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CONTENTS.

iii

Chapter XII.—	Health.							PAGE
Discases; Ho	-	_			-			622-625
Chapter XIII	Sub-Div	isions.						
Boundaries;	Area;	Aspect;	Soil;	Climat	e ; Wa	ter; St	toc k ;	
Crops; Peo	ple	•••	***	•••	•••	•••	•••	626-647
Chapter XIVI	Places	•••	•••	•••	•••	•••	•••	648-790
Sávanur State	•••	•••	•••	•••	•••	•••	•••	791-806
APPENDICES	•••	•••	• • •	•••	•••	•••	***	807-822
INDEX								823-831

DHÁRWÁR.

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DHÁRWÁR.

CHAPTER I.

DESCRIPTION.

Dha'rwa'r,¹ between 14°17' and 15° 50' north latitude, and 74° 48' and 76° east longitude, the southmost district of Bombay, lies on the tableland to the east of the North Kánara Sahyádris separated from the coast by a belt about fifty miles broad. It has an area of 4500 square miles, a population of 882,900 or 194.73 to the square mile, and a realizable land revenue of about £240,000 (Rs. 24,00,000).²

It forms an irregular wedge-shaped figure, about 110 miles long and varying in breadth from about seventy miles in the north to about forty miles near Kod in the south, from which, in the last twenty miles, it narrows to a point. The district is bounded on the north by Belgaum the Rámdurg state and Bádámi in south Bejípur; on the east by His Highness the Nizám's Ráichor Doáb and the Bellári district of Madras; on the south by Maisur; and on the west by North Kánara and the sub-division of Khánápur in Belgaum. An irregular broken belt of Patvardhan and Sávanur villages with a breadth of ten to twenty miles almost divides the east of the district into two parts, a north and a south. Besides this belt of land some scattered outlying villages lie to the west of Sávanur and there is an isolated patch of estate or jágir land at Hebli about five miles north-east of Dhárwár.

For administrative purposes the 4500 square miles of the district are distributed over eleven sub-divisions. Of these six, Dhárwár and Kalghatgi in the west, Navalgund and Hubli in the centre, and Ron and Gadag in the east, lie to the north of the Sávanur-Patvardhan villages; the seventh sub-division, Bankápur, is mixed with and lies to the west of the Sávanur villages; of the four remaining sub-divisions, Hángal is in the west, Kod in the southwest, Ránebennur in the south-east, and Karajgi in the east of the southern half of the district. The following statement shows that these sub-divisions have an average area of 410 miles 147 villages and 80,260 people:

Chapter I.
Description.

BOUNDARIES.

SUB-DIVISION

¹ From materials supplied by Mr. E. P. Robertson, C.S. ³ The population and revenue details are for 1881.

DISTRICTS.

Chapter I.

Description.

Sub-Divisions.

DHARWAR ADMINISTRATIVE DETAILS, 1881-82.

		VILLAGES.										Popul			
		Government.			•	Alienated.				Total.			POPUL		
Sub Division.	Miles.	Villages		Hamlets.		Villages.		Hamlets.		ند					Land Revenue,
	W	Peopled.	Unpeopled.	Peopled.	Unpeopled.	Peopled.	Unpeopled.	Peopled.	Unpeopled.	Government	Allenated.	Total.	1881.	Square Mile.	1881-84.
Dhárwár Kalghatgi Hubli Navalgund Ron Gadag Karajgi Bankápur Hángai Kod Ránebennur .		112 88 71 85 55 88 124 126 135 168 110	29 24 9 2	2 6 31 1 8 16 4 2	36 5 6 1 9 10 10 7 18 10 12	25 17 4 7 4 12 6 13 30 10 8	6 2 3	1 1 1 1	3 1	179 121 86 90 70 114 141 155 175 193 131	34 20 8 7 4 14 6 16 36 11 12	213 141 94 97 74 128 147 171 211 204 148	111,137 50,769 91,997 87,832 60,724 100,833 83,216 76,554 65,787 80,845 74,213	261 191 295 156 164 143 188 223 220 200 183	£. 27,705 12,985 26,056 38,286 16,447 25,740 19,232 19,875 18,449 18,663 15,804

ASPECT.

The line of the Poona-Harihar road, which runs north-west and south-east, divides Dhárwár into two very unlike and unequal parts, an irregular belt of hilly and woody country to the west from five to twenty-five miles broad, and to the east a bare plain stretching about sixty miles to the north-east. In the narrow western belt the soil is red and gravelly, the country hilly and woody, the air cool, the rainfall thirty to forty inches, and the water-supply in most places abundant. The villages are generally close together on rising ground with shady sites and poor but hardworking people. Many lakes or reservoirs are used both for drinking and watering, and there is a large watered area of rice-land in the north and centre, and of rice, sugarcane, and betel-palm gardens in the south. To the east of the Harihar road, in the north and centre of the district, the plain is a broad stretch of black soil, flat and bare except for a few ranges of low bushy hills, the rainfall is twenty to thirty inches, and the water-supply is scanty and in places brackish. In the east the villages are large and far apart, generally poorly shaded, and with rich and skilful husbandmen.

The West.

The Western Belt, which is five to twenty-five miles broad, is part of the rough wooded country along the Sahyádri water-shed. In the north, the district passes fifteen or twenty miles west of the line of water-shed, the town of Dhárwár fifteen miles from the frontier standing at the water-parting 2420 feet above the sea, the source of streams which flow west to the Indian Ocean and east to the Bay of Bengal. To the south the Dhárwár border passes further east, leaving the water-shed within Kánara limits. All along, in the extreme west, the country is wild with woody hills 100 to 300 feet high, rugged or smooth, flat-topped or pointed, detached or in ranges, many of them, especially those in Kalghatgi Hángal and Bankápur, giving cover to wild pig, deer, panthers, and tigers. Fifty years ago these western hills were occasionally visited by wild elephants. Throughout this western belt ranges of low bushy hills, 300 to 700

feet high, run in parallel lines north-west and south-east. Towards the east the hills gradually grow barer, less rugged, and more isolated, and are separated by broad rich valleys whose tillage spreads up the lower slopes. In the south these lines of hills and isolated peaks are higher and pass further east than in the north. They are better wooded and the valleys between them are more highly tilled, especially with sugarcane and betel-palm gardens, and they are also better supplied with water, dotted with old ponds and lakes, some of them two or three miles long though of no great depth. Near Tilvali, about twelve miles south of Hángal, a grassy bush-covered country is adorned with a thick forest of wild date-palms. The extreme south is crossed from west to east by narrow and steep parallel ranges 400 to 600 feet above the plain.

East of the Poona-Harihar road, in the south and south-east, the country is rocky, bare, and uninteresting, broken by ranges and blocks of stony bush-covered hills, which at Airani and Karur in the extreme south rise 500 to 700 feet above the plain. To the north of the southern hills the black soil valley of the Varda crosses the district from west to east. Further north, and east of the belt of Sávanur-Patvardhan villages, the gold-yielding range of Kappatgudd stretches thirty miles north-west from the Tungbhadra, its three or four lines of bare hills rising near Dambal in a steep flat ridge about 1000 feet above the plain. North-east from Dhárwár and Hubli, across the whole breadth of the district, a black soil plain, broken by a few isolated sandstone peaks 300 to 700 feet high, drains north-east into the Bennihalla and other tributaries of the Malprabha. This black soil plain varies greatly at different times of the year. During the rainy and cold seasons, from July to March, the plain is a broad stretch of rich crops of grain, pulse, oil plants, and cotton. In the hot months, though the heat is never so extreme as in parts of Bijápur, the black plain gapes in deep fizzures and its bare monotony is relieved by few trees or shrubs and by almost no traces of tillage. Clouds of dust sweep before the parching wind, or move across the plain in huge pillars a hundred feet high. The cheerless view ends in an even wall-like line of sandstone hills.

There are five chief ranges of hills, the Buddangudd in the west, the Airáni in the south-east, the Kappatgudd in the east, and two nameless ranges in the south. The Buddangudd range in the west, separating Kalghatgi from Hubli, is about eight miles long from north to south and about a mile broad. Its highest peak rises about 500 feet above the plain. The hills forming the range are steep, with ridged tops, and are covered with grass and brushwood. This range contains several quarries of good building stone. Smaller hills covered with forest trees lie to the west and north-west. The Airáni range in the south-east corner of the district with a break of five miles runs ten miles from north-west to south-east. The hills of this range are 200 to 700 feet high, those in the north being bare and those in the centre and south covered with brushwood. The highest hill in the range near Airáni on the Tungbhadra is one and a half miles long half a mile broad and 500

Chapter I. Description.

ASPECT.

The East.

HILLS.

Chapter I.
Description.
HILLS.

The Kappatgudd
Hills.

to 700 feet high. The top is pointed, the sides are sloping and woody, and the plain for a mile or two at their base is covered by the only anjan Hardwickia binata trees in the district. Antelope and wild pig are found in the northern and wolves in the southern hills.

In the east the Kappatgudd range, of iron-clay and slate with traces of gold, rises a little to the south-west of Gadag, and, with ridged or pointed crests, covering a tract four to five miles broad, stretches about thirty miles south-east to the Tungbhadra. Near Gadag the hills are of no great height and are broken by gaps. For about fifteen miles, as far south as Dambal, the range continues irregular and broken, a group of hills some four miles broad with no marked central range and no point more than 500 feet above the plain. Near Dambal there rises a short flat-topped central ridge about 1000 feet above the plain, which, at the south end, breaks into three or four parallel spurs covering at the broadest a tract about five miles across. These hills are 300 to 400 feet high. They are bare even of brushwood, with steep sides and irregular outline, broken by conical and rounded peaks. After a time they gradually close into one range which though cut by the Tungbhadra continues beyond the river. The Kappatgudd hills are crossed by four passes. A well marked level pass between Doni and Attikatti, a winding level pass through much broken ground opposite the village of Hárogeri, a footpath over steep and broken ground sometimes used by laden bullocks opposite the Sángli village of Hire-Vadavatti, and a pass fit for carts opposite the village of Irápur. Except by the last hardly any traffic moves through these passes. few panthers and wild pig are found on the Kappatgudd hills. the two parallel ranges in the south which rise 400 to 600 feet from the plain, the northern stretches fourteen miles cast and west and shuts out the Masur valley from the north of Kod. This south range, which is a well-marked chain or ridge of hills, is covered with grass and brushwood and formerly gave cover to bears and other large game. Besides a few passes fit for ponies and bullboks there are two cart-roads, one of seven miles between Hirekerur and Masur. and a second of five miles between Ratihalli and Masur; Four to ten miles further south is the southern range which forms the boundary between Kod and Maisur. This range, which is steep and narrow, contains panthers, bears, and occasionally tigers. highest hill is Márávli (600 feet) called after a village of that name within Maisur limits. The Márávli hill is scantily covered with trees. It is crossed by steep tracks fit for ponies, and, at each side of the hill, runs a cart-road from Masur to Shikarpur in Maisur., The rest of the range is low and dies away near the Tungbhadra. Another noteable hill in this range is Madak near the Madak lake, about ten miles south of Hirekerur. The sides are bare and steep, and round the top a ruined wall encloses a space 300 yards by 200.

Besides these ranges detached hills are dotted over most of the district. In the north are the three isolated sandstone hills of Navalgund, Nargund, and Chik or Little Nargund, running northwest to south-east. The Navalgund hill is 2640 feet long 990 feet broad and 300 feet high; the Nargund hill, about twelve miles north

of Navalgund, is 9174 feet long 3000 feet broad and 700 feet high; and the Chik Nargund hill, about three miles north of Nargund, is 6165 feet long 2640 feet broad and 250 feet high. three hills are steep in parts, with bare ridged tops, and sides covered with prickly-pear. The Nargund hill is crowned by a ruined In the north-west are several bills one hundred to three The chief are Tákarinpur about six miles. hundred feet high. Sidráyanmardi about thirteen miles, and Durgadgudda about eighteen miles west of Dhárwár; and Pedadkanvi and Hullimardi about thirteen miles and Tolanmardi and Topmhatti about sixteen miles south-west of Dhárwár. Of these hills the highest is Tolanmardi Sidráyanmardi Hulimardi and Durgadgudda are about 300 feet. covered with brushwood, and Pedadkanvi Tolanmardi Topinhatti with trees. None of them are tilled either on the sides or tops. Two miles north-east of Hubli is the steep and bare ridge of Doddagudd, about a mile long 220 yards broad and 300 feet high. In the west, about four miles west of Kalghatgi, is Ganigudd 'ill, about half a mile long a quarter of a mile broad and 400 feet high. In the south-east, in the Karajgi sub-division, there are several hills. At Devgiri, about six miles south-west of Karajgi, is a noteable hill 300 feet high crowned by a temple of Tirmalappe. At Kanvali, about eight miles south-east of Karajgi, is a conical bill 400 to 500 feet high. Two small pointed hills rise at Kabur twelve miles south-west of Karajgi, several conical bare hills about 150 jeet high mark the neighbourhood of Motibennur, and a low bare range stretches north-west and south-east from Biadgi to Halgiri clase to Ránebennur and separated from the Airáni hills by eight mikes of flat country. In the east, about twenty-three miles south-east of Gadag, the bare, steep, and flat-topped hill-fort of Mundargigudd stands in the plain 200 feet high.

Except a few streams in the north that drain west into the Bidtihalla or Gangávali, the rivers and streams of Dhárwár belong to one of two systems, those of the south-west south and south-east that drain into the Tungbhadra, and those of the northern half of the district whose channels run north and north-east to the Malprabha. The only two rivers of importance, the Tungbhadra on the south-east and the Malprabha on the north-east, bound the district on those sides without passing within its limits.

Two strams the Tung and the Bhadra rise in the south-west frontier of Maisur, and after north-easterly and north-westerly courses of fifty to sixty miles, near Kudli in Maisur, join to form the river Tungehadra. The united stream, after a winding course of about thirty-five miles, touches Dhárwár in the extreme south-east and from that point winds north-east about eighty miles till it enters the Nizám's territory in the south-east of Dambal and falls into the Krishna after a total course of 400 miles. Though in the dry season the Tungbhadra runs low enough to be forded, during the south-west rains it fills a bed over half a mile broad, down which floats of timber pass from the western forests to the open east. In March 1873 a large ferry boat was safely floated from Harihar to Hesrur in Dambal where the river leaves Dhárwár, a distance of fully eighty

Chapter I.
Description.
HILLS.
Detached Hills.

RIVERS.

The Tungbhadra.

Chapter I.
Description.
RIVERS.
The Tungbhadra.

miles. At other seasons the river is not navigable. The bed is at places of sand and black earth, but is generally rocky with steep To clear the channel would be a work of great labour and would probably lead to little development of traffic. At Harihar, a large Maisur town on the right bank opposite the eastern limit of Dhárwár, the greatest flood discharge is calculated at 207,000, and the ordinary discharge at 30,000 cubic feet a second. The water of the Tungbhadra is not used for irrigation. Opposite the Gadag village of Koralhali huge blocks of stone mark the site of a costly embankment which according to local story gave way immediately At Harihar the river is crossed by a fine stone after it was built. bridge of fourteen spans built in 1868 at a cost of £35.000 (Rs. 3,50,000). During the rains there are ferries at Kusgatti. Mudenur, Airáni, Hirebidri, Chandápur, Haralhalli, and Hávanur. The ferry boats are round wicker baskets covered with leather and three to fifteen feet broad.

The Varda.

During its course along the south-east and east borders of Dharwar the Tungbhadra receives the drainage of the southern half of the district. It has three large feeders, the Varda the Kumadvati and the Hirehalla. The VARDA, rising in a hill near Ikeri in North-west Maisur, after a northerly and north-easterly course of about forty miles, enters Dharwar at the village of Gondi in the Hángal sub-division, and, after winding north-east and east for about fifty miles, falls into the Tungbhadra near the north-east corner of the Karajgi sub-division about thirty miles north of Harihar. It is 100 to 200 yards broad and flows over a sandy or stony bed, generally between steep banks of earth. It is full and leep in the rains, and in Karajgi, when there is a heavy rainfall, it rises to a great height, overflows its banks, and lays the country round under water. In the fair season it lies in long reaches divided by shallows. which are passable for carts between the 10th of November and the 20th of May. Though it is not used for irrigation the river affords a plentiful and unfailing supply of drinking water. At Konimelehalli, about six miles south-east of Bankapur, the Varda is crossed by a bridge of seven arches of fifty feet each and two of ninety-five feet each. During the rains there are ferries chiefly at Gondi, Mulgund, Adur, Devgiri, and Karajgi. The ferry boats are generally wicker baskets like those on the Tungbhadra.

The Dharma.

The Varda's chief feeder is the DHARMA, which joins it from the left in the north-east corner of Hángal. The Dharma rises in the Sahyádri hills about twenty miles south-west of the town of Hángal, and after a north-easterly course of about thirty-five miles falls into the Varda about seven miles south of Bankápur. It is a small stream during most of the year. At Shringeri, about five miles west of Hángal, an old dam supplies a canal about twelve miles long, which feeds upwards of twenty-four large ponds and waters a large area of rice and sugarcane.

The Kumadvati.

In the extreme south of the district the Kumadvarr, rising in North Maisur, after a northerly course of about forty miles, enters Dhárwár about two miles to the south of Masur in Kod, and passing through a gap in the low range of hills in the south of that sub-

division, after a north-easterly course of about twenty-five miles, falls into the Tungbhadra near Mudenur about eight miles south-The stream flows between steep banks over a west of Haribar. bed fifty to a hundred yards broad, which is sandy and shallow with long deep reaches. An old dam on the western border of the district, thrown across the river by the Vijayanagar or Anegundi kings (1336-1587) turns the Kumadvati into a large lake called Madak, entirely within Maisur limits. Two more embankments were also thrown across other gaps in the hills to the right and left of the Kumadvati valley to keep the waters of the lake from passing through them, and a waste channel was cut along the hills for the overflow waters. In some unknown flood, said to have happened soon after the work was completed, the water burst through the most vesterly of the three embankments, and it is through this that the river now flows. In 1861 the old water-works which had fallen to ruin were partially restored by building a dam across the Kumadvati where it leaves the Madak lake, and cutting two irrigation channels, one on the right and the other on the left. The lake is about a mile long and in 1882-83 watered 480 acres. The top of the old dam is far up the hill-side.

The HIREHALLA rises in the Kappatgudd hills near Lakkundi about seven miles south-east of Jadag, and, after flowing south about twenty miles, joins the Tungbhadra at Rati six miles south of the bare hill-fort of Mundargigudd. A little above its meeting with the Tungbhadra the Hirehalla is about 500 feet broad. There is little flow of water in the hot weather, but during the rains its broad sandy bed is generally full. The banks are sloping and are of earth and gravel. The water is not used for irrigation.

The Malprabha, or Mud-Bearer, forming the north-east limit of the district for about sixteen miles, receives the drainage of all the Dharwar streams which flow to the north and north-east. It rises to the south-west of the town of Belgaum, and after flowing east about sixty miles through that district, it passes for about twentyfive miles through the Southern Marátha States. Then for about sixteen miles it forms the boundary between the Ron and Navalgund sub-livisions of Dhárwár and the Bádámi sub-division of Bijápur. Beyond Dharwar limits it passes north-east for about forty miles through the Bádámi and Hungund sub-divisions of Bijápur and falls into the Krishna at Sangam ten miles north of Hungund in Though during the rains it is a large stream, in the fair season the Malprabha has but a slight flow. Within Dhárwár limits the led of the river, which is muddy and sandy, is 350 yards wide and its banks are sloping and earthy and about twelve feet high. Its water is not used for irrigation. The Dharwar feeders of the Malprabha include almost all the streams of the northern half of the district. Except the Bennihalla none of these are of any size and during the hot months all are dry.

The Bennihalla, or Butter-Stream, rises at Dhundshi in Bankapur, flows north through Hubli Navalgund and Rom and falls into the Malprabha before it turns north to pass through the Bádámi hills. It flows between high and steep banks of earth with a soft muddy bottom

Chapter I.
Description.
RIVERS.
The Kumadiati.

The Hirehalla.

The Malprabha

The Bennihalli.

Chapter I.

Description.

RIVERS.
The Bennihalla.

150 to 200 feet broad. Though very rapid in the rainy season, sometimes causing serious damage to crops, during the hot months water remains only in pools. Its high and steep earthy banks and muddy bottom make it difficult to cross during all except one or two of tho driest months, and the fine earth in the bed of the river, though outwardly hard, is so soft that animals are said to have been swallowed up in it. It is a serious obstacle to the traffic of the east of the district. It is bridged on the Karwar-Bellari road; wooden bridges at Helisur and Yárgal decayed and have been pulled down. Near Navalgund, about forty miles from its source, the Bennihalla receives from the north the Tuphrihalla or clarified butter stream, after a course of thirty-five miles from Kittur in Belgaum through the sub-divisions of Dhárwár and Navalgund. From the height of their banks and the long period through which their stream ceases to flow the waters of the Bennihalla and its feeders are little used for irrigation. Their water is also so brackish as to be hardly drinkable, and throughout the greater part of its basin good water is scarce. In times of flood the Bennihalla and its feeders carry off so much black soil that it is probably their waters which have given the Malprabha its name of mud-bearer.

The Gangávali.

The Gangávali or Bidtihalla river, which falls into the sea between Gokarn and Ankola in North Kánara, has two of its sources in the sub-division of Dhárwár. One of these streams, which is called Bidtihalla, rises in the big pond at Mugad about eight miles west of Dhárwár; the other, which is called Shalmalla or Kallhalla, rises at Hoskatti about two and a half miles south of Dhárwár. These two streams flowing south join at Sungedevarkop, about three miles east of Kalghatgi. After their meeting at Sungedevarkop the streams go by the name of Bidtihalla. At Bagodgeri a dam was thrown across the united stream in 1871 and a canal cut five or six miles to the south. Through some fault of construction this work has proved a failure.

WATER SUPPLY.

In the black plain to the north and east of the district the small streams dry early in the hot season and though as a rule water is found by digging in their beds, it is too brackish to be fit for drinking. The people depend on the supply which has been stored in pends during the rains. This, partly from the difficulty of finding suitable pend sites in so level a country and partly from the scanty rainfall, does not meet the wants of the people. The well water is also apt to grow brackish, so that during the hot months the people of the plain villages are often put to serious inconvenience. They have sometimes to fetch their water two or three miles, while many have to move with their cattle to the banks of the Malprabha and Tungbhadra. In the hilly west and south, where there is a much more plentiful rainfall, the supply of water is abundant.

GEOLOGY.

¹Dhárwár contains specimens of granite, transition rocks, old red sandstone, trap rocks, and an iron-bearing claystone.

¹ The geological portion is prepared chiefly from Dr. A. T. Christie's and Captain Newbold's papers on the geology of the Southern Marátha Country in Carter's Geological Papers of Western India, 328-378.

