English Months.
1		2	3	4	5	6	7	8	9	10	11
Dry Crops.	1	Sazza	3	Jeshthamu ...	June	Ashadhamu.	July ...	Bhadrapadamu.	September ...	Bhadrapadamu.	September.
	2	Nuvvulu	3	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...
	3	Jonna	5	Jeshthamu and Ashadhamu.	June and July.	Shravanamu.	August ...	Margashiramu.	December ...	Pushyamu ...	January.
	4	Kandi	3	do. ...	do. ...	do. ...	do. ...	Phalgunamu.	March ...	Chaitramu ...	April.
	5	Pessara	5	do. ...	do. ...	do. ...	do. ...	Pushyamu ...	January ...	Maghamu ...	February.
	6	Korra	4	Ashadhamu ...	July	do. ...	do. ...	Kartikamu...	November ...	Kartikamu...	November.
Punasa or Mudaru.	7	Chama	3	do. ...	do. ...	do. ...	do. ...	Aswayujamu.	October ...	Aswayujamu	October.
	8	Aruga	6	do. ...	do. ...	do. ...	do. ...	Pushyamu ...	January ...	Maghamu ...	February.
	9	Indigo	3	do. ...	do. ...	do. ...	do. ...	Aswayujamu & Pushyamu	October and January.	...	...
	10	Cotton	...	do. ...	do. ...	do. ...	do. ...	Maghamu to Chaitramu.	February to April.	...	...
	11	Castor oil... ...	5	Ashadhamu and Shravanamu	July and Aug.	Shravanamu and Bhadrapadamu.	August and September.	Maghamu & Phalgunamu	February and March.	Phalgunamu.	March.
	12	Veli Vari	4	do. ...	do. ...	do. ...	do. ..	Margashiramu	December ...	Pushyamu ...	January.
	13	Veli Raggy ...	4	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do.
	1	Jonna	5	Ashadhamu to Bhadrapadamu	July to September.	Aswayujamu & Kartikamu	October and November.	Phalgunamu.	March ..	Vaisakhamu.	May.
	2	Variga	3	do. ...	do. ...	do. ...	do. ...	Pushyamu ...	January ...	Phalgunamu.	March.
	3	Coriander... ...	3	Bhadrapadamu & Aswayujamu	September and October.	Kartikamu ...	November ...	Maghamu ...	February ...	Phalgunamu.	do.
	4	Linseeds	3	do. ...	do. ..	do. ...	do. ...	do. ...	do. ...	do. ...	do.
	5	Mustard	4	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do.
Pairu ...	6	Horse gram ...	4	Aswayujamu ...	October ...	Kartikamu & Margashiramu.	November & December.	Maghamu and Phalgunamu.	February and March.	do. ...	do.
	7	Minumu	3	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do.
	8	Alachanda ...	3	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do.
	9	Karamandi... ...	3	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do. ...	do.
	10	Zaamnu	4	do. ...	do. ...	Kartikamu ...	November ...	Phalgunamu.	March ...	...	...
	11	Bengal gram ...	4	Kartikamu and Margashiramu.	November and December.	Margashiramu.	December ...	do. ...	do. ...	Chaitramu ...	April.
	12	Castor oil ...	4	Margashiramu.	December ...	Pushyamu ...	January ...	Chaitramu & Vaisakhamu	April and May.	...	...
Garden Crops	1	Sazza	3	Jeshthamu ...	June	Jeshthamu & Ashadhamu.	June & July	Bhadrapadamu.	September ...	Bhadrapadamu.	September.
	2	Chillies	...	Bhadrapadamu & Aswayujamu	September and October.	Aswayujamu & Kartikamu	October and November.	Pushyamu to Phalgunamu	January to March.	...	...
	3	Raggy	4	Aswayujamu & Kartikamu.	October and November.	Kartikamu & Margashiramu.	November & December.	Phalgunamu.	March ...	Chaitramu ...	April.
	4	Tobacco	5	do. ...	do. ...	do. ...	do. ...	Chaitramu ...	April ...	...	...
	5	Cheyroot	6	Kartikamu ...	November ...	Margashiramu.	December ...	Vaisakhamu.	May ...	...	...
	6	Palapu Jonna ...	5	Chaitramu ...	April	Chaitramu ...	April ..	Jeshthamu ...	June ...	Jeshthamu ...	June.

Wet Crops and their Cultivation.

Paddy.

Paddy (*Oryza sativa*), Tel. vari.—The varieties of paddy generally cultivated in Nellore are those already detailed in the statement showing the seasons during which the several wet cultivation operations are carried on. Altogether they number ten different kinds. A few other descriptions are occasionally met with in various localities, but the extent to which they are cultivated is insignificant, and particulars are not, therefore, gone into. Wet cultivation is carried on under two distinct systems, termed veligada and kudappa. The former may be explained as the dry ploughing, and the latter as the wet ploughing system. Veligada cultivation is only adopted where the supply of irrigation will not suffice early in the season for the land to be ploughed wet under kudappa, and where the soil may be loamy or light sandy and so favor that mode of cultivation. Heavy regada soils cannot well be cultivated under the system. The quality of the irrigation supply and the nature of the soil determine, therefore, the mode of cultivation to be pursued. As far as practicable, kudappa may be said to be always adopted. The veligada system of cultivation has force mostly in the easternmost or sea-board villages of Kandukur, Kavali, Nellore, and Gudur. During the scanty monsoons, experienced sometimes of late years, recourse has been had to this system more or less under the tanks in the inland portions of the foregoing taluqs, and also to some extent in the western taluqs. Under many of the larger tanks the two systems are combined, part of the area being under veligada and part under kudappa. The supply under these tanks is thus turned to the best account, and the cultivation of a large proportion of the area under such sources is yearly ensured. Whilst the various descriptions of paddy enumerated are all cultivable under kudappa, only pedda sannavari, vadla sannavari, and kalinga sambava are regularly put down under veligada; sometimes, but very seldom, pishanam and mosanam are thus cultivated as well. With the first early rains the loamy and light sandy soils to be sown under veligada are at once ploughed, and the operation is repeated at intervals, until the land may have been ploughed some five or six times. The seed is then either sown broadcast and ploughed in twice, and the surface soil smoothed with the toothed leveller, or else it is drilled in with the gorru and covered up and levelled with the guntaka. Should rain not fall within the second or third day, the guntaka is used once more. The seed is only drilled, as a rule, in villages where the gorru may be kept up for dry cultivation. The seed sown under veligada is usually 2 tums,* or 64 manikas per gorru. For nearly two months paddy thus planted is

* Equivalent to about 23·67 Madras measures per acre.

dependent on rain. After one month the gorru or the teeth leveller is used to loosen the soil, and about the end of the second month, but sometimes earlier if the weeds are very thick, water is let on, and the whole is once well weeded, or it is done if heavy rain sets in. Whilst the crop is being weeded, the plants are thinned in parts and transplanted in places where the crop may have partially failed. After weeding, the crop is regularly irrigated as far as may be practicable, and a second weeding, if necessary, takes place during the third month. Weeding is a very much heavier operation under veligada than kudappa. The period during which paddy can be put down under veligada is limited to August and September, whilst under kudappa it can be sown at any time that water may be available, for one of the several crops is sure to suit at any season of the year. As a rule, however, kudappa cultivation may be considered to commence late in June or during July, and continue till February; for after that it is rarely resorted to, save in second crop land, or in submerged land that could not have been sown before. The early kudappa cultivation towards the end of June or during July is generally under the river channels or river-supplied tanks. The crops most extensively put down under these sources are those known as pishanam and sannavari, which take six months to mature, and yield the white or superior description of rice. These two kinds are only cultivable till about the end of August, after which the common descriptions, which mature in a less period, are sown, but these details have already been rendered in the statement showing the periods at which the cultivation operations of the several wet grains are carried on. The mode of cultivating each description of paddy under kudappa is the same, irrespective of the season at which put down. The land is first ploughed, with the water on it, from five to eight different times, either each time separately, or twice at the same time, with an interval of a few days between each operation according to local usage. The number of times it is ploughed will depend on the soil in some measure, as the loamy soils work up far more speedily than the heavy soils. The interval between the ploughings is requisite to allow time for the grass and weeds to rot and be killed, in some measure, by being ploughed into and worked up with the slush the paddy field comprises when fully ploughed. Upon the completion of the requisite ploughing, the banks are made up, and the water is partly let off and the beam-leveller is used to level the surface of the field and make it as smooth as practicable. The field is next flooded, and the seed, which will invariably have been previously steeped and closely packed in leaves, is sown broadcast over the field. The quantity of seed expended varies somewhat, but is generally about 2¼ tums* or 80 manikas per gorru. The water is left

* Equivalent to about 30 Madras measures per acre.

on the whole field the first night, but is completely drawn off in the morning. Subsequent irrigation is regulated with reference to the position of the soil, whether high or low lying; and the nature of the soil, whether porous or retentive of moisture. In either of the former cases the field will be flooded on the third, fourth, or fifth day, and again let off; in the latter cases from the sixth to the ninth day, and at varying intervals afterwards, depending very much on the same conditions up to about the fifteenth or twenty-fifth day, when the crop is regularly irrigated. After thirty or forty days, the latter most frequently, the crop is weeded and any thin parts are transplanted with plants taken from where the paddy may be overthick. Again, after another month, it is weeded a second time if requisite. In some villages it is usual for the teeth leveller, or bushes heavily weighted, to be drawn over the young crop to submerge the weeds. This is done when the plant is a month old, and with the view of reducing the labor of weeding. After this treatment the paddy rises again, but the weeds and grasses are in some measure killed. What weeds may afterwards remain are removed by hand at the close of the second month. Water is afterwards let on and off regularly according to the soil and season. Should an unfavorable wind prevail, and the plant be attacked by any grub, the usual course is to cut off the water altogether for a time and let the soil dry. No irrigation is necessary for the last twenty or thirty days before the paddy is harvested.

From the foregoing details it will have been observed that the system of cultivation throughout the district is that of sowing the paddy broadcast. Transplanting the seed prevails only in the extreme northern part of the district bordering on the Kistna, and in the Sriharikota villages formerly appertaining to the Chingleput District. Where the irrigation is as regular as it now is under the anicut-supplied tanks and those fed from the river channels, the ryots may eventually realize the very great advantage to be derived from transplanting the paddy. The advantage which the transplanting system may be considered to have over the broadcast system is that the former admits of well-grown and vigorous young plants raised in highly-manured beds being transplanted, which readily take root, and, having the start, are able to vanquish the weeds which at once spring up beside them. Under the latter, or broadcast system, the weeds sprout with the young paddy, and, as the latter grows, it has to contend for existence against the weeds, and the growth of the paddy is consequently more or less checked. The ryots object to the transplanting system on the score of the labor involved; but, although the actual labor requisite at one time may be greater, it would not collectively be as great as that which must necessarily be expended in the several operations of weeding. The transplanting system may be regarded as particularly advantageous for the poorer descriptions of soil, inasmuch as a strong and healthy plant once transplanted in poor land is able to thrive better than seed sown in land deficient in strength, which affords the plant but slight chance of growing vigorously at first. Another and important advantage is that the transplanted crop will mature with irrigation for a less period by some twenty or thirty days than the broadcast-sown crop. This latter question affects only the kudappa cultivation, not the veligada; under the latter, the period that water is required is less than under the transplanting system.

Jonna. Jonna (*Sorghum vulgare*) is sometimes cultivated as a wet crop in the Atmakur Taluq under tanks where the supply will not suffice for the cultivation of the whole of the wet area under paddy. Part in such cases will now and again be put under jonna, and the crop will be sown in the ordinary manner as a dry crop; and, as the soil dries up and needs it, irrigation will be applied by just flooding the field slightly. The kind thus sown is paira jonna.

Gingelly and Hemp. Indigo. Gingelly seed (*Sesamum Indicum*), Tel. nuvvu, and sunu hemp (*Crotalaria Juncea*), Tel. janumu, are also to a slight extent cultivated in wet land; likewise indigo (*Indigofera tinctoria*), Tel. nili, which is planted to a considerable extent in some parts. The foregoing are all referred to under dry crops; and the only other crops under wet cultivation are garden crops, which will be found separately detailed under that head.

Dry Crops and their Cultivation.

Spiked millet. *Punasa or muduru crops.*—Spiked millet (*Penicillaria spicata*), Tel. sazza, is the first crop of the season, and is sown as soon as practicable after the 15th June or early in July, and reaped during September. As a dry crop, sazza is only general throughout the northern taluqs of the district. The usual system adopted is to put sazza in lands under variga the previous season, for the land prepared for the latter crop is invariably manured and always well ploughed. The surface soil, therefore, is only broken up and loosened by being scraped with the guntaka or grubber, which at the same time eradicates the roots of the former crop and of any weeds. The guntaka is repeated three several times, or else twice double; afterwards the whole is ploughed up once with the gorru, and a second time sowing the seed, and the soil is then levelled and the seed covered in by the guntaka, which follows the drill twice. After one month, the papatam is twice used to loosen the soil and remove the weeds between the rows of the drill; and again once more, or in place of it the gorru is used once after an interval of a

fortnight. The seed sown varies from four to six manikas* per gorru, and the crop is usually put down in light loamy soil. Now and again cotton is drilled with the crop, or else a little gongura or jute is mixed; but more generally it is sown alone, so that the land may be ready, after the sazza is harvested, to be ploughed up at once, and prepared for horse gram which usually follows as a second crop.

Gingelly. Gingelly seed (*Sesamum Indicum*), Tel. nuvvu, is only slightly cultivated in this district. It is sown with the early rains in July, and is more often put down in garden or wet land than in dry. In the extreme northern part of the district it is to a slight extent mixed and sown along with the peda jonna.

Cholam. Great millet, or early jonna, or cholum (*Sorghum vulgare*), Tel. peda or muduru jonna. This early jonna comprises two varieties, the white and the yellow, and is common only to the most northern taluqs of the district. It is a five months' crop, sown between the middle of July and middle of August, and reaped about the middle or end of December. Land under variga, lamp oil, or horse gram the previous season is generally got ready for jonna, as the ground is very slightly ploughed for this crop: consequently, fields ploughed well the previous year for the above crops are systematically selected. No manure, as a rule, is applied specially for this crop, as the greater portion of the land has usually been manured for the previous variga crop. The guntaka is ordinarily used twice double to stir up the loose surface soil and weeds and remove the roots, &c.; then the land is ploughed twice with the gorru, and on a third occasion the seed is drilled and covered in with the guntaka, which follows the gorru. On the second or third day, if rain should not have fallen meanwhile, the guntaka is once more driven over the whole field with the twofold object of preventing the soil from caking and of covering up any seed that may be on or near the surface, and that otherwise would dry up and not sprout, or be liable to be eaten by birds, &c. Subsequently, the soil between the young plants when about a month old is loosened twice with the papatam. Kandi, red gram, pessara, and green gram are invariably sown with the jonna. In some parts the kandi is put down in separate drills at regular intervals throughout the fields, and in others it is mixed and drilled along with the jonna and pessara. A little nuvvu or gingelly seed is as well mixed and sown with the jonna in the extreme north of Ongole and in Kanigiri. The seed required for one gorru varies from six† to eight and sometimes to ten manikas in the best soils. With each tum, or 32 manikas of jonna seed, one or

* 1·49 to 2·24 Madras measures per acre. † 2·24 to 2·98 Madras measures per acre.

two manikas of pessara and a half or one manika of kandi is m
In the poorer soils the seed is less thickly drilled than in the ged.
soils; hence the variation as to the quantity expended. The bed
season for the jonna crop is when the rain is light and not too frequent.
Heavy rain is damaging to the young crop whilst growing; and, should
rain set in whilst the ear is developing, the milk then forming into
seed mildews or musts, and the crop becomes more or less blighted.
A year of heavy rain is invariably a bad jonna season; though perhaps,
if the rain may have been mild during the early period of the plants'
growth, the crop may appear magnificent and stand eight or sometimes
ten feet and more high. The early jonna is regarded as a most precarious crop. The stalk of the plant, or choppa, is needed for the cattle,
and is their chief food; and, should the grain either partially or wholly
fail, the straw is always harvested, and a little kandi and pessara
secured as well.

Red gram. Red gram (*Cajanus Indicus*), Tel. kandi, is seldom sown alone, but is mixed with the muduru or early jonna and with the aruga, raggi, and korra crops. In this way it is extensively cultivated.

Green gram. Green gram (*Phaseolus mungo*), Tel. pessara, is also sown to a considerable extent with both the early and late (muduru and paira) jonna crops. There are two descriptions. It sometimes follows sazza as a second crop, or is sown in land in which the crop first put down may have failed, and is then ploughed the same as for horse gram.