At Ron, about fifty miles north-east of Dhárwár, granite is found with a dark-red felspar with small scattered crystals and minute veins of quartz. Throughout the felspar are many small bag-like hollows some of them lined with tiny crystals apparently of chlorite. North of Gadag the hypogene schists and granite stretch to Gajendragad in south Bijápur where they are covered by sandstone. On the road northwards from Lakmeshvar in Sávanur granite occurs in low posses and detached blocks, and rises into a few clusters at the town of Kul Mulgund. In Bankápur numbers of granite boulders lie in anbroken lines generally parallel with the ranges of hills, but someti nes ranging more north to west. They often rise little over the surface, but more often, especially at Karajgi, stones varying in size from an egg to a cart-wheel are piled into large mounds. The texture is nearly as granular as gneiss.

Transition rocks fill a large part of the district. They stretch from the east and south where they succeed the granite to the western foot of the Sahyádris, being only in a few places broken by the granite which protrudes from beneath them. In parts of the Sahyádris they are covered by claystone and trap. In the north transition rocks are found only in the bottoms of the valleys which cross the sandstone hills; and in the centre and south they are covered by large plains of black cotton soil. To the west of Dhárwár the transition rocks form parallel ranges with a general south-east direction, the same as the direction of the strata of which they are composed. The chief rocks of this series are clay-slate, chlorite schist, talc-slate, gneiss, limestone, and quartz. The strata, which are generally highly inclined and in many instances vertical, seem to have a general direction of north-west and south-east.

The rocks composing the hills round Dhárwár are schists passing into slates and shales. The general structure which is perhaps more schirtose and shaly than slatey, varies from a massive and obscure slate to fine plates and from compact and flinty to soft and sectile. The fine plates are nearly vertical and generally run parallel with the prevailing line of elevation which is north-west and south-east. inlayering with beds of quartz rock and the jaspideous rock which generally forms crests and mural ridges on the hill is obscure. lines of cleavage in slates are not necessarily those of the layering tops, cleavage lines being often caused by the arrangement of mica, chlorite, or talc. The rock passes from a green chloritic schist into all the shades of white, yellow, red, and brown, sometimes singularly arranged in stripes, in contorted and waving bands, red and white being the prevailing colours. Felspar in a clayey state of disintegration is the prevalent mineral blended with quartz and tinged with iron. The white varieties seldom contain flint enough to give them the character of kaolin. This variety which in hand specimens appears like porcelain earth is found in large quantities at Dhárwar. It has an obscure slatey structure, the red varieties

Chapter I.

Description.

Granite.

Transition Rocks.

Clay Slate.

Owing to the soft nature of the clay-slates wells are easily dug at Dharwar. Sometines red and sometimes white clay-slate occurs at the surface, the white to a depth of seventy feet. Some of the varieties when weathered assume a yellow ochre colour.

Chapter I.

Description.

Geology.

with which it is associated being distinctly slatey. At Dhárwár these rocks are stratified. Several varieties are often found within a short distance of each other in the larger stratum and they are almost always crossed by thin veins of a brown quartz. Besides by the strata seams they are generally crossed by other parallel seams which pass though the strata.

Chlorite Slate.

Chlorite-slate is widely distributed through the centre and south of the district. Iron pyrites is seen in the rock which, particularly in the neighbourhood of trap dykes, tends to the prismatic and rhomboidal forms in which plating, though generally obscure, is sometimes distinctly traceable. A system of joints running nearly at right angles with those of the plating often intersects the whole group of the schists. Near Dhárwár is a variety intermediate between chlorite-slate and clay-slate. It has a bluish gray colour, a slightly greasy feel, is hard, and has a coarse slatey structure. From Banvási in North Kánara the chloritic and coloured schists and slate-clays continue east-north-east to Sávanur.

Gneiss.

The rocks which form the Kappatgudd ridges of hills and the neighbouring country for miles together belong to the gueiss formation. They have been subjected to immense disturbances producing great contortions and fractures and in parts a much higher degree of metamorphism than is usually met with, which adds greatly to the difficulty of unravelling the very obscure stratigraphical features of these hills. Within the limits of the gold tract the ridge is single and its structure is simple. Further north the hills show a double series of hæmatite schist beds intercalated between chloritic and other schist of great thickness which to the east touches a broad band of highly silicious and often granitoid gneiss on which stands the town of Gadag. No section showing the exact relation of the two series is found, but it is probable that the granitoid series which may be called the Gadag series overlies the chloritic and ferruginous beds. Further south a third hæmatite schist-band appears at a little lower level also accompanied by chloritic, hornblendic, and micaceous schists, and bends round on itself in a sharp curve immediately north of the Kappatgudd hills, thus forming an anticlinal or dip-parting ellipsoid which is crossed by the road running from Dambal to Sortur. This series may be called the Dhoni series from the village of Dhoni which stands on it. It is noteworthy because it contains several important beds of gray and greenish-gray crystalline limestone of considerable thickness. The chief beds lie in two groups, the one two miles north-west of Dhoai, the other three miles south-west of that

Captain Allardyce who examined the rocks about Dharwar found that for an area of fifty to a hundred miles the direction of the lamine and of the stratification kept constant to one point namely north-west by north. He adds, one may pick a fragment of chlorite slate of a triangular pyramidal outline, the external planes of which will be ferruginous, while the interior is divided into minute lamine not ferruginous, and coincident with only one of the planes. Examination of the rock in place shows that this minute lamination is vertical and invariably divided north-west by north, conformable, in short, to the line of elevation. The chloritic schitt north of Dharwar is of a bluish green greasy to the touch, and sometimes so massive as to make a good building stone. Geological Papers of Western India, 362.

Description. GEOLOGY.

Gneiss.

Chapter I.

village. Overlying this to the west are other hæmatitic beds which along with their northern representatives may be called the Kappatgudd series from their forming the mass of the Kappatgudd hill. The character of the associated schistose beds has changed from chloritic to argillaceous, and the predominant colours of the rocks from green to reddish buff or mottled white. Owing to the great development of cleavage the true dip of these argillaceous schists is in many places completely obscured and their relations to the rocks next them to the west are very problematical. This next series consists of chloritic and hornblendic schists intimately associated with a massive dioritic rock. This dioritic rock, though in parts strongly resembling some of the diorites forming trap dykes which occur so frequently in the gneissic region does not appear to be an irruptive rock but rather a product of excessive metamorphism. The schistose rock appears to pass by imperceptible graduation into the highly crystalline mass. The two dissimilar rocks are never in close opposition, but everywhere some feet or yards of rock intervene showing the graduation of the special characters. This series, which may be called the Sortur series after the village of that name. occupies a band of country four to five miles broad which is bounded to the west by a band of granitoid gneiss of undetermined breadth. The position of this granitoid band, which may be called the Nulgund series relatively to the Sortur series, is uncertain; it is probable that the Sortur series is the younger of the two.1

Gneiss is also seen at Lakmeshvar in Savanur on the bank of a stream running nearly east and west with a dip of 35° towards the south, and further north it rises into a low round-backed ridge.

Among the gneissic rocks are several conspicuous hæmatite schist beds. These, with others parallel to them, stretch south-east to Kittur and Dhárwár with a change of strike. A moderate-sized hæmatite schist-bed of a rich and dark purple and dipping east by north at a high angle forms a well-marked buttress on the south. east side of the Chik Nargund hill. Further south at Nargund. about thirty miles north-east of Dhárwár, a species of gneissic rock appears with a strike which is almost invariably north-north-west varying to north-west by north. The lower part of the hill, which rises abruptly from the black plain, consists of schistose varieties of gneissic rocks which are capped by several feet of typical quartzites forming a narrow plateau about a mile long with a very fine series of precipitous scarps all round. The contact of the basement bed and underlying gneissic schist is seen on the path leading up to the Nargund fort. At that spot the schist is a gray to purple gritty micaceous schist dipping 50° to 70° east by north. On the schist is a bed of brecciated quartzite conglomerate from one and a half to four feet thick, overlaid by bluish waxy quartzite. and this again by buff and pale salmon beds. On the summit the beds dip from both ends towards the centre with a slight southerly inclination at angles of 5° to 10°. The west end is rather higher than the east end and is about 1000 feet above the plain.2

¹ Mr. Foote's Report in General Department, XXVI. of 1874.

² Memoirs of the Geological Survey of India, XII. (Part I.) 101-103.

Chapter I. Description.

GEOLOGY.

Talc Slate.

Limestone.

Quariz.

Talc-slate occurs in the centre of the district. Here talc is frequently mixed with quartz, and the rock has the general appearance of mica-slate. At Nargund and Chik Nargund the strata of this variety have a nearly vertical dip, and their direction is south-east by south. In the south-east of the district, potstone and soapstone are found associated with the talc-slates.

In the north-east of the district limestone of a yellowish, gray, blue, and whitish colour is found. Its strata are highly inclined and their general direction appears to be north by west, and south by east. The fracture is generally flat conchoidal.

Chik Nargund hill is capped by an inclined plane of quartzites dipping 30° to 35° north-east. The north side of the inclined plane is probably faulted against the gneiss, but the base of the hill is so obscured by talus or rock-ruins cemented into a breccia by the soaking in of tufaceous limestone that it is impossible to trace the fault. In the whole country from Dhárwár to beyond Kittur in Belgaum the quartz occurs in large beds forming summits of parallel ranges of hills. These beds have resisted the attacks of weather while the soft clay-slates with which they are associated have given way. The quartz in these beds is in general deeply coloured with iron; but there are some varieties which have a gray colour, a splintery fracture, and a resemblance to hornstone. In many instances the base of the rock is white or gray and is crossed in all directions by dark-brown veins highly charged with In some specimens the dark-brown variety is in much larged quantity than the white basis; and then the white appears as if if had been broken into a number of small angular fragments which had been afterwards united by the consolidation of the brown variety from the fluid form. This variety, containing numerous small hollows which are lined with red hæmatite in the shape of stalactites, or having a blistered or mammillary form, is found in the Kappatgudd range.

Old Red Sandstone. Old red sandstone occupies all the north-east corner of the district. It also forms the summits of the Navalgund and Nargund hills on all of which it appears in large tabular masses. These hills have horizontal strata, level summits, and for many miles keep the same height. At Navalgund the sandstone rests on granite, and at Nargund on the talc-slates of the transition class. In the hills of Nargund and Chik Nargund both the sandy and the compact varieties are found very near each other. In one part of the Chik Nargund hill the compact variety has on a large scale somewhat of a spheroidal structure. In the south-east of the Nargund hill is a large mass of a diaphanous quartz of bluish colour and with scattered grains of felspar.

Trap.

Trap rocks do not occur in great abundance. Basaltic green stone, also called diorite, consists almost wholly of hornblende, being largely granular and entirely crystalline and of a dark-green colour. It occasionally appears mixed with spots of white and light green when it is composed of equal quantities of felspar and hornblende. Dykes of this formation sometimes stand from

the surface in long ridges which appear like lines of rocks. In other places greenstone occurs in loose spheroidal blocks and pieces on the surface and partly imbedded in the soil generally pointing to an underlying dyke. Granite and greenstone dykes are occasionally seen at the base of the hills west of Dhárwár and Hubli. where the jaspideous and chloritic schists forming these hills bear evident marks of the alteration produced by the intrusion of these dykes. From Hubli south to the Maisur frontier such greenstone dykes become more frequent. Near the centre of the Kappatgudd hills an immense dyke of basaltic greenstone emerges from the base of the strata. Numerous smaller dykes cross other parts of the extensive plain to the west, north, and east of these hills. Near Sávanur dykes of green-stone become more frequent accompanied by depositions of limestone which fills fissures in the schists and overspreads their surface beneath the alluvial soil. The direction of the beds at Sávanur suffers a deflection after leaving Dhárwár of about 40°, being nearly due north and south, dipping at an angle of about 40° towards the east. They end on the north-east between Sávanur and Gadag close to Lakmeshvar. Here a spur from the chief north and south line of elevation runs nearly east and west dipping towards the south. Several similar spurs are crossed between Banvási and Lakmeshvar, and the dykes of the greenstone run in a similar direction.

Iron-bearing clay-stone or laterite occurs in different parts of the district, but chiefly in the west. In different stations it is found resting on granite, transition rock, trap, and sandstone.

The climate of the district is on the whole healthy and agreeable. It is pleasantest in a tract parallel with the Sahyadri crest between the western forests and the treeless east, within whose limits lie Dhárwár, Hubli, Kod, and Bankápur. The year may be divided Shower months from the middle of April into five seasons. to the beginning of June; the south-west rains from June to October when the climate is cool and damp; the north-east rains in October and November; the cold months December, January, and half of February; and the hot months, with harsh east winds, from the middle of February to the middle of April. first signs that fresh south-west rains is beginning are the morning fogs that often cover the country till about nine o'clock in March. The air is hottest about the beginning of April, the temperature sometimes rising to 100° or 103°. By the middle of April the height of the hot season, which is never severe, is over. The easterly winds blow with less force and at times give way to a westerly breeze which lowers the temperature in the day time and cools and freshens the nights. During the calms between the regular east and west winds, towards the end of March and in April, whirlwinds or as they are locally called dova-gháli or devil winds are common. A number of dust columns in the form of a speaking trumpet or a waterspout chase each other over the treeless plain from east to west or south-east to north-west making a vortex of heated air whose whirl raises dust, sand, straw, baskets, clothes, and other light articles sometimes 200 to 300 feet high. They come

Chapter I.

Description.

GEOLOGY.

Trap.

Iron-bearing Clay Stone.

CLIMATE,

Chapter I.

Description.

CLIMATE.

and go with great suddenness with a startling rush from all sides to a central axis round which the air whirls furiously.1 For a time the east wind blows by day and the west wind by night. By the middle of May the west wind begins to freshen and lasts through the day. After the west breeze has set in short sharp thunderstorms with rain and hail are common. These early showers are very useful. They fill the ponds, cover the country with fresh grass, and soften the soil so that the rice lands are ploughed and sown, and by the end of May are green with young rice. Towards the end of May the west wind begins to blow stronger, banks of cloud gather in the south-west, and in the west early in June, about a week after it has broken on the coast, the regular south-west rains set in. The first heavy showers come from the east. During the day the wind blows steadily from the south-west, till between three and five in the afternoon black clouds gather in the east. Then cloud rises over cloud until the whole eastern sky is one dense black mass which with lightning and thunder moves slowly against the western breeze. When the mass of cloud draws near, a sudden and strong east wind brings heavy battering rain and sometimes had. During the storm the direction of the wind changes frequently until it sets steadily from the west, and the tempest ceases. These storms take place daily for several days and after they are over for five or six months the wind continues to blow constantly from the west. Storms also occur at the autumnal equinox, but neither so regularly nor so violently as at the close of May. Though there is much wet weather at Dhárwár, the rain seldom falls in such deluges as on the coast, and the whole yearly supply is less than either along the western coast or along the Sahyadris. During the early months of the south-west rains the eastern sub-divisions have but a small share. Most of their rain falls about October.

At Dhárwár and Hubli most rain falls in May, July, and October; towards the east and south the fall in May and October is greater than in July. The Poona-Harihar road, running north-west and south-east, divides the district into two belts, a west belt of steady and of comparatively heavy rain, and an east belt of uncertain and

¹ Kies' Southern Marátha Country, 18. Lieutenant Moore describes one of these whirlwinds in 1790. The day after Major Sartorius marched from Dhárwár so furious a squall and whirlwind passed over the ground he had left, that nothing could withstand its violence. Two or three gentlemen who remained on the ground sick, had their tents and furniture swept away. We saw the remains of a chair that had been so whirled about and battered as to leave little trace of its former shape. We found Dhárwár particularly subject to whirlwinds. Scarcely a day passed without perhaps a dozen being seen, and on most days several visited our line. They may be seen at a great distance in the form of an immense column moving irregularly with considerable rapidity and with a great noise. Clouds of dust, and anything light, such as pieces of paper cloth and leaves, are whirled to a height beyond the reach of the eye, forming a column perhaps twenty or thirty feet at the base. Most are strong enough to knock over a tent unless well secured. The confusion when one came among the tents and huts of ours or of the Marátha camp was ludicrous. It would beat down a hut, and carry with it the only dress of the inmates who might be seen in half-naked pursuit. Sometimes the wind would scatter fire and burn huts and tents. Every one called them devils, and when one drew near all began to shout and abuse it, so that between the noise of the devil itself and of the devil's abusers good warning was given of its approach. Narrative of Captain Little's Detachment, 49

scanty rain. In the western belt, both as regards the sufficiency and

the seasonableness of the rain, the extreme west is more favoured than the country farther east. In the Dhárwár sub-division west of the Belgaum road the rainfall increases every mile till near the western limit the south-west rain is fully fifty per cent heavier than at Dhárwár.1 Among the western towns for which returns are available are Kalghatgi and Hángal, about seven miles from the western limit of the district. They have an average fall of thirty-one inches, the Kalghatgi fall varying from forty-six inches in 1882 to nineteen inches in 1871 and 1876, and the Hángal fall varying from sixty-four inches in 1882 to twenty-two inches in 1867 and 1876. Mugad and Dhárwár, about twelve and fifteen miles from the western border, have an average yearly rainfall of thirty inches, the Mugad fall varying from fifty-two inches in 1878 and 1882 to sixteen inches in 1865, and the Dhárwár fall varying from fifty inches in 1382 to sixteen inches in 1876. Hubli, about seventeen miles from the western border, has a fall varying from forty-three inches in 1874 to eight inches in 1865 and averaging twenty-three inches. And Misrikota, about ten miles from the western border, has a fall varying from thirty-one inches in 1861 to nine inches in 1865 and averaging twenty-two inches. Within fifteen miles to the east of the Poona-Harihar road the clouds, driven east by the south-west wind, have been so drained in the west that they yield nothing but a trifling drizzle. Another ten or fifteen miles further east the clouds fly high overhead without yielding moisture for weeks together. After another fifteen or twenty miles these rain-clouds seem again to condense, and water the earth in frequent showers during June, July, and August.² If it were not for the north-east or Madras monsoon much of the country would be hable to famine. In the west of the eastern belt, with scanty southwest rain, are Shigaon on the Poona-Harihar road about six miles north of Bankápur with a rainfall varying from forty-four inches

in 1882 to twelve inches in 1862 1863 and 1866, and averaging twenty-two inches; Karajgi, with a rainfall varying from thirty-four inches in 1873 to eight inches in 1866 and averaging twenty-one inches; and Ránebennur, with a rainfall varying from thirty-five inches in 1874 to five inches in 1863 and averaging nineteen inches. In the centre of the eastern belt, with little south-west rain, are Navalgund with a fall varying from forty inches in 1874 to six inches in 1863 and averaging twenty inches, and Gutal with a fall varying from eighteen inches in 1867 to seven inches in 1865 and 1866 and averaging twelve inches. In the east of the eastern belt with seasonable south-west rain are Nargund with a fall varying from thirty-seven inches in 1878 to six inches in 1863 and 1865 and averaging nineteen inches; Gadag, with a fall varying from fifty-two inches in 1874 to six inches in 1866 and averaging twenty inches; Mundargi, with a fall varying from thirty-six inches in 1874 to two inches in 1876 and averaging nineteen inches; and Dambal, with a fall varying from twenty-five inches in 1870 to four inches Chapter I.

Description.

CLIMATE.

in 1865 and averaging eleven inches. The details are:

¹Bom, Gov. Sel. CLXI. 4.

DISTRICTS.

Chapter I.

Description.

CLIMATE,

DHARWAR RAINFALL, 1861-1882.

Statio	1861.	1862.	1863	1864.	1865.	1866.	1867.	1868.	1869.	1870.	1871.	1872.		
Dhárwár Mugad Hubli Navalgund Nargund Gadag Sluggaon Ránebennur Hángal Katajgi Kalghatgi Mundargi Dambal Mishirikoti Guttal		::	32 31 19 15 33 16 18 12 31 18 9 31 13	24 20 16 17 13 13 12 7 23 10 6 24 	20 26 10 6 7 12 5 24 10	29 22 17 20 17 11 17 13 28 20 	18 16 8 12 6 8 14 8 25 11 	20 16 10 7 6 12 8 28 8 7 20 7	29 19 18 18 19 21 20 22 17 	31 25 22 15 14 14 21 21 29 18	27 28 21 25 24 17 16 17 35 17	81 36 29 29 25 25 26 19 31 21 41	30 33 28 19 20 19 18 22 27 24 19 23	27 31 23 18 14 18 21 22 38 29 15

STATIO	1873.	1874.	1875.	1876.	1877.	1878.	1879	1580.	1881.	1882.	AVER-		
Dhárwár Mugad Hubli Navalgund Nargund Gadag Shiggaon Ránebennur Háugal Karajgi Kalghatgi Mundargi Dambal Mishrikoti Guttal			27 80 21 11 13 16 17 18 30 34 23 14	48 43 43 40 30 52 27 35 55 29 43 36	31 36 18 15 20 21 21 17 29 13 32 10	16 23 14 7 8 8 15 7 22 12 19 2	35 36 40 36 29 31 39 34 85 29 27 21	40 52 42 33 37 39 35 84 29 28 36 24	38 32 31 24 24 25 28 33 26 82 29 21	35 23 25 24 21 27 27 27 29 35 19	82 28 21 15 16 20 25 48 31 31 23 20	50 52 37 34 32 36 44 28 64 33 46 25	30 2 30 2 23 18 20 3 19 11 20 1 22 2 19 2 31 9 21 1 31 1 11 8 22 3 12 5

In the west, during October and November, the mornings often open with heavy fog and dew. As soon as the rains are over, before the beginning of November, a constant cold breeze sets in from the east or north-east. This wind brings with it the north-east or Madras monsoon. In the eastern sub-divisions there is generally a considerable rainfall at this time, and, in November and December, even as far west as Dhárwár, there are occasional showers.

Throughout the district, during December and January, the days are clear and cool, the nights cold, and the east wind bleak dry and piercing. In December and January there are generally heavy dews. About the beginning or middle of February the climate suddenly changes from cold to hot, the heat increasing till about the beginning or middle of April. The days are clear and hot, though the heat is never so trying as in many parts of the Bombay Deccan, and, except in the east, the nights are almost always cool. During these dry weeks, in the noontide glare, a traveller crossing one of the swellings of the black soil plain sometimes finds himself close to the shore of a wide island-studded sea. This is the sun horse bisu lukudura or mirage and the islands are the twisted line of the distant hills.

Thermometer readings at Dhárwár for the five years ending 1882 give a maximum temperature of 99° in April 1878 and a minimum temperature of 58° in December 1882. During the four months from February to May the maximum temperature has varied from

86° to 99°, the minimum temperature from 66° to 74°, the mean maximum from 81° to 96°, the mean minimum from 70° to 77°, and the mean range from 7° to 22°; from June to October the maximum has varied from 75° to 90°, the minimum from 68° to 70°, the mean maximum from 72° to 94°, the mean minimum from 63° to 74°, and the mean range from 3° to 20°; and from November to January, the maximum has varied from 81° to 94°, the minimum from 58° to 70°, the mean maximum from 75° to 89°, the mean minimum from 62° to 71°, and the mean range from 6° to 23°. The following table gives the details:

DHARWAR THERMOMETER READINGS, 1878-1882.