Korra. Italian millet (*Setaria Italica*), Tel. korra, is put down directly after jonna, the land being ploughed and the seed sown in the same manner as described for that crop. The usual period of sowing is the latter part of August; and it is rarely met with save in the northern taluqs. Cotton is generally sown with the korra, and occupies every sixth drill. Kandi and gongura are usually mixed to a slight extent as well with the korra seed, and drilled along with it. The seed sown is ordinarily 5 to 7 manikas* per gorru, and the crop is harvested during November.

Chama. Small millet (*Panicum frumentaceum*), Tel. chama. This grain forms the semolina of commerce. It is cultivated mostly in villages along the northern ghauts, but only in the Kanigiri Taluq to any extent. Should it follow horse gram, or any similar crop well ploughed the previous season, the guntaka is first used twice double, then the land ploughed up twice with the gorru, and the seed is sown with a third ploughing, and the guntaka

* 1·86 to 2·61 Madras measures per acre.

rows immediately to cover up the whole, and again the second or third day. If the land may not have been well ploughed the preceding year, the guntaka will be used once, and the whole regularly ploughed up three times. The crop is generally planted during August, but sometimes in September, and with the first seasonable fall of rain, after the land may have thus been ploughed and prepared, the gorru is used once, and then again drilling in the seed. The papatam is drawn through the crop when about a month old. Chama is invariably sown alone, and is reaped about the third month. The seed usually sown is about 6 manikas* per gorru.

Aruga.

Common millet (*Paspolam frumentaceum*), Tel. aruga or arike. This grain is extensively cultivated throughout the southern and central portions of the district, but it is rarely met with in Ongole. It is a five months' crop, usually put down during August, the seed sown varying from 12 to 16 manikas† the gorru. It is seldom cultivated quite alone save in the poorest soils, cotton usually occupying every sixth drill or line throughout the crop. The mode of preparing the land depends on the crop the land may have borne the preceding year, and whether it may have been well ploughed. If it may have been, the guntaka will first be used twice, then the gorru to plough up the whole twice, and the seed will be drilled a third time and covered up with the guntaka. Sometimes, in place of the guntaka twice first, the whole is once turned up with the plough. In the southern taluqs the crop generally follows land under paira jonna the previous year, and in the northern taluqs land under the lamp-oil plant. The above is the course adopted as well in light loamy or red sandy soils. In the heavy regada or better soils the land will be regularly ploughed up three times, then the gorru will be used once, and a second time to drill the seed, and the whole levelled and covered in once with the guntaka, and this operation will be repeated either the second or third day should rain not fall. When the crop is about a month old, the papatam is used once to loosen the soil and grub up the weeds between the drills. A little gongura is often sown as well in the aruga fields. The harvesting season is in January. Aruga is a most hardy crop; it seldom suffers from any excess or heavy downpour of rain; and in seasons of a copious supply it grows and yields well. At the same time it is regarded as an exhausting crop. The grain is common only amongst the poorer ryots and lower orders of the people.

Indigo.

Indigo (*Indigofera tinctoria*), Tel. nili, is cultivated as a dry crop, and is sown immediately after the peda jonna sowing is over in the northern part of the

* 2·24 Madras measures per acre. † 4·48 to 5·96 Madras measures per acre.

district (Ongole and Kandukur) where the greatest breadth is thus cultivated. Its cultivation is general, also, throughout the garden and wet land of the district. The ordinary system observed in the above taluqs, when cultivating indigo as a dry crop, is for it to follow variga, as the land will have been well ploughed and manured the previous season. The guntaka is first used, then the seed is sown broadcast, and the whole is ploughed up twice with the gorru, and is covered over and levelled by bushes, heavily weighted, being drawn over the field. Should the moisture in the soil prove insufficient for the seed to germinate, or heavy rain intervene before the seed has well sprouted, a second and sometimes even a third sowing has to be resorted to. After one month the young plant is generally weeded. In some parts of the western taluqs indigo seed is sown with the paira or late jonna crop to a slight extent, but only in fair soil. The indigo plant in such cases comes up well at first, but is stunted and very short in growth, being covered by the rapidly and densely growing jonna. After the latter is harvested, the indigo plant recovers somewhat, and shoots up fairly should any early showers occur to help it on. When thus planted, the seed is scattered broadcast over the land, very thinly, prior to the jonna seed being drilled. In wet and garden land the soil is first irrigated, as it is ordinarily ploughed up and prepared during the hot-weather months (April and May), and the seed is sown broadcast whilst sufficient moisture remains for it to sprout. The seed is at once ploughed in and the soil levelled and set with the dindu, and the whole field is next divided into beds for irrigation. Having once come up well, the crop is regularly watered at intervals of about a week. Sometimes the plant is sown in the raggi gardens, and thrives fairly after the grain crop has been harvested. In the dry land, as a rule, one cutting is obtained in October and a second in January; in the wet and garden land two cuttings are certain, and sometimes a third is secured.

Cotton.

Cotton (*Gossypium herbaceum*), Tel. patti. It will be observed from the statement showing the area under the respective crops that very little land is put down under cotton only. When thus separately cultivated, it is invariably in good soil. Cotton is mostly sown with either aruga, kandi, or raggi in separate drills, every sixth being cotton. The cotton plant outstrips the grain crop which is first harvested, and the cotton then alone occupies the field. For cotton, when separately cultivated, the soil is well prepared and ploughed up four or five times, and the seed is drilled after the first seasonable fall of rain, and is covered with the guntaka. The cotton seed is specially prepared by being rubbed in cow-dung and then well dried in the sun, and it requires to be sown at once afterwards. The young crop is worked up and the soil loosened

now and again with the papatam. As the pods ripen and burst, the cotton is picked at intervals of three or four days in the regada, and five or six days in the red soils, and the crop continues to be gathered for a period of two months.

Castor oil.

Castor or lamp-oil plant (*Ricinus communis*), Tel. amudalu, is usually sown towards the end of August or during September. The land having been previously ploughed three or four times, furrows are formed at equal distances apart with the plough, and the seeds are dropped in by hand and covered by a second plough. The seed put in is 6 manikas* per gorru. As the young plants come on, the whole is regularly ploughed twice in the ordinary manner, or else twice with the gorru diagonally across the field and young plants. The above is the universal course throughout the northern taluqs ; in the south the soil is usually ploughed up once only, then the guntaka is used twice, and the plough once more, and the seed is put in as above. After one month, and at intervals of twenty days or more, the space between the lines is worked up with the guntaka ; sometimes the whole is ploughed up. The seeds are first picked towards the end of January or during February, and are gathered three times altogether, the whole operation occupying about two months.

Paddy.

Dry paddy (*Oryza sativa*), Tel. veli vari or velavadam vari, is cultivated to a very slight extent along different parts of the coast in low-lying land, the greatest breadth of this cultivation being in the Ongole Taluq, where it regularly occurs amongst the dry cultivation in the eastern villages. The land is often manured and then ploughed up two or three times, then twice more with the gorru, and a third time drilling the seed, and all is covered in. Kandi is always sown with the crop in Ongole, and occupies every sixth drill. The seed is sown in August or early in September, and the crop harvested during December. After one month the papatam is used twice to eradicate the weeds and loosen the soil, and the whole is weeded by hand after the second month. In other parts than Ongole the crop is generally sown broadcast, and no other crop or kandi is mixed with it.

Raggi.

Raggi (*Eleusine corocana*), Tel. veli raggi or tamide, is cultivated exactly the same as korra, but is sown somewhat later towards the end of August or during September. Cotton is invariably drilled with the crop, and it out-tops the raggi and grows up vigorously after the latter crop is harvested. In the southern taluqs, where it is rarely cultivated as a dry crop, it is sown broadcast and ploughed up with the gorru twice, and then

* 2·24 Madras measures per acre.

covered once with the dindu. The raggi is cut early in December. When drilled the seed expended is 6 manikas* per acre.

Cholum.

Paira Crops.—Great millet, or late jonna, or cholum (*Sorghum vulgare*), Tel. paira jonna, is similarly to the early jonna of two varieties—the white and the yellow. The sowing season is during October or the early part of November, and the crop is also of five months' duration, maturing early or late during March. It is the chief crop throughout the principal division taluqs, and extends also throughout the southern portion of the Kandukur and Kanigiri Taluqs. In respect to area, therefore, it is by far the most extensively cultivated crop in the district. Occupying, as it does, some 67 per cent. of the total dry cultivated area throughout the three most important dry taluqs of the principal division, any regular rotation is precluded, and paira jonna follows paira jonna year after year with a regularity that is surprising. It is no uncommon thing for a ryot to admit that he has never known any change in the usual jonna crop to have been made from the time of his forefathers. Being the principal dry crop in the greater number of taluqs, the land is manured to the exclusion of all other dry cultivation (the only other dry crop of any extent being aruga) ; but only so far as may be practicable after the wet and garden land, which most ryots hold in all the southern taluqs, and which is held to be the most important, has been well manured. Distant fields often do not get treated at all, the manure available sufficing only for what may be termed the home lands. The system of cultivation in force varies somewhat in different localities, and may thus be described :—The land is first prepared for ploughing in the northern taluqs under this cultivation by the guntaka being used once or twice double, then the land is ploughed up three or four times ; if only the former before the sowing season sets in, the gorru is used twice to plough up the whole ; if the latter, once only, and again afterwards to drill in the seed. The soil is levelled and firmly set once with the guntaka, and again a second time on the second or third day should rain not intervene to moisten the soil. In the southern and western taluqs, after ploughing two or three times, the guntaka is again sometimes used once or twice, and when the sowing time comes the gorru is used once or twice and then the seed is drilled and covered in as above. In the red and sandy soils the ryots seldom plough more than twice, or use the gorru more than once, before sowing the seed. The red soils, moreover, are seldom regularly manured, and are put under paira jonna to a less extent than the black soils. After one month the papatam is generally used once, and sometimes twice in the better lands, to loosen the soil and grub

* 2·24 Madras measures per acre.

up the weeds, &c., between the drill rows. The seed sown varies, as the land may be poor or good, from 6 to 8 manikas* per gorru. Pessara, to some slight extent, is generally mixed and sown with the jonna seed. Now and again indigo is mixed and sown with the crop in the better and low-lying soils. Like the early jonna it suffers in the regada lands from a heavy monsoon, and the best jonna years are invariably those in which the latter part of the monsoon may be light. When the plant is young, heavy rain either beats it down or washes it out in a great measure on the undulating lands, and excess of moisture stunts the growth of the young plant. It is a less precarious crop, however, than the early jonna, inasmuch as it is not subject to heavy and continuous rain at the season of coming into ear; in fact it is not generally liable to rain at all at that season, and consequently it more frequently yields fairly. Whilst heavy rain is thus damaging to the heavy regada soils, it is to a moderate extent beneficial to the red and sandy porous soils, which do not for long retain moisture, and require frequent showers. The jonna stalk, or choppa as it is termed, is the fodder the ryot depends on for his working cattle and stock during the greater portion of the year; and, as there is no other crop he grows that yields equally good fodder—the straw of the aruga crop being most indifferent—the ryot is unable to restrict or alter the extent annually put under paira jonna. The necessary consequence of the system pursued of yearly cropping the land with jonna is, that tracts of land with the crop very sparse and stunted in growth, and with the cobs or jonna heads quite dwarfed compared to other lands, are now and again met with, the reason being that the lands are situated at a distance from the village and are not, as a rule, manured. In some villages, with a large area of wet and garden land, the whole of the manure will be applied to the latter lands, to the exclusion of the dry or jonna land altogether, which consequently appear from the standing crops to yield most indifferently. It is not generally the soil that is then in fault, but the treatment the soil receives.

Variga.

Panicum pilosum, Tel. variga. Lands that may have been under peda jonna, sazza, indigo, or korra are generally prepared for variga. The crop may be said to be confined to the Ongole Taluq and the portion of the Kandukur Taluq to the north of the Paleru. It is cultivated to a slight extent in the north of Kanigiri also. In Ongole it is regarded as the principal crop of the year, and occupies the largest area. It commands the greater portion of the ryot's labor and resources, for almost all the manure goes to this crop, and the land is invariably well prepared. Ploughing commences with the early rains, the guntaka having been first used to

* 2·24 to 2·98 Madras measures per acre.

clear the surface of the ground from roots and weeds, and is continued at intervals during the season till the land has been well ploughed four or five times. After the heavy burst of rain about the middle of October, the land is ploughed up twice with the gorru, and the seed is sown a third time, and the whole is smoothed over with the guntaka, which is used the second or third day a second time, should no rain have fallen, to cover in any exposed seed and prevent the surface soil from caking before the seed may have had time to shoot up through the soil. Subsequently the soil is loosened with the papatam when the crop is about a month old, and the weeds between the rows eradicated, and this operation is generally repeated at an interval of eight or ten days. The crop grows rapidly, and matures in about three months, and will often stand three feet in height, cover the ground thickly, and yield a heavy and good outturn. It only requires light rain now and again, and is invariably damaged by any heavy burst of the monsoon, either when young or just maturing. The variga crop requires to be regarded as the standby of the ryots throughout Ongole. It is most carefully and well cultivated, the ploughing being deep and effective, and the advantage of the large breed of cattle peculiar to the heavy regada soils is clearly demonstrated; for with the ordinary Indian cattle the soil could not be worked up in the same way. The sowing season is either late in October or during November, and the crop is reaped during January. The quantity of seed sown is ordinarily from 7 to 10 manikas* per gorru according to the nature of soil. This crop is seldom met with in the poorer soils. Gongura and a little jonna seed is usually mixed and sown with the crop.

Coriander.

Coriander (*Coriandrum sativum*), Tel. dhaniyam, is cultivated only in the Ongole Taluq, and chiefly in the eastern villages, in soils of a saline nature. It is sown in November at the same time as variga, and harvested late in February or during March. The produce is mostly exported to Madras.

Linseed.

Linseed (*Linum usitatissimum*), Tel. avisi, is likewise cultivated only in the Ongole Taluq of the district, or that neighbourhood, and generally more for local use than for export. It seldom covers whole fields, but is usually sown along the side of fields bordering on roads and cattle-paths, as the cattle will not eat it. It is put down after variga during November, and reaped in February.

Mustard seed.

Mustard seed (*Sinapis ramosa*), Tel. avalu. It is sown in parts of the variga fields, but rarely in separate fields, and is only cultivated to a very slight extent. If

* 2·61 to 3·71 Madras measures per acre.

put alone, the land is ploughed as for variga, and is sown about the same time, and harvested in February. The usual way is to introduce three of four drills' breadth of avalu in different parts of a few variga fields. It is well dried and carefully beaten out on some good level floor, as the seed is small and difficult to collect otherwise.

Horse gram.

Horse gram (*Dolichos uniflorus*), Tel. vulava. In the northern taluqs this pulse is ordinarily sown on land that has yielded an early crop of sazza, and invariably follows it as a second crop. In such cases it is usual either to sow the seed broadcast first and then plough the whole up twice, or else to plough twice, sow the seed broadcast, and then plough up twice with the gorru. Where the land may have been waste or cultivated the previous year, it is first ploughed four or three times as the case may be, the seed is then sown broadcast and ploughed in twice, or the gorru is used once or twice to further plough up the whole, and the seed is afterwards drilled in. When sown broadcast 16 manikas, and when drilled 12 manikas per gorru of seed is generally put down. This crop is put down in November or December, after the variga and paira jonna crops have been sown; and fields that may have wholly or partially failed are often ploughed up and put under horse gram. The crop is precarious, being very subject to the ravages of insects that attack and destroy the forming pods. At the same time the plant often grows most luxuriantly, and completely and thickly covers the ground. The crop is regarded rather as a restorative; and the dried plant and refuse husk, &c., after the gram is threshed out, is carefully stored against the wet weather and then given to the working cattle during the ploughing season. The crop is gathered during February and March.

Black gram.

Black gram (*Phaseolus radiatus*), Tel. minumu, is cultivated to a very slight extent, and is sown in November and December, the land being prepared as for horse gram.

Alachanda and karamadi.

Dolichos sinensis, Tel. alachanda and karamadi. These pulses are similarly sown in November and December, and cover only a small area. They are slightly different varieties of the same plant.

Hemp.

Sunu hemp (*Crotalaria juncea*), Tel. janumu, is more often met with in wet than in dry land, and the area cultivated in the latter description of land is very slight. It is usually put down in rather moist soil. The land is ploughed twice, the seed is then sown broadcast and ploughed in once. It is a four months' crop sown in November; and when cut down in March the plant is steeped in a pool or stream of water and the fibre removed. In the wet land it is generally put down as an additional crop after a paddy crop has been harvested.

Bengal gram.

Bengal gram (*Cicer arietinum*), Tel. senaga, is cultivated in rich land, or in soils having an alluvial deposit, and is most generally met with in the Ongole Taluq. The crop is very precarious, and is greatly affected by insects or by rain. It is sown after the heavy rains are over, late in December or early in January, and gathered towards the end of March, or early in April. The moisture from the heavy dews prevalent during the growth of the plant suffices to mature the crop.

Castor.

Late castor or lamp-oil plant (*Ricinus communis*), Tel. paira amudalu, is sown late in January when the southerly winds begin to set in, and is harvested towards the end of April. There are only two gatherings of the seed generally. The soil is ploughed up three times, and the seed is dropped in by hand in furrows formed by the plough, and covered in exactly as for the early lamp-oil crop.

Garden Crops, &c., and their Cultivation.

Spiked millet.

Spiked millet (*Penicillaria spicata*), Tel. sazza. The garden land is always carefully prepared and well manured. The guntaka is first used to clear the surface soil of stubble, and the land is regularly ploughed two or three times; it is then ploughed with the gorru, with which the seed is afterwards drilled. To cover the whole and set the ground firmly, the dindu is next used; and this effected, the field is at once divided into beds, and channels formed for the easy irrigation of the crop. The beds are formed with the danti, a large wooden hand-rake. After the crop has once well sprouted, it is watered, and irrigation is repeated at intervals of a week or so, according to the nature of the soil and the prevailing weather and rainfall, as the stony and porous soils require to be irrigated more frequently than the clay soils. The crop is weeded when twenty days old, and in some instances the gorru is passed through the young standing crop. Instead of being drilled, it is now and again transplanted, and is generally sown in June or July, and reaped during September; and being under irrigation and carefully cultivated, the crop invariably yields well.

Chillies.

Chillies (*Capsicum frutescens*) Tel. mirapkaya. For this crop, also, the land is always well prepared and manured, and after being thoroughly well ploughed some five or six times, the field is apportioned out into beds, and channels are formed to each for irrigation. The seed is sown in some well prepared spot first; and when the young plants are sufficiently advanced, the ground is prepared as above and well watered, and the young plants are put in at regular distances. About the second, and again about the fifth, day the whole is watered, and at intervals till about the

end of the third week, when the soil is dug up and loosened and again irrigated. After a week this is repeated once or twice more, and then each plant is generally manured, and irrigation is continued, as may be requisite, till the plant stops bearing. The first gathering takes place about the third month, and the crop is generally gathered with eight pickings at intervals of ten days apart. This crop is also grown in the dry land, principally in the northern taluqs, and is watered a little by hand when first put out until the plants take root, and then left to the season to mature. Now and again whole fields will thus be chillies under dry cultivation.

Raggi.

Raggi (*Eleusine corocana*), Tel. raggi or tamide. This crop often follows sazza as a second crop in gardens where the wells may be equal to the demand for two crops—should the well suffice for one only, it is raggi. The ground, which is always fairly manured, is first broken up with the guntaka, and then ploughed some four or five times on different occasions. The seed is then sown broadcast, and the land is at once ploughed up twice and levelled, and set firmly with the dindu, or else ploughed up with the gorru and the seed afterwards drilled in, and the whole covered up as above. The field is next divided into beds, formed by small ridges. Irrigation is applied after the crop has come up well, and is repeated regularly at intervals, according to the season and the condition of the plant. Raggi is now and again transplanted when thus cultivated; but always when cultivated in the sandy tracts of the coasts, and irrigated from ponds, the water being carried and sprinkled over the crop with chatties (pots). Being matured with irrigation, the crop yields well, and often gives a very heavy outturn.

Tobacco.

Tobacco (*Nicotiana tabacum*), Tel. pogaku. This plant is invariably cultivated in the rich soils adjoining the villages, or in land permanently improved by a long course of high farming. The land is always extensively manured and well ploughed up. The seed is first sown in some favorable spot, situated high and carefully prepared; and when the young plants are of sufficient size to plant out, the land is again ploughed up and divided at once into beds, formed with the danti, or large wooden hand-rake. The beds are laid out with great regularity and then watered; and whilst the soil is still wet, the young tobacco plants are transplanted at equal and regular distances. About the second, and again on the fifth day, the plants are watered, and by that time are taking root. Irrigation is continued at intervals of a few days; and when the plants are about six inches high the soil is dug up two or three times during the course of the following fifteen days, and the plants are banked up in rows and watered, between the rows thus formed, every second or third day. Should the soil not partake of saltpetre earth, a little is

applied to the plants, or mixed in the water let on to the land. As the plant blossoms, the flower is removed, and also all young shoots until the leaves have matured, when the whole plant is cut down and cured. Besides in the garden land, tobacco in small patches is planted in each ryot's holding throughout the northern taluqs of the district. The young plants are watered with a chatty two or three times when first put out, and afterwards are left to mature with the rain. These patches always occur in the midst of dry cultivation, the young plants being put out during November.

Chayroot.

Chayroot (*Oldenlandia umbellata*), Tel. chiruveru, is grown in the tracts of loose sand along the coast; most extensively in the northern part of the district. The crop is watered every now and again by having water, from adjoining ponds dug in the sand, sprinkled over the plants from chatties. The root, which forms the red dye of commerce, matures, and is ready to gather in six months. It is put down in December and taken up in May, and is not usually watered for the last month; but when ready, it is watered and then pulled up.

Summer jonna.

Summer jonna (*Sorghum vulgare*), Tel. palapu jonna, is a garden crop, and is cultivated during the hot weather only. The seed is small and red. Should a fair supply of water remain in the well after the raggi crop is harvested, the ryot will sometimes put a small quantity of this jonna down, principally for the green food it affords his working cattle during the hot weather. Part is cut green, but often a good extent is allowed to mature. The cultivation is exactly the same as for the raggi crop which it follows. It is sown early in April and reaped about June; and is, in fact, the first or summer crop of the season, sazza being the second during the monsoon, and raggi, grown during the cold season, is the third.

Indian corn.

Indian corn (*Zea mays*), Tel. mokka jonna, is sown in June or in January, but is cultivated to a very slight extent. The cobs ripen and are picked after three months.

Sugar-cane.

Sugar-cane (*Saccharum officinarum*), Tel. cheruku, is only cultivated in one or two villages in the extreme north-west corner of the district bordering on Kurnool. The area is very slight indeed, and the cane depends on well irrigation throughout the hot weather.

Betel vine.

Betel leaf (*Chavica betel*), Tel. tamalapaku or aku. The soil is generally more or less artificially prepared; and after being thoroughly well ploughed, the ground is trenched, and on the banks between the trenches the seeds of the avise (*Agati grandiflorum*) are sown, and allowed to grow up for six or eight months. Cuttings of the betel creeper are then planted along the

trenches five or six inches apart, and are watered every other day at first, but after, once having taken root, at longer intervals. As the plant grows, it is trained with the plantain fibre to the young avise trees, up which it speedily climbs. The leaves commence to be cut at end of the first year, and afterwards the leaves of each plant are cut regularly once every month, and this continues for two years. During the hot weather the betel gardens are watered daily, and they are protected from the west or land wind by a thick hedge of trees (plantains and the like), or by a regular screen fence formed with palmyra and other leaves. These gardens are put down at all times of the year.

Plantain.

Plantain (*Musa paradisiaca*), Tel. ariti chettu or aruttu. The plantain is very general throughout all gardens and parts of the district, and is always grown in betel gardens to a considerable extent. The land is prepared by being ploughed five or six times, and then holes are dug at equal distances and manured, and young shoots, removed from the plantain tree, are put in. The roots of the young shoots are first cut off, and they are allowed to dry slightly before being planted out. Until they strike root the plants are watered every other day, and afterwards at intervals varying from four to six days. The leaves are first cut for domestic use, or for sale, when the tree is about six months old, and the fruit appears at the end of the first year, and ripens about four months afterwards. As each bunch of plantains ripens and is gathered, the tree is at once cut down and gives place to the other young trees and shoots which are always coming on, for each plant or stem only yields once. The greater portion of the plantains cultivated in this district are of the common kind.

Turmeric.

Turmeric (*Curcuma longa*), Tel. pasupu. The roots are planted during June or July, and mature in a year. They are then boiled, and the article used both as a dye, and a condiment is prepared. This crop requires much care and attention, and needs a sheltered and cool spot and constant irrigation.

Ginger.

Ginger (*Zingibera officinale*), Tel. allam. Cuttings of the root are put down in August, and the green ginger is dug up in six months. The crop requires to be well irrigated and to be in rather a cool, moist spot.

Onions.

Onions (*Allium cepa*), Tel. vulligaddalu, are generally cultivated throughout the gardens of the district and in the loose sandy soil of the coast villages under raggi. In the sandy soil the plants are constantly watered by chatties. They are sown in December or January, and taken up in three months.

Sweet potatoes.

Sweet potatoes (*Batatas edulis*), Tel. genusugaddalu. Cuttings of this plant are put down during December or January, and the potatoes mature and are ready to dig up in three months. The plant is a creeper, and it requires to be well watered, and is generally met with, to some extent, in most gardens of a light loamy or sandy description of soil.

Yams.

Yams (*Dioscorea*). Tel. pendalam. There are two descriptions—the white and the red yam—and they are very slightly cultivated. The land is well ploughed, then holes are dug and manured, and cuttings of the yam are put into each and watered till they sprout about the eighth day. The plant spreads over the ground if there is no frame at hand for it to climb. If trained to a frame, the roots are much larger than when the plant trails along the ground. These yams are usually put down in July and dug up the following June.

Arum.

Arum campanulatum, Tel. tiyyakanda. The ground is prepared as for yams, and five or six young roots are planted in each bed, and watered a little till they sprout about the tenth day. Irrigation is afterwards requisite three or four times each month. There is another description known as duradakanda, which is similarly cultivated. The ordinary planting season is in July, and the roots are dug up in April or May. The tiyyakanda is a very large root, white inside; whilst the duradakanda is much smaller and rather red inside.

Colocasia.

Colocasia antiquorum, Tel. chamagaddalu. This plant is cultivated usually in betel gardens, and requires shade and much water. It is, however, cultivated to a very slight extent. The leaf and stalk, as well as the root, are used for curry. It is generally planted about July, and taken up in February.

Brinjalls.

Brinjalls or egg plant (*Solanum melongena*), Tel. vankaya. There are several varieties of this much-esteemed vegetable, which are extensively cultivated at all seasons of the year, both in gardens and backyards.

Bendakaya.

Esculent (*Okra Abutilon Indicum* and *Abelmoschus esculentus*), Tel. peda or nugu bendakaya, and potti bendakaya. These plants are extensively cultivated in all gardens and backyards during most part of the year, and the vegetable is greatly esteemed. The latter description, or potti bendakaya, is a much smaller plant, and bears more speedily, the outer surface of the vegetable being smooth, and not rough or hairy like the nugu bendakaya.

Luffa gourd.

Pentandrous luffa (*Luffa pentandra, Luffa fœtida, Luffa racemose*), Tel. neti birakaya, birakaya, and gutti birakaya, is a gourd plant, and the vegetable is highly prized, as it grows at any time of the year and throughout the hot weather if well cared for. It is extensively cultivated, and there are two descriptions of the birakaya—the peda and the potti, or matta birakaya.

Snake vegetable.

Snake plant (*Trichosanthes anguina*), Tel. potlakaya, is sown soon after the early rains set in, and is more commonly met with in backyards than in the regular gardens. The plant is trained to a frame or trellis.

Cucumber.

Cucumber (*Cucumis momordica*), Tel. peda dosakaya; (*Cucumis utilissimus*) Tel. nakka dosakaya. The former description is cultivated in gardens, and is planted with the first heavy rains, or at any subsequent time up to the cold weather. The plant commences to yield about the third month, and the cucumbers are usually cooked as a vegetable. The seed of the latter description is mixed and sown with the peda and paira jonna seed, and is often extensively met with in the dry fields. The fruit is first gathered before the jonna crop ripens, and the plant continues bearing after the jonna is harvested. The ripe cucumbers are collected and cut in pieces; and the seeds having been removed, the fruit and the seeds are separately dried in the sun. The fruit thus dried is stored against the wet weather, and when required is first soaked and then made into curry. The seeds when dried are bruized and cooked with rice, or else cucumber seed oil is extracted for household purposes.

Gourds.

Gourds—bottle gourds (*Cucurbita laginaria*), Tel. anapakaya or sorakaya; squash gourds (*Cucurbita maxima* and *Cucurbita pepo*), Tel. gummadikaya and budidegummadikaya. There are several minor descriptions of the squash gourd. All the gourd plants are sown after the early rains set in, and at other times, and are more cultivated in backyards than in garden lands. They are often put down and trained over the roofs of houses or huts.

Water melon.

Water melon (*Cucumis trigonus*), Tel. puchchakaya. There are two or three sorts of water melon; the ordinary or common sort is known as karrapuchchakaya. The seed is generally put down from November till about March in sandy soil, or else in the beds of rivers and streams. The plants require attention and care to be well reared, and the fruit ripens about the third month. The fruit is eaten with sugar, and is much prized during the hot weather. Sometimes the common plants are put down in dry fields where the soil may be light and cool.

Greens.

Greens (*Amaranthus oleraceus*), Tel. totakura, perugu totakura. Several varieties of these plants are cultivated extensively in gardens and backyards all the year round. Also *Alternanthera sessilis*, Tel. ponnagantikura. This plant is not cultivated, but grows wild on the banks of channels and the like.

Indian sorrel.

Indian sorrel (*Rumex vesicarius*), Tel. sukkakura, is a very common kind of greens. The ground is well prepared, and it is sown in beds. About ten holes

are made in each bed, and two seeds are put in each. The plants sprout in about four days, and in two or three days are watered, and afterwards now and again. After a month it is first cut, and the operation is repeated afterwards at intervals of every ten days or so for a period of six months. It is an exceedingly common vegetable in all parts, and is put down in any season.

Sour greens.

Sour greens (*Hibiscus cannabinus*), Tel. gongura. This is the jute-yielding plant, and it is extensively cultivated in gardens, and is mixed and sown with most dry crops as well, both on account of the leaf and fibre, and sometimes as green fodder for the cattle. There are two varieties, known as the yerra and pulla gongura.

Spinach.

Common spinach (*Basellacordifolia* and *Spinacia tetrandra*), Tel. peda bachchali kura and mattu bachchali kura. These varieties are very generally cultivated. The former is the creeper, and is sometimes termed pundri bachchali.

Fenugreek.

Fenugreek (*Trigonella fœnum græcum*), Tel. mentikura, is cultivated only in a few backyards, and to a very slight extent.

MANURE.

Manure.