Y	EAR		Jan.	Feb.	Mar.	Aprıl	May.	June.	July	Aug.	Sept.	Oct.	Nov	Dec.
	Star (Maximum Minimum Mean Maximum Mean Minimum Mean Range	89 70 89 70 18	97 69 95 72 22	98 73 95 74 20	99 72 96 75 21	97 74 94 74 20	90 70 86 73 13	85 70 79 70 8	86 70 78 71 16	86 69 79 71 8	86 70 81 72 9	84 70 83 70 12	82 69 80 70 10
O NO.	18.8.	Maximum Minimum Mean Maximum Mean Minimum Mean Range	81 67 75 67 7	90 69 81 78 7	98 73 90 77 13	92 72 87 73 14	91 67 89 72 16	85 68 81 70 11	80 70 77 70 7	75 69 75 69 6	82 68 78 69 8	88 70 83 70 13	88 70 86 70 16	85 61 83 63 20
90 -	1880	Maximum Mininum Mean Maximum Mean Minimum Mean Range	89 65 76 69	88 66 84 70 13	90 70 85 70 14	92 71 88 72 16	92 70 89 72 16	83 68 79 73 5	75 68 72 68 9	79 68 75 69 6	77 68 72 64 7	84 69 75 71 4	82 69 78 71 7	87 65 83 68 15
1901	1	Maximum Mumum Mean Maximum Mean Minimum Mean Range	67 64 86 67 19	86 68 82 70 11	95 69 91 72 18	99 70 92 72 19	98 69 92 74 17	83 70 81 71 10	76 69 74 71 3	82 69 75 68 7	79 70 76 70 6	78 70 7 5 72 3	85 65 80 68 12	86 60 87 65 21
1000	1034.	Maximum Minimum Mean Maximum Mean Minimum Mean Range	88 64 65 68 17	92 68 89 71 18	98 69 92 71 21	96 72 93 73 19	96 68 92 73 19	88 70 80 72 8	88 70 76 71 5	87 70 81 71 10	84 69 79 70 9	89 68 82 71 10	94 61 85 67 17	90 58 85 62 23

Chapter I.
Description.
CLIMATE.

CHAPTER II. PRODUCTION.

Chapter II.
Production.
Minerals.
Gold.

1 PARTS of Dhárwár are believed to have formerly yielded a considerable amount of gold. Even now the neighbouring villagers yearly wash small quantities of gold dust out of the sand of the Doni in Gadag and of some of the Kod and Ránebennur streams in the south and south-east. The hills in the neighbourhood of Dambal in Gadag and of Chin Mulgund in Kod are also to some extent gold-yielding. The beds of the Doni and other streams which have their rise in the Kappatgudd hills contain gravel and sand in which gold dust is found associated with magnetic iron sand, gray carbonate of silver, and copper. In 1839 the Collector of Dhárwár forwarded to Government a few pieces of gold and some gold dust from the Kappatgudd hills, and, with the sanction of Government. sent one of his assistants to make further inquiries. The assay master, to whom the gold and sand were forwarded for examination, reported that the two pieces of gold weighed 15½ grains, that their touch was 92.75, that the amount of pure gold was 14.37 grains, and that the alloy was silver. While at Sortur the Collector had two or three pots of gold dust washed which yielded gold worth about 6s. (Rs. 3). At the same time he sent to Government about five pounds of dust in which one-sixth of a grain of gold was detected. A further supply of gold dust, except that it contained particles of gold of a richer quality, yielded nearly the same result. In 1852 Lieutenant Aytoun was deputed to make a geological survey and report on the mineral resources of the Bombay Karnátak. He reported an exceedingly great development of iron pyrites in the gold region, and observed that were it not that all the conditions on which the large development of the precious metals depends were here found in conjunction with the pyrites, it might be imagined that the small quantity of gold found in the streamlets was derived from the iron pyrites.2 Lieutenant Aytoun seems not to have traced the gold to its source though he correctly inferred that the source was among the chlorite slate hills to the west. He mentions that he occasionally found small pepites of gold of a pear shape, but does not name the places where they occurred. In 1851 the Rev. A. B. Clarke, of

¹ The gold portion is compiled chiefly from a report on the auriferous rocks of the Dambal hills by Mr. R. B. Foote, F.G.S., in Bombay Government Records, General Department, XXII. of 1874.

²According to Mr. Foote except in clay schists near Atti-Katti, in which the cubical crystals are found in moderate numbers, the development of iron pyrites is small.

Chapter II.
Production.
Minerals.
Gold.

St. Leonard's, New Sydney, applied for information on the subject of gold, and was furnished with the details of previous workings. 1863 he was informed by Government that though small quantities of gold had been always obtained from the Dambal hills, it had never been found in quantities large enough to repay the regular working of the fields by other than the persons resident in the place. In 1856 Mr. G. W. Elliot, assistant collector of Belgaum, was specially employed in examining the gold-yielding streams of the Kappatgudd hills. In 1858, after making inquiries, he forwarded a bottle containing a quantity of titaniferous sand and also another metal of great specific gravity which had the appearance of platinum. The bottle was sent to the Government Chemical Analyser who said that the sand consisted of silicious particles mixed with crystals of titanate of iron with very minute quantities of gold. There was no lead, platinum, or other metal, and the gold was in too small a quantity to repay the cost of working. In 1861, Mr. C. LeSonef, an Australian gold-digger, who had two years' experience in Victoria, offered to visit the place and make further search. He examined the Kappatgudd hills and wrote to Government suggesting that, instead of exploring the hills on the part of Government as he at first proposed, he might be allowed to examine them on behalf of a joint stock company. This was allowed on the terms usually granted by Government to such companies. In 1862, Mr. LeSonef informed Government through the Collector of Dhárwár that he had discovered gold near Sortur which he could work at a profit, and that he had marked off a tract of land which he wished to secure for the company. In 1865 he asked that a certain block or blocks of waste land lying between Kumta and Hubli might be granted to him for the purpose of gold mining, so that the tract might not be intruded upon by other gold-mining companies, and stated that for all gold obtained he would undertake to pay Government a royalty. In 1866 he was informed that Government would take his application into consideration on his stating precisely the nature of the concessions he required and on his showing that his scheme had some chance of success. Before this letter was sent Mr. LeSonef disappeared. According to Mr. Foote, Mr. LeSonef spent £15,000 (Rs. 1,50,000) of the company's money and obtained no return except a few small nuggets of Australian gold which he sent to Bombay from time to time to allay the fears of the shareholders.1

In 1874, Mr. R. B. Foote, F.G.S., was sent to survey the hills. He gave the following account of this gold-yielding region: All the streams said by the people to yield gold rise within the limits of the tract occupied by the Sortur series to the west of the Kappatgudd range about twelve miles south of Gadag, and the upper course of the Sortur stream. The richest tract lies entirely within the area occupied by the pseudo-diorite and associated chloritic schists. Quartz reefs occur in all the rocks of this tract, but those lying within the limits of the Sortur series are the best marked, and, with a few exceptions, have the most promising lie,

¹ Bombay Government Records, General Department, XXIL of 1874.

Chapter II.
Production.
MINERALS.
Gold.

their direction being mostly north-west and south-east, or parallel to the strike of the bedding. The surface of the chief reefs has been much broken by gold-seekers. The quartz reefs occurring in the other series are mostly well-marked. With one or two exceptions, they run in different directions, many running in the lines of the strike of the bedding, and many cutting across the strike in various directions. The most remarkable quartz reef in the whole gold-bearing tract lies about a quarter of a mile east of the eastern boundary of the Sortur series, on the eastern slope of a ridge lying north-west by north of Atti-Katti, a small village on the road between Dambal and Sortur. This reef, which runs north-west and south-east, lies in the line of bedding of a series of reddish iron-clay schists with chloritic bands, both containing numerous cubical crystals of pyrites now converted into limonite by pseudo-morphosis. reef is rather less than half a mile in entire length and only in a small part of this is it a well-marked vein. Both the southern and northern extremities are very irregular in places, thinning to a mere thread or a few parallel threads and then swelling into bunches to thin out again a few feet further on. The reef does not cross the valley of a streamlet to the north, but thins out and disappears on the side of the ridge. The quartz is the ordinary dirty-white variety, and includes a few little scales of chlorite along the lines of jointing together with occasional cubes of pyrites, which, like those in the schists, have been pseudo-morphosed into limonite. Parts of the quartz are iron-bearing, the impure oxide of iron occurring in strings and lumps. A specimen of gold obtained here was imbedded in such an iron-bearing string. Though very small, it is easily recognised, and shows a great resemblance to various pieces of stream-gold obtained by washing. It is of a very rich colour. The piece of quartz containing the gold lay among the remains, beside the top of the reef at its highest part, where it has been much broken by gold-seekers, by whom irregular mining operations have been carried on along the course of the reef. Much of the reef has been completely broken, and the hill-side is thickly strewn with fragments. There remain three rude sinkings, hardly deep enough to deserve the name of pits, and a considerable length of shallow trenching along the course of the vein. Besides these, an old pit is sunk on the east side of the wall-like part of the reef some little distance down the slope, probably with the object of ascertaining the continuity in depth of the reef. This seems to have been sunk by some one having more advanced ideas than the authors of the diggings on the back of the reef; but nothing certain or satisfactory could be ascertained. To the north-west of the reef a number of little short veins and bunches of quartz had been attacked in shallow trenches, and had their surfaces knocked to pieces by the same people, who were either a company of goldsmiths who lived in the now deserted village of Galigatti, or more probably by Mr. LeSonef who carried on the mining operations between 1861 and 1866.

The only positive trace of Mr. LeSonef's workings which Mr. Foote came upon or heard of was a pit about fifteen feet deep, sunk on the south side of a quartz reef belonging to another series lying south of the village of Doni about five miles west of Dambal.

The Atti-Katti reef on the road between Dambal and Sortur has an average thickness of about five feet. The strike is north-by-west and south-by-east, with an easterly dip of 40° to 50°. Much of the reef has been broken, but a length of about thirty-five yards like a cyclopian wall forms a conspicuous landmark from the east.

The only other reefs deserving separate mention form a group lying about a mile to a mile and a half south of Doni village on the north-east flank of the Kappatgudd hill. Unlike the reefs already referred to, the reefs in this group consist not of ordinary milk-white quartz, but of a distinctly bluish or deep gray diaphanous variety, with a varying amount of enclosed scales of white or pale mica. According to their courses, these reefs may be assigned to two subordinate groups, of which the one lies north-west by south-east, the other north-east by east and south-west by west. The members of the latter sub-group are much the best defined and form dyke-like veins five to six feet wide and 400 to 600 yards long. The other set, lying on the east side of the small stream which flows from the north-east side of the Kappatgudd hills into the Doni, a little east of the village of Doni, have less well-marked veins, but are of considerably greater length.

None of the reefs in the Doni series run in the lines of bedding of the chloritic, hornblendic, and micaceous beds which they cross. At the same time a large number of bunchy strings of ordinary milky-white quartz run in the lines of both bedding and cleavage, though too small to show on any but a very large-scaled map. These, as well as the diaphanous quartz reefs, contain remarkably little iron exide, their superficial staining being mainly due to the decomposition of included portions on the surrounding rock.

The remaining quartz reefs, noticed in the gold-yielding tract on the east flank of Kappatgudd, on the west flank of the ridge running north and north-west from Kappatgudd, and in the valley to the north-west of Doni village, are all of the ordinary variety of quartz running more or less in the strike of the bedding and presenting no noteworthy peculiarity. As in all schistose rocks of the ordinary types, an immense quantity of free quartz occurs throughout their mass in the form of laminæ, strings, and bunches of all possible sizes. From these strings and bunches rather than from the remains of larger veins in reefs, come the innumerable lumps of quartz which cover the face of the country. As most of the country is devoid of any vegetation except grass, all the larger occurrences of quartz are marked objects in the landscape, need but little search, and are easily prospected.

On account of the almost invariable association of gold with the different sulphides or iron, lead, and copper in quartz reefs, Mr. Foote, besides searching for metallic gold, paid great attention to the signs of the presence or the absence of sulphides. In only three reefs did he obtain positive evidence of the existence of a sulphide, the sulphide of iron, in the form of cubical pyrites. These three were the Atti-Katti reef and two parallel reefs to the east of Venktapur, but in each case the number of enclosed crystals was very small. It was largest in the Atti-Katti reef. Much of the quartz in the different

Chapter II.
Production.
Minerals.
Gold.

Chapter II.
Production.
MINERALS.
Gold.

reefs was what Australian miners technically call mouse-eaten, that is full of holes formed by the weathering of enclosed mineral In the majority of cases the form of the holes showed that the enclosed mineral had been chlorite or hornblende. of the hollows were cubical. In one reef in the Doni group Mr. Foote noticed some small and rhomboidal hollows probably due to the removal of enclosed crystals of calcspar. Free gold is often found left behind in such hollows in good gold-yielding reefs in Australia and elsewhere; none was found in the Doni reefs. As all the reefs observed lay above the surface they had been specially exposed to weather. This might partially account for the absence of sulphides in the reefs; it would not account for the absence of the characteristic hollows which sulphides leave behind. In Mr. Foote's opinion the paucity of sulphides showed a proportionate paucity of gold. Mr. Foote, while prospecting, broke off several hundred pieces of quartz, but not one contained any visible gold; and the quartz found loose at the Atti-Katti reef contained but a mere speck. number of carefully chosen samples were brought from the most promising reefs to ascertain whether, as is often the case in Australian and Californian reefs, they contained gold in so finely divided a state as to be invisible to the naked eye. These were assayed at the Calcutta mint and in the laboratory of the geological survey, but none of them yielded gold. Mr. Foote noticed that, even if the reefs yielded a fair amount of gold, mining would have serious difficulties to contend against. No timber or fuel was available except at very great distances, and water was very scarce except during the rainy season.

Alluvial Gold.

Washing for gold in the sands of the various streams which flow through the gold-yielding tract is carried on by a class of men called Jálgárs. There were said to have formerly been a considerable number of Jálgárs: but in 1874 when Mr. Footo was in Dhárwár he could hear of only three, two of whom were at Sortur, and the third at Shirhatti in Sangli. He employed the two Sortur washers in the Doni, Sortur, Jilgeri, and other streams on the west flank of the Kappatgudd hills. Of these streams the Sortur was stated to be the richest, and this statement was borne out by the results. Next in productiveness came the Doni stream, but the yield was much smaller, hardly enough to pay the labour. yielded a still meaner return. In the other streams, including the stream at the foot of the Kappateshvar ravine, only a few exceedingly minute spangles were obtained, just enough to show that gold was not entirely absent. The Jálgárs' mode of working is to take up the lower part of the latest flood deposit from the rocky or clayey bottom of the stream-bed, not from the deepest part of the bed, but from the point at which a strong length of current slacks owing to a change in the direction of the stream. favourite place from which to collect wash-dirt is the small alluvial terrace between the low flood and high flood levels. From this they gather the rain-washed surface, and in the case of the washing in the Sortur and Jilgeri, gained much better results than from washing the material obtained in favourable positions from pockets in the beds of either stream.

In the richest washing at which Mr. Foote

was present in the Sortur, the wash-dirt chosen was a lime-crust which was deposited on the decomposing surface of a band of chloritic schist. The proceeds were unfortunately mixed with those of another washing which was going on at the same time a little further down the stream. The united results were said by the Jálgárs to be a very good day's work. The second washing was made from stuff collected at the base of the old alluvium bank, which there consisted of a bed of coarse shingle-mixed clay and fine iron-yielding pisolitic gravel (a product of decomposed iron pyrites), overlaid by black clay followed by a second but rather less coarse bed of shingle, on which rested the black soil of that part of the valley of the Sortur. The yield of this washing was rather less than that of the last. For the two washings Mr. Foote had four men at work for three hours at a place of their own choice. Two men washed and two dug and carried the material to the washing place. The quantity of wash-dirt put through the washing-box was about one and a half cubic yards. This yielded a trifle over $6\frac{1}{2}$ grains of gold, worth about 1s. 2d. (9\frac{1}{2} us.) at the rate of £3 17\frac{1}{2}s. (Rs. 38\frac{3}{4}) for the Troy ounce of gold. The method of washing was simple and at little expense might be made more effective. The wash-dirt is scooped with a stout broad short-handled hoe, and carried in a basket or large wooden tray to the washing-box which has been fixed at the water's edge and propped with stones to the required slope. The washer sits on a large stone in the water close to the side of the box, which is an obling construction made of light planks and open at one end. It is three to three and a half feet long, twenty inches wide, and nine inches deep, and is strengthened with clamps. A stick of elastic wood is jammed against the sides and bottom at the lower and open end to form a catch. When this is done the washer begins to ladle water on the wash-dirt kneading it with his left hand and throwing out all the larger pebbles. The ladle or rather scoop used by the Jálgárs was made of a gourd of the calabash tree Crescentia cujete, with one end cut off. It was held by the middle, an oblong hole having been cut into the incurved side, and a couple of small sticks tied across diagonally to the corners and fixed with strings passed

through small holes. The elder man preferred to use a tin-pot with cross handle, which had been given him by a former Collector of Dhárwár. This washing and kneading went on till a layer of sand formed in the box, so thick that the stick at the lower end was no longer a sufficient catch and a second stick was jammed in and the washing process begun again till the layer of sand had risen almost level with the second stick. Both sticks were then removed, the washer stirred the layer of sand with a short stout piece of wood, and then swept everything into the large wooden tray held below the open end by the assistant. The washer then took the tray, placed it in the water, and shook and washed it, till nothing remained at the bottom but fine sand most of it black. He then slightly tilted the tray, and, by judiciously dropping water out of his hand on the small layer of sand, drove the lighter particles forward and left the spangles of gold exposed. This small residue was carefully gathered by washing it into a half cocoanut shell, and was

Chapter II.
Production.
MINERALS.
Allumal Gold.

Chapter II.
Production.
MINERALS.
Alluvial Gold.

taken home to be treated with mercury. From the shortness of the washing-box and the very rude way of stopping the open end, and from the evidently careless style of handling, there was considerable Mr. Foote was satisfied that much better results would be obtained by using a box more like the Californian Long Tom, which is generally twelve feet long, and twenty inches broad at the top widening to thirty inches at the open end. In 1874 the Jálgárs plied their trade of gold-washing only after heavy rains during one month in the year in which there is little or no field work. Each man's share of the season's washings ranged from 10s. to £5 (Rs. 5-50). They affected not to know of any gold in place, and told Mr. Foote that he was wasting time in examining the quartz reefs. This opinion was borne out by the statement of the headmen of Doni and Sortur and of many other villagers. The same opinion was also held by the mamlatdar of Chikodi in Belgaum and by the mamlatdar of Gadag. Captain Newbold found (1842-1845) the banks of the gold-yielding streams crowded with Jálgárs. The decline of the industry is probably due partly to the fall in the yield, and partly to the great rise of wages which had followed the inflow of wealth during the American War.1

Mr. Foote notices that the Jálgárs did not try to get wash-dirt from deep pockets in the beds of the streams, the places which were generally found most productive in Australian and Californian gold-washings. Constant heavy rain prevented Mr. Foote trying the most promising spots. He thought that the deep pockets might be examined in the dry weather by damming the stream and baling out the hollows. At the same time very little water would be available for washing. It was also probable that the people had already examined these places.

Captain Newbold (1842-1845) estimated the yearly outturn of wash gold from the Sortur, Harti, and Doni streams, after an average monsoon, at about 200 ounces. Mr. Footo was not able to ascertain the average outturn when the place was examined by him; he thought it might safely be set down at less than one-tenth of Captain Newbold's estimate. That so few washers were attracted proved that the return was small. In Mr. Foote's opinion the conclusion was that the prospects of success were not enough to justify an outlay of capital in large mining works. The stream gold was found associated with a black sand consisting mainly of magnetic iron in minute octohedra, and a black residue not affected by the magnet. In the sand washed in the Doni, Mr. Foote found several minute rounded grains of a gray metal, which on examination proved to be metallic silver. A couple of little spangles of a pale yellowish silvery hue were electrum, the natural

Another writer on the Kappatgudd gold tract, Mr. Scholt, formed a very low estimate of the yield of alluvial gold. He stated that in his opinion the alluvial deposits would never pay to work as they were confined to a few small streams and blind watercourses whose bed-rock was almost uncovered and showed a very scanty supply of wash-dirt. Twelve days' work at Sortur yielded Mr. Scholt about a pennyweight of gold worth 4s. to 6s. (Rs. 2-3). Bom. Gov. Rec. General Department XXII. of 1874.

amalgam of gold and silver. Besides these, a few minute bronzecoloured grains proved to be a mechanical mixture of metallic
copper and oxide of tin. Captain Newbold found a small fragment
of metallic copper, grains of silver, and a few whitish metallic
spangles which he took to be platinum. In Mr. Foote's opinion the
occurrence of platinum was doubtful. Captain Newbold also found
gray silver ore in a fragment of quartz, but did not trace the source
from which the quartz came. In a green very traplike part on the
pseudo-diorite, about a mile north-west by north of Sortur, Mr. Foote
found numerous small but very perfect octohedra of magnetic iron
with numerous little lumps of copper pyrites and some iron pyrites.
Very white iron pyrites in minute parcels was also widely spread in
the neighbouring black variety of pseudo-diorite.

Bosides gold manganese is found in considerable quantities. former times when fuel was plentiful in the Kappatgudd hills and English iron was dear, much iron ore was smelted at Doni and other places in these hills. Iron is still (1883) smelted at Tegur on the Poona-Harihar road fifteen miles north of Dhárwár, and at Gulgi in Kalghatgi. The ore is of a darkish brown and has a specific gravity of 3.60. It is found on a hill to the south-west of the village of Tegur in small pebbles and in large masses, both on and below the surface. The process of smelting is simple. The stone is broken into small fragments about a third of an inch cube and smelted in a furnace under the strong heat of a pair of bellows. The metal runs to the bottom while the impurities escape by a hole in the furnace. The crude metal is then removed to a refining furnace where it is made red-hot and beaten on an anvil under the blows of hammers worked by six or seven men by turn at the same time. When cold it is again heated and the process of beating is repeated three or four The iron is then pure and malleable enough for use. It is mostly used for making ploughs, sickles, and other field tools, and being soft is much liked by the people. The iron fetches 2d. to 3d. (11-2 as.) the pound, and the return is sufficient to keep the establishment and leave a small profit. No limestone or kankar is mixed with the ore in the smelting furnace which causes considerable waste of material and labour. At Gulgi the daily outturn of iron is about forty pounds.

¹ The local building stones are, iron-stone, blue basalt, granite, slate, sandstone, quartz, and flint-stone. Iron-stone is found chiefly at Nigadi, Banadur, Mandihal, and near Dhárwár in the Dhárwár sub-division; at Kalghatgi, Hángal, and Shiggaon in Bankápur; and at Háveri and Timápur in Karajgi. It is found three to six feet under ground in slauting layers two to six inches thick. It is also found on the surface of hills where the layers are four to nine inches thick. The stone does not require blasting. The cost of working in the quarries is about 6s. (Rs. 3) the hundred cubic feet. When, as at Hángal, the stone is found in thin layers of two to four inches, the masonry resembles that of burnt bricks and is very strong. Except in Navalgund and Ron blue basalt is found in all

Chapter II.
Production.
MINERALS.

Iron.

Stone.

¹ From materials supplied by Mr. G. R. Tilak, Acting Executive Engineer.