The treatment the land receives varies a good deal according to locality, the nature of the soil, and crop under which ordinarily cultivated. The garden lands irrigated from wells, &c., may be said to be manured yearly, and often twice a year, or for both of the crops ordinarily taken off the land. In the wet lands, where the area may be moderate, each field is usually manured turn by turn once in three or else four years, but in some cases not quite so often. Where the wet area may be large and predominate over the dry area, the more distant and indifferent wet fields are often not generally manured at all. The dry land is more or less extensively manured, according to the area of garden and wet land which the ryots may have first to provide for. Throughout the wet villages of the coast taluqs large herds of cattle are kept up, partly to manure the wet land and partly for stock purposes. The light soils sown under veligada cultivation and ploughed dry require to be more frequently manured than other lands; and it is usual, therefore, to slightly manure such lands either yearly or every second year. The lands under kudappa, ploughed up wet, are manured once in every three, four, or five years. Throughout the coast taluqs of Gudur, Nellore, and Kavali the cattle are generally folded on the land from harvest time till the rains set in and the sowing season once more commences. Manure is carted to the wet fields as well from the heaps collected in the villages during the

period the ground is under crop. The same system is sometimes pursued in the more central villages and those of the western taluqs of Rapur, Atmakur, Udayagiri, and Kanigiri, but more generally the cattle are kept in the villages throughout the year, and manure is carted to the fields. There are comparatively few flocks of sheep in the coast taluqs, but large numbers are kept up in the inland and western villages, and are extensively penned on the garden and wet land. In the latter localities, and in the few parts of the coast villages where leaves can be obtained, they are extensively used to manure land that may be ploughed up wet. In the wet lands of Kandukur and Ongole the cattle are picketed in the fields as long as possible, and manure is carted also to some extent. The period the cattle are folded on the land may be reckoned about six months, from February or March to July or August. For the light soils under veligada cultivation manure is generally carted at the rate of ten or fifteen bandies per acre, and, as before mentioned, this is repeated annually or every alternate year. The quantity put to the land ploughed wet varies from twenty to twenty-five bandies per acre, once in every three, four, or more years. When sheep or goats are penned on the land a flock of some two hundred will manure one acre in one or two months, according as the field may be moderately or fully manured. In the western taluqs the ryots sometimes have their own sheep and goats, or else they hire the shepherds' flocks to be penned on their land at a fixed grain payment per month according to the size of the flock. If cattle are picketed, a herd of one hundred will be folded on the land for ten days to manure it moderately, or from fifteen to twenty days to manure it well. Throughout the principal division of the district, or the paira jonna country, the cattle are rarely folded in the fields at night, but are kept in the villages, often in the ryot's own house, or in the verandah if few in number; and the dung and refuse straw is daily deposited in an adjoining manure pit kept for the purpose. These pits are yearly emptied; and, as before explained, the contents are carted to the dry land only after the demand for the garden and wet land have been first satisfied. The proportion of the dry land manured often varies from one to two thirds, and the manured fields may be calculated to get a turn only once in every four, five, or six years as the case may be. Where paira jonna may predominate, fields, either continuously or intended to be so cultivated the same season, are alone manured in the dry land, all other dry crops being rarely so treated. In the sub-division taluqs where another kind or the peda jonna is cultivated, and variga forms the principal dry grain, both the system of manuring pursued and the crop to which it is applied is different from that adopted throughout the portion of the district under paira jonna. In the

tract of country under peda jonna the cattle are kept in the fields as much as possible, pandals or sheds being run up to protect them from the great heat of the sun and the land wind during the hot weather, as particularized under pasture. The cattle are fed in these sheds during the day, and are picketed in the open field at night, and are, therefore, well cared for, and the most is made of the manure. As there is comparatively very little wet or garden cultivation throughout the northern part of the district, a much greater proportion of the dry land is, therefore, treated with manure than is practicable in the southern taluqs, and at the same time the land is far better or more heavily manured. The tract of country, in fact, comprises the best dry lands of the district. The fields annually manured are invariably under preparation for the variga crop, and the course thus pursued favors the system of rotation observed, which will presently be referred to. In parts of Ongole and Kandukur permanent cattle sheds are kept up in the fields, and so a portion of the ryot's cattle may be said to be always on the land. Whilst to the dry land in the principal division taluqs only ten to fifteen bandy-loads of manure are generally carted per acre, in the sub-division taluqs the quantity usually varies from twenty to twenty-five bandy-loads per acre; or else, if village earth (*pati* soil) or deposit earth from tanks and ponds is put to the land, some forty or fifty bandy-loads will be carted to the acre. There is not much manure for the ryots to purchase, save at the larger towns with an urban population. The usual price is two annas a bandy if sweepings and ashes mostly, and three annas if dung. Now and again manure is given in exchange for straw at one bundle per bandy-load.

Rotation of Crops.

Rotation of Crops.

The large extent to which paira jonna is cultivated in the principal division taluqs precludes any system of rotation being observed as regards the bulk of the land under cultivation. The following statistics, as to the manner in which the land is cropped, are compiled from the Settlement report for the above portion of the district:—

Taluqs.	Per-centage under					Total.
	Paira Jonna.	Arugu.	Lamp Oil.	Horse Gram.	Minor Crops.	
Nellore	34	18	10	4	34	100
Gudur	53	9	4	2	32	100
Rapur	75	9	5	2	9	100
Atmakur	66	14	7	2	11	100
Kavali	63	22	5	2	8	100
Udayagiri	42	25	6	9	18	100
Total ...	60	17	6	3	14	100

It will thus be seen that, on the average, 60 per cent. of the cultivated area is under paira jonna, seventeen under aruga, six under lamp oil, three under horse gram, and fourteen under minor crops. The latter item includes land under garden cultivation and temporarily irrigated dry land under wet crops, hence the cause of the item occupying so large a proportion of the area in the Nellore and Gudur Taluqs. Throughout the regada soils paira jonna is repeated year after year, without any cessation, for a considerable period, or it is now and again, every few years, alternated with lamp oil and sometimes with aruga. The red soils will not similarly stand, being continuously cropped with paira jonna, unless they are well manured, and consequently the crop sown in such lands is generally changed each year, every alternate year being jonna. In the poorer red soils jonna is often not sown at all, the land being usually cropped either with aruga, lamp oil, or horse gram for a few years, and then relinquished when exhausted.

With the variation of seasons, and greater number of crops raised in the portion of the sub-division more immediately under the south-west monsoon, there is a complete change, a regular system of rotation being recognized and universally practised. The following statement furnishes details for the sub-division taluqs similar to those given above for the principal division of the district :—

Crops.	Kandukur.	Kanigiri.	Ongole.
	Per-centage.	Per-centage.	Per-centage.
Peda jonna	18·39	19·49	34·36
Paira jonna	31·47	1·39	...
Aruga	10·76	23·71	0·89
Lamp oil	6·35	4·55	7·21
Horse gram	5·60	9·88	4·45
Variga	17·45	1·	34·72
Sazza	5·96	23·27	7·1
Indigo	4·94	0·90	8·54
Korra	1·46	8·78	1·41
Raggi	1·75	1·54	2·92
Minor crops	0·87	5·49	5·49
Total ...	100·	100·	100·

The paira jonna rendered in the above statement prevails in the southern part of Kandukur and Kanigiri, where the cultivation is identical with that of the principal division. The peda jonna and variga cultivation is distinct therefrom; and, save in a few villages which form the line of division between the varying systems of cultivation, the crops are not collectively met with. Where variga is cultivated, it invariably occupies the largest area of any crop, and the land is usually divided pretty equally between the early or muduru crops sown under the south-west monsoon, and the late or paira crops

put down under the north-east monsoon. These crops have already been detailed in the statement exhibiting the different seasons at which the cultivation of each is carried on. The principal crops sown under the south-west monsoon, in what may aptly be termed the variga country, are sazza, peda jonna with pessara and kandi, korra and aruga with cotton, indigo, cotton by itself, and lamp oil; similarly those under the north-east monsoon are variga and horse gram. Under the former the minor crops may be particularized as dry paddy with kandi, and raggi with cotton, and under the latter as coriander, Bengal gram, and paira lamp oil. The rotation observed each year is invariably between the early and the late crops. The chief rotation is between variga and jonna, which command the largest area. Variga may be stated to be put down in land generally cropped the preceding season with either jonna, korra, or raggi, the land being always well ploughed and invariably manured for the variga crop. Jonna is sown in fields under either variga, horse gram, or lamp oil the previous year. The continuous ploughing required by the lamp oil crop admits of another early crop being put on the land the following year, hence lamp oil is succeeded by either sazza, jonna, korra, indigo, or raggi, and from the same cause it can be put down after any crop. The whole of the early crops can follow variga; and the ordinary rotation observed is for each field to be under variga every second or third year. Variga may be followed by sazza, with horse gram as a second crop the same year, to be succeeded by jonna, after which variga will be reverted to the third year; or first variga, then jonna, then lamp-oil, and afterwards jonna again may be the course adopted. There are thus many alterations between the early and late crops that the ryots have recourse to. Dry paddy is now and again rotated with variga, but more often with coriander.

Agricultural Laborers.

Agricultural Laborers.

The well-to-do ryots, or those holding any extent of land partly under garden or wet crops, as well as dry, generally retain a few yearly laborers to carry on the work that is always required where the ryots cultivate the above descriptions of land. The number seldom exceeds two or three, and in the case of the more ordinary ryots they themselves perform the work for which the services of the yearly laborers is needed. Yearly laborers are not usually kept up in the solely dry villages, save in the northern taluqs, where the greater diversity of the crops and cultivation furnishes employment for them all the year round. They are, however, more extensively entertained in the wet villages, where there is always constant occupation for them. For the ordinary operations of ploughing, weeding, harvesting, and threshing out the crops, laborers are hired by the day as wanted, and are invariably paid in grain.

The mode of paying the yearly laborers varies a good deal, but amongst the really agricultural classes or ryots of the Telugu castes—Kapus, Kammas, and Balijas, and the like—the laborers live and are fed in the ryots' houses, provided they are of the same or very similar caste as their employers. Two regular meals at noon and night and a slight breakfast in the morning of cold rice and canjee water, with a fixed sum of ready-money, varying generally from Rupees 4 to Rupees 10, but sometimes more where labor may be scarce, are the stipulated wages for the laborer's services. In cases where the employer may be of high caste, a Brahmin, or the employé of the Pariah or Chuckler caste, a fixed monthly grain payment is usually made. In dry villages the payment aggregates annually from 12 to 18 tums of jonna, and the laborer is furnished besides with a cumbly or sheet and one pair of shoes. Ordinarily the payment throughout the greater portion of the district is 15 tums of jonna, but more is sometimes given in the northern taluqs, or the payment is made in either sazza, raggi, or variga, when often one-fifth more than the jonna payment will be usual. The quantity of aruga is always double that of the payment in jonna. In the wet villages, if the laborers are not fed in the ryots' houses, the grain payment is one tum and a half of paddy, or 18 tums annually; and at threshing time each laborer receives as well an additional three to five tums. A cumbly or sheet and a pair of shoes are as well allowed or else Rupees 1-8-0 or Rupees 2 in cash is granted instead. The grain the laborer consumes when fed is stated by the ryots to amount to 12 tums yearly, and the cost of the condiments and salt used to average four annas a month, or Rupees 3 each year.

Pasturage of Cattle.

Pasturage of Cattle.

The system observed by the ryots of the different parts of the district depends, in some measure, on the extent of pasture land that there may happen to be in the vicinity of the village. In the wet villages, with little or no unoccupied area available, the greater portion of the dry land is often held by the ryots on puttah as pasturage for their cattle. On the other hand, in villages where any large extent of waste may be available and common to the whole of the villagers, such as scrub and fair jungle which affords good grazing, land will not be retained on puttah or reserved as pasturage. To describe the pasturage system of the district, it is requisite to refer to the several taluqs in order, and specify the course generally pursued as regards each. In the southern and coast taluqs of Nellore and Gudur, it is usual throughout the wet villages for all cattle, save the working bullocks and buffaloes, to be sent from the villages and pastured where land may be available and can be secured for the purpose during the period the occupied land may be under dry crop or wet

cultivation. The bulk of the cattle thus generally leaves the villages during either September or October, and are sent sometimes to the western villages of their respective taluqs, but more generally to the extensive waste and jungle tracts in villages of Rapur. The cattle of the Nellore Taluq are as well, to some extent, sent away to the jungles to the south of Kavali and in the western parts of Atmakur and Udayagiri. Part of the working cattle will occasionally follow the other cattle to the jungle during November, or else early in December, should the available pasture land in the village not suffice for the whole number. The ryots often club together and send their cattle away in large herds, either one or more according to the size of the village and the number of head of cattle. For this purpose, prior to the departure of the cattle from the village, the requisite arrangements are effected for renting a pasture farm for a fixed sum for the season; or else engagements are entered into with those who hold the pasture farms for the whole herd being pastured for the season at so much per head for each full-grown animal. The former course is usual where the herd may be large, and the latter in the case of a small number of cattle, several herds being accommodated on the same tract of jungle or farm. Throughout many of the villages of Nellore, Gudur, and Kavali large herds of cattle are reared and retained, partly for the purpose of manuring the wet land and partly for stock purposes, a considerable number of young animals being annually sold off. Should the north-east monsoons be favorable and extend till late, the cattle are pastured in the jungles till the end of January, or early in February, when the paddy crop will have been to some extent harvested, and there will be grazing in the cut fields for the cattle. They are then driven back to the village. As the paddy crop continues to be gathered, the area to be grazed extends, and this, together with the little grazing the waste lands of the village may afford, usually suffices for the bulk of the ordinary cattle throughout March and April. Where there may be both wet and dry fields, the stubble of the latter, as the jonna crop is harvested, affords a fair quantity of grazing. The working cattle which remain in the villages are grazed in the waste lands and such occupied dry land as the ryots may hold and set apart for grass. Pasture land of the latter description is generally reserved for a month or two, and kept clear of cattle till the grass is well up. During the time they are thus stationary in the village the working cattle are fed more or less on straw or jonna choppa as well, and this may be said to be continued throughout the year. The bulk of the cattle obtain fair grazing from the stubble in the cut fields during April, but from May, as the hot weather fairly sets in and every blade of grass disappears, straw is given to the ordinary cattle or cows also, as well as to the working bullocks, and the whole are generally folded at night in the fields.

As a little grass springs up with the early rain, the paddy straw is more or less reduced until the bulk of the cattle depart once more to the grazing lands consequent on there being no ground to keep and feed them on, owing to the greater portion of the land being ploughed up. The payment for the grazing of the cattle whilst away is ordinarily reckoned at one rupee a-head all round for full-grown stock, and the batta and payments made to the herdsmen are calculated at eight annas a-head, or Rupees 1-8-0 altogether as the expenditure all round for each full-grown animal sent from the villages. Two calves are ordinarily taken as equal to one full-grown animal when reckoning the number of head. Throughout the greater number of the villages of Rapur, Atmakur, and Udayagiri there is a sufficient area of jungle waste for the cattle to graze on throughout the year, and in many villages of Rapur and the western parts of Atmakur and Udayagiri large tracts are available for the cattle of other villages and taluqs. In the villages of the above-mentioned western taluqs, where there may be merely sufficient grazing land for the cattle of the village, it is usual for the cattle to be grazed therein from the commencement of the rains in June or July, when the grass will revive and once more spring up, and for them to continue to be thus pastured till February. The whole of the jungle waste is not open to the cattle at all times, for, after the heavy burst of rain, invariably experienced about October, the best portion of the pasture land is preserved and kept clear of cattle for one or two months until the grass may have grown up well, when the working cattle alone are turned in and kept thereon so long as the pasture may suffice, another portion being similarly set apart for the ordinary cattle. The greater portion, or indifferent part of the jungle waste, is meanwhile retained as common to the whole village throughout the season to feed the working cattle during the early rains, and afterwards grass will often be dug and given green, and they will graze as well, but slightly only, as there will be little pasture, until turned into the reserved lands during November and December; and, should the rains continue late, the pasturage will prove fair till February. Towards the end of January, when the jonna crop may have come into ear, the younger shoots, termed "Zadu," which are not likely to mature are removed and given to the bullocks, or very often they are picketed close to the jonna fields during the day at this season and thus fed. After the working cattle may have grazed for the most part the pasture land reserved for them, the ordinary cattle are let on. Afterwards, as the wet and dry fields are harvested about February and March, the whole of the cattle graze thereon indiscriminately, and the stubble of the jonna fields usually suffices for cattle till the end of April, the working stock being fed with choppa or jonna stalks as well. When the cut fields become bare of fodder, the ordinary cattle are turned into the scrub jungle to find what they can in the shape of leaves, and this slight provender is eked out with a little choppa, the working cattle being meanwhile housed in the village and almost wholly fed on choppa. In parts of Rapur, Atmakur, and Udayagiri, where there may be a lack of scrub jungle, the ordinary cattle are sometimes sent away to the Veligonda or Eastern Ghauts and adjoining hills both in this and the Cuddapah District, the Veligonda hills being the line of boundary between the two districts. Cattle thus sent for hill grazing are generally absent from their villages during June and July. In Kavali there are extensive jungle tracts to the south, and in the central portion of the taluq very dense in parts, which ordinarily afford pasture for a large number of the cattle of the taluq; but in a few instances, where the jungle waste of the village may be slight, the cattle are sent to the jungles in the extreme south of the Kandukur Taluq. The mode of pasturing is similar to that already described for the foregoing taluqs.

Throughout the Kanigiri Taluq there is but a slight extent of really fair grazing land, and very little more than indifferent scrub jungle, almost the whole taluq being excessively stony and very bleak and barren. The cattle are few in number, and are mostly fed within the village. When the early rains set in during June the cattle are now and again sent to the Veligonda hills or Eastern Ghauts, forming the boundary with Kurnool, or to the Mallamalli range of hills in Kurnool should they be very badly off for pasture in their own villages.

In the Kandukur Taluq varying systems are met with. The system prevailing in the southern and coast villages assimilates to that of the neighbouring villages of Kavali; whilst in the northern villages, or those under the influence of the south-west monsoon, where the principal crops may be peda jonna and variga, and there is hardly any waste land common to the villages for grazing, and, moreover, no jungle at all as a rule, it is usual for each ryot to retain part of his holding or puttah land as pasture. In a great measure this is permanently done by putting and keeping under grass land bordering on streams or cut up by water courses, or land lying low and liable to be flooded during the rains. Such tracts are extensively planted with *Tumma* trees, both of the black and white descriptions, viz., *Acacia Arabica* and *Acacia leucophlœa*. Fields in the midst of the cultivation as well are occasionally set apart as pasture and planted out as above; and, after being under grass for eight or ten years, the ground is cleared of trees and broken up, and once more brought under cultivation and some other portion put under grass. The trees are yearly thinned to some extent; and, when finally cleared away, are of considerable size and value, wood of any description being very scarce. The trees shade the ground and favor the growth of the grass, and the pods they yield

form good fodder for cattle and sheep. The pasture land held in this way is invariably distinct for each ryot, and it is generally kept exclusively for the working cattle, young stock, and cows in milk. Should no other land be available in the village for the cows not in milk and heifers, it is usual to send them off in August, when the sowing season extensively commences, either to the jungles in the adjoining zemindary divisions of Podile or Darsi, or else to the Vinukonda hills in the Kistna District to the north-west of Ongole. Meanwhile, the working cattle and young stock which remain in the village are pastured in the lands set apart for grass by each ryot; and, during the rains, the working cattle are also fed with the husk and refuse leaf of the horse gram plant after beating out the grain, and likewise with that of the pessara, minumu, kandi, and Bengal gram plants, which are carefully stored for the purpose. The refuse from the jonna cobs is similarly preserved and given to the cattle; and, during the height of the ploughing season, the working cattle are fed with grain either jonna or horse gram, or else with cotton seeds. The jonna is usually bruized and boiled, and the horse gram and cotton seeds bruized and soaked only. As the korra crop is threshed out during November, the straw is generally used up at once and not stacked; and after the jonna crop comes into ear, or early in the above month, the "Zadu," or young suckers, not likely to mature, are gathered for the cattle and given green. During December the jonna is harvested; but, owing to the pessara and kandi growing in the same field as the jonna, the cattle cannot be turned in; and often the jonna thus left will shoot up vigorously a second time, and is now and again allowed to mature, but more gradually it is plucked green and given to the cattle. These new shoots are termed "Namu," and, after the pessara is gathered in January and the kandi in March, very fair feeding for the cattle exists in the jonna fields. Meanwhile, during January, the variga harvest will have been mostly completed, and the jonna and gongura sown in the same fields will have been eaten down for the most part by the cattle also. As the hot weather sets in early in April, pandals are run up open to the east, but well enclosed to the west, to afford cover and protection to the cattle from the sun and west or land wind. These pandals are formed of the stalks of the kandi, lamp oil, cotton, and chilly plants. The same material is used to construct the walls of the sheds in which the husk and refuse leaf of the horse gram and other plants, already specified, are stored for the cattle during the rains. As the walls of the shed are run up, the husk is filled in; and the whole is thatched in with sazza straw. The straw stacks are generally on the same spot, and are fenced off. The working cattle are thus well cared for during the day, and at night are folded in the fields. The whole of the cattle are fed on jonna choppa during the hot weather, and until there may be sufficient pasture, or the cows,

&c., may leave for the distant grazing lands in other parts. In Ongole the cattle are particularly well cared for and fed, and a fair number of young stock and cows are annually reared and disposed of, or the young bullocks are broken to work and supply any casualties amongst the ryot's own ploughing cattle. It will be observed that the system of the northern taluqs differs considerably from that of the southern part of the district, the ryot's cattle being folded and kept in the land as much as possible about Ongole; whilst they are invariably housed in the villages throughout the extensive tracts under dry cultivation in the southern taluqs. It is usual besides in Ongole for the ryot to have a good stock of jonna choppa always on hand at the end of the season, to guard against any considerable deficiency of fodder during the ensuing year. The stalk of the sazza crop is not used as provender for the cattle, as it is not nutritious, but is kept for thatching houses, cattle sheds, and the like. Save in the wet villages, considerable herds of sheep and goats, particularly in the western taluqs, are kept. These flocks generally belong to the shepherds; but in many parts the ryots own and rear a fair number also. The wealthy and influential ryots of Nellore, Gudur, and Kavali, and the southern part of the Kandukur Taluq are often extensive cattle dealers as well as breeders. Gangs of men are despatched each year through the Kistna and Godavery Districts, often far north of the latter district or inland to Dumagudiem on the Upper Godavery, and they purchase and bring down large numbers of small bullocks and buffaloes. The buffaloes and part of the small cattle are sold in the wet villages of this district, and, after being kept in the village a few months, the residue and the larger stock of the ryots' own rearing are despatched to the Cuddapah, Kurnool, and Bellary Districts, and there sold. These ventures are sometimes very successful, but occasionally the reverse. The foregoing depicts the mode that has heretofore been pursued in pasturing cattle in Nellore; but the measures recently inaugurated, as regards the reservation of jungle tracts for wood, and the separate assignment to the ryots collectively of the equivalent of 30 per cent. of the area in occupation as common pasturage for the village, alter matters and curtail the privileges the ryots previously enjoyed, more particularly in the western taluqs, where there is a considerable margin beyond the 30 per cent., which, if not required to be reserved as wood, is now rented out in pasture farms. With the introduction of these measures the ryots, however, were relieved from the grazing or pullari tax, which was peculiar to this district. The change favors the large owners of cattle, and renders it more easy for them to secure pasture farms, as a much greater number of farms are now available and are put up to auction; and, as formerly, the farms are no longer altogether in the hands of the villagers.

CHAPTER XIII.

ANTIQUITIES.

Fort.—Temples.—Shasanams.—Nellore Taluq—Nellore.—Tirmudikonda (Sangam).—Atmakur Taluq—Somisilla.—Kotitirtam.—Kaluvayi.—Vadlamudipalli.—Mahimalur.—Pelur.—Perumalapad.—Chejerla.—Virur.—Pedda Badevole.—Vasili.—Kullur.—Bommavaram.—Murugulla.—Prabhagiripatnam.—Anamasamudrapett.—Anantasagaram.—Batepadu.—Aravedu.—Timayapalem.—Gudur Taluq—Sarvepalli.—Kadivedu.—Ponavole Shrotriem.—Annambakam Shrotriem.—Chintavaram.—Rapur Taluq—Penchalakonda.—Kalichedu.—Podalakur.—Rapur.—Vadlapudi.—Prabhagiripatnam.—Udayagiri Taluq—Udayagiri Droog.—Nallakonda.—Gangulacheruvupalli.—Timmayapalem.—Chinna Machannr.—Kancheruvu.—Udayagiri.—Dasaripalli.—Sitarampuram.—Devammacheruvu.—Upasamudram.—Kavali Taluq.—Bitragunta.—Kazili.—Chençugaripalêm.—Tumalapenta.—Shrikolanu.—Eskadamirla.—Yaddavalli.—Kandukur Taluq.—Singrayakonda.—Malakonda.—Chundi.—Gollapalem Shrotriem.—Somarazupalli.—Gudlur.—Kandukur.—Chinnaleturpi.—Ongole Taluq.—Ongole.—Yendlur.—Addanki.—Kanuparti.—Kanigiri Taluq.—Kanigiri.—Vidur.—Gogulapalli.—Venkatagiri Division.—Venkatagiri.—Polur Division.—Pudur.—Sagatur.—Manar Polur.—Podile Division.—Ramavedu.—Cheravelapatnam.—Killapidu.—Podile.—Kocherlakota.

Fort—Temples—Shasanams.

THE principal antiquities of the district consist of the ruins of old forts, Hindu temples, and copper plates or shasanams, chiefly title-deeds. Some of these last go as far back as 700 or 800 years. A very interesting collection might be made of impressions printed from these, which would probably throw much light on the history of the earlier Hindu dynasties. These shasanams are found written in Sanskrit, Tamil, and Telugu. The characters are often of old forms, but generally readily decipherable.

There are, also, occasional inscriptions to be met with in stone, chiefly in pagodas; but there are no sculptures of any value. Most of the pagodas in the district were either built or restored by Krishna Devarayulu about the beginning of the sixteenth century, and the modern practice of whitewashing does not exhibit to advantage whatever there might have been of merit in the way of stone cutting. A large number of the pagodas have endowments in land, dating as far back as three centuries or more.

It is proposed to offer a few notes on the chief antiquities to be found in each taluq.

Nellore Taluq, Nellore.

Under the head of "Municipalities" will be found some account of the origin of Nellore and the tradition regarding the ancient fort here, which is now in complete ruins, the remains of only one entrance (the Sarvepalli gate) being still in existence. Mention is also made in the same place of the discovery

of certain ancient coffins embedded in laterite with iron implements, &c., and of the digging up of a pot of Roman coins.

There is an ancient temple of Vishnu here under the name of Ahobala Narsimhaswami. It is recorded on a shasanam that in 1357 (Salivahana or Kartika of Partava) this village was given by Duverayinudilangaru to Purushottam Iyengar, the trustee of the pagoda, as an endowment for the celebration of festivals.

Tirmudikonda (Sangam.)

There is a temple to Shiva here under the designation of Someshwaraswami. The object of worship is a lingam. The legend runs that one Somanathudu was possessed of a large herd of cattle. One day the herdman observed one of the cows milking itself into an ant hole. He attempted to drive it away, when one of its hoofs slipped into the hole. On examination, a lingam was found there with the mark of a hoof on it, and Somanathudu erected the temple on the site over it. The temple holds the shrotriem of Somisilla as an endowment of acres 567·14, and also certain russums on the occasion of marriages. A great festival (the Brahma Utsavam) is held here in the bright fortnight of Vaisakhamu (May), which lasts five days, and great crowds attend. The temple is under the management of one Chintalapalli Krishniah, who enjoys half the shrotriem in consideration of his services.

Atmakur Taluq—Somisilla.

There is a lingam temple of Shiva here under the designation of Koteswaraswami. It is reputed to have been founded by a Kshatraya, of the name of Kotarazulu. It is endowed with a khandriga and inams in extent about acres 125·67, and the devotees (Archikans) who manage the funds enjoy a part of this. The chief festival (Kalyana Utsavam) is celebrated in the month of Maghamu (February).

Kotitirtam.

There is a temple of Shiva here under the designation of Chinnakeswaraswami. The founder is unknown. It was repaired about 200 years ago by Kota Polireddi. Daily worship is maintained, and a "Navanikum" or nine days' feast held at irregular intervals, when the villagers raise subscriptions for the purpose. It has an inam of acres 19·24 managed by the devotees (Archikans). There is a mosque here with an inam of acres 100·82. There is a large tank here, and a stone with an inscription records its history. The stone is small, and appears to have been fixed on the bund at a much later date than the year mentioned in the inscription. The following is a translation of the inscription:—

Kaluvayi.

"In the reign of Maharajudeyajah Parameswara Shri Kristna Deva Rajah Maharajah, an energetic, courageous, and virtuous king, a Rayasam, by name Kondanarusu Garu, for the sake of charity, to the memory of his father Timmanarusu and his mother Sayayamma, founded this

Kaluvaya tank, and set up an image of the goddess Mallamma on its bund, and built a temple for her on the 15th Vaisakhamu in the year Pramadi of the era Salivahana 1441 (A.D. 1520)."

Vadlamudipalli.

There are two pagodas here. One is dedicated to Vishnu under the designation of Venugopalaswami. It is supposed to have been founded in the time of Krishna Deva Rayulu. It has an inam of acres 18·21. The other temple at the other end of the Brahmin street is dedicated to Shiva under the designation of Koteswaraswami, and is said to have been built about 150 years ago by Amancherla Venkatappa. In front of the temple is a dwajastambam or flagstaff, 32 cubits high, encased with copper. It has an inam of acres 11·89. Daily worship is performed in both temples. The chief festival (the Kalyana Utsavam) is celebrated in the month of Phalgunamu and Maghamu (March and February).

Mahimalur.

This village and temple are said to have been established by one Mayil Mallareddi, who came originally from Hyderabad. His brothers (Bhimareddi and Nanda) who accompanied him are said to have established the villages of Bhimavaram and Nandavaram in Udayagiri Taluq. There are traces of an old fort, which formerly had five killadars when it was held by the Rajah of Venkatagiri's ancestors. There is a pagoda to Shiva under the designation of Gopalaswami, which has an inam of acres 63·96. There was formerly a dwajastambam sheathed with copper, which has recently been replaced by a new one. There are the ruins of a mud fort here built in the days of the Nawabs.

Pelur.

There is a temple of Vishnu here under the designation of Chennakesavulu, supposed to have been built by one of the Rajahs of the Chola dynasty. It has been lately repaired, and has an inam of acres 21·6.

Perumalapad.

There is a temple to Shiva here under the designation of Nageshwaraswami. Name and date of founder unknown. It was restored about 100 years ago by one Vemana Narasappa Naidu. It holds an inam of acres 72·41.

Chejerla.

There is here an ancient temple of Vishnu under the designation of Chennakesavulu. According to tradition it was built by Janamejayudu, great grandson of Arjuna, one of the five Pandava brothers, whose exploits are related in the Mahabarat. There is an inscription on a stone of the floor of the pagoda, which is unintelligible. This temple has an inam of acres 31·96.

There is also in this village a temple to Shiva under the designation of Nilakanteshwaradu, *i.e.*, the blue-throated one. Name and date of its founder is unknown. It has an inam of acres 25·82.

Verur.

There is a temple of Shiva here under the designation of Malleshwaraswami. It is said to have been built about 200 years ago by a member of the Chintagunta family. It has an inam of acres 6·31.

Pedda Badevole.

There are two pagodas here—one dedicated to Vishnu, under the designation of Radhamadhavaswaraswami, and the other to Shiva under the title of Sri Ramalingeswarudu. They have an inam of acres 14·15.

Vasili.

There is a temple of Vishnu here under the designation of Varadarajaswami. It is supposed to have been founded by one of the Rajahs of the Chola dynasty. It has a stone tank in front, bearing figures at the four corners of Hanuman, Ganesha, and two bulls, who appear as if they were guarding some treasure supposed to have been buried in ancient times in the neighbourhood of this temple. It has an inam of acres 14. There are the remains of a mud fort here, built in the days of the Nawabs.

Kullur.

There is a temple of Vishnu here under the designation of Achutudu. The founder and date of the building is unknown. It has no inam, but is supported chiefly by the rich pearl merchants who live here. There are the remains of a mud fort here, built in the days of the Nawabs.

Bommavaram.

In Gogulapalli, a hamlet of this village, there is a temple to Vishnu under the designation of Sri Hariswami. It is said to have been built by the Balijies of Chunchulur about a century ago. It has an inam of acres 1·59.

Muragulla.

There is a pagoda here, dedicated to Vishnu, under the name of Kodundaramaswami, built about 200 years ago.

Prabhagiripatnam.

There was an ancient fort here and several pagodas traditionally reported to have been built by Padmakesara Maharaz, son of Varadaraz Maharaz, who is said to have reigned 30 years. The legend runs that these temples fell into ruin, owing to the curses of Garuda and Nanda, whose worship was neglected. On the top of a hill are the ruins of one of the temples without any image.

Anamasamudrapett.

There is a celebrated mosque here, built by Khaja Ramtulla Sahib, about 120 years ago. According to tradition the founder smelt frankincense exuding from an ants' hill, and having thrust a crow-bar into the aperture, a spring of water started out. He selected this spot for his mausoleum and built this mosque with five minarets, surmounted with seven golden crowns, the centre one being surmounted by a crescent. The mosque has an inam of eight villages, six of which were purchased from Badar-udin Ali Khan, Jaghiredar of Udayagiri, and the two others were bestowed

by Omdat-ul-Omrah, Nawab of the Carnatic. Lamps are kept continually lighted here, frankincense burning, and the Koran is read. It is visited by many pilgrims. A festival, by name Urusu, is celebrated annually, commencing six days prior, and ending three days after, the anniversary of the death of the founder in the month of Bala Malad (July). There are the remains of a stone fort here, also said to have been built by Khaja Ramtulla Sahib.

There is a mosque here with an inam of acres 37·29. There is a granite pillar here, five cubits long by half a cubit broad, placed on the back of a large tank about three miles from the village. It records that it was set up by one Konda Narsaya, who dug the tank. Most of the inscription in Telugu is illegible.

Anantasagaram.

There is a fine tank here retaining a depth of water when full of not less than forty feet at the principal bund, which is placed between two rocky hills, and which is very carefully revetted on both sides, and at top with large blocks of horn stone. There is an inscription stone placed on the top of the bund. It is ten feet high. On the top is a sculpture, apparently of a copy of a seal, below which the inscription is cut. This stone is of a soft description, and the inscription is almost obliterated. The following is a translation thereof:—"In the reign of Maharajahderajah Parameswara Shri Krishnama Raj Maharajah, an energetic, courageous, and virtuous king, a Rayasum, Kondanarusu Garu, for the sake of charity, in memory of his father Timmanarusu and his mother Sayayamma, founded this Anantasagaram tank on the 15th Jeshthamu of the year Vikrama of the era Salivahana 1443 (A.D. 1522)."

There are the ruins here of a mud fort, said to have been built about the time of Krishna Devarayulu, and repaired by the Mahomedans.

Batepadu.

There are the ruins here of another stone fort, said to have been built in the days of the Nawabs.

Aravedu.

There is a mosque here with an inam. These and the other mosques in the taluq are all said to have been built and endowed by former Nawabs of the Carnatic.

Timayapalem.

There are the remains here of an old Rohilla fort (Rahvallavaru). There is a stone tank in front of the fort gate, and another within the fort.