Chapter II.
Production.
Minerals.
Stone.

parts of the district. It is sometimes very hard and difficult to work. The only places with regular quarries of blue basalt soft enough to be used for building are Ganjigatti and Devgiri. Including blasting the cost at the quarry is about 10s. (Rs. 5) the hundred cubic feet. Granite is obtained either in slabs or blocks by blasting; it is very At Mulgand and Mundargi in Gadag it is found in slabs ten to twelve feet long and three to nine inches thick. quantities also occur in some fields at Annigeri in Navalgund. cost is about 8s. (Rs.4) the hundred cubic feet. Slate occurs in the beds and on the banks of streams, about six feet below the surface. The layers are generally sloping and two to six inches thick. chief places where slate occurs are at Mandihal and Alnávar in Dhárwár, at Háveri and Devgiri in Karajgi, and at Ránebennur. The slabs found at Alnávar are of the best quality and are used for ornamental work. The cost is about 3d. (2 as.) the square foot. Sandstone can be had in any quantity on the Budangudd hill and is used for the coping of drains and other purposes for which goodsized stones are wanted. In fields near Shirur and Bassapur in Karajgi sandstone is found in limited quantities in boulders. cost is about 10s. (Rs. 5) the hundred cubic feet. Quartz and flintstone are found in irregular shapes on hills at Nargund and Navalgund; it is used but is not a good building stone. The cost is about 6s. (Rs. 3) the hundred cubic feet. Mr. Kies notices that potstone occurs with the talc-schists in the Kappatgudd hills and is used by the people in making images and cooking vessels. also Tipu Sultán dug (1782-1799) pits for gun flints.

Road Metal.

In making and mending roads three kinds of metal are used, iron-stone, blue basalt, and granite. The cost is about 6s. (Rs. 3) the hundred cubic feet exclusive of carriage. The cost of metal made from the hard blue basalt or vajradundi metal is about 10s. (Rs. 5) the hundred cubic feet. Small loose iron-stones are sometimes gathered from the fields on the roadside for metal and cost about 6s. (Rs. 3) the hundred cubic feet on the road.

Sand.

Sand is found in the beds of streams. It often contains small imestone or kankar pebbles which are reduced to powder in grinding. The cost of carriage in the west is very heavy. The cost of each hundred cubic feet inclusive of cleaning and carriage ranges from 8s. to £1 4s. (Rs. 4-12). Good coarse clean and is not found in any part of the district.

Lime.

Limestone or kankar of a yellowish white is found in black soil either in the beds of streams or in fields two to ten feet below the surface. It is sometimes easily gathered on the surface of the banks of country tracks and small streams. For every hundred cubic feet the cost of gathering varies from 10s. to £1 4s. (Rs. 5-12) and for burning and carriage from £2 10s. to £4 (Rs. 25-40). The lime bears a proportion of two of sand to one of lime. The mortar which this limestone yields as a rule is slightly hydraulic and is excellent for all kinds of work. The fuel used in burning the lime comes from the western forests. Including fifteen miles' carriage it costs 17s. the ton (Rs. 3 the khandi of 784 lbs.). Charcoal costs 2s. to 3s. the phara of seventy-five pounds.

The people generally use unburnt or kacha bricks. They are moulded from mud prepared of red or brown earth or of gray earth found in old fort-walls in the black soil plain. Burnt bricks are made only at Dhárwár, Hubli, Gadag, and other large towns. The usual price for bricks measuring $12^{\prime\prime\prime} \times 5\frac{1}{2}^{\prime\prime\prime} \times 2\frac{1}{2}^{\prime\prime\prime}$, is 16s. to £I (Rs. 8-10) the thousand. Table moulded bricks of a smaller size, $9\frac{1}{2}^{\prime\prime\prime} \times 4\frac{1}{2}^{\prime\prime\prime} \times 2\frac{1}{2}^{\prime\prime\prime}$, used in public buildings at Dhárwár cost £1 4s. (Rs. 12) the thousand. Tiles are made of the same kind of earth as bricks and also from the clay found in the beds of some of the ponds. They cost 12s, to 18s. (Rs. 6-9) the thousand. The size used is $12^{\prime\prime\prime} \times 15^{\prime\prime\prime}$ by about 4° mean diameter.

¹Alarge portion of the district is almost treeless. In 1848, Lieutenant now Colonel W. C. Anderson, of the Revenue Survey Department, complained of the destruction of timber in the western forests of Kod. Teak and blackwood, which were protected by Government, were alone sale; the supply of matti Terminalia tomentosa, and honi or liesun Pierocarpus marsupium, was rapidly disappearing. Not a tree of more than a few inches in diameter was to be found within miles of the edge of the forest. To obtain logs about twelve feet long one foot wide and three and a half to four inches thick, which were then in great demand, the Vadars used to fell a tree a foot or thirteen mehes in diameter and chip away till it was reduced to the required size. Ten or twelve logs were put on one cart drawn by two buffaloes, and when taken to Kalghatgi in the north sold for 8s. to 9s (Rs $4-4\frac{1}{2}$) the load. In the fair season strings of ten to fifty carts passed daily out of the forests.2 In 1857, within three miles of Dhárwar, many parts of the country were thickly covered with dense forests, the haunts of tiger, bison, and other wild animals. Now the cover is hardly enough for jackals, and some parts are under tillage. The black soil sub-divisions in the north and east have few trees of any kind and depend upon the western forests for building timber and fuel. Efforts are now being made to grow large bábhul plantations, and as the bábhul grows well in black soil, it is hoped that, in a few years, the north and east will produce their own fuel.

On the 31st of March 1883 the area of forest land was 426 square miles, of which 155½ miles were reserved and 270½ miles were protected forests. The whole area may be divided into two divisions, the moist forest in the western sub-divisions of Dhárwár, Kalghatgi, Bankápur, and Hángal, covering 200 square miles of which 108 are reserved and ninety-two are protected; and the dry forests in the eastern and southern sub-divisions of Gadag, Karajgi, Ránebennur, and Kod, covering 224 square miles of which forty-seven are reserved and 177 are protected forests. Hubli and Navalgund are bare of trees; they have only two square miles of forest between them.

The choice and the marking of the Dhárwár forest reserves which began in 1871 is not yet (1883) completed. For the portions of the forest which are settled maps on a scale of four inches to the mile

Chapter II. Production.

TILES.

FORESTS.

The sections on forests and trees have been compiled from materials supplied by Mr. H. Barrett, District Forest Officer. Bom. Gov. Sel. LX. 191.

Chapter II.
Production.
Forests.

Moist Forests.

have been prepared. The boundaries of the reserves have been marked by rough stone pillars, or by cairns four and a half feet high, tapering from six feet at the base to two feet across the top.

The moist forests which lie between the Kanara border and the eastern plain include a large and valuable forest belt to the southwest, some scrub forest on low hills, and plantations near the main The extreme north limit touches and is bounded by Kánara and Belgaum and the south by Maisur. The moist forests are divided into the four circles or divisions of Dhárwár, Kalghatgi. Bankápur, and Hángal. Within the forest area there are four chief varieties of soil, light, red, black, and sandy. Where teak prevails the soil is light, loose, and veined with quartz. Some of the rocks In Ilhárvár, are ironstone or sandstone, but most are granite. Kalghatgi, and Bankápur the forest lands are hilly and waving, but the Hángal reserves are mostly flat. The finest trees are generally found in valleys, which in some parts are thickly wooded, while the hill-tops are generally thinly covered with trees. Teak prevails throughout the whole of the Dhárwár, Kalghatgi, and Bankápur forests; towards Hángal it almost disappears. The best teak is found in Kalghatgi where in suitable places it grows extremely well and promises to reach a considerable size. As a rele the forests do not yield large timber except in the form of poles. With this exception the reserves are fairly covered with a superfor crop of trees capable of giving a large yield of building materials and firewood. Many kinds of bamboo also occur whose strength, lightness, and elasticity make them most useful and well suited to the wants of the people. Of the four circles or divisions the forests of the Dhárwár sub-division, with twenty-nine square miles of reserved and twenty-one square miles of protected forests, are of great value and supply timber and firewood to the town of Dharwar and to the treeless black-soil country to the east. The Marmagaon-Bellári railway which will pass through the heart of these forests and then run through a woodless country to Bellári, will depend on the Dhárwár forests for a large part of its fuel. In this division two good roads run through the northern and southern parts of the main belt of forest, joining it with the town of Dhárwár at distances of ten to fifteen miles. The Kalghatgi forest, with fifty-one square miles of reserved and twenty-nine square miles of protected forests, is the most important in the district. On its western side it is in character very like the neighbouring forests of Yellapur and Haliyal in North Kanara, and is well stocked with rich trees. A large number of the villages included in this belt of forest are entirely deserted, their sites being overgrown with trees and dense underwood. In other parts of this belt the villages are merely a few huts, in small forest clearings. At certain seasons the climate of the whole tract is unhealthy and in parts the water supply is scarce and bad. Most parts of these forests can be reached by carts, and the main road from Yellapur to Dhárwár passes through the southern portion of the forest area. two good local fund roads, one runs through the heart of the northern half, and the other through the centre of the division. From these forests the town of Hubli is mostly supplied with fuel, and from the ease with which timber can be sent to Hubli and Dhárwár, this forest will be able to supply the Marmagaon-Bellári railway with a large quantity of firewood. In the northern part of this forest belt the surface rock is very rich in iron ore, and iron is still smelted in the village of Gulgi. The forest divisions of Bankápur and Hángal are much alike. The Bankapur forests, with an area of eighteen square miles of reserved and nineteen square miles of protected forests, are stocked with useful wood, and the vigour and value of the stock will increase as the forest lands become fully guarded from fire. are easy to work as they lie along the Kanara frontier. value 14 a good deal lessened by mixture with large alienated forests. The forests of Hángal include ten square miles of reserved and twenty-three square miles of protected forests. They are the fringe of the grand Kánara forests, but the growth of the timber is slower and much less vigorous as the rainfall is much lighter. Hángal forests will never produce such large timber as is grown in Kánara. They have also suffered much from careless cutting from which they are now slowly recovering. With time and care, the Hangal forests will yield much small wood fit for building native houses and for making field tools. They also contain some fine sandalwood. As they are crossed by good cart roads they can be casily and cheaply worked. The value of these forests is great, and will become greater as their produce will always find a ready market eastwards in the wide forestless tract of eastern Dhárwár, the Nizam's territory, and Bellári.

The dry forests are included in the sub-division of Gadag, Kod, Ráncbennur, and Karajgi. These forest lands are upwards of fifty miles east and south of the Kánara forests, and are mostly dry st my hills. In this part of the district the existing forest or woodbearing area is extremely small. At present the bulk of the reserves is in a very poor condition, bare or at best with a covering of scrub and thern. The rewooding of these hills must be slow, but there seems no reason to doubt that with care and time the attempt will succeed. The forest lands of Gadag, with forty square miles of reserved and thirty-three square miles of protected forests, are chiefly in the Kapatgudd range which has a total length of about thirty miles. A large tract in the centre of the range is alienated, and both on the north and south side several alienated villages hold large tracts of hilly country. The soil of these hills is almost everywhere scanty. Even at the base of the hills it is stony and barren. The north half of the chain has no scrub, the hills being covered with fine spear-grass. Along the banks of a few streams near Doni are some stunted date-palms and a few other trees. At the base and sides of the hills from Chik-Vuduvati to the Tungbhadra is some stunted scrub; but it gradually disappears about the middle. The tops of the hills are bare rock. Among the scrub the chief trees and bushes are bandurbi Dodonæa viscosa, which covers large tracts and is the most common shrub in the range. Next in commonness come the Acacias and Cassias: khair Acacia catechu, phuláte bábhul Acacia latronum, and bábhul Acacia arabica. With these a little teak is mixed in the plains near Chik-Vuduvati. Teak also occurs in several of the small valleys near Kulkera, the vigorous shoots seeming to show that teak was

Chapter II.
Production.
FORESTS.
Mout Forests.

Dry Forests.

Chapter II.
Production.
FORESTS.
Dry Forests.

formerly common. According to the people twenty-five to thirty years ago the hills were covered with trees. The Cassias are tarvad C. auriculata, and báya C. fistula. The C. fistula is not plentiful; it is found chiefly along the banks of a few rivulets. An Albizzia and a Bignonia are also fairly common at the base of the hills to the south of the range. A few stunted nim trees Melia azadirachta also occur. Altogether the vegetation is very poor, and much care and many years will be required to rewood these hills.

The greater part of the Kod forest area, with seven square miles of reserved and thirty-four square miles of protected forests, consists of two parallel ranges of hills in the south of the sub-division. Between the two ranges lies the populous and highly tilled Masur valley. The northern or front range is a narrow strip of bare hill, whose skirts are tilled to the base. East of the point where the Masur road crosses them the hills are extremely bare. To the west of the Masur road a little scrub occurs on the slopes and along the base. The Maisur frontier which runs along the crest of the southern or rear range comes down to the plain about the centre of the line, so that only part of the northern face is in British territory. A great part of the area of both ranges has been assigned as free-grazing land for the neighbouring villages. As grazing ground these hills are of great importance to the people during the south-west rains and the cold weather months, that is from June to February. After March the yearly fires sweep through the whole area, and there is nothing for cattle to eat till the next south-west rains in June. The southern range is better wooded than the northern. At both ends is a considerable area of woody hill country, some of which has been set apart as reserved forests. Besides these two hill ranges, in the northern half of the sub-division two isolated patches of waste have been taken for forest. One of these is the deserted village of Bábápur which in parts is thickly covered with thorny scrub fit for fuel. The other includes portions of three villages and is well covered in parts with matti Terminalia tomentosa and other inferior wood. The nature and conditions of this forest area are similar to those of the Kapatgudd range in Gadag, and it is managed in much the same way. Here, as in Gadag, a certain area of valuable wood-bearing land is mixed with much waste, mostly wanted for grazing. It is hoped that in time the whole will be covered with trees. The forest land of Ránebennur includes seventy square miles of protected forests. Within the area of forest land are large tracts of unproductive waste and three blocks of naked brown hills. The Budpanhalli block to the north of Ránebennur consists mainly of low stony hills. Parts of the village lands of Budpanhalli and Nukapur are thickly covered with low thorn bushes, but much is stony and almost utterly bare. The only trees are a few scattered bábhul Acacia arabica, palas Butea frondosa, and nim Melia azadirachta bushes. The Airáni-Medleri block, on the east side, is of irregular shape. It stretches from Ranebennur nine miles to Kudrihal, long downs have except for scattered brushwood one or two feet high and near Airáni a sprinkling of small trees. In the village lands of Eklaspur is about a square mile of anjan Hardwickia binata forest. This is the only place in the district where the tree occurs. The people say the trees were

not planted and are increasing in number and size. At present the only growth in the lands of Hanshikatti and Chalgeri are a few small low bushes called paorki, bandurbi Dodonæa viscosa, and revdi. At present much of this reserve is extremely bare, but there is no reason why, as at Badpanhalli, thorny scrub should not grow. The prospects of this block are better than those of some of the stonier tracts, as before the 1876 famine most of the forest land was marked into fields and was occasionally under tillage. The third or Halgeri block lies in the south-west of the sub-division. It is chiefly a low range of stony hills, with a little waste at the base and on the sides. The whole is almost utterly bare; only at Anhirvalli and a few other places are there small patches of bábhul and other thorn bushes. In the whole forest land of Ránebennur the only trees are in and near the village of Eklaspur.

The best-covered forest lands in Karajgi are in the Katenhalli block about eight miles south of Karajgi and in the village of Gutal about twelve miles to the east. With these exceptions the Karajgi forest lands are extremely bare. The small area to the north of the Varda and the detached lands in the centre of the sub-division are fairly covered with low brushwood, but the lands of Basápur, Ipikop, and Párápur have large areas of bare downs. Nowhere in the sub-division are there trees of any size. Much of the land seems closely to resemble the anjan-growing lands of Eklaspur, but there are no anjans in Karajgi.

In cultivated lands the only trees over which Government have reserved their rights are teak, blackwood, and sandalwood. Besides teak blackwood and sandalwood, the only reserved trees on waste lands suitable for tillage are matti Terminalia tomentosa and honya Pterocarpus marsupium. The people of forest villages are allowed to cut and remove grass free of charge, and also to take from the protected forest land headloads of dry firewood and thorns for field fencing No kumri or coppice-burning prevails in the forest lands, the tops and slopes of the hills being too stony and bare for this kind of tillage. The chief stores for the sale of wood are at Dhárwár, Kalghatgi, Bankapur, and Hangal, where timber can be bought at auction sales. During the working season which lasts from November to June, at branch stores along the line of forests, timber is gathered and sold by public auction. Most of these stores are temporary and are liable to be changed yearly for more convenient sites. The retail stores for the sale of wood at Dhárwár and Kalghatgi have been abolished and the timber and fuel required for the large towns are now supplied from departmental cuttings. Departmental firewood cuttings were begun in 1879 on the principle of coppice under standards instead of clean cuts as in Belgaum. The practice is to cut away for firewood and other purposes, such growth as, owing to injuries from fire and other causes, seems unlikely to improve, leaving such sound hard wood trees for standards as are likely to flourish for thirty years. So far the departmental cuttings have been a success, and give satisfaction to the people. Under this system the Government rate for a stack measuring $4' \times 4' \times 6'$, equal to a large cartload of firewood drawn by two bullocks is only 2s. (Re. 1),

Chapter II. Production.

Forests.

Dry Forests.

brest Rights.

Chapter II. Production.

Forest Rights.

for a beast-load $1\frac{1}{2}d$. (1 anna), and for a head-load for a man $\frac{1}{6}d$. ($\frac{1}{6}$ anna), for a woman $\frac{1}{4}d$. ($\frac{1}{6}$ anna), and for a child $\frac{1}{6}d$. ($\frac{1}{6}$ anna). The net proceeds of the yearly departmental firewood cuttings show a gradual rise from £309 (Rs. 3090) in 1880-81 to £500 (Rs. 5000) in 1881-82 and £1238 (Rs. 12,330) in 1882-83.

Before 1881 the right of grazing in forest lands was sold to contractors. Under this contract system there was no check on the number or the kind of animals admitted into the forests, and the cattle-owners could not well be held responsible for damage done by fires or by branch-lopping. Besides a fee of 6d. to 2s. (Re $\frac{1}{4}$ -1) a head of cattle, the contractors used to extort money from the cattle-owners and otherwise oppress them. Under the system introduced in 1881 the people are allowed to graze their cattle and flocks in certain parts of the forest lands by paying a yearly fee of 3d. (2 as.) for every head of horned cattle and of $\frac{3}{4}d$. ($\frac{1}{4}$ anna) for every sheep and goat. The people greatly prefer the new system, and it has also proved a financial success. In 1881-82, under the new system, the receipts amounted to £1298 (Rs. 12,980). deducting fifty per cent credited to land revenue the balance exceeds what was obtained under the old system.

Minor Produce.

The most important minor forest products are honey, charcoal, and bamboos. Bamboos are in great request as they have many uses. In Dhárwár a great trade is done in bamboo baskets and mats which are sent to various parts of the country. The timber trade is mostly in the hands of wealthy merchants who live in Dhárwár and Hubli. These men buy the greater part of their wood in Kánara and retail it to the people of the plain country.

The permanent residents near the forest are Muhammadans and Lingáyats, and the tribes who cut or carry timber or fuel are Bedars, Golars, Lambánis, and Vadars. The people employed in the forest are mostly taken from the resident castes, but in Kalghatgi and Bankápur about half of the day labourers are Lambánis. The daily pay of forest labourers varies according to the demand. The usual rates are $5\frac{1}{4}d$. $(3\frac{1}{2}as)$ for a man, $4\frac{1}{2}d$. (3as) for a woman, and 3d. (2as) for a boy or girl.

Till 1871 the Dhárwár and Belgaum forests together formed the charge of one European forest officer. In 1871 the Dhárwár forests were separated and a district officer with protective staff At present (1883) under the European forest was appointed. officer, who receives a monthly pay of £90 (Rs. 900), is a permanent establishment of five foresters and two clerks whose monthly pay varies from £2 to £3 (Rs. 20-30); twenty forest guards on a monthly pay varying from 14s. to £1 4s. (Rs. 7-12); and two peons on a monthly pay of £1 12s. (Rs. 16). Including pay and travelling allowances, the whole fixed establishment costs £1731 (Rs. 17,310) In addition to the fixed establishment temporary forest guards and foresters are employed. During the year ending March 1883 the establishment, both permanent and temporary, cost £2254 (Rs. 22,540). Of the permanent staff one forester and seven forest guards are for the Dhárwár sub-division, two foresters and seven forest guards are for Kalghatgi, and one forester and three forest

guards each for Bankápur and Hángal. Of the temporary staff there are one forester and six forest guards each for Gadag, Ránebennur and Karajgi, and Kod. Each sub-division is divided into two beats under the head forest guard. The duties of the guards are to patrol the forests within an average beat of twenty-six square miles, to protect the reserves from damage, and to watch the removal of bamboos and firewood from the forests. Each forester in charge of a division visits the forests from time to time and sees that the men under him do not shirk their work.

During the eighteen years ending 1883 forest receipts have risen from £1710 (Rs. 17,100) in 1865-66 to £8291 (Rs. 82,910) in 1882-83. Except during the 1876 and 1877 famine, when the receipts fell to £1707 (Rs. 17,070), this increase has been gradual. On account of the reorganization of the establishment charges have risen from £704 (Rs. 7040) in 1865-66 to £4195 (Rs. 41,950) in 1882-83. During the last three years the net revenue has averaged £2511 14s (Rs. 25,117) a year:

DHARWAR FOREST REVESUE, 1865-1883.

YBAR.		Receipts.	Charges.	Surplus.	YEAR.	Receipts.	Charges.	Surplus
		£.	£.	£.		£	2.	£.
1965-66	-	1710	704	1006	1874-75	. 5484	3416	2068
1		5 038	1272	1756	1875-76	4209	3154	1145
1-0.7-68		3279	1979	1300	1876-77	. 3103	22 79	823
144 69		22:8	1638	650	1877-78	3707	2067]
1mm 70		4663	2854	1809	1878-79	2529	2023.	506
1970 TL		5348	3993	1356	1879-80	4 (-05)	3/4/4	1604
1×71-78		4566	3790	1076	18-0-81 .	4440	3721	719
1572 74		5557	4521	1355	1881-82 .	5980	3260	2720
1573-74		5240	3373	1967	1882-83	8291	4195	4096

The most useful trees and plants are: Alale (K) hirda (M), Terminalia chebula, yields a yellowish hard and heavy wood used for field tools but not valued as it is apt to suffer from the attacks of white ants. The bark and berries are useful in tanning and in medicine; they also make excellent black ink and a black dye. Aftirumdi (K.) or umbar (M.), Ficus glomerata, yields a wood which is often used in the body of carts, into which the iron axle fits. The fruit like the common fig is eaten by the poorer classes and by cattle. Banne (K.) ápta (M.), Bauhinia racemosa, has a very strong and hard heartwood; the bark is used for making rope and its gum as a medicine. Belpatri (K. and M.) Ægle marmelos, is sacred to Shiv; the timber is not used; the inside of the fruit is scooped out and made into snuffboxes, Bilenandi (K.) nána (M.), Lagerstræmia macrocarpa, has a light serviceable wood which is used for building though it is apt to suffer from white ants. Bite (K.) sisu (M.), Dalbergia latifolia, the blackwood, yields a valuable strong tough wood which is much used in cabinet-work and for other purposes. Burla (K.) shevri (M.), Bombax malabaricum, the silk-cotton tree, though worthless as timber is used by wood-carvers or Jingars in making scabbards and toys, its cotton is valued for stuffing quilts and pillows. Dindal (K.) dhávda(M.), Conocarpus latifolia, has a white and very hard wood used in building and for cart-axles and ploughs and any tool for which strength is required; it also yields a good gum. Dikamali (M), Gardenialucida, has close-grained wood good for making

Chapter II.
Production.