Gudur Taluq—Sarvepalli.

There are the remains here also of another Rohilla fort.

Kadivedu.

The site of another Rohilla fort entirely rased to the ground. The spot is known as Kottapatidibba, and has been brought under cultivation.

Ponavole Shrotriem.

Here also there existed another Rohilla fort entirely ruined.

Annambakam Shrotriem.

There are the remains here of an old stone fort, said to have been built about 150 years ago by the Veligotiwar family of the Rajah of Venkatagiri. The place is overgrown with tamarind trees.

Chintavaram.

This temple on the top of a hill, dedicated to Vishnu under the designation of Narasimhaswami, is traditionally said to have been founded by Kandava Maha Muni. It has an inam of gorrus 3-10-4, with an annual income from presentations by pilgrims of about Rupees 1,000. Worship is celebrated here every Saturday and at the annual festival in the months of May and June; it is visited by about 15,000 pilgrims from Nellore, Cuddapah, and Kurnool. Veligodugulu or umbrellas of silver are presented at the shrine.

Rapur Taluq—Penchalakonda.

At this shrotriem village there is the Siddulaya pagoda situated on the side of a hill. It is an ancient building, and has an inam of gorrus 5 of shrotriem land and gorrus 4 of Government land. The annual festival takes place in July.

Kalichedu.

There is an ancient temple here dedicated to Ganeswarudu. The annual festival is celebrated in February. There was an old fort here. The walls may be traced by mounds of earth.

Podalakur.

There are the remains of an old fort here, said to have been originally built by Velugoti Yachamma Naidu, one of the old Rajahs of Venkatagiri. It is said to have been held as a fortress by Krishna Deva Rayulu, and subsequently by the Rajahs of the Gazapatti dynasty of Vizianagrum; then by the Mahomedan rulers of the Golcondah dynasty; and, lastly, by the Nawab of the Carnatic. About seventy years ago there was a Jaghiredar in the fort by name Abdul Mohabut Shamsir Jung related to the Nawab Wallajah. This fort had stone walls, twelve yards thick and nine batteries. It was surrounded by a ditch of twenty-four yards breadth on an average, which is fed by a jungle stream, and now irrigates about 100 acres of land. Inside the entrance of the fort is a terraced building of stone, used by the guard, and the remains of the old palace, &c.

Rapur.

There was another subsidiary fort here, whose mud walls are all in ruins.

Vadlapudi.

There are ruins of pagodas here with lofty flagstaffs (dwajastambam), which are said to have been built by one Prabhakarudu, who, according to tradition, made the place the seat of his government.

Prabhagiripatnam.

This is a singular hill, rising to a height of 3,079 feet above the sea, close to the town of Udayagiri. Its geological formation is gneiss, with an upper deposit of quartzose. It has formerly been a strongly fortified place; and the fortifications are in fair order. The ascent is about five miles. The late Collector, Mr. Dykes, built a small bungalow near the top, and there are also a few huts. This tract was formerly held by a race of Kshatrias. Tradition says that the fort was originally built by Longula Gazapatti, a tributary of the Golcondah dynasty. Legends have it that he was possessed of a tail, an inch long, and hence gave the name of Golla konda to this hill, his fortress. He is said to have exercised sway over the Nellore and Cuddapah Subahs. At any rate tradition tells of the Golla Razulu, who built the two temples of Shrikeswaraswami and Narasimhaswami on the droog, and endowed them with lands under the Pedda Cheruvu. Next to them appear to have come the Wodivar Razulu, who are said to have first fortified the droog, building the fort known as Bara killa. Then came the Aswapatti and the Gazapatti dynasties; of the last the names are recorded of (1) Prabhaparudu Gazapatti, (2) Achuta Gazapatti, (3) Ananta Gazapatti. The last sovereign is said to have been defeated in battle by Krishna Deva Rayulu, who came from Humpi and Verupachan about A. D. 1509. He was a great restorer of temples. One of his successors, Timma Raz, is stated to have occupied the fort of Udayagiri on the 11th of the lunar fortnight of Kartikamu in the year Sobhakurt A.S. 1467, A.D. 1545, probably putting down some rebel who had seized the place. After this we find the fort in the possession of Kampeli or Kuvvani Nayanagaru, who declared himself independent of the Mahomedan power. The Nizam is said to have sent a force against him under command of one Mirjumla, who conquered Nayanagaru. He seems to have fortified that part of the droog known as Pratikonda, and to have built some mosques. After this several persons were sent by the Mahomedan Government as Killadars; but, as they tried to gain independence, Jupalli Venkata Rao was appointed Poligar, paying a fixed peishcush. As he withheld the payment of the peishcush, Mustaffer Ali Khan was sent against him by the Nawab of Arcot. J. Venkata Rao was killed in action, and Mustaffer Ali confirmed as Jaghiredar under the Nawab. He was succeeded by Buderad Ali Khan, Syed Abdul Khader Khan, and Syed Abbas Ali Khan. The last had his jaghire confiscated by the British Government for an attempt at treason.

Udayagiri Taluq—Udayagiri Droog.

On the top of the droog is a Mahomedan mosque, supposed to have been built by Mir Jumla, the first Mahomedan Fouzdar. It has no inam or regular establishment. The mosque on the top of the droog forms a prominent landmark. From the upper story the sea is visible.

The mosque is not kept in repair. There is another mosque on the hill of more recent construction. We give the translations of two Persian inscriptions—one relating to the forming of a garden on the droog, and the other to the building of the more recent mosque:—

"In the reign of Khutb Abdulla, the best of Mahomedan rulers in the Deccan, one Sheik Hussein employed under Sheik Syed Muzafir, whose power shone like a bright gem, planted a most beautiful and splendid garden, by the favor of God, on Udayagiri Droog. The garden was so beautiful that men walking into it felt ecstatic pleasure, and even the messengers of death took a delight in it. It was a heaven on earth. The fruits of the garden were enjoyed in common by all men. The garden was planted by the favor of the Almighty in the year 1070 of the Hijira (A.D. 1660)."

"In the time of Khutb Abdulla, the best of rulers, one Hussein Khan, having risen to a high position by the favor of God, built a mosque which appeared very beautiful. May the Almighty make the mosque fit for a place of prayer and confer his blessings on it! In the year 1871 of the Hijira (A.D. 1661), a Hindu temple was pulled down, and on its ruins this mosque was set up."

There are two other mosques in the village, said to have been erected by the ancestors of the late Jaghiredar. These have inams granted by Government.

Syed Mahomed Ghouse Ali Khan Bahadur, the son of the late Jaghiredar, receives a pension of Rupees 250 a month, and other members of his family also receive smaller pensions. A number of the retainers and dependants of the late Jaghiredar live in Udayagiri in the utmost poverty.

There is a great scarcity of water in the town of Udayagiri. The wells are very deep, and dry up in an unusually hot season. Formerly the town was supplied with water from a spring on the droog, which was brought down by a masonry conduit several miles, now in ruins. The water at present runs to waste. It is proposed to restore this old aqueduct.

The fort had eleven fortresses, eight of which were on the hill and three below. There were eleven bastions, twelve guns, twenty-three gates (eight of which were large), eleven reservoirs, twelve granaries, and eight pagodas. It was much improved by Suni Mirjah Beg.

On the top of a hill is a temple to Narasimhaswami, a name of Vishnu, and this is said to be one of the nine celebrated temples of this divinity, known as Neva Narsimhula. This shrine is said to have been consecrated by Janame Jayudu. It was endowed by the State with a khandriga of 205 acres, and has, also, inam lands in the villages of Mallakonda, Duttalur, Byravaram, and Sankavaram, and annual cash payments of a rupee or two

Nallakonda.

from certain villages, now only six in number. The annual festival is celebrated in the Telugu month of Vaisakhamu (May), and also others of less importance. In a grotto on the hill there is a lingam (emblem of Shiva) called Gandi Malleswaraswami, which is endowed with inams in the villages of Nallakonda and Sankavaram. The lingam is bathed on every Monday of the month of Kartikamu, as also on Shivaratri, and oblations are then made. At the foot of the same hill there is also a temple of Anja Neyulu, which has no inam. Food is offered at this shrine only after being presented to the deity at the top of the hill. In the village itself there is a temple of Govindarazulu, but it has no images or festivals. There is also in the village a stone mantapam, in which the image of Vigneswara is located with a stone bull, called Nandi, by its side. No worship is performed here. The temples are all managed by the villagers.

Gangulacheruvupalli.

There is a temple here, dedicated to Venugopalaswami and Anja Neyulu, where daily offerings are made. It is situated on the top of a small hill, and is said to have been built by Gangula Hanumantaya, the ninth ancestor of the present Poligar. The temple is endowed with several inams in the poliput.

Timmayapalem.

There is a lingam devastanam here, where daily worship is performed. It was built only five years ago by Pasurlapudi Venkaya, the present Curnam, and son of the builder of the choultry. It has no inams.

Chinna Machanur.

There is a temple here, dedicated to Anja Neyulu, where daily worship is performed. It is supposed to have been built in recent times by Kalidasu Chenchu Sastrulu and Guntur Venkataramaya Somayazulu. It has a small inam granted by former governors, and other inams granted by the Shrotriemdars of Naradanampad and Kadirinenipalli in these villages.

Kancheruvu.

There is an ancient temple in this shrotriem village, dedicated to Urada Razulu and Anja Neyulu. Nothing is known of its founder. Daily worship is performed here. It has been endowed by the Shrotriemdar. There is also on a small hill in the village a shivalayam, founded by a man of Kamsala caste about 50 years ago, still living. It has no inams. Festivals are celebrated on Shivaratri and Kartika Somavaram.

Udayagiri.

There was formerly a wall round this town, which has entirely disappeared. There are said to have been 360 pagodas here, which were demolished by the Mahomedans. They are supposed to have been founded about 500 years ago in the days of Langula Gazapatti. There appear to have been three more important than the rest, two in the village and one at the foot of the droog.

There was an ancient temple, dedicated to Vishnu, under the designation of Ranganaikuluswami. It was restored by one Velidanta Konati Timma Narsu, who also built several mantapams, &c.; but the temple is in ruins now, and is reported to have been in the same condition for the last 300 years.

There are also to be seen the remains of another temple, dedicated to Vishnu, under the title of Venkateswaraswami. It is not known when it was built, but it was restored and received the additions of several towers and mantapams from one Chençu Chetti. The pagoda fell entirely into ruin during the time of the Mahomedan rule. The stones of these old pagodas have, in recent times, been used largely for demarkation purposes.

There is another ruined temple at the foot of the droog, originally dedicated to Vallaba Rao.

The only temple in the village in which worship is now performed is one dedicated to Anja Neyulu, or Hanumanta, the monkey god, built by Attavanam Jaganadha Rao about twenty-five years ago, in which the festival of nine nights is celebrated in the months of Aswayujamu and Chaitramu. It has some Bhatta-vritti inams granted by the Gangulavar Poligar and certain others, and monthly payments are made for its support by the Cutcherry servants.

Dasaripalli.

About a mile to the west of the village named Govartanagiri, there exists a cave carved out of the solid rock in the form of a half moon. The entrance is wide enough to admit a man. Within is an image of Vishnu, as Krishna Murti, under a canopy. *Upon* the steps there are inscriptions. The pagoda is in ruins.

Sitarampuram.

There are here the remains of an old fort, built of stone in mud, which enclosed 1 gorru 3½ acres of land. The walls are eight cubits high. The Zemindar, Narsimha Naidu, is said to have built and occupied a residence within the fort.

Devammacheruvu.

There are the remains of an old fort in this place, which is now a jungle infested with wild beasts. There remains one bastion with the ramparts. It is said to have been a residence of the Zemindar in former times.

Upasamudram.

There is an old mosque here, said to have been built by a body of Fakeers in the time of Mir Jumla, the first Fouzdar. It has for its support a khandriga of 260 acres formerly granted by Government.

Kavali Taluq—Pattagunta.

There is a Vishnu pagoda, under the title of Venkateswaraswami, traditionally said to have been built by Narada Maha Muni; enlarged and embellished by Gaura Mamba, a princess of Longula Gazapatti dynasty, which ruled over the Deccan some 500 years ago, with its seat at Udayagiri.

The annual festival held in March attracts large crowds, and their offerings form the chief source of maintenance for the temple. There is also a cave temple here on the hill, south of the pagoda.

Kavali.

There are the remains here of an ancient temple, dedicated to Virabhadrudu, the son of Shiva. It has been in ruins for a century past. The principal image worshipped is still to be seen.

There are the ruins, also, of a Kovilama Satti pagoda, probably dedicated to some widow who burnt herself on her husband's funeral pyre, and was deified subsequently as a village goddess.

Chencugaripalem.

There is an ancient ruined pagoda here, originally dedicated to Vishnu, under the designation of Chennakeswaraswami. The founder is unknown.

Jaladanki.

There are the remains here of an old fort, but it is unknown by what race of rajahs it was built.

Tumalapenta.

There are the remains of an old pagoda here, formerly dedicated to Vishnu, under the designation of Kishava Perumal. It is not known when and by whom it was built, but it has been in ruins for upwards of a century. One Tumalapenta Kotabi Ramudu commenced restoring it in 1805; but, regarding his son's death, which occurred at that time, as a bad omen, he desisted.

Srikolanu.

There is a natural cave here, known as Bolligonda Goha, and a natural stone reservoir, which is always full of water.

Eskadamirla.

There was formerly a fort here, now entirely ruined, which is said to have been built by Salva Rayulu.

Yaddavalli.

A shasanam, consisting of three copper plates joined together with a copper ring, is said to have been dug up here by a ryot, who found the same buried in an earthen pot.

Kandukur Taluq—Singarayakonda.

There is an ancient Vishnu temple here, under the designation of Narasimhaswami. The tradition is that it was founded by Agastya Maha Muni. There is a stone, with an inscription to the effect that five villages were granted for the support of the temple by Krishna Devarayulu. The inam was continued for above 200 years, but resumed by the Mahomedan Government. There is also another stone, with an inscription to the effect that the village of Bimavaram was granted for the support of this pagoda. There is a cave temple on the hill, and through the cave there is said to be a passage leading to the adjacent pagoda; but the entrance is blocked up by a large stone image, which the temple wardens refuse to be allowed to be removed. This pagoda has a shrotriem. The annual festival is celebrated in the month of April.

Malakonda.

There is another ancient temple here, dedicated to Vishnu, under the designation of Lakshmi Narasimhaswami. It is visited every Saturday; and persons who have vows to perform feed the visitors. The hill is considered a place of great sanctity. It was formerly surrounded by dense jungle, and there were about ten cells provided for ascetics. The pagoda is about eighty yards high, with a breadth of twelve yards. There is a mantapam supported by fourteen pillars, and a stone tank at the foot of the hill. The inam was granted in the time of Achuta Devarayulu. The following is a translation of the original grant:—

The literal translation of a Sanskrit shasanam, or a deed granting a pagoda inam, and executed on Thursday the 10th day of the bright lunar fortnight in the month of Phalgunamu (the 12th lunar month, or that in which the moon's change takes place when the sun is in Pisces) in the Telugu year Manmadha, or in 1458* of the era of happy Salivahana.

"Achuta Devarayulu, the universal monarch, the pleasure of kings, the wearer of a three-throne garter (indicating that he had subdued the power of three kings), the brilliant sovereign that put down the power of Appura Rayudu, whose name was a terror to the eight corner kings of the world, was the happy monarch of the extensive country between the eastern and western seas, having Vizianagrum as his chief seat of government."

Bhutanadhuni Ramabhotlu Iyavaru, possessed of unparalleled administrative talents, belonging to the family of Gontama, of the creed of Aswalayana (follower of the principles of that hermit), and the professor of Rig Veda, was the ruler of the first Udayagiri durgam under the immediate authority of the Rayulu dynasty.

He appointed, as his sub-ruler of Udayachallam, one Venkatadriah Varu, the brilliant moon of the sea-like family of Yaudaturu, belonging to the tribe of Vishnuvardhana, the professor of all the Vedas, the follower of the doctrines of the most learned men of the country, and the eldest son of Timmajosyulu.

The above-named Venkatadriah Varu prostrated himself before the god, bid thanks to Achuta Devarayulu and Ramabhotlu, and, after performing the usual supplicating ceremonies by letting gold fall and water be poured down, presented, as a charitable inam on freehold tenure, the village of Changollu, situated on the bank of the river Musi, in the taluq of Kandukur, in the country of Udayagiri, to Sri Parnasala Narasimhadevudu, the god of the universe, the taker away of sins, the dispenser of gifts to Narada Maha Muni, and the dweller in the

* About 1535 of the Christian era.

temple of the village of Somarazupalli, situated on the coast to the west of the Bay of Bengal, and founded by the above-said hermit.