Foresta Revenue

TREES

Chapter II.
Production.
TREES.

combs; it yields an ill-smelling gum resin which is much used in healing wounds and sores. Gandha (K.) chandan (M.), Santalum album, furnishes the well-known sandalwood of commerce; it is used for carving incense and perfume and in making sect brow-marks; from the root a valuable oil is prepared. Kera mara (K.) bibva (M), Semecarpus anacardium, the marking-nut tree is useless as timber, the oil of the nut is used as a blister and fomenter in rheumatism and in making ink. Halasu (K.) phanas (M.), Artocarpus integrifolia, the jack-tree, is used in carpentry and furniture. Haldiadvibhende(K) Erinocarpus nimmonii, has a very soft wood and fibrous bark which is twisted into rope. Hunab (K.) kindal (M.), Terminalia paniculata, is like matti Terminalia tomentosa; it is used almost as much as matti but is not nearly so good or lasting being very liable to attacks from insects; it is generally soaked in water for three or four months before being used. Hunase (K.) chinch (M.), Tamarindus indica, the tamarind, has a very hard and lasting heartwood, which is used for sugar and oil mills and for mallets and rice-pounders. Jzale-gida(K.) bábhul (M.), Acacia arabica, is used for ploughs, carts, and sugarcane mills and in other work in which great strength is required; the bark is useful in tanning. Kakkai (K.) baya (M.), Cassia fistula, is notable for its long pods and beautiful hanging clusters of primrose yellow flowers; the bean is a medicine and an article of commerce. Karegida (K.) gehela (M), Randia dumetorum, is a small shrub with close-grained wood used for walking sticks; the fruit is a fish-poison. Karemuttal (K.) tivas (M.), Dalbergia oojeinensis, has very valuable hard wood of great strength and toughness used for carts, ploughs, and carriage poles. Matti (K.) ain (M.), Terminalia tomentosa, yields a much valued and generally used hard brown-black timber; the bark is valued in tanning. Murgala (K.) bhirand (M.), Garcinia purpurea, the wild mangosteen, whose fruit by boiling yields the concrete oil known as kokam, is used in baking cakes and heals chaps, sores, and wounds. Muttala (K.) palas (M.), Butca frondosa, yields strong fibrous wood which is not used locally for building; the leaves are used by Bráhmans and others as plates. Rahtahoni (K.) asan (M.), Pterocarpus marsupium, yields a good strong reddish brown timber suited for furniture and house-building; it is also much used for ploughs, harrows, and carts. A red kind like resin oozes from the tree. Shendhi (M.), Phonix sylvestris, the wild datepalm, yields palm beer and spirit; from its leaves mats and baskets are made. Shivani (K.) shivan (M.), Ginelina arborea, yields a good timber used in building and for field purposes; it stands weather and water. Shiris (K.), Albizzia odoratissima, furnishes a very strong hard wood which is used for the rollers and crushers in sugarcane mills, and in cart-making; it is a useful roadside tree growing fast and giving good shade. Tadsal (K.) dháman (M.), Grewia tiliæfolia, has a white and pliant wood that would make good bows, arrows, and lances; its only local use is for axe-handles: the small elongated red berry is eaten by the people. Tegina (K.) ság (M.), Tectona grandis, teak, yields the well-known very durable timber.

The shade trees that thrive best along roadsides are the karanj Pongamia glabra, shiris Albizzia odoratissima, nim Melia azadirachta, mango Mangifera indica, ápta Bauhinia racemosa. Millingtonia hortensis, Ficus cordifolia, Ficus nandrook, and others of the fig species. On the roads which cross the black-soil and plain country to the east of Dhárwár, the bábhul Acacia arabica has been found most suitable. Pithecolobium saman or rain-tree, a native of Jamaica, only lately introduced into Dhárwár, grows so readily, wants so little water, and gives such excellent shade, that it is certain to become a favourite roadside tree.

Chapter II. Production.

Field Trees.

The chief trees found in fields and gardens and grown for their fruit are anjura Ficus carica the fig, bâle Musa sapientum the plantain, begpura Citrus indica the citron, bor Zizyphus jujuba the jujube, geru mavu Anacardium occidentale the cashewnut, halasu Artocarpus integrifolia the jack, hunase Tamarindus indicus the tamarind: jambu Syzygium jambolanum the jambool, mavu Mangifera indica the mango, nimbu Citrus bergamia the lime, pyara Psidium pomiferum the guava, rámphal Annona reticulata the sweet sop, sitáphal Anona squamosa the custard-apple, and tengu Cocus nucifera the cocoa-palm. These are all grown largely and much used.

The chief fibre-yielding trees and plants are ambada Hibiscus cannabnus hemp, ananas Ananassa sativa pine-apple, bambugala Bambusa arundinacea bamboo, bále Musa sapientum the plantain, bhát Oryza sativa rice, bhendi Abelmoschus esculentus, jangli rui Abroma augustum devil's cotton, kabbu Saccharum officinarum sugarcane, kalnar Aloe vulgaris aloe, kanghi Abutilon indicum country mallow, madi Caryota urens bastard sago-palm, musk bhendi Abelmoschus moschatus the musk mallow, náriel Cocos nucifera cocoa-palm, supári Areca catechu betel-palm, támbda ambada Hibiscus sabdariffa roselle.

Hedge Plants.

Fibre Plants.

The hedge plants are adsal Adhatoda vasica, daba-galli Opuntia dilleni prickly-pear, dunda-galli Euphorbia antiquorum triangular surge, hala-galli Euphorbia tirucalli milk-bush, jzale-gida Acacia arabica, kadandla Jatropha cureas physic-nut, kalnar Aloe vulgaris aloe, lekkigide Vitex trifolia Indian privet, mada rargi Lawsonia alba henna plant, nuggi mara Moringa pterygosperma horse-radish tree, pángara Erythrina indica coral tree, sikekai Acacia concinna soapnut, yele-kalli Euphorbia nerrifolia candle-cactus.

Water Plants.

The chief water plants some of which have magnificent blossoms are of lotuses or *kamals* the Nymphœa stellata with rose-coloured scentless flowers, Nymphœa rubra with large brilliant red flowers, Nymphœa pubescens with white flowers, and the water-bean Nelumbium speciosum. All of these are common near Dhárwár.

Weeds.

The chief climbing shrubs, plants, and weeds growing on waste lands and hills are dhaturi Datura alba the thorn-apple, tottal balli and Caparis horrida a thorny shrub with large white flowers. There are three kinds of dhaturi plant, kakigida Solanum indicum Indian nightshade, Solanum jacquini, and Solanum trilobatum. Other plants are the utrani Achyranthes aspera, and the yellow thistle or Mexican poppy Argomone mexicana.

Among the wild climbing plants in the forests and hedges are

Chapter II.

Production.

the tondeballi Coccinia indica, the Memordica charantia, Cocculus cordifolius, and Cissus discolor. Many convolvuluses yield exquisite flowers among them the Bryonia collosa, Argyreia malabarica, and the Elephant creeper Argyreia speciosa.

GRASSES.

The most useful grasses for fodder, volatile oils, and thatching are madi hullu and geddali gen hullu varieties of Andropogon, and chapparigen hullu, herati hullu, maraharti hullu, and ubma hullu, all considered good fodder and apparently belonging to the Graminaceæ family. Hariáli Cynodon dactylon is one of the best fodder grasses especially for horses. The Andropogon martini has a very strong aromatic and pungent taste, and cattle are voraciously fond of it. The ukya ghás Andropogon citratum or lemon grass, the bálada beru Andropogon muricatum Cuscus grass, and the darbhe Cyperus rotundus are fragrant grasses from which oil is made.

FERNS.

Except those which have been introduced into gardens few varieties of ferns are found in Dhárwár. The only local ferns noticed in the forest are the common Pteris, two varieties of maiden hair or Adiantum, and Ligodium scandens a climbing fern with graceful drooping filigree-like fronds. None of the lovely mosses and lichens which adorn the Kánara forests are found in the comparatively dry forests of Dhárwár.

EXOTICS.

The chief exotic trees and plants which have been introduced into Dhárwár are the rain tree Pithecolobium saman a native of Jamaica, the logwood tree divi-divi Cæsalpinia coriaria which grows in black and red soil and the pod of which yields valuable tanning, the Australian acacias, the mahogany tree Swietenia mahogani, the Casuarina equisetifolia, the American Bastard cedar Guazuma tomentosa, the Millingtonia hortensis, and the Eucalyptus obliqua. Some Eucalyptus trees planted a few years ago in damp lowlying ground are thriving. Two trees eight inches in diameter at the base and more than thirty feet high will probably grow to a large size.

Many exotic plants flowers and vegetables are grown in the gardens about Dhárwár. In the garden attached to the Nawáb of Sávanur's residence a few apple and pear trees have been planted, and the apple trees bear fruit. Strawberries are also grown, and with care and rich soil would yield well. The Cape gooseberry thrives and bears quantities of fruit from which one of the best Indian preserves is made. Pine-apples succeed well and of late years have been grown equal in flavour and size to fine English hothouse pine-apples. The plants require great care and very rich manure. The following ornamental shrubs and plants thrive well: Acalyphas, Achimenes, Aralias, Arums, Begonias, Bignonias, Caladiums, Coleus, Crotons, Dahlias, Draccenas, Gardenias, Gladiolus, Hoyas, Iris, Ivy, Jasminum, Panax, and Plumbago. With care nearly all English flower and vegetable seeds grow well in Dhárwár. The chief varieties of flowers are the Amaranthus. Antirrhinum, Aster, Balsam, Calliopsis, Candy tuft, Cockscomb, Convolvulus, Dianthus or Pink, Geranium, Heliotrope, Hollyhock,

Marigold, Mignonette, Portulaca, Rose, Sweet Pea, Sunflower, and Verbena. The chief vegetables are Artichoke, Beetroot, Cabbage, Capsicum, Carrots, Cauliflower, Celery, Cress, Cucumber, French Beans, Knolkhol, Lettuce, Marrow, Mustard, Onions, Parsley, Peas, Radish, Spinnach, Tomato, and Turnip.

Chapter II. Production.

Domestic Animals.

Dhárwár is not a cattle-breeding country. No one wanting a good pair of bullocks or a good buffalo would buy an animal of the Dhárwár breed. The local breed is decidedly poor. The demand for good cattle is supplied from Sholápur, Pandharpur, Maisur, and Bellári. The chief cattle-marts are Dhárwár, Hubli, Navalgund, Kalghatgi, and Alur in Hángal. The cattle-breeders are Dávri Gosávis, Dhangars, Gaulis, Airgaulis, and Lambánis. Formerly the abundance of cheap grazing encouraged the people to keep a number of miscrable beasts which could never do a day's work. The average animal has of late somewhat improved in quality and as it now costs moncy to feed cattle none are kept which cannot earn their keep.

The chief domestic animals are oxen, cows, buffaloes, sheep, goats, horses, and asses. Of oxen the 1882-83 returns show a total of 258,510 head. These are principally of three kinds: hoslál or from the river country that is the banks of the Krishna, mudlia or from the south-east that is from Maisur and Madras, and joári or local. Of these the finest are the large white Maisur bullocks which cost £10 to £30 (Rs. 100-300) or even more; the holsál or Krishna bullocks cost £5 to £10 (Rs. 50-100); and the local bullocks, which are smaller, cost £3 to £6 (Rs. 30-60). All three kinds are used for ploughing, for riding, and for drawing carts, but the Maisur bullocks are said to be best suited for carts. The larger bullocks last about sixteen or even twenty years and the smaller about twelve years. Of cows the total is returned at 151,379 and of buffaloes at 123,975, of which 83,452 were she-buffaloes. The best buffaloes come from the black-soil country in Navalgund, Ron, and Gadag on the east and north. A cow costs 16s. to £3 (Rs. 8-30) and a she-buffalo £3 to £6 (Rs. 30-60). Sheep and goats, returned at 231,125, are kept chiefly by the Kurubars or shepherds in flocks of 100 to 1000. They are not reared for export but entirely for local use, and the numbers are not very large. They are found chiefly in the centre and east of the district. They feed on the small grass that grows on the banks of the streams and in waste numbers, on tree and shrub leaves, and on the leaves of the cotton plant after the cotton crop is picked. The price of sheep is said to vary from 2s. to 8s. (Rs.1-4), and of goats from 4s. to 8s. (Rs.2-4). Horses are returned at 5478. They are generally owned by Brahman village accountants and some of the former district revenue officers. Dhárwár was once famous for its breed of ponies running up to fourteen hands high; they are not now so good as they were. The breed is small under thirteen hands, and often ill-shaped and vicious but hardy. The Persian and

¹ During the American War (1864-1866) when there was a glut of money extravagant prices were paid for cattle at the Hubli market. For a pair of bullocks Rs. 300-400 was a common price and Rs. 1200 were paid for a bullock which distinguished himself by uprooting a large stone buried in the ground which no other beast could move. Bom. Gov. Sel. CLXVIII. 104.

Chapter II. Production.

Domestic Animals.

WILD ANIMALS.

Large Game.

Abyssinian campaigns took away numbers of the best. The mail cart service also knocks up hundreds every year. No pains seem to have been taken to improve the breed until some years ago Government allotted a few good stallions to accompany the camps of some of the English district officers on their yearly tours. Asses are returned at 6819. Almost every washerman keeps some female and one male ass for breeding and for carrying clothes. The male colts are sold either to potters whose clay and earthenware they carry, or to some classes of Vadars who use them to carry firewood and millstones. The Korvás also and some other wandering tribes keep asses to carry their little camps. Except in the town of Dhárwár there are no ducks. Hens are scarce, and since the 1877 famine difficult to buy. They vary in price from 6d. to 1s. 6d. (4-12 as.).

¹The district is fairly off for game. Almost every kind of game that is found in Southern India occurs in Dhárwar. The belt of forest from one to six miles broad, which forms the western and part of the southern boundary of the district shelters the larger animals.2 Between this belt of forest and the eastern plain are considerable tracts of scrub as well as isolated scrub-covered hills which are all more or less stocked with pig, hares, and the smaller In the plain antelopes are still found but not in such numbers as formerly. During the eight years ending 1882 the total number of wild animals reported as destroyed was thirty of which four were tigers, twenty-two leopards and panthers, and two were hyænas and two other animals; the amount spent in rewards was £28 (Rs. 280). The number of persons killed was fourteen of whom two were by tigers, two by panthers and leopards, and ten by other animals. There were also eighty-two head of cattle killed, thirteen by tigers, sixty-one by leopards and panthers, and eight by wolves.

Of large game, the Tiger, huli or hebbuli, Felis tigris, is not so common as in former years but still occurs in the Dharwar, Kalghatgi, Hángal, and Bankápur forests, bordering Kánara on the west of the district. Tigers more frequently appear in these places during the rains than at any other time, as in the great Kanara forests herbage springs so slowly that the wild pig, deer, and cattle, which form the tiger's usual food, desert Kanara for the thinner forests of The Panther, kera kalla, Felis pardus, has been west Dhárwár. killed in the Dhárwár, Gadag, Hángal, Bankápur, and Kod sub-They also occur in the western forests. The hill fort of Nargund, about thirty miles north of Dhárwár, is a notorious place for panthers, the caverns or hollows in the fort and the dense mass of prickly-pear on the hill-slopes offering them excellent hiding places. The Leopard cat, hongia, Felis bengalensis, is found in all the western forests and is also known to inhabit the Dambal hills, the hills of

¹Contributed by Mr. R. S. Wingate, Assistant Superintendent Revenue Survey Southern Marátha Country.

²In 1846 the parts of Kod on the North Kánara border were subject to the ravages of wild elephants. They used to enter the district from North Kánara about the beginning of October when the rice ear begins to form. In 1845 three or four herds of about thirty or forty elephants appeared in Kod. It was said that seven or eight elephants in a single night would eat or trample under foot two or three acres of standing rice. Bom. Gov. Sel. CLX.191.

Mulgund, and the hills in the south of Kod. It also occasionally turns up most unexpectedly near villages in the middle of the plains where it generally takes refuge in old temples and is easily disposed of. The Hunting Leopard, chita or chircha, Felis jubata, is common in the Kod and Gadag hill ranges. Some years ago when the Dhárwár plains abounded with black antelope, hunting chitás were kept by the Nawab of Savanur and the chief of Mudhol. The Indian Black Bear, ar or karadi, Ursus labiatus, is fast disappearing. They are now occasionally met in the Kalghatgi, Bankapur, and Hangal forests, and in the hills to the south of Kod. Formerly they used to inhabit the Dambal hills, but, as their haunts were easy of access, the bears have all been shot within the past few years. The Bison, advikona, Gavæus gaurus, may be found in the Hulginkop, Sangatikop, and Badnigatti forests, which they frequent in June soon after the beginning of the south-west rains, when the young grass is a few inches high. Wild cattle, by all accounts the descendants of the same breed, are found in wide grassy and scrubcovered plains in Sávanur. These Sávanur cattle greatly resemble tame cattle except that their movements are more active and deerlike. They are very difficult of approach and the print of the hoof is longer and much more sharply cut than the print of tame cattle, much resembling the track of the bison, though smaller. The whole number of these wild cattle does not exceed forty or fifty head. The Striped Hyena, kati girab, Hyæna striata, is not common. They are occasionally seen in the west and a few have taken their abode in the Nargund hill, and no doubt may be found in the Dambal hills, the Budangudd hill, and in Kod. The Indian Wolf, tola, Canis pallipes, though now scarce, occurs in Kalghatgi, Kod, Karajgi, Ránebennur, the Itigatti forests near Dhárwár, and in the Dambal Wolves are generally seen in parties of two or three. A few years ago a wolf entered the enclosure of the house belonging to the German Mission at Dhárwár and attacked and mauled a man. The Jackal, kunni nari or kappal nari, Canis aureus, and the Indian Fox, chendkinnari or sanna kempu nari, Vulpes bengalensis, are common throughout the district. The Wild Dog, kadu nái, or chiruii, Cuon rutilans, is found in the Kanara forests and doubtless occasionally passes within Dhárwár limits. They go in packs and kill large numbers of deer and wild pig. Even the tiger is said to fear the wild dog and to leave a part of the forest in which a pack of wild dogs have taken up their quarters. They are in appearance like a large pariah dog having coarse reddish hair; the tail is bushy and almost all black. The Wild Boar, kadu handi also called mikka, Sus indicus, is found in all the western forests and in the Dhárwár, Nargund, and Shrimantgad hills. Immense boars are often found in the forests which would delight the hog-hunter in anything like a riding country. In Bankápur and from Lakshmeshvar and Shirhatti, west of the Kappatgudd, the country is perfectly rideable and firstrate sport may be got in the cold weather. Hog may also be ridden in parts of Kod.

Of the Deer tribe, the Indian Stag, kadavi, Rusa aristotelis, is scarce, occasionally coming across the border from Kánara into the Sangtikop and Hulginkop forests of Kalghatgi. The Spotted Deer,

Chapter II.
Production.
WILD ANIMALS
Large Game

Deer.

Chapter II.
Production.
WILD ANIMALS.
Deer.

sárga, Axis maculatus, is found especially during the rains in the forests of Kalghatgi, Bankápur, and Hángal. The Ribfaced or Barking or Muntjac Deer, advikuri, Cervulus aureus, is very scarce. The Black Buck or Antelope, chiggari, Antelope bezoartica, at one time found in great numbers from one end to the other of the plains, is growing scarce. A solitary herd of eight or nine is now and then met in the black soil plains in Nargund and Hubli, a larger number are found in Ránebennur, Karajgi, Kod, and Gadag, and a few in Hangal, Bankapur, and Kalghatgi. The longest horns come from the Dambal hills. The Ravine Deer or Indian Gazelle, budri or mudari, Gazella bennettii, is far from common; a few are found in the Dambal hills and in parts of Savanur, Karajgi, and In the Kod and Gadag hills herds of seven and eight have been seen, but they are shy and difficult to get at if they once see the sportsman. The Four-horned Antelope, kondguri or gondkuri or kánu kuri, Tetraceros quadricornis, is found in all the forests of the sub-divisions bordering on Kánara where they are numerous. few are also found in the Dhumvar hills. The Mouse Deer, pisai, Memimna indica, is found in the forests south of Kalghatgi and may occasionally be met in the west of Bankapur and Hangal. is far from common.

Small Game.

Of small game, the common Wild Cat, kád beku, Felis chans, is found everywhere. A larger and spotted variety is also occasionally met. The Tree Cat, manori or mantbekku, Paradoxurus musanga, which prowls at night, seems very fond of fruit trees. It is common in Dhárwár itself, and often takes up its abode in the roofs of houses. The River Otter, niru nai, Lutra nair, is found in most large rivers and streams. It is also occasionally met in some of the large ponds throughout the district. The Porcupine, yedi, Hystrix leucura, and the Hare, mala, Lepus nigricollis, are very common in the hilly and forest parts. The Malabár Squirrel, commonly known as the Red Squirrel, kyásalali, Sciurus elphinstonei, is found in all the forests bordering on Kánara. The common Squirrel, aluli or analu, Sciurus palmarum, is met everywhere.

BIRDS.

Of GAME BIRDS,1 the common Sand Grouse, Pterocles exustus, is common in the redsoil sub-divisions. The Painted Sand Grouse, Pterocles fasciatus, is rare. The Peacock, naul, Pavo cristatus, is found in all the forests bordering on Kánara and in most large gardens in Hángal, Kod, and along the banks of the Tungbhadra and Varda. The Gray Jungle Fowl, kádu koli or advi koli, Gallus sonneratii, and the Red Spur Fowl, Galloperdix spadiceus, are found in all the western forests. Two kinds of Partridge or kaujga, the Painted hunju Francolinus pictus, and the Gray kauljal-hakki Ortygornis ponticerianus, occur in the district, the painted plentifully on the water-shed and to the west of it and the gray only to the east. Of Pigeons, the Southern Green Pigeon, hasarparivala, Crocopus chlorigaster, is found in the western sub-divisions and occasionally in the plains. The Malabar or Gray-fronted Green Pigeon, Osmotreron malabarica, is found only in the thick forests on the

¹ Contributed by Lieutenant L. L. Fenton, Assistant Survey Superintendent.

borders of Kánara. The Blue Rock Pigeon, párivála, Columba intermedia, occurs in the plains and is very fond of old temples and wells.

Chapter II. Production. BIRDS.

Seven kinds of Quail or burl are found in the district, the Jungle Bush Perdicula asiatica, the Rock Bush Perdicula argondah, the large Gray Coturnix communis, the Blackbreasted or Rain Coturnix coromandelica, the Blackbreasted Bustard Turnix taigoor, the Button Turnix joudera, and the small Button Quail Turnix dussumieri. The gray quail is far from common. Quail-shooting is very uncertain, in some years it is good, in others bad.

The Indian Bustard, yeriladdu, Eupodotis edwardsi, is found in the black-seil tracts and also in Karajgi and Ránebennur, but not in large numbers. The Lesser Florikin, kannavilu, Sypheotides aurita, though scattered throughout the district, is never found anywhere in large numbers. The Golden Plover, Charadrius fulvus, is only a cold-weather visitor. The Demoiselle Crane, korakanche, Anthropoides virgo, also a cold-weather visitor, is found mostly near the Tungbhadra. Occasionally a few may also be seen on the borders of the large ponds that are scattered over the district. The Curlew Numenius lineatus is also found.

The best Snipe or ullangi shooting is to be had in the Dhárwár, Kalghatgi, Bankápur, Hángal, and Kod sub-divisions. The best shooting season is the beginning of the cold weather just before the rice is cut, when some good sport may generally be had in fields below and watered by a pond. The varieties met with are, the Pintailed Gallinago sthenura, the Common Gallinago cœlestis, and the Painted Rhynchœa bengalensis. The Spotted Rail, Porzana maruetta, is often put up in rice fields while beating for snipe. The other water birds are the small Godwit, Limosa ægocephala, met in some large ponds in Hángal, and the Blackbacked Goose, Sarcidiornis melanonotus, which is found in Hángal, Bankápur, Kalghatgi, and probably in Kod, but it is scarce.

Of Ducks there are the Ruddy Shieldrake, jaddu vakki, Casarca rutila; the Shoveller, Spatula clypeata; the Spotted Billed Duck, Anas pocilorhyncha, which is very common and breeds in the the Whitebodied Goose or Cotton Teal, Nettapus district: coromandelianus, found in all the western sub-divisions; the Whistling Teal, Dendrocygna javanica; the Gadwall, Chaulelasmus streperus, which is scarce; the Pintail Duck, Dafila acuta, found in Kalghatgi and probably in Kod and Hángal; the common Teal, Querquedula crecca; the Bluewinged Teal, Querquedula circia, which is the first to arrive and the last to leave the district; the Golden Eye or Tufted Duck, Fuligula cristata, which is scarce; and the Widgeon, Mareca penelope. The best duck-shooting is in the Kalghatgi and Kod sub-divisions where there are many ponds. But duck-shooting in Dhárwár is poor sport as the ducks are far from numerous and as soon as a shot has been fired they either take to the middle of the lake or fly to some other piece of water.

The Cochineal insect, kirionanchi, Coccus cacti, has been successfully reared in some parts of the Dhárwár tableland on the

INSECTS.

Chapter II. Production.

INSECTS.

common cactus or prickly-pear. In rearing cochineal insects branches laden with young insects ought to be put on new cactus hedges immediately after the close of the rainy season. In six months they will have increased so much that they may begin to be gathered and a year more will pass before the whole plants are consumed. In the course of the year whenever a leaf is fully loaded, it ought to be cut, and the insects scraped from it with a small stick and gathered in a basket, and killed by pouring boiling water over them. They are then well shaken in the basket to remove the hair with which they are covered and dried for two days in the sun when they are fit for sale. In 1855, under some special conditions the cochineal insect spread so rapidly as to consume all the cactus hedges near Annigeri, Gadag, and some other towns and villages in Navalgund and Gadag. The people not knowing that it was the cochineal insect thought their cactus hedges were dying from some disease.1

Silkworms.

Silkworms or reshmehulla, till stopped under Government orders, were successfully raised in the Dhárwár jail. Details of the experiments are given under Agriculture. Bees gather honey from the blossoms or flowers of the many kinds of timber trees, but as there are very few trees the quantity of honey is small. In 1881-82 the revenue from honey amounted to £23 (Rs. 230).

SNAKES.

The chief kinds of snakes which in the opinion of the people are poisonous are the Cobra, nágarhávu, Naja tripudians; kiárihávu the harmless dháman or Indian Rat Snake Ptyas mucosus; balivadakhávu, literally the Broken Bangle Snake, probably the Chain Viper or necklace snake, Cobra manilla; chinagihavu, literally the jumping snake, probably the Tree Snake Dipsas trigonata or Dipsas gokool; urimamdalahávu, literally fire snake from the burning pain produced by its bite, mandala is probably the same as mandul the Deccan name for the Sand Snake or dutonde Eryx johnii; netragodchihávu, the phursa Echis carinata, the part of the body bitten by it oozing out blood or netra after sixteen days followed by death; bilahávu, literally the Bow Snake, possibly the name is analogous to the fabulous hoop snake of Europeans in India; manerahávu, probably the same as Manyar a term applied in the Maratha country to numerous harmless snakes but which are commonly believed to cause death by a touch of the tongue, or by casting their shadows over their victims; and nirahávu, the chequered Water Snake Tripidonatus quincunciatus. During the eight years ending 1882 the number of snakes killed is returned at ninety-five and the number of persons killed from snake-bite at 144.

FISH.

The rivers streams and lakes are fairly stocked with fish.³ In Navalgund and Ron the chief source of the fish-supply is in the Malprabha, which skirts the north of these sub-divisions. In Dhárwár fish are taken in some of the large lakes which hold water all the year round, and in a few the fish are large and plentiful. In Hubli

¹ Kies' Southern Marátha Country, 109

² Mr. G. W. Vidal, C. S.

³ Mr. J. Elphinston, C. S. and Mr. F. L. Charles, C. S.

there are no streams but some of the large lakes are well stocked. In Gadag fish are obtained from the Tungbhadra and also from some of the large lakes. In Kalghatgi they are found in one or two small streams and also in the Devikop, Badgnigatti, Tambur, and other large lakes, which always contain a large supply of fish. In Bankapur numerous lakes contain fish, but only in the largest which holds water throughout the year are large fish found. In Karajgi, the Varda and the Tungbhadra and a few of the lakes are well stocked with fish. In Hangal, the Varda and numerous lakes contain fish. In Kod and Ránebennur, besides in the lakes, there is a large quantity of fish in the Tungbhadra, which skirts their southern and eastern boundaries. In addition to the fresh-water fish, the markets in the west and south and in Dambal are well supplied with dried sea-fish from Goa, Kumta, and Bellári. The only private right of fishing is in the Bankapur sub-division at Nagnur, which in 1882 was declared by the Collector to belong exclusively to the hereditary headman Husan Aga. In Karajgi, the fisheries in some of the lakes and in the Tungbhadra river used to be sold by Government auction, but of late this practice has ceased. It is believed that about 20,000 people are to some extent employed in catching fish. The chief fishing classes are Musalmans and Ambigers or Kabers, a class of Hindu ferrymen. Besides the Ambigers many castes catch fish in addition to their usual employment. In the larger rivers, the Varda and the Tungbhadra, fishing goes on throughout the year, except when the rivers are in flood. In the smaller rivers which soon dry fishing is carried on only during the rains. Fishing is also continued all the year round in the large lakes that do not run dry, though these are rare in the black-soil sub-divisions of Dhárwár, Navalgund, Ron, and Gadag. The red-soil tracts with their more certain rainfall are better supplied with fish. Besides by the rod and hook or gana, and by netting, fish are caught by damming streams, by stupefying them with the juice of the milk-bush or the powdered mungarikai nut, and by basket-traps called kunis. The nets used are of two kinds, drag-nets called tutaballi and khadelballi, and casting-nets called bisballi and topatti. The bisballi is a small meshed circular net about six feet in diameter, having lead weights round the edge and a rope tied to the centre. The rope is fastened to one arm of the fisher, who gathers the net in his hand and along his arm as far as his elbow, and with a circular sweep throws it clear of his arm so that it falls in a broad circle on the water, some feet from the fisher. He lets it gradually sink where it falls and then slowly pulls it towards him by the rope attached to the centre. This causes the lead weights to contract the circle, till, on pulling the net ashore, all the lead weights have come close to each other in one heap entirely closing the mouth of the net. This net is chiefly used in shallow water from one to four feet deep and the fish caught are usually small from a few inches to a foot in length. The topatti is triangular in form with very minute meshes. The minimum size of the mesh is so small, $\frac{1}{10}$ to $\frac{1}{13}$ of an inch between the knots, that the tiniest fry cannot escape. The rod or gana is of two kinds, vant gana, a pole to which a line having a hook and bait is hung, and darani gana two poles fixed in the

Chapter II.
Production.
Fish.

Chapter II. Production.

Fisn.

water at some distance apart with a line of hooks drawn between them. Long nets and cast nets are used in the rivers. In the lakes, besides nets, night lines are laid down and examined by the fishers every morning. In some cases the ponds are drained dry or nearly dry and everything that can be caught is taken, thousands of fish, not one and a half inch long, being caught in nets or by the hand.

The chief kinds of fish found in ponds wells and rivers are, the ahvi, a large cel-like river fish. The sticky substance on the outside of its body is eaten as a tonic. The andhi muchi or blind fish is a river fish which is said to grow to 120 pounds weight (3 mans). Its flesh is eaten only by Mhárs and Mångs as even when fresh it is said to be full of maggots. It is so easily caught, as its name the blind fish shows, that of late years it has become somewhat uncommon. The bam or eel is well known and is said to grow to as much as six feet long. The barh or param is a fish that grows to three or to three and three-quarters feet long. The chádvi is found in rivers. It is two and a quarter feet long and is said to be excellent eating, except that a prick from one of its bones pricks like a scorpion's sting. The dok, which is found in ponds wells and rivers, is considered delicious eating, but never grows to more than a foot or fifteen inches long. The ghagra is a river fish which is said to vary from nine to eleven inches in length and to be nearly round. The gojal is a tasteless fish which grows about eighteen inches long. The gojra varies in length from nine to eleven inches. hargi is much esteemed by epicures. It is found in ponds and rivers and grows to eighten inches long and two sers in weight. jhám, a river fish, is said to grow to forty pounds weight. khavali or khawli is full of bones, but especially the head is said to be good eating. It varies in length from nine inches to three feet. The kuch, a rather flavourless fish, varies in length from a foot to a foot and a half. The kolas is a small flavourless fish of about nine inches long. The kongyai is said to be short and about as broad as the palm of the hand. It is believed to be the same as the ghagra. The katarna is a small little esteemed fish which grows about nine inches long. The marah or red mullet is a well known palatable fish, which lives in ponds and grows about three feet long. The muchála is also esteemed by epicures. found in ponds and rivers and varies in length from about nine inches to three feet. The murangi or merangi, a small fish found in ponds and wells, is about two inches and a half long. It is much eaten by the people. The murgode munia, a small fish six and threequarters to nine inches long, is found in ponds and wells and is not much esteemed. The phatar châtu, a small fish nine inches long, is found in rivers and takes it name from hovering about stones and rocks. The rahu is a river fish which is said to grow to forty pounds weight. The rupchal is a small silver-coloured fish, nine inches long. The sursal is a small fish nine inches The zinga or jhinga is a small fish not much esteemed, which is found in ponds and wells. It varies in length from nine to twelve inches.

CHAPTER III.

According to the 1881 census the population of the district was 882,907 or 19468 to the square mile. Of these Hindus numbered 779,875 or 88:33 per cent; Musalmáns 100,622 or 11:39 per cent; Christians 2356 or 0:26 per cent; Pársis 31; Jews 18; and Chinese 5. The percentage of males on the total population was 50:06 and of females 49:93. The corresponding returns for 1872 were a total of 989,671 or 216:84 to the square mile, of whom Hindus numbered 873,702 or 88:28 per cent; Musalmáns 114,332 or 11:55 per cent; Christians 1590 or 0:16 per cent; Pársis 13; Jews 33; and Others 1. Compared with the 1872 returns the 1881 returns show a decrease of 106,764 or 10:78 per cent which is probably due to emigration and mortality during the famine of 1876-77.

Of 882,907 (males 442,035, females 440,872), the total population, 801,882 (males 404,960, females 396,922) or 90.82 per cent were born in the district. Of the 81,025, who were not born in the district, 16,577 were born in the Southern Marátha states; 13,557 in Belgaum; 13,310 in the Nizám's country; 10,879 in Maisur; 10,616 in Madras; 9227 in Bijápur; 3191 in Kánara; 1704 in the Deccan districts; 634 in the Konkan districts; 299 in Gujarát; 270 in Goa, Diu, and Daman; 98 in Bombay; 555 in other parts of India; and 108 outside of India.

The following table gives the number of each religious class according to sex at different ages, with, at each stage, the percentage on the total population of the same sex and religion:

DHARWAR POPULATION BY AGE, 1881.

		Hin	DUS.			MUBAL	ma'nb.		CHRISTIANS.				
AGB IN YEARS,	Malus.	Percentage on Males.	Females.	Percentage on Females.	Males.	Percentage on Males.	Femalos.	Percentage on Females.	Males.	Percentage on Males.	Females.	Percentage on Females.	
Up to 1 1 to 4 5 to 9 10 to 14 15 to 19 20 to 24 25 to 29 30 to 34 35 to 39 40 to 49 55 to 59 Above 60	102 102	7 11 13 35 14 94 8 89 9 05 9 86 9 30 5 96 9 50 4 28 1 76	11,422 28,200 52,579 50,848 30,457 39,598 38,035 60,429 35,653 19,824 7549 19,167	7·23 13·49 13·04 7·81 10·16 9·76 9·34 5·24 9·15 4·95 1·93	1455 3727 7081 7803 8996 4638 4887 5057 2878 4675 2053 724 1675	2.87 7.36 13.89 15.42 7.89 9.16 9.65 9.99 5.68 9.23 4.05 1.43 3.31	1505 3937 7214 6344 8519 5204 4986 4977 2483 4267 2407 866 2414	3-00 7-87 14-42 12-68 7-03 10-40 9-96 4-96 8-53 4-81 1-73 4-82	31 98 170 178 78 116 118 71 112 50 17	2:58 18:16 14:15 14:82 6:49 9:65 9:82 9:65 5:91 9:32 4:16 1:41 2:83	32 116 171 172 97 108 97 103 65 80 48 17	2.77 10°04 14.80 14.89 8.39 8.39 8.39 8.39 5.62 6.93 4.13 1.47	
Total	390,198 389,677		50,599 50,023			1	201	1155					

1 From materials supplied by Rav Bahadur Tirmalrav Venkatesh.

Chapter III. Population.

CENSUS DETAILS. 1872 · 1881.

Birth-place.

Age.

DISTRICTS.

Chapter III.

Population.

Census Details.

Age.

DHARWAR POPULATION BY AGE, 1881:-continued.

10 to 14			Pa'rsis	B.		Om	ers.	1	Total,			
1 to 4		Males.	Percentage on Males.	Females. Percentage	Males.	Percentage on Males.	Females.	Percentage on Females.	Males.	Percentage on Males.	Females.	Percentage on Females
Total . 20 11 17 6 442,035 440,872	1 to 4 to to 9 10 to 14 15 to 19 25 to 29 30 to 34 35 to 39 40 to 49 50 to 54 Above 60	1	5 00 5 00 5 00 5 00 5 00 5 00 5 00 5 00	1 90 1 90 1 90 1 90 1 90	6 1 9 1 9 4 9 5 9 2 9 3	5 88 5 88 23 52 29 41 11 76 17 64	1 1	16-66	81,607 59,249 66,308 30,848 40,090 43,501 41,482 26,214 41,888 18,805 7639 15,714	7·15 13 41 15 00 8·33 9 06 9 84 9 38 5 93 9·47 4 25 1·72 3 55	32,255 59,964 57,872 34,074 44,911 43,118 41,378 22,978 40,901 21,779 8432 21,651	7 31 13 60 13 01 7 72 10 18 9 78 9 38 5 21 9 07 4 94 1 91

Marriage.

The following table shows the proportion of the people of the district who are unmarried, married, and widowed:

DHARWAR MARRIAGE DETAILS, 1881.

	}	HINDUS.										
į	Unde	Under Ten.		en. Ten to Fifteen to Twenty to Nineteen. Twenty-nine.					y and ver.	Total.		
	Males.	Fe- males.	Males	Fe- males	Males.	Fe- males	Males.	Fe- males	Males	Fe- males.	Males.	Fe- males
Unmarried Married Widowed	1819	10,237		26,016	11,537	25,366		62,545	105477	6020 60,149 72, 369	178,346	118,016 184,813 87,348
	MUSALMA'NS.											
Unmarried Married Widowed	122	12,146 469 41	437	4608 1621 115	3227 713 56	623 2723 173	3744 5371 410	846 8600 1244	1087 13,704 2319	7880	27,417 20,849 2833	17,968 21,293 10,762
		CHRISTIANS.										
Widowed	299	314 5	172 6	144 26 2	72 6 	40 53 4	100 125 9	23 165 17	35 331 46	15 170 177	678 468 55	536 419 200

Language.

Of 882,907, the total population, 715,273 (357,537 males, 357,736 females) or 81.01 per cent spoke Kánarese. Of the remaining 167,634 persons, 92,371 or 10.46 per cent spoke Hindustáni; 49,020 or 5.55 per cent spoke Maráthi; 21,135 or 2.39 per cent spoke Telugu; 3415 or 0.38 per cent spoke Hindi; 718 or 0.08 per cent spoke Gujaráti; 231 or 0.02 per cent spoke Tulu; 186 or 0.02 per cent spoke Márwári; 156 or 0.01 per cent spoke Tamil; 144 or 0.01 per cent spoke English; 130 or 0.01 per cent spoke Portuguese-Konkani or Goanese; 73 spoke Persian; 31 spoke Arabic; 17 spoke German; 3 spoke Chinese; 3 spoke Pashtu and one spoke Malayali.

The chief language of the district is Kánarese; Dhárwár Kánarese differs considerably from the Kánarese of Maisur and Bellári. The style of writing in Maisur and Bellári is more elegant and dignified and many words used in those countries are not understood

by the people of Dhárwár. Till the year 1836 all official records, private correspondence, and traders' accounts were kept in Maráthi which had become the principal language of the district during the time of the Peshwás (1720-1817). Since 1836, when Government ordered all public correspondence to be carried on in Kánarese. Maráthi has fallen into disuse. Still so universal was the use of Maráthi that even at present people use Maráthi words to express numbers both in conversation and correspondence. The lower orders of the people, the rural husbandmen and field labourers, speak inferior Kánarese and pronounce awkwardly and indistinctly. They cannot themselves write or read, and it is difficult for those who write for them to put down the exact words they pronounce. Some words used by them have a contrary meaning to the same words used by the people of Maisur, Bellári, and Kadápa, and a good deal of confusion occasionally results.1 Again the cultivators and other labouring classes rarely use or know the Kanarese names of the months of the year. They know the months by the name of a festival or of a tree or crop. Thus they know Fulgun or February-March by the festivals of Holi and Ugadi and Chaitra or April by the name of the davanad a fragrant shrub which grows freely in that month. Hindustáni is spoken by Musalmáns and Rajputs, and Telugu and Tamil by a few who have come to the district from Madras. language spoken by Dombars, Kurubars, Advichancharus, and other wandering tribes is a mixture of Kánarese, Telugu, Maráthi, and Hindustáni. To an ordinary Kánarese their talk among themselves is unintelligible. English is spoken by a few at different subdivisional head-quarters, but even in Dhárwár the number who know English is small.

According to Occupation the 1881 census returns divide the population into six classes:

I.—In Government Service, Learned Professions, Literature, and Arts, 14,108 or 1 59 per cent.

II —In House Service 6903 or 0.78 per cent.

III.—In Trade and Commerce 3704 or 0.41 per cent.

IV.—In Agriculture 262,854 or 29.77 per cent.

V.—In Crafts and Industries 143,420 or 16 24 per cent.

VI.—In Indefinite and Unproductive Occupation, including Children, 451,918 or 51:18 per cent.

According to the 1881 census, of 206,419 houses, 161,150 were occupied and 45,269 were empty. The total gave an average of 45.51 houses to the square mile, and the 161,150 occupied houses an average of 5.47 inmates to each house. During the last twenty or thirty years the houses both of the rich and of the poor have been greatly improved. In former times the unsettled state of the country with the chance that at any moment the house might be

Chapter III.
Population.
Census Details.
Language.

Occupation.

Houses,

The story is told that a high-caste native of Kadápa gave his daughter in marriage to a resident of Dhárwár. The husband sent some presents to his mother-in-law by a Dhárwár peasant. When he reached Kadápa, in answer to the lady's inquiries after her daughter's health, the bearer said 'Padu ági iddála' meaning 'She is well.' As the word pudu means ruin in Kadápa Kánarese, the mother was in great sorrow until her husband came, and, from the letter forwarding the presents, found that all was well.

Chapter III. Population.

CENSUS DETAILS.

Houses.

destroyed, the fear of attracting the tax-gatherer by a show of comfort, and the difficulty of guarding a house with large windows and doors against robbers led even the well-to-do to live in houses built of the coarsest and meanest materials with no opening in the walls except a door purposely kept so small that no man could enter without stooping nearly double. The only light and air came through this small door and sometimes through small openings in the roof. They had no separate cook-room and when meals were preparing or water was warming the house became so full of smoke The inmates had either to sit that it was impossible to stand. down or lie on the floor. Especially in and near the town of Dhárwár the newer houses have large doors and in many cases chimneys, and care is taken to have channels to carry cooking and bathing water to some distance from the door. A taste for gardens is also springing up. In one important point the Hindu houses differ from Musalman houses. The Hindu houses are open and the whole inside can be seen at a glance, and unless they wish to avoid being seen all the members of the household are visible. A Musalmán house is built so that from outside no part of the inside of the house can be seen. The household furniture includes brass and copper cooking and drinking vessels, large baskets for storing grain, carpets, beds, lamps, and low wooden stools. Except the rich few keep house servants. Husbandmen generally own two or more bullocks and he-buffaloes and one or two cows and she-buffaloes. kept in all houses and dogs in a few. In rare cases one or two monkeys, rabbits, pigeons, or parrots are kept in the house as pets.

Villages.

According to the 1881 census, thirteen towns had more than 5000 and four of the thirteen had more than 10,000 people. Excluding these thirteen towns, which together numbered 146,942 or 16.64 per cent of the population, the 735,965 inhabitants of Dhárwár were distributed over 1272 villages, giving an average of one village for every 3.56 square mile, and of 578.58 people to each village. Of the 1272 villages 113 had less than 100 people, 190 between 100 and 200, 493 between 200 and 500, 308 between 500 and 1000, 114 between 1000 and 2000, thirty between 2000 and 3000, and twenty-four between 3000 and 5000.

Almost all Dhárwár villages seem to have been surrounded with walls, strengthened at intervals by towers. Most village walls and towers are ruined. In some places the wall stones have been used to build houses, and fences have been put up instead of the walls. Some old villages have stately gates and remains of moated forts. The foundations of village and of house walls to a foot or two above the ground are built with large stones. The rest of the wall is built of sun-dried mud bricks. Up to the last thirty or forty years the bricks with which forts village-walls and old houses were built were shaped like a triangular prism about a foot or eighteen inches long. Since then oblong bricks three or four inches thick, five or six wide, and eighteen long have begun to be used. In the red and sandy hill land in the west of the district bordering on the Sahyádris, called malnád or hill lands, the villages are shaded by large tamarinds, nims Melia azadirachta, mangoes, Indian figs pipals Ficus

religiosa, jámbuls, and a few jack trees. Outside of the villages are gardens in which large quantities of cocoa and betel palms, plantains, and vegetables are grown. The great black soil plain in the east of the district, which is locally known as Belval or the open land, is bare except for a few bábhul and nim trees.