The object of the inam was to provide the daily offerings to the god, and to distribute food daily to twenty-four strangers of the Brahmin caste that passed through the forest.

Wishes that the god will enjoy the eight [illegible], eight sources of pleasure, and the eight respects in which an absolute conveyance is made.

Purport of the Shasanam.

One Venkatadriah, the ruler of Udayachallam, under the authority of Bhutanadhuni Ramabhotlu, the ruler of Udayagiri country, paying homage to Achuta Devarayulu, the Rajah of Vizianagrum, presented the village of Changoll[illegible] on the bank of the Musi, in the Kandukur Taluq, as an absolute inam to the pagoda of Narasimhaswami, situated in the village of Somarazupalli and on the coast to the west of the Bay of Bengal, for making daily offerings to the god, and for giving food daily to twenty-four travellers.

Chundi. Chundi in the Zemindari of that name. There is a very ancient temple of Vishnu here, under the designation of Janardanaswami. It is said to have been built in the time of the Reddy dynasty. There is a mantapam supported on four carved stone pillars and a granite flagstaff sixty feet high and one foot square, covered with carbon.

There are two ruined forts here—one is said to have been built by Pochakayala Venkata Rama Reddy, and the other by Kamineni Pedda Muttaraz.

Gollapalem Shrotriem. There are two ancient Shiva pagodas here, said to have been built by a rajah of the Chola dynasty; but the structures are almost buried in sand brought by the inundations of the Manar river. In each of the pagodas there is a lingam.

There are also the remains of another pagoda, dedicated to Vishnu, under the title of Kodanda Ramaswami. A stone image remains.

To the south of one of the Shiva pagodas is a stone shasanam; the inscription on which, however, is illegible.

Somarazupalli. There are the remains here of the walls of an old mud fort, said to have been built about 600 years ago by Virabhadra Reddy, one of the Reddy dynasty. The fort was destroyed by the Mahomedans.

Gudlur. There are the remains here of a mud fort, said to have been built (A.S. 1607, A.D. 1685) by Godavu Chukravarti Reddy.

Kandukur. There are the remains here of an old fort, but it is unknown to what period it belongs. The site of the fort and part of the ditch have been brought under cultivation. The only ruin to be seen is the old stone gate.

Chinnaleturpi. There was formerly a mud fort here, date and history unknown. The remains of it are now scarcely visible.

Ongole Taluq—Ongole. The fort here is reported to have been built about 150 years ago by Rajhupati Razu, who held the seat of his government at Addanki.

Yendlur. There is a fort here, now in ruins, said also to have been built by the same Raghupati Razu.

Addanki. The old fort here, now in ruins, is said to have been built above 300 years ago by Hari Palakudu, son of the renowned Pratapa Rudrudu (Pratapratudu).

Kanuparti. According to tradition there was, in ancient times, a rajah of the name of Udayina, who built a city here and named it Kanakapuri. In the city he is said to have raised 100 temples. The place, it is said, was destroyed by an inundation of the sea, and ninety-nine temples entirely buried. In many places the bull and lingam may be seen carved on the rocks, and there is an immense stone shasanam, but the inscription has not been deciphered.

Pellur. There is an old stone fort in this Zemindari village.

Kanigiri Taluq—Kanigiri. This taluq was formerly designated the Durgam Samastanam from the remarkable hill or droog in the neighbourhood of Kanigiri. It was also called the Durgasuma and later Marellasuma. The droog presents a striking feature in the landscape for many miles round. On its summit is a level table-ground of about a square mile, where, tradition says, a town once stood. The hill was fortified, and was a place of great strength. The remains of some of the batteries still exist.

According to local tradition Kanigiri was taken about the tenth century by Kaketa Rudrudu, of the Gazapatti family, who had the seat of their government at Cuttack. This dynasty is said to have held this part of the country, both Udayagiri and Kanigiri, for some 400 years. The fame of Kaketa Rudrudu is connected with his force of archers, handed down as 900,000 in number. His son, Pratapa Rudrudu, is said to have built the town of Kanigiri, and to have fortified the droog, placing a strong force there for its defence. Pratapa Rudrudu is reported to have been a profound Sanskrit scholar, and to have composed several works in that language, both in literature and law. He was taken prisoner, it is said, by the Emperor of Delhi, but obtained his release by the exertions of his minister Yugandharudu. The son of Pratapa Rudrudu, Purushottama Rudrudu, is said to have been a brave soldier and a wise ruler. His son again, Vira Rudrudu, is represented as a prince of effeminate character, and, though a great

scholar and patron of literature, to have been the last sovereign of his race who held power in this district. The story of his downfall is thus told:—Towards the close of the fifteenth century, Krishna Devarayulu, described as Rajah of Chandragiri, sought in marriage the daughter of Vira Rudrudu. As Krishna Devarayulu was the son of a concubine, Vira Rudrudu did not approve of the alliance; but, instead of openly rejecting the royal suitor, he invited him to his palace, pretending that he desired to make the acquaintance of the prince, intending at the same time treacherously to take his life. The minister of Krishna Devarayulu, however, suspected the plot and warned his master, who agreed to adopt a stratagem. The minister came to the Court of Vira Rudrudu disguised as the king, and the king as one of the attendants. His disguise was, however, discovered by means of a ring which he wore, and Krishna Devarayulu, a man destined hereafter to be so celebrated in Hindu annals, narrowly escaped with his life. He collected his forces without delay and invaded the territories of Vira Rudrudu, taking fort after fort and town after town, and at last driving the latter to take refuge in the fastnesses of the Vindhya hills. Thus Kanigiri came into the possession of Krishna Devarayulu. After his death Kanigiri was occupied by the Mahomedan power, which had its seat at Golcondah, and the affairs of the taluq were administered for about forty years by a stallakaranam, of the name of Dulipalli Kasupati Rao. After him Bachali Vira Venkanna and Sitaramanna were for some time joint stallakaranams. They are reputed to have built the fort at Gogulapalli, and to have made that place their residence. They were succeeded by their grandsons Pedda Papanah and Timmarazu; but there appear to have been dissensions in their family, and probably they attempted to become independent of the Mahomedan power, for we find Jupalli Lakshmanna Rao, Desmukh of Udayagiri, supported by the Nizam, in invading Kanigiri. He succeeded in taking the hill fort, and held it for some years. The dispossessed rulers applied for aid to the Rajahs of Venkatagiri and Kalastri, but their prayers were rejected. Then they appear to have turned to a powerful Reddy of Wiyalavada in the Cuddapah District. Dreading the result of this Reddy's interference, the Rajah of Venkatagiri changed his mind, and, sending for the dispossessed rulers of Kanigiri, agreed to advance them pagodas 12,000, to enable them to raise a force to recover their lost territory, the money to be repaid in five years. The Rajah of Venkatagiri then laid siege to Kanigiri, and Jupalli Lakshmanna Rao was reduced to terms, and allowed to retire. Bachali Pedda Papanna and Timmarazu were accordingly restored to power; but, as they were unable to repay the Rajah of Venkatagiri the amount of the loan within the prescribed period, he occupied the taluq and held it for some time.

In the eighteenth century Hyder Ali, of Mysore, invaded the Nizam's dominions and took possession of the Kanigiri Taluq, destroying the town and fort of Kanigiri. On the defeat of Tippu Sahib, this taluq reverted to the Nizam, who afterwards gave it to the English with the Ceded Districts. Under the British the taluq of Kanigiri was first attached to the Cuddapah District, then transferred to Kurnool, and finally made part of the Nellore District. There is an ancient temple here, dedicated to Shiva, under the designation of Martandeswaraswami. Tradition reports that it was built by Markandeyulu Muni. There are no stalla puranams.

Vidur in the Pamur Zemindari division. There are the remains here of an old fort, whose area enclosed 2 gorrus of land equal to acres 6¼. The fort had ten bastions with a rampart, and three large stone wells, which are always full of water. The walls were built of loose stone in mud. There are no remains of the Zemindar's residence, which he is said to have built about 100 years before the resumption of the Zemindari, within the fort enclosure.

Vidur.

Gogulapalli. There are the remains here of two old forts, said to have been built by early Hindu rajahs.

Venkatagiri Division—Vengatagiri. There are the remains here of an old durga or hill fort.

Polur Division—Pudur. There are the remains here of an ancient fort with mud walls. It is said to have been built by a Malaya rajah, who lived about 1,000 years ago. There formerly existed a stone tank, to which water was conveyed by means of an aqueduct from the Suvarnamuki river, five miles off.

Sagatur. There are the remains here of an old fort of mud walls. It has a ditch. The area of the fort, as well as the ground around it, has been under cultivation for many years.

Chintavaram. There are the ruins of an old mud fort here.

Manar Polur. There are the remains here of an ancient fort, said to have been built by the Wuddah rajahs. There is also an old temple, dedicated to Vishnu, under the name of Manar Krishnaswami.

Podile Division—Ramavedu. There are the remains here of an ancient pagoda of Vishnu, under the designation of Venugopalaswami. It is said to have been built by the Chola rajahs, and to have been in ruins for 200 years.

Chiruvelapatnam. Now a small village. It is said to have been formerly the site of a large city. Ruins are to be seen in the neighbourhood.

Killapadu. This was formerly an agraharam village, and celebrated for its ancient Shiva pagoda, which is now in ruins.

Podile. There are the remains of an old mud fort.

Tarlupadu—Kocherlakota. There are the remains here of a fort, built below of stone and the upper part of mud. It is said to have been raised by the Rajah of Venkatagiri about 150 years ago.

Darsi Division—Potakamuru. There is a fort here of black and white stone, said to have been built by the Zemindar of Venkatagiri about 200 years ago. Inside the fort are the Ameen's Cutcherry buildings.

Karuchedu. Here also is a stone fort, built about 150 years ago by the Zemindar of Venkatagiri. Inside the fort is the Ameen's Cutcherry. There is a mound within the walls, on the swamp of which is a temple dedicated to Vishnu.

Kocherlakota. There is an old mud fort, said to have been built by the Mandhata Rajulu. The walls surround the present village.

Pottepadu. This red stone fort is said to have been built about eighty years ago by Abdul Nabbi Khan Sahib. Some of the stones have been subsequently removed for building a pagoda.

CHAPTER XIV.

POLITICAL HISTORY.

Up to the establishment of the Nawabship of the Carnatic.

Pre-Hindu period.—Telingana.—Yadava dynasty.—Chalukya dynasty.—Kalyana Chola Rajahs.—Pallavans.—Ganapatti Rajahs of Andhra.—Earliest Nellore traditions.—Mukunti.—Siddi Raj.—Gazapattis and Narapattis.—Mahomedan invasion.—Kingdom of Bijayanaggar and Worrangul.—Bahmani dynasty.—Kutb Shah dynasty at Golcondah.—English settlement at Armegon.—Shah Jehan's invasion.—Aurungzib.—Mahrattas—Sivaji and Sambaji.—End of the Kutb Shah dynasty.—Soubah of the Deccan.—Nawabship of the Carnatic.

"All the traditions and records of the peninsula," says Professor Wilson, "recognize, in every part of it, a period when the natives were not Hindus." These aborigines are described as foresters and mountaineers, or goblins and demons; and it is probably their descendants whom we find still extant in the wild jungle tribes of the country, such as are represented in the Nellore District by the Yenadies, the Yerukalas, Chenchus, &c.

Pre-Hindu period.

The successive impulses of civilization may probably be traced to incursions of conquering bands—of first the Scythian and then the Aryan race—as they gradually spread themselves over the country, and settled down on the hunting grounds of the aborigines. There would be a band of warriors with a petty rajah perhaps at their head, a family of priests (Brahmins), and a number of retainers, menials, and artificers. The original settlers and their descendants, holding their lands in common, would admit subsequent settlers to a very subordinate share in the usufruct of the soil, hence the origin of mirassi rights. Here we see the germ of the village institutions of India. As one or another petty chief extended his influence, he would bring larger tracts of land, with the population of these villages, under his authority, and establish himself as a Poligar, collecting, as a personal due, a proportion of the cultivation from the holders of land within his territory. According to the earliest revenue system which we can trace, the headman of each village used to settle with the ruling power the amount of grain, or its equivalent, to be paid for the year, and to apportion the payment among the villagers according to the extent and tenure of their lands. The head of the village would also lease out the cultivable waste, distribute water for irrigation, settle disputes, apprehend offenders, and send them to the higher power.

There were five languages spoken in the Deccan, which clearly mark an equal number of national divisions—Dravira or the Tamil country; Carnata, or the Canarese country; Telingana, or the Telugu country; Maharashtra, or the Mahratta country; and Orissa, or the Uriya country. The modern district of Nellore forms part of the ancient division of Telingana.

Telingana.

The eastern part of Telingana (Elphinstone) seems to have been, from the beginning of the ninth to near the end of the eleventh century, in the hands of an obscure dynasty, known by the name of Yadava. A Rajput family of the Chalukya tribe reigned at Kalyan, west of Bidr, on the borders of Carnata and Maharashtra, who are traced with certainty by inscriptions from the end of the tenth to the end of the twelfth century. Professor Wilson thinks that they were also superior lords of the west of Telingana. Another branch of the tribe of Chalukya, perhaps connected with those of Kalyan, ruled over Kalyana, which is the eastern portion of Telingana, extending along the sea from Dravira to Orissa. Their dynasty lasted certainly through the whole of the twelfth and thirteenth centuries, and perhaps began two centuries earlier. It was greatly reduced by the Ganapatti kings of Andhra, and finally subverted by the rajahs of Cuttack. The seat of this government was at Rajahmundry.*

Yadava dynasty.

Chalukya dynasty.

Kalyana.

The kings of Andhra, whose capital was Worrangul (about eighty miles north-east of Hyderabad), are alleged to have been connected with the Andhra race in Magadha; but it must have been by country only, for Andhra is not the name of a family, but of all the inland part of Telingana.†

The records of the inhabitants mention Vicrama and Salivahana amongst the earliest monarchs. After these they place the Chola rajahs, who were succeeded, they think, about 515 A.D., by a race called Yavans, who were nine in number, and reigned, as they say, for 458 years till 953 A.D. About this time, the same records

Chola Rajahs.

Yavans.

* A copper plate, discovered in the Nellore District, gives a long list of the Chalukya sovereigns. Another inscription in Sanskrit from the neighbourhood of Rajahmundry shows that the Chola kings, about 1000 A.D., overpowered the Chalukyas.

† I have obtained at Amravati, or rather on the site of the ancient city of Dharinikotta on the Kistna, leaden coins, which have been deciphered by General A. Cunningham, to bear the names of Gotamiputra, the great Andhra king, and Pudumayi, his successor. There can be no doubt, therefore, that the ancient Andhra kings, of whom we have a long list in the Puranas, copied in Mr. James Prinsep's tables, must have ruled over the lower valley of the Kistna, as well as the lower valley of the Godavery. The date of these sovereigns is about the first century of the Christian era.

make the family of Ganapatti rajahs begin; but the first authentic mention of them, and probably their first rise to consequence, was in the end of the eleventh century under Kakati, from whom the whole dynasty is sometimes named. He has been mentioned as an officer or feudatory of the Chalukyas, and as having gained victories over the Chola kings. Their greatest power was about the end of the thirteenth century, when the local traditions represent them as possessed of the whole of the peninsula south of the Godavery. Professor Wilson, however, limits them to the portion between the fifteenth and eighteenth degrees of latitude. In 1332 their capital was taken, and their importance, if not their independence, destroyed by a Mahomedan army from Delhi. At one time subsequent to this they seem to have been tributary to Orissa, and disappeared finally on the establishment of the Mussulman kingdom of Golcondah

Ganapatti Rajahs of Andhra.

At Nellore the earliest Hindu sovereign, or chieftain, whose name is known, is Mukunti. He is supposed to have ruled at Nellore about the eleventh century, and to have been tributary to the Chola rajahs, who appear to have long held the sovereignty of the southern part of the district, and to have overpowered the Chalukyas about A.D. 1000.

Earliest Nellore traditions—Mukunti.

The next chieftain, whose name is known, is Siddi Raj, who ruled at Nellore in the twelfth century. About this period the northern parts of the district were under various petty princes of obscure origin of the Yadava or shepherd caste. The principal members of the family, whose exploits form the subject of legendary tales, are the following:—

Siddi Raj.

Annala Valla Raj.

Simhadri Raj. Peddi Raj. Yerramuka Raj. Nallamuka Raj. Pula Raj.

Karearala Raj. Kantam Raj.

As the Gazapatti sovereignty of Worrangul and the Narapatti sovereignty of Vidyanagara rose into importance, their dominions extended over different parts of the Nellore District.

Gazapattis and Narapattis.