Chapter III.
Population.

COMMUNITIES.

The village community varies greatly in different villages. It is doubtful if a full staff of officers and servants is found in any single village. Some of the small western forest villages have not even a headman called pátil in Maráthi and gauda in Kánarese. In that part of the district a headman's charge sometimes includes two villages and an accountant's charge, called kulkarni in Maráthi and shánbhog in Kánarese, includes a group of villages.

In an ordinary village in the centre and east of the district the village staff includes the pátil or headman, the kulkarni or accountant, one or more shetsandis or village watchmen literally field owners who help the village police, and the talwar literally the swordsman who is the village messenger. The office of headman is hereditary. He has generally the revenue and police charge of the village, the duties in some cases being divided between a police headman who is responsible in all matters connected with crime, and a revenue headman who collects the Government dues. The headmen of some villages are paid entirely in cash. As a rule their chief source of profit is an allotment of rent-free land. Most of the headmen are Lingayats and a few of them are Bráhmans or Musalmáns. The village accountant, who is called kulkarni (M.) or shánbhog (K.), keeps the village accounts, writes up the landholders' receipt books, and prepares returns and village jury findings. The office of village accountant is either hereditary or is held by a non-hereditary stipendiary. Almost all village accountants are Brahmans. The shetsandis go the rounds and help the police, and the chief business of the talwar is to aid in collecting the revenue and obey the orders of the village headman. The members of the village staff who come under the head of village servants as opposed to Government village servants are the ayya or Lingayat priest, the gram-joshi or village astrologer, the kázi or Musalmán marriage registrar or in small villages the mulla or priest, the kelshi or barber, the badiga or carperter, the kammár or blacksmith, the sonagár or goldsmith, the kumbhar or potter, the shimpigar or tailor, the agasa or washerman, the dhor or tanner, and the mochigar or shoemaker. The ayya, who is also called jangam, performs all the religious rites and ceremonies of the village Lingáyats. The grám-joshi or village astrologer, who is generally a Brahman, reads the calendar to the villagers, finds out lucky and unlucky days for ploughing sowing and reaping and for marriages, officiates as a priest at the ceremonies of most Bráhmanic Hindus, and draws up horoscopes. The kázi is seldom found except in large villages. He reads the kuran and officiates at Musalman marriages and divorces for which he is paid small fees. The mulla helps the kázi and by saying the Musalmán blessing over them makes sheep and cattle lawful food for those that eat flesh. The badiga or carpenter makes and repairs the field tools required by the villagers, and builds their houses. The kammár or blacksmith

Chapter III.

Population.

Communities.

does all the village ironwork. The sonagár or goldsmith examines the coins paid to Government and makes ornaments for the people. The kumbhár or potter makes earthen pots tiles and bricks, acts as torch-bearer, and performs certain rites when a village is attacked by an epidemic. They are to some extent paid in grain but chiefly in cash. Carpenters, barbers, blacksmiths, shoemakers, and other village as opposed to Government servants are generally paid in grain by the villagers.

In most villages the population is mixed. It is rare to find a village in which all the people belong to one caste. Dhors, Mochigars, Madigars, and Holayás as a rule live outside of the village site and Lamánis and Vadars generally encamp at some distance from the village, even when they are permanently settled. Feasts to which the whole village is called are rare or unknown. As a rule invitations are confined to members of the family or at most of the caste to which the giver of the feast belongs. No limit exists as to the quantity of water to be taken by one family from the common sources of water-supply, or as to the number of cattle which one

family may graze on the village grazing ground.

CUSTOMS.

Under the head of customs come the sixteen Bráhmanic sanskárs or sacraments. Bráhmans anxious to have a name for holiness keep ten more ceremonies, and those who wish to perform any of the great Vedic sacrifices go through a third set of fifteen observances, making forty-one in all of which forty take place during their lifetime and one after their death. Like Brahmans, classes who claim a Kshatriya or a Vaishya origin perform most of the sixteen sacraments. Some of the sixteen sanskars are observed by lower class Hindus as Halepáiks and Kunchigars, but all their sacraments are performed without repeating Vedic verses. The most important of the Lingayat ceremonies are the tying of a stone ling to the right arm of a child after birth and the diksha or initiation ceremony when a boy is eight years old. Besides their peculiar customs, which, as far as possible are described in the account of each caste, certain practices and observances common to almost all upper class Hindus, deserve notice. If a cat crosses the path of a man who is starting on some business he goes home, waits for a time, and makes a fresh If A sneezes once when B is beginning some work, B stops for a time and then begins afresh; if A sneezes twice together B goes on with his work without stopping. If A sneezes on B's back B's back is slightly pinched. If A sneezes during a meal some one of the party calls on him to name his birth-place. The chirping of lizards is ominous. When a work is being begun or a subject is being thought over, the day of the week, the hour of the day, and the number of the chirps have all to be taken into consideration before deciding whether the lizard's chirp is a good or When a mother bathes a babe she waves a few drops a bad omen. of water round its body and says, 'May you live long.' If a child does not eat his food the mother waves three morsels of food round the child's body and throws them to a cat or dog to eat, thus passing the evil or ill-luck to the cat or dog. If any one says

The details of the sixteen sanskars are given in the account of the Madhva Brahmans.

'How nice the child looks' or 'How well he walks' the mother of the child will turn sharp on the person who made the remark and say 'Look at your left foot, it is soiled with mud.' The mother believes that by making the speaker look at mud she turns aside the power of his evil eye. A crow crossing from left to right is a good omen; a crow crossing from right to left is a bad omen. It is bad to meet one Brahman, but two Brahmans are lucky, and so is a low-caste man with a stick. If the hánga (K.) chásh (M.) or blue jay crosses a traveller's path from left to right the omen is bad; if it crosses from right to left the omen is good. If a traveller happens to see a blue jay perched on his right he leaves the road and makes a circle so as to pass the bird on his left. He will do this even though he has to walk an extra mile or two. If a man sees the face of a cat the first thing in the morning he is sure to meet with danger or to hear bad news. The faces of some persons are said to be good and of others bad. People avoid beginning the day with the sight of a bad face. If anything good or bad happens to a person it is usual to say, 'Whose face did you see this morning?' People who set weight on these rules are careful not to open their eyes as soon as they awake. They call out for a wife, a son, or some other relation whose face has already proved lucky, and look at them as soon as they open their eyes. As it is lucky to see a jackal the first thing in the morning people tame a jackal and tie it near their beds so that they may see its face as soon as they wake. 'If a snake, especially the cobra, crosses the road, whether from right to left or from left to right, a traveller will return to his house. When a person has a headache or other pain some women and a few men remove the pain by repeating a charm and blowing on the part of the body which pains. Sometimes they throw a pinch of ashes on the part that pains. Rheumatic and other pains are cured by a person who was born feet first rubbing with his feet the part which pains. When a man is diving if the leaf or dish in which his food is laid moves, it is a sign that he will have to travel.

Except a small body of Jains most Dhárwár Hindus belong to two main classes, orthodox Bráhmanic Hindus who worship Bráhmanic and local gods, respect Bráhmans, and employ Bráhmans as their priest; and Lingáyats who worship the Bráhmanic god Shiv in the form of the ling, but do not respect Brahmans, and have priests of their own to perform their leading religious and social ceremonies. Most low-class Hindus worship local and village deities, chiefly Bassappa, Bhadnappa, Dayamava, Durgava the goddess of cholera, Hulgeva, Jotiba, and Khandoba. The names of the most widely worshipped Bráhmanic deities are Durga, Ganpati, Krishna, Lakshmi, Renuka, Shiv, and Venkataramana. The chief Lingáyat deities are, Basappa, Lingappa, Mallikárjun, Ningappa, Shiv, Subramhanya, Virabhadra, and Yellamma. Brahmans and most Brahmanic Hindus worship house images of gold, silver, brass, copper, bellmetal, and stone, but not of iron, zinc, steel, or other inferior metal. The Lingayats tie the ling round the neck and daily worship it before taking their meals. Lingayat ceremonies are conducted by their priests who are called Ayyas or Jangams. All

Chapter III.
Population.
Customs.

Religion.

Chapter III.
Population.
Religion.

classes treat their priests with great respect and honour them rather as temples or houses of their guardian gods. All Hindus and Musalmáns have their fasts and feasts. Among Hindus Vaishnav Bráhmans keep fasts and feasts more strictly than the rest. Under the Peshwa's government each caste was compelled to keep to their own beliefs and practices. Under the British Government castes like the Sonagárs or goldsmiths and the Badigas or carpenters have begun to adopt the way of worship and the religious rites of Bráhmans.

Hindu maths or religious houses, Smárt Vaishnav Jain and Lingáyat, are found in all parts of the district. Each house is an independent institution and is under the management of a lord or svámi. svámis acknowledge no head but their god and exact from their followers the greatest honour and submission. The svámi's duties are to worship and offer food to the idols, to enquire into and punish religious offences by fine or in default of payment by loss of caste; and to confer honorary titles and other rewards on the more learned of their disciples or on those who grant endowments in money or When a svámi dies, the crown of his head is broken with a cocoanut and his body is stuffed with salt and powdered mustard. He is then buried sitting in some holy and lonely place. A stone tomb is built over the grave and is called the svámi vrindávan or lord's altar. These tombs are daily washed and food is daily offered to the spirit of the deceased $sv\acute{a}mi$. The person employed to do this work is called the ministrant of the tomb, and this office is generally held by the sons, brothers, or other heirs of the deceased svámi. To enable him to continue this worship the new lord generally grants the ministrants an allowance in money or land. People also make yearly gift to such ministrants, and from these sources of income the ministrants keep up the worship of the differ-The most famous local tomb is of Satyabodh Svámi of Sávanur, who died in March 1782. When a svámi is about to die he names a successor. If a lord dies before naming his successor, the new lord should be chosen by the votes of the followers. This rule is not often observed. Some forward person assumes the power and dignity of the deceased lord by bribing the servants of the religious house or by other fraudulent means. Before being made a svámi, a man is required to renounce all his family connections and become an ascetic. After becoming a svámi he must eat nothing but light food and that only once a day and must wear no costly clothes. A svámi must not remain at any one place except during the rainy season. During the rest of the year he must travel through the length and breadth of India teaching his followers. So strict are the rules of asceticism that after a man becomes a svámi he may never again look on his wife's face. Every day before meals he is bound to give such of his disciples as are present a few drops of holy water. Vaishnav svámis must at stated periods brand their disciples with two red-hot metal seals bearing Vishnu's discus and conch-shell. The ordinary seals are of copper but gold seals are used to The only person whom a svámi cannot followers of rank. instruct or give holy water to or brand is his wife. While a svámi is worshipping his gods, all persons except the svámi's wife are

allowed to be present. Should the svámi's wife wish to see the god, the svåmi must leave the place. Svámis have always about them a large body of servants and dependants to help them in worshipping their idols. They keep several elephants, horses, and bullocks and carts to carry their baggage. They ride on elephants or horses or are carried in litters. When a svámi halts at a place his local disciples are bound either to feed him and his retinue or to pay for their feed, besides giving sums of money equal to one or two months' income or more. Grants engraved on copper and stone show that the ancient Hindu rulers made svámis large endowments of villages, gardens, and lands. When the Muhammadans conquered the country, they are said to have resumed as many lands and villages as they could lay hands on. When Hindus acquired power under the Musalmans, they procured the restoration of certain lands and villages as well as fresh grants of other lands, gardens, villages, and yearly money payments. The Peshwas also made small grants to the monasteries. During the wars of the last century many Hindu chiefs and powerful officials and proprietors added to the endowments. The British Government inquired into the titles by which these endowments were held and continued genuine and legal grants resuming the rest. In this way the svámis hold lands, gardens, villages, and permanent money grants in the Madras and Bombay Presidencies, the Nizám's dominions, the territories of the Mahárájás of Maisur, Travankor, and other princes, chiefs of petty states, land proprietors, and others. These grants were given with the object that the income should be employed in worshipping the gods, educating priests, expounding religious books, performing religious ceremonies, and feeding visitors to the monastery. Svámis take fees from their disciples on occasions of birth, thread-girdings, marriages, caste dinners, deaths, and anniversary or mind feasts to deceased ancestors, svámis, and other holy men. On these occasions a Bráhman servant of the svámi dines in the house where the ceremonies are performed and receives $1\frac{1}{2}d$. to £1 10s. (Rs. $\frac{1}{16}$ - 15) or sometimes A piece of cloth is also generally given. As these fees are troublesome to collect, the svámis farm the right to collect them in the different divisions under their charge. The chief farmer sublets his right of collecting in large towns or groups of villages, and the under-farmers collect the fees within their charge. All the svámi's followers, when they perform religious ceremonies, should invite the under-farmer to their house, feed him for one day, and make a present in cloth or in money or both. Should the chief farmer happen to be in the village when any ceremony is performed, he should also be invited, fed, and presented with money or cloth or both. Should any disciple neglect or refuse to fee the principal or the under-farmer, he is put out of caste and no one in the town or village dare attend, help, or associate with him on pain of loss of caste. On paying a heavy fine and sipping a few drops of the five cow-gifts the excommunication is removed. In any place where there are a few followers should there be no farmer or under-farmer, the follower, before he performs the ceremony, is bound to set apart a certain sum equal to the value of the dinner and present. The sums so set

Chapter III.

Population.

Religion.

Chapter III.
Population.
Religion.

apart are either remitted to the svámi or paid to such persons as he may depute to receive them. In this way the different svámis draw a very large revenue from their followers. The right of managing immovable property, collecting revenues, and other money grants and religious fees, as well as of applying the income to the worship of the idols, paying and feeding the establishment, performing religious ceremonies, and feeding such people of their own caste as may attend the monasteries, belongs to the svámi who sometimes entrusts the work to his son or favourite disciple. During the last century much corruption has crept into the practice of svámis or lords regarding the use of endowments and other revenues. Instead of applying the income to its proper purpose each new svámi squanders a large portion of it for the benefit of his relations. He allows his wife though he never sees her, his sons, brothers, and other relations and friends and their families to remain in his camp and to travel with him; gives them costly food and clothes; lends them palanquins and horses at the charge of the religious house; gives them large sums of money as presents; buys lands and villages for them to be enjoyed as private property in perpetuity, and helps them in other ways. Sometimes he gives villages and lands to his sons or other relations nominally to defray the expense of worshipping his tomb after his death, but virtually as rent-free grants. In this way the religious institutions are impoverished.

This description refers to the Bráhman lords or svámis who are the teachers or gurus of the higher Bráhmanic classes both Smárts and Vaishnavs. The position of the Lingáyat spiritual lords or heads of religious houses closely resembles the position of the Smárt and Vaishnav spiritual lords. The differences in detail are noted below under the head of Jangams.

Minor caste disputes are generally settled according to the opinion of the majority of the caste. In some classes all caste disputes and in most classes all serious caste disputes are referred for the decision of the spiritual teacher, the svámi or guru. If a breach of caste rules is proved the teacher punishes the offender either by fine or by loss of caste. Like the higher Brahmanic and Lingayat classes, Bedars, Vadars, Kurubars, Holayás, and Mochigárs and other low castes have each a religious head of their own called a guru or spiritual teacher. The teacher is sometimes a member of their own caste who is either chosen to be their teacher because he leads a holy and ascetic life or because he belongs to a family of hereditary teachers. In other cases the teacher belongs to one of the classes of ascetic beggars or gosávis. Among Bráhmanic and Lingávat Hindus the penalties of excommunication are severe. The excommunicated person and his associates are not allowed to eat, drink, or marry with men of the caste. No one gives them fire to cook or water to drink and if they die their castemen will not burn or bury their bodies. If the offender repents, pays a fine, and feeds the castemen he is restored to his former position. Among several of the lower castes the offender is forgiven if he treats his caste to a drink of liquor. In some cases before letting him back into caste the guru burns the offender's tongue with a hot iron or a nim stick. Except among Lingáyats caste authority has of late grown weaker. Especially among the higher Bráhmanic classes members pay less attention to caste decisions than they used to pay.

Among all classes of Hindus priests and skilled artisans are declining in condition. On the other hand unskilled labourers prosper. Their services are more in demand and their wages are higher than in former times. There is little change in the condition of the landholders. Lay and even priestly Bráhmans send their children both to vernacular and to English schools, and among traders Lingáyats and Komtis have also begun to attach importance to schooling. Horsekeepers, water-bearers, cooks, and other servants are forward in teaching their children in the hope of getting into Government service. Few of the professional classes take to new pursuits. Bráhmans, Lingáyats, Komtis, and Maráthás are among the most rising classes.

There is no record of any considerable movement of people either into or out of the district.1 The town population has increased by the ordinary inflow from the rural parts and by the natural increase in population. It has not to any appreciable extent been recruited from a distance. Under the pressure of the 1876 and 1877 famine numbers of the poorer classes went to the Kánara forests to return when the famine was over. With this exception no considerable movement out of the district can be traced. No local trade or industry requires an inflow of outside labour. During the Indian millet harvest in December and in the cotton-picking season in February and March many labourers come into the district from Bellári, from the Nizám's country, and from Maisur. These stay for a month or two and return to their homes as soon as the harvest is over. They sometimes bring their families with them and sometimes men In the rice-cutting season in October and November bodies of labourers move from the east of the district into the west to cut the rice. The rice harvest lasts a fortnight to a month. When it is over they return to their homes. Among no local class does the practice prevail of leaving the district and spending some years elsewhere. The only exception is among the small section of educated Bráhmans, who seek service under Government, in Maisur, or in the Nizám's dominions. Such persons go wherever there is a chance of finding service and send for their wives and families as soon as they are settled. As a rule they return to the district at the end of their service. The bulk of the merchants and traders belong to the district. There is no class of traders like the Márwár Vánis of the Deccan who come to the district merely to make money, and have their homes in other parts of India. Merchandise formerly went chiefly to the Nizam's dominions, Maisur, and Goa. Since the opening of the metalled road to Kárwár most of the exports of the district pass west to the coast at Kárwár. The only wandering tribes are the Advichanchars or forest-roamers, the Vadars who

MOVEMENTS.

Chapter III.

Population.

¹ The 1881 census shows that 37,579 people born in Dhárwár were in that year found in different parts of the Bombay Presidency. The details are, Kánara 17,232, Belgaum 8404, Bijápur 5016, Poona 439, Sátára 413, Thána 391, Sholápur 304, Ahmadnagar 112, Ratnágiri 103, Násik 78, Kolába 58, and Khándesh 29.

Chapter III. Population.

work in stone, the Lamánis who trade in cattle thieve sell wood, and do odd jobs, and a few bands of professional beggars jugglers and travelling prostitutes.

BRÁHMANS.

Brahmans include twelve classes with a total strength of 28,395 or 3.46 per cent of the Hindu population. The details are:

DHARWAR BRAHMANS, 1881. Males Females. Total. Males. Females. Total. CLASS CLASS. 11,665 24025 15 Deshasths 12,360 Sarvariyas 3.5 48 84 Golaks Saváshes 291 153 138 Shrivaishnavs or Kanojas Rámánujás 1323 10 13 Kánvs 638 635 Tailangs . 127 122 249 Karhádas 122 239 117 Tirguls 142 276 Konkanasths 742 707 1449 Shenvis or Sáras 13,793 14,602 Total 28,395 223 203 426

DESHASTHS.

Deshasths, numbering about 24,000 or 84.60 per cent of the Bráhman population, are divided into two classes, Mádhvas or Vaishnavs and Smárt Bhágvats.

Vaishnavs or Mádhva Bráhmans are found all over Dhárwár in towns and large villages and seldom or never in small villages. the twelfth century of the Christian era, the god Hanumán appeared in the form of the famous teacher Madhváchárya. Madhváchárva, who was also called Shrimadáchárya, Purnabodharu, and Sarvadnyáchárya, established three monasteries, the first at Udapi near Mangalor, the second at Madhyatala, and the third at Subrahmanya, all in the coast districts of Mangalor. He chose an ascetic of the order of sanyásis to be head of each of these three monasteries, and called them lords or svámis. The successors of the lords of the Madhyatala and Subrahmanya monasteries became the heads of distinct sects. Their followers form small bodies and all but a few who live inland are found on the Mangalor coast. Sarvadnya divided the settlement at Udapi into eight monasteries and chose a lord for each. the lord of each of the eight monasteries in turn each for two years to conduct the worship of the Udapi Krishna. The names of the eight Udapi monasteries are Adhmár, Konur, Krishnapur, Palvár, Pejavár, Putagi, Sirur, and Svádi. All these are in the town of Udapi. Under the arrangement introduced by Sarvadnya each of the eight lords takes his two years' turn of worshipping the Udapi Krishna, a fresh turn coming after the lapse of fourteeen years. The change of lords which is called paryáya or change happens once in two years when the sun enters Makar or Capricorn in the beginning of January. On this occasion a great fair is held at Udapi and hundreds of thousands of people come to make offerings to the god. The outgoing lord leaves with sorrow as he may never again perform the worship; the incoming lord takes charge with joy because the profits of the office are great. The followers of these eight lords have formed eight separate sects. Sarvadnya, the founder, superintended the whole of the ten Mangalor monasteries. He ordered that the power of the abbots of these monasteries should be limited to the country below the Sahyadris. He with four favourite disciples travelled over India and was acknowledged the Jagadguru or World-teacher of the

Vaishnays. Of the writings of Sarvadnya thirty-seven Sanskrit religious works remain. In these books the founder of the sect has laid down the rules of conduct which still guide his followers. out-argued all rival teachers, and after eighty years of successful headship made over his priestly office to Padmanabhatirth the chief of his four disciples, and withdrew to Badrikáshram in the Himálayas, where he is believed to be still alive. He retreated to Badrikáshram on the bright ninth of Migh or February in the Shalivahan year 1119 that is A.D. 1197. Sarvadnya's followers hold him in great Every day before their meals they offer him food and hold a yearly feast on the day when he ceased to rule the church. Padmanábhatirth, who succeeded Sarvadnya, governed for seven years. On his death Narharitirth, the next favourite disciple of Sarvadnya, became Padmanábhatirth's successor and died on the dark fourteenth of Kártik or November in the Sháliváhan year 1126 that is a.D. 1204. Though Narhari was generally accepted as pontiff a few of Padmanábha's friends established a separate religious house in his name. On the death of Narharitirth on the dark seventh of Pausha or January in the Sháliváhan year 1135 that is A.D. 1213, Sarvadnya's third disciple Mádhavatirth became pontiff. He continued head of the sect till his death on the dark fifteenth of Bhidrapad or August in the Sháliváhan year 1152 that is a.D. 1230. His successor Akshobhyatirth, the fourth disciple of the great Sarvadnya, died on the dark fifth of Margashirsh or December in the Sháliváhan year 1169 that is A.D. 1247, leaving the chief priestship to one Dhondo Raghunáth Deshpánde of Mangalvedhe near Bijápur. The reason why Dhondo Raghunáth was made pontiff was that Sarvadnya used to teach his disciples in the presence of a bullock which carried his books wherever he travelled. Sarvadnya told his disciples that the bullock which had heard him read all his books would be born again in the family of the Deshpande of Mangalvedhe as Dhondo Raghunáth, and that, neglecting religion, he would enter the Muhammadan army, grow a beard, and be found crossing a river on horseback and drinking water from the hands of Musalmán soldiers. He was to be seized, his head was to be shaved, and he was to be made chief priest in succession to the last of Sarvadnya's four disciples. Akshobhyatirth in crossing a river saw a horseman drinking water from Musalmán soldiers. He remembered his master's prophecy, and finding that the bearded horseman was Dhondo Raghunáth the Deshpánde of Mangalvedhe, seized him, shaved him, and appointed him his successor. The family of Dhondo Raghunáth are still Deshpandes of Mangalvedhe. The friends of the second third and fourth pontiffs, Narhari Madhav and Akshobbyatirth, like Padmanábhatirth's friends established separate religious houses in their honour and chose separate lords to rule the houses. Afterwards a difference of opinion caused a split in Akshobhyatirth's house. At the time of Dhondo's succession, besides the main sect of which he was the head, Madhváchárya's followers were divided into fourteen branch sects, the ten coast sects founded by Madhva and the four branch sects founded by the friends of each of his four successors. At a later date the fourth of the four sects, in honour of Madhva's successors, divided and so raised the

Chapter III.
Population.
BRAHMANS.
DESHASTES.