The Gazapatti sovereignty was temporarily straitened in its territories by the Reddies, who rose into great consequence and ruled for a period of 100 years at Kondavidu, in the Guntur District. Their sovereignty extended over the northern parts of the Nellore District, and they are supposed to have made large grants of land, though few of them appear now to exist. The following were among the sovereigns of this family:—

Poliya Vema Reddy	A.D.	1328 to 1339
Anuvema Reddy	„	1340 to 1369
Aliya Vema Reddy	„	1370 to 1381
Komaragiri Vema Reddy	„	1382 to 1395
Komati Venka Reddy	„	1396 to 1423
Racha Vema Reddy	„	1424 to 1427

The Gazapatti dynasty was ultimately brought to an end by the Kutb Shah dynasty.

The most famous king of the Nanapatti dynasty was Kristna Devaraya, who ruled from 1510 to 1530. He made conquests in the Nellore District, which was then under various petty Poligars and Zemindars, who thenceforward paid a real or nominal allegiance to him and his successors. The names of the several kings of this family are given below :—

Huryhur Rayalu at Anugundi	A.D.	1336 to 1350
Bukka Rayalu, brother of the above ...	„	1350 to 1379
Huryhur Rayalu, the second	„	1379 to 1401
Vijaya Bukka Rayalu	„	1401 to 1418
Palla Bukka Rayalu	„	1418 to 1434
Gauda Deva Rayalu	„	1434 to 1454
Rajah Sekar Rayalu	„	1454 to 1455
Vijayalu	„	1455 to 1456
Proudha or Pratapa Deva Rayalu ...	„	1456 to 1477
Vira Rayalu	„	1477 to 1481
Mallikar Rayalu	„	1481 to 1487
Ramachendra Rayalu	„	1487 to 1488
Virupaksha Rayalu	„	1488 to 1490
Narasinga Rayalu	„	1490 to 1495
Narasa Rayalu	„	1495 to 1504
Vira Narasimha Rayalu	„	1504 to 1509
Krishna Deva Rayalu	„	1509 to 1530
Achuta Deva Rayalu	„	1531 to 1541
Sadasiva Deva Rayalu	„	1542 to 1564
Tirumala Deva Rayalu	„	1565 to 1572
Srirunga Rayalu	„	1573 to 1585
Venkatapati Deva Rayalu	„	1586 to 1614
Chikka Rayalu	„	1615 to 1623
Rama Deva Rayalu	„	1624 to 1631
Anagondi Venkata Rayalu	„	1632 to 1643
Srirunga Rayalu...	„	1644 to 1654

Their empire finally fell beneath the combined power of the Mussulman kings of Golcondah, Ahmadnaggar, and Bejapur.

Mahomedan invasion.

It was Mahomed Toglak who completed the reduction of the Deccan and brought his most remote provinces into as good an order as those near his capital. A few years later, however, his oppression led to various attempts to throw off his yoke—among others one in the country on the coast of Coromandel. This rebellion the king went himself in person to put down about 1340 A.D., but his army was attacked by a pestilence at Worrangul, and suffered so much by its ravages, that he was obliged to retire to Deogur, where he had transferred his capital from Delhi. The rajahs of Carnata and Telingana seized the opportunity to form a combination to recover their independence. The former became the founder of a new dynasty erected on the ruins of Belal, and fixed his capital at Bijayanaggar on the Tumbudra; the latter regained possession of Worrangul, from which he had been driven out long before and Mahomedan garrisons were expelled from every part of their dominions. The two rajahs of Telingana and Carnata reduced the Mussulman frontier to the Kistna on the south and the meridian of Hyderabad on the east. They also brought the more southern parts of the peninsula into dependence, and formed states capable of contending on equal terms with their Mahomedan neighbours.

Kingdoms of Bijayanaggar and Worrangul.

Meantime, Hasan Gangu, who had headed the successful revolt against Mahomed Toglak, founded the Bahmani kingdom of the Deccan. His dynasty held the throne for 171 years through several generations. The Hindu rajahs of Bijayanaggar and Worrangul were the allies of this new monarchy in its resistance to the Emperor of Delhi; but, when delivered from their common enemy, their national antipathy revived. The struggle was of long duration; but the Mahomedans were the gainers in the end. During the rule of the house of Bahmani, they conquered the country between the Kistna and the Tumbudra from Bijayanaggar, and entirely subverted the kingdom of Worrangul; and, immediately before their fall, they had gained a territory in Orissa, and had extended their conquests on the East Coast as far as Masulipatam, and on the West as far as Goa.

The domestic history of the Bahmani dynasty was much influenced by the rivalry between the foreign and native troops. The army which placed the Bahmani dynasty on the throne was chiefly composed of foreigners. In time the native troops increased in numbers, and so nicely balanced the foreigners, that neither party ever obtained a permanent influence over the government. The foreign troops were Shiahs, and the native troops may be presumed to have been Sunnis—the two great hostile sects of Mahomedans. Various states were subsequently formed out of the Bahmani dominions (1489 to 1512 A.D.). One of the great chiefs who became independent was Kutb Kuli, a Turkuman from Persia. He founded the dynasty of Kutb Shah at Golcondah, close to Hyderabad. The kings of Golcondah completely subdued all Worrangul, which had made efforts

Bahmani dynasty.

Kutb Shah dynasty at Golcondah.

at independence, and annexed other parts of Telingana and Carnata as far as the river Pennair.

The sovereigns of the family were as follows :—

Kuli Kutb Mulk	A.D.	1527 to 1538
Jamshid Mulk	„	1539 to 1545
Subhan Kuli Badshah	„	1546 to 1547
Ibrahim Badshah	„	1547 to 1577
Mahomed Kuli Badshah	„	1578 to 1608
Sultan Mahomed Badshah	„	1609 to 1622
Sultan Abdullah Badshah	„	1623 to 1672
Sultan Abdul Hussein Badshah or Tanashah	„	1673 to 1687

Their sovereignty was put an end to by the Emperor Aurungzib.

The following are the principal events which marked the latter portion of the period of this dynasty :—

In 1601 the Emperor Akbar received an embassy from the king of Golcondah.

In 1624, at the time of Shah Jehan's flight to the Deccan, the king of Golcondah showed no disposition to assist him during his retreat through Telingana.

It was in 1625 A.D., two years after the massacre of the English by the Dutch at Amboyna, their agents at Bantam in Java suggested to the authorities in Europe the expediency of directing their attention to the trade on the Coromandel Coast; and at the close of the season they despatched a vessel from Batavia to a place on the coast in the Nellore District, forty miles north of Pulicat, where a small trading establishment was set up with the assistance of Armugam Mudelliar, the chief man of that neighbourhood, and after whom the English gave the place a name (Armegon). To this place, in 1628, the Masulipatam factory was transferred, in consequence of some trouble there with the native powers. Previous to the arrival of the English, the Dutch had settlements on the Coromandel Coast at Pulicat, Dugarazapatam, and Mypaud. The native tradition, as to the arrival of the English, is as follows. It was the first English settlement on the Coromandel Coast :—

English Settlement at Armegon.

"In the time of Gurava Naidoo, great-grandfather of Rajahgopaul Naidoo, some gentlemen of the Honorable Company came to this port on boardships; dropped anchor; landed at this port; sent for Gurava Naidoo, who was then chief man of this place, and Patnaswamula Armugam Mudelliar, the Curnum at this port, and told them that they (the gentlemen) wanted to improve the place and build a fort there; that those two agreed to this and caused the cargo on board the vessels to be landed. That afterwards the gentlemen constructed a bastion on the eastern side of this village; and, mounting a gun upon it, fired the same; that the shot fell down into the Venkatagiri Zemindar's land, and two guddies distance on the west side. That they expressed desire to build a fort here, if the land included within the range of the projectile was given to them; and they accordingly placed Naidoo and Armugam Mudelliar in communication with the Venkatagiri Rajah on the subject; but that the Rajah, by name Yachama Naidoo, did not consent to give the said land. Thereupon this the said Gurava Naidoo and Armugam Mudelliar went and applied to Damerla Chennapa Naidoo, and, obtaining his consent to make over to the Company the land forming Chennum Kupum, situated to the north of Mylapore, returned to this place, rendered every assistance to the gentlemen, and took them on; when the latter gave to this place Durgarazapatam, the appellation of Armaganulu. That they got that land (Chennum Kupum) and built a fort, and the gentlemen, pleased with the pains Gurava Naidoo and Armugam Mudelliar had taken (to their account), conferred, in conformity with their wishes, on them the office of Dalavoy (headman of business), and on the latter the Stalla Curnam (accountant or register of a division)."

In the *hundies* (drafts) given by the ship captains for the money paid to agents in Madras, and in accounts, the salt used to be stated to be exported from Durgarazapatam and Armugam. Whether it was owing to the ill will of the Venkatagiri Zemindar, or the place not being convenient for the inland trade in piece goods, the factory did not exist long. Mr. Francis Day, who was then chief of the factory, proposed a move to the south of the Dutch Settlement of Pulicat; and in 1639 A.D. an amicable arrangement was made with the local Naik or chieftain, Damarla Venkatadri Naidoo, Rajah of Calastry, by which the English were allowed a settlement at a small kupum, or fishing village, which became Madras. The village of Durgarazapatam is now chiefly occupied by salt manufacturers. The Armegon light-house is situated at Munapalliam, latitude 13° 52′ 50″ north, longitude 83° 12′ 00″ east (*Pharoah's Gazetteer*).

To revert to the fortunes of the Mahomedan dynasty in 1629, we find Abdullah Kutb Shah, king of Golcondah. As he was chiefly occupied in aggrandizing himself at the expense of his Hindu neighbours, he seems to have taken no part in the quarrels of the Mahomedan kings.

In 1629-30 a fearful famine desolated the Deccan. Thousands of people emigrated, and many perished before they reached the more favored provinces: vast numbers died at home; whole districts were depopulated; and some had not recovered at the end of forty years. The famine was accompanied by a total failure of forage and by the death of all the cattle; and the miseries of the people were completed by a pestilence such as is usually the consequence of the other calamities.

h Jehan's invasion.

on of the Deccan, about 1636 A.D., he overawed the king of Golcondah, and forced him to desist from reciting the name of the king of Persia iblic prayers, and to agree to pay a regular tribute. Abdullah ıah paid his tribute regularly, and showed a desire to secure or of Shah Jehan. The prime minister of Abdullah was a named Mir Jumla. His son, Mahomed Amin, had drawn on the resentment of Abdullah Kutb Shah, and had involved his in a dispute with the Company. Mir Jumla was absent in nd of an army in the eastern part of the kingdom of Golcondah, ding himself unable to obtain such concessions as he desired s own sovereign, determined to throw himself on the protec-

ngzib.

tion of the Mogul. His application to Aurungzib afforded an irresistable temptation of interce to a man of Aurungzib's intriguing disposition, who strongly mended the case of Mir Jumla to his father's favor. Shah Jehan d a haughty mandate to Abdullah Shah to redress the complaints is minister, but Abdullah, irritated by this encroachment on his pendence, committed Amin to prison, and sequestrated the property ir Jumla. Shah Jehan, now provoked in his turn, sent orders to son to carry his demands into effect by force of arms. Aurungzib hout any further manifestation of hostility (1650 A.D.), sent a chosen ce under pretence of escorting his son Sultan Mahomed to Bengal the purpose of celebrating his nuptials. The road from Arungad to Bengal made a circuit by Masulipatam. Abdullah Shah was ken by surprise, and had only time to fly to the hill fort of Golcondah, x or eight miles from Hyderabad, which was plundered and half urned. Fresh reinforcements were sent from Malwa. After several ttempts to raise the siege, Abdullah Shah was compelled to accept the severe terms imposed on him, and to agree to give his daughter in marriage to Sultan Mahomed, with a dowry in territory and money, to pay a crore of rupees (£1,000,000) as the first instalment of a yearly tribute, and to promise to make up the arrears of past payments within two years. A great remission was afterwards made in the pecuniary part of these terms.

It was in 1676 A.D. that the king of Golcondah received overtures of

Mahrattas—Sivaji.

an alliance with Sivaji, the Mahratta. These being encouraged, the latter marched from Golcondah with an army of 30,000 horse and 40,000 infantry. A definite settlement of alliance was completed, on the agreement that he was to share with the king whatever conquests he made, the king supplying him with a sum of money and a train of artillery, reserving all his other forces to keep the armies of Bijapur and the Mogul's in check. Having thus secured his rear, Sivaji crossed the Kistna at Kurnool, ded through Cuddapah, and, passing [illegible], took Ginjee,

Vellore, and Arnee; and, while thus employed, he heard of the of Golcondah by the Moguls and the Government of Bijapur, he returned north, but the king of Golcondah had come to a s with the Moguls.

It was about 1680 A.D. that the king of Golcondah again

Sambaji.

into a defensive alliance with Sambaji Sivaji. No sooner did this become kn Aurungzib than he sent an army to invade Golcondah. The first sent was insufficient, and he was forced to send his son, Moazzim, with a large body of troops, to support the first and take command of the whole. The king of Golcondah, Abul H though indolent and voluptuous, was popular; and his gover and finances were ably conducted by Madna Punt, a Brahmin, to he gave his full confidence. But the exclusive employment o minister was odious to the Mussulmans, and especially to Ib Khan, the commander-in-chief, into whose hands the power probably have fallen under any different arrangement. When Moa drew near, this man deserted to him with the greater part of his Madna Punt was murdered in a simultaneous tumult in the city king fled to the hill fort of Golcondah; and Hyderabad was sieged plundered for three successive days. The king of Golcondah being t effectually crippled, he was granted peace for a great pecun payment.

Aurungzib, however, soon determined to break this peace. T means he employed were as base as the design was perfidious. H drew his army near on pretext of pilgrimage, and he obtained jewels and gifts of all sorts from the unfortunate king, anxious at any cost to purchase friendship, or at least compassion; but during all this interval, he was intriguing with the minister of Golcondah, and debauching the troops. When the plot was ripe for execution, he published a manifesto, denouncing the king as a protector of infidels, and soon after laid siege to his fort. From this moment Abdul Hassan seemed to cast aside his effeminacy, and, though deserted by his troops, he bravely

End of Kutb Shah dynasty.

defended Golcondah for seven months, till it also was given up by treachery; and then he bore his misfortunes with a dignity and resignation that has endeared his memory to his subjects and their descendants even to this day.

Aurungzib took possession of Golcondah, but he had little more than a military occupation. The districts were farmed to the Desamukhs and other Zemindars, and were governed by military leaders, who received 25 per cent. for the expense of collecting, and also sent up the balance after paying their troops, to the king; unless, as often happened assignments were made for a period of years on fixed districts for t payment of other chiefs.

death (1707 A.D.), Aurungzib left the kingdoms of Golcondah pur to his youngest and favorite son Cambaksh; but he refused wledge the sovereignty of his elder brother, the Prince Moazzim, l assumed the crown at Cabul with the title of Bahadur Shah. er, having attempted in va[illegible] to win him over by concessions, l against him to the Deccan, and defeated him in a battle near bad, where Cambaksh died of his wounds on the same day. On

of the Deccan.

Bahadur's departure, he gave the viceroyalty of the Deccan to Zulfikar; and, as that chief could spared from court, he left the administration of the govern- to Daud Khan Panni, a Patan officer already distinguished in ngzib's wars, to act as his lieutenant. On the accession of khsir, in 1713, Daud Khan was removed. The next most import- Viceroy of the Deccan was Chinkilich Khan, better known by his ned titles of Asof Jah and Nizam-ul-Mulk, whose descendants are wn to Europeans as the Nizams of the Deccan. He fixed his dence at Hyderabad about 1724 A.D.; and, though he continued send honorary presents on fixed occasions to the Emperor, he ucted himself in other respects as an independent prince. Subse- ently, when the Emperor was threatened by the rise of the Mahratta wer under Baji Rao, he turned to Asof Jah, regarding him no longer a rebellious subject, but as a natural ally. In 1741 A.D. Asof Jah as recalled from Delhi by a revolt of his second son Nazir Jung; and hen it was suppressed, he was again involved in disturbances in the ubordinate government of Arcot, which occupied him till his death at the age of seventy-six in 1748 A.D. His death led to contentions among his sons, which were chiefly influenced by the French and the English, the war declared between Great Britain and France in 1744 extending its operations to the settlements of the two nations in India.

Nawabship of the Carnatic.

The Carnatic at this time was one of the most considerable Nawab- ships, dependent on the Soubah of the Deccan. From its capital the province also received the name of Arcot, and included the district of Nellore. The following were the names of the successive Nawabs:—

Sadatulla Khan	died	A. D. 1732
Dost Ali (brother's son)	„	1733 to 1740
Subdar Ali (of different family)	„	1741 to 1742
Kaja Abdulla Khan (different family) ...	„	1743
Anwar-u-din	„	1743 to 1749
Mahomed Ali	„	1750 to 1794
Umdat-ul-Umrah	„	1794 to 1801