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

number of branch sects to fifteen. These branch sects have few members; in many cases the only members are the friends and relations of the lord or $sv\acute{a}mi$.

When Dhondo Raghunáth was chosen pontiff, he took the name Javaráyáchárya or the Victorious Priest. He was also called Tikákrataru that is the First of Commentators because as chief priest he became very learned and composed several Sanskrit books and wrote commentaries on Sarvadnya's thirty-seven works. Among the Vaishnav pontiffs Raghunáth holds the place of honour next to Daily offerings are made in his name. After ruling for twenty-one years he died on the dark fifth of Ashadh or June in the Shalivahan year 1191 that is A.D. 1269. He was buried at Malkhed. twenty-three miles south-east of Kulburga, and offerings are still No new sect was started in his honour. made at his tomb. Jayaráyáchárya was succeeded by Vidyádhiráj or the learned lord. In spite of his learning, dissensions arose between Vidyádhiráj and some disciples of the late Jayaráyáchárya, who started a new monastery and chose as its head Rajendratirth, whose successor Vyásráva rose to great power under the founder of the Anegundi or Vijayanagar state (A.D.1330) and gave his name to a new sect. Two successors of Vidyadhiraj governed quietly. The third Ramachandratirth, who succeeded on the third of Chaitra in the Sháliváhan year 1265 that is A.D. 1343 was a man of unusual ability. Some of his disciples rebelled against him, founded a new monastery, and chose a new head under the title of Vibudhendra or the Lord of the Wise. This sect proved very popular and includes about one-third of the whole Vaishnav community. They are known as Rághavendra Svámi's sect from a very successful pontiff of that name who lived about 1624. Rághavendra died in 1671 and was buried at Mantrálaya on the banks of the Tungbhadra in Bellári Great respect is still shown to his tomb, which every year is visited by thousands of worshippers. Twenty-one pontiffs have ruled since Rámchandratirth, but no new sect has been formed.

The fifteenth in succession to Rámchandratirth by name Satyabodhtirth became chief priest on the thirteenth of Chaitra or March in the Sháliváhan year 1666 that is A.D. 1744. During a rule of thirtyeight years Satyabodhtirth travelled all over India and was respected by all the Hindu princes of the time. He was very learned and holy and performed such great austerities that the people were afraid to approach him lest he should discover their hidden sins. At the same time he was most generous and popular and is held next in order of merit to Jayaráyáchárya, or third to the great Sarvadnya. His name is so much revered that the chief branch of the Vaishnav sect, to which more than two-thirds of the Vaishnav people belong, is still known as Satyabodh's sect. In his time the religious house called Uttrade math at Savanur, and subsequently after his name called Satyabodh Svámi's math, gained great wealth. throne of gold and silver and precious stones about four feet square and six feet high was made and very costly jewels were bought for Rám the god of the monastery. Most of this wealth is enjoyed by the present chief priest Sattyaparáyan who is the sixth in succession to Sattyabodh. He travels all over India wherever his disciples live,

staying only a short time in each place. He passed through the Bombay Karnátak about five years ago and is now in Kadapa in Madras.

Thus of the eighteen sects into which the Madhváchárya Vaishnav community is divided, sixteen, the members of the main sect and the members of the ten Malabár sects started by Madhváchárya and the five sects started by Madhváchárya's four immediate successors, though each has a pontiff of its own, agree in considering the head of the main or Satyabodh's sect their supreme pontiff. On the other hand the two more modern sects, Rájendratiith's which dates from about the beginning of the fourteenth century, and Vibudhendra's also called Rághavendrá's which started about fifty years later, are independent and are generally on unfriendly terms with the head of the main sect.

The names and dates of the thirty-five successors of Madhváchárya who have been heads of the leading sect since the end of the twelfth century are:

MADHVACHARYA PONTIFFS, 1187-1883.

ı,		İ		I	BATH DATE.		
Number.	NAMB.	Reign	A D.		Sháliváhan <i>Sh</i>	ak.	Томя.
Ž			A D.	Year	Month.	Day.	
1	Sarvadnya Rayaru	80	1197	1119	Mágh	Shud 9	Badrikáshram.
2	Padmanabhtirth	. 7	1204	1126	Kártik	Vad 14	Anigundi.
3	Narharitirth .	. 9	1213	1135	Paush .	Vad 7	Do
4	Madhavtirth .	17	1230	1152	Bhádrapad	Vad 30	Do.
5	Akshobhtirth		1247	1169	Márgashirsh	Vad 5	Malkhed.
В	Javaráváchárva	21	1269	1191	A'shádh	Vad 5	Do
7	Vidy adharájaru	64	1332	1254	Vaishákh	Shud 3	Vergol,
8	Kavindraru	7	1339	1261	Chaitra	Shud 9	Anigundi.
9	V sgishtirthru .	. 4	1343	1265	Do. ,	Vad 3	Do.
10		. 33	1376	1298	Vaishákh	Shud 6	Vergol.
11	Vidyanidhigalu		1444		Kártik	Vad 4	
12	Raghunathru		1502		Márgashirsh .	Vad 1	Málkhed.
13	Raghuvaryaru		1557		Jyesht	Vad 3	Anigundi.
14	Raghuttamtirthru .		1595	1517	Paush	Shud 11	Kalyan (near Jamna)
15	Vedvvastirthru .	. 24	1619	1541	Chartra	Shud 2	Pengundi,
16	Vidvádhisharu	72	1631		Paush	Vad 14	Vekchakarnagar.
17	Vednidhigalu .		1035	1557	Kártik	Shud 11	Pandharpur.
18	Satyavrataru .	8	1638	1560	Fáigun	Shud 6	Sángli.
19	Satyamdhitirthru .		1661	1583	Márgashirsh.	Shud 10	Nivriti Sangam.
20	Satyanátharu .	1	1674	1596	Do	Shud 11	Pinákin River (near Virchola)
21	Satya Abhinavtırthru		1706	1628	Jyesht	Shud 14	Nanchargundi,
23	Satva Purnaru .		1726	1648	Ďo,	Vad 2	Kolarpur.
23			1739	1661	Chastra	Vad 11	
24	Satya Privaru .	5	1744	1666	Do		Manomadhan.
25	Satva Bodhtarthru .	38	1782	1704	Fálgun		Savanur.
26	Satva Sandharu .	12	1794	1716	Jyesht		Mahishe.
27	Satya Vararu .		1797	1719	Shrávan		Santibidner.
28	Satya Dharmaru .	84	1831	1753	Do		Holehonur.
29	Satya Sankalparu .	10	1841	1763	A'shadh		Maisur.
30	Satya Santushtaru	. 1	1842	1764	Fálgun	Vad 30	
31	Satya Parayanaru .	21	1863	1785	A'shvin		Santıbidnur.
32	Satya Kamaru .		1872	1793	Paush		Atkur.
33 34	Satteshtaru .	7 mos.		1794	Bhádrapad		
	Satya Parakramaru .	. 7	1879	1801	A'shvin	. Shud 7	Chitapur.
35	Satya Viraru .	· 1] Li	ving i	n a.d. 1883.	1	

Mádhva Bráhmans hold a high position in Dhárwár where many of them have been settled for hundreds of years. They hold offices under Government, trade, enter the priesthood, and own land. They do not till with their own hands. Their home speech is Kánarese somewhat tinged by Maráthi and slightly different from the Kánarese spoken in Maisur and Bellári. In some families Maráthi

Chapter III.
Population.
BRÁHWANS.
DESHASTHS.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

is as much a home tongue as Kánarese. The names in common use among men are Bhim, Krishna, Rám, and Ranga; and among women Arli, Kopri, Lakshmi, and Yamna. Men are generally called after the names of gods, and women after the names of goddesses or of If a woman loses several children or if a family is unlucky, apparently with the object of making the evil spirit who is bringing them bad luck think that the child is held in small esteem and so is not worth sickening, they call the next child by some abusive name, Gundu or Kallu that is stone, Mannu that is dust, or Tippi that is dung-hill. The words achárya teacher, anna senior, appa father, and raya king are added to men's names in token of respect; and to women's names are added akka mother, ava sister, amma mother, and bái lady. The Maráthi terms of respect bába father, dáda elder brother, nána a corruption of Náráyan, and tátya father are not in use. They have no regular surnames, though some families are marked by a distinctive place name or character name. a year the outer face of the walls is whitewashed and marked with red stripes. The ground-floor, the cook-room, and the place where the sweet basil or tulsi is planted are daily cowdunged and kept carefully clean. Among the rich the housework is done by servants, and among the poor by the women of the house. They keep bullocks, cows, buffaloes, and horses.

Their gods are Krishna of Udapi in Mangalor, Narsinh of Ahobala in Madras and of Kopra in the Nizam's country, Rangnath of Shrirang or Seringapatam in Maisur, Venkatraman of Tirupati in North Arkot, and Vithoba of Pandharpur in Sholapur.

All the eighteen divisions of Mádhva Bráhmans eat together and such of the members of the three leading sects, the Satyabodhs the Rájendratirths and the Rághavendras, who live between the Eastern and Western Gháts or hill ranges intermarry. Persons belonging to the same gotra or family-stock cannot intermarry.

As a class Mádhav Bráhmans both men and women are handsome, strong, and well-made. The skin varies from fair in the west to dark in the east. A Bráhman of the Mádhva sect can be recognized by the shrimudra or the wealth goddess' stamp and other sect-marks on his forehead, temples, and arms; a married woman by the long red mark on her brow; and a widow by a single shrimudra or wealth-goddess' stamp and an upright charcoal brow-mark. These marks are duller in colour than those worn by Saváshe, Shenvi, and other Vaishnav Bráhmans, but the difference is not enough to be easily noticed by a stranger.

They live in one storeyed-houses of the better class with walls generally of sun-burnt bricks and roofs tiled in the west and flat in the east. Mádhva priests are famous eaters though they generally take only one mealaday. The laymen are moderate eaters and take two meals. Unlike their brethren in Maisur, Kánara, and Bellári, whose skill is proverbial, the Dhárwár Mádhvas are poor cooks. Their daily food includes boiled rice, vegetables of different sorts except onions and garlic, sáruor split pulse, tamarind, salt, ground coriander, mustard seeds, and other condiments boiled together in different ways and seasoned, also chatnis of coriander or sesamum seeds and

chillies, milk, boiled butter, curds, buttermilk, and sometimes millet, wheat, or rice bread. Besides these articles their holiday food includes khir made of rice boiled with milk and sugar; kesharbhát made of rice boiled with water, clarified butter, almonds, raisins, cloves, cardamoms, and saffron; chitranna made of tamarind juice, sweet oil, salt, sesamum powder, and cocoa scrapings; vángibhát made of rice, water, brinjals, clarified butter, cloves, cardamoms, and condiments; hugi made of rice boiled with pulse, clarified butter, cloves, cinnamon, cardamoms, and pieces of dry ginger; and butti or dadhianna made of rice boiled with butter, curds, salt, pieces of raw ginger, and karbevu or Buraja kœnija leaves. fast days, when the regular food is forbidden, hunger may be relieved by pharál properly phalar that is phalahár or fruit-eating. This fast-day fruit diet in practice includes the usual articles of food, except rice boiled in water called anna and pulse boiled in water called tavi. These fruit or fast-day meals are of two kinds, light and heavy. The light fast-day meal is eaten by strict men and by It includes fruit and rice or millet flour parched and blown The parched flour is mixed either with milk and sugar, with curds salt and powdered chillies, or with tamarind juice and salt seasoned with chillies, mustard, assafœtida, and a few karbevu Buraja kænija leaves boiled in clarified butter or sweet oil. The parched flour is also mixed with sugar and clarified butter, or with salt, powdered chillies, and clarified butter. Sometimes instead of parched flour a preparation of beaten rice known as avalakki is used. make this dish of beaten rice, unhusked rice is boiled in water. fried in an earthen pan, and pounded. The husks are taken off and the rice is beaten into thin plates. Sometimes the avalakki is fried in clarified butter and mixed with sugar or salt, powdered chillies, pieces of cocoa-kernel, and fried gram. Avalakki is again sometimes fried in clarified butter and mixed with sugar and almonds and raisins. When the avalakki is mixed, it is pressed in the hollow palms into balls about two inches in diameter. One or two of these balls form a light meal. A heavy fast-day meal includes wheat or gram cakes made either by baking or frying in clarified butter. Coarsely ground wheat is boiled either in water, sugar, and clarified butter, or in curds, clarified butter, salt, chillies, mustard seeds, assafætida, and a few leaves of karbeva or. Buraja kænija. Men who are not careful to keep caste rules eat on fast days rice boiled in water, with clarified butter, mustard seeds, chillies, and salt. This is called akkinsali.

Mádhva Bráhmans drink no intoxicating liquor. On festive occasions they drink water in which the fragrant grass called vála Andropogon muricatum has been steeped, and sometimes, to improve its flavour and give it a yellowish tint, one-tenth of a grain of musk or packkarpur, and sometimes camphor and saffron are dropped into the water. They use eight sweet drinks: (1) Sugar and water flavoured with saffron, cardamom-powder, and sometimes lemon-juice; (2) Wood-apple kernel mixed with water, sweetened with sugar and flavoured with saffron and cardamom-powder; (3) The scrapings of raw mangoes mixed with water, strained, sweetened with sugar, and flavoured with cardamom and pepper; (4) The fleshy part of

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

Chapter III, Population. BRÁHMANS. DESHASTHS. a baked mango mixed with water, strained, sugared, and the whole flavoured with cardamom and pepper; (5) Milk boiled with sugar and flavoured with saffron and cardamom; (6) Cocoanut-water with sugar and lemon-juice; (7) Water mixed with pepper and coarse sugar; (8) Sugarcane juice with or without lemon, raw ginger, and cardamom. Two sour drinks are used; Buttermilk mixed with salt and powdered ginger and flavoured with carbevu leaves, and dry wild mango stem or kokum rind, steeped, strained, and seasoned with salt and cocoa-kernel scrapings.

At all feasts, whether festive or funeral, the main dishes are the same; certain special cakes are added according to the character of the feast. A marriage cake at a funeral feast would not come much amiss; but to offer funeral cakes at a wedding would be very unlucky. In serving the food great attention is paid to the following points. On festive occasions salt is served first and clarified butter is served last. On funeral occasions clarified butter is served first and no salt is served. If any one asks for salt it is served after the meal is over and very unwillingly. The pulse uddu Phaseolus radiatus stands for flesh. A festive dinner may or may not have uddu, a funeral feast must. A festive uddu cake is called ambodi, a funeral uddu cake is called vadi. As soon as food is prepared it is offered Then portions are offered to Lakshmi the wife and to Hanumán the servant of Vishnu, and to other lower deities, and lastly to all the departed chief priests in the order of their standing. offering of food to dead or living chief priests is termed hastodal. literally hand-water, because the original offering was not food but the pouring of water in the name of the priest and making a small money present. After offering the food the family priest three times pours a few drops of holy water into the right palm of every member of the family. All sip the water. The men mark their brows, bodies, and arms with their sect-marks, and begin to eat. dinner parties the priests begin and allow the lasty to follow. If a layman begins to eat first the priests at once leave the house. No pious Mádhva priest will take food offered to Vishnu by any other person even when the offerer is a priest. Careless priests, children, women, and laymen take food after it has been offered to Vishnu by any priest. Among the Mádhva priesthood the right of offering food to Vishnu is a common subject of dispute. All Mádhva Bráhmans take food offered by the high priest but by no one else. Mádhva Bráhmans clean their cooking and other vessels every time before they begin to cook, and change their dress before every meal. Mádhvas eat off leaves either stitched together if they are small, or single plantain leaves or parts of plantain leaf. When a plantain leaf or a piece of plantain leaf is used on ordinary and on festive occasions care is taken to turn the point of the leaf towards the left or the front side of the eater. On memorial or death feasts, the point of the leaf or its direction is turned towards the right side of the two Bráhmans who are fed first and who represent the dead

¹ The holy water is made by placing a shaligram stone on a chakra stone in a plate and pouring water upon it from a conch-shell.

parent. As soon as these two Brahmans finish their meal, the wife or other near relative of the person giving the memorial feast removes their leaf dishes and cowdungs the spot. Except children no Bráhman takes more than one meal between sunrise and sunset: they take a second meal between sunset and sunrise. A widow takes a meal during the day and a light or fast-day meal at night. On the tenth and twelfth of the bright and dark halves of every Hindu month or new-moon days, on saints' days, and on the days on which the sun enters the signs of Capricornus (12th January) and Cancer (21st June) Bráhman men eat a day's meal and a light meal at night. Brahmans of the Madhva or Vaishnav sect hold that great merit springs from feeding Brahmans especially if the food is given at night. Mádhva Bráhmans chew betel after meals, smoke tobacco, and many take snuff. Both men and women dress neatly and with taste. All, especially the priests, delight in gay colours. A baby, whether a boy or a girl, wears a cap called hulai and a frock of bodicecloth. Two doubled square pieces of cloth are sewn together only on two sides, and to the lower ends of the unsewn sides two tapes are fastened. When the two pieces are opened they form a hollow into which the baby's head is put and the tapes are tied together under its chin. The cap and frock are called the huthu angi topgi or the birth cap and frock. They are kept for years and are put for a few minutes on the children and grandchildren of the original baby. Other caps and frocks are made ready for daily use. When the baby grows two or three years old round caps and jackets of ordinary doubled cloth are sewn for the use of boys, and small gowns from the waist down and bodices for the use of girls. When a boy is seven or eight years old, he is made to wear a regular loincloth like a man, a jacket, and a headkerchief a turban or a turban-shaped hat. Girls of seven or eight wear small robes and bodices until they marry. wears the skirt like a petticoat without passing the end back between the feet. A man girds the shorter end of a loincloth round his waist, and fixes it by turning about an inch of the cloth upside down on his left side. He passes the shorter end between his legs, folds it forwards and backwards in plaits about three inches broad so that the border of the cloth may be visible, and tucks the fold behind. The longer end of the cloth in front is also folded vertically in the same manner. three horizontal feet from the front end the cloth is folded forwards and backwards in plaits about a foot broad. The vertically folded part is joined to the horizontally folded part, and the whole is tucked in the middle near the navel. If the cloth is too long and broad the middle part of the lower end is drawn up and tucked to the left of the navel. The dress is completed by a shouldercloth. When a man worships the gods or takes his meals he keeps a napkin by him to wipe his hands and face. After meals he wears a jacket, a headscarf or rumál, and a shouldercloth. He sometimes wraps a waistcloth round his waist, wears shoes, and holds a handkerchief in his hand. A married woman girds her waist with the plain end of her siri or robe which is of any colour, and fastens it by firmly knotting the upper corner of the cloth to a

Chapter III.

PopulationBRÁRMANS.

DESHASTHS.

Chapter III.

Population.

BRAHMANS.

DESHASTHS.

she folds the middle of the robe about three feet from the end. She folds the middle of the robe forwards and backwards in plaits about three inches broad, joins the plaits to the part which is fastened to the waist, turns about an inch upside down near the navel, and fastens the whole fold to the body. She passes the ornamental end of the robe from the back of the waist under the right arm, drawing it across the chest and over the left shoulder and the head, allowing it to hang loose on the right shoulder down to the elbow. She then passes the lower end of the skirt between her legs and tucks it in behind. Under the robe she wears a bodice which covers the upper half of her back, the sleeves cover the arms to within two or three inches of the elbow, and the front ends are tied under the bosom. The bodice is sewn in such a way that its ornamental border shows on the back, the arms, and the lower parts of the breasts. Widows wear a white or red robe and no bodice.

The men shave the head except the top-knot; they also shave their cheeks, chin, and armpits. All allow the moustache to grow. If the moustache is very long it may be cut, but so long as either of a man's parents is alive he may not shave the upper lip. Laymen usually wear the moustache heavy, and priests trim it narrow and light. A few men wear whiskers. Until the shaving ceremony is performed a boy's hair can be cut only with scissors. Men sometimes deck the top-knot with flowers, and occasionally but not often make a vow to let all their hair grow. Unmarried girls and married women braid their hair and tie it into knots either on the right or left side of the head and deck it with flowers. If a husband, son, or other near of kin suffers from severe sickness or grave calamity, a woman sometimes vows that if the sickness or the trouble ceases she will shave her head in honour of the god Venkatraman of Tirupati.¹ After the head is once shaved the hair is allowed to grow again. Women sometimes add to their hair by mixing false hair with it. As soon as the husband dies the widow's head is shaved. Except that it is better and richer, the holiday dress does not differ from the every-day dress. A few English-knowing men have lately taken to wear sleeveless waistcoats with metal buttons, buttoned great coats, trousers, neckties, stockings, and boots. Most families have a good stock of clothes both for every-day and for special wear. The dress of a Mádhva ascetic differs greatly from that of other Mádhvas. All the hair on his head and face is

¹ When the person for whom such a vow has been made gets well, the woman goes to Tirupati to fulfil her vow. At Tirupati she bathes in the sacred pond called pushkarni, goes to the spot where barbers sit, has her head shaved, returns to the pond, again bathes, and putting on new clothes decks her head with flowers, and joining the palms of her hands together walks thrice round the temple of the god Venkataraman, throws herself at the gate of the temple, enters it, walks towards the shrine where the god is seated, falls prostrate before him, strikes her cheeks with the palms of her hands, pays the pupari or worshipper of the god about 2s. (Re. 1), and tells him to wave lighted camphor round the face of the god, receives a pinch of the sugar that is offered to the god and a few drops of holy water from the pupari or worshipper, and comes out. She buys several copper vessels filled with various kinds of cooked food and distributes the food among the poor. She also gives a portion of the food to the monkeys which swarm near the temple and are considered sacred. She gives some money in charity among the poor, and returns home.

shaved. He wears an ochre-coloured cloth about six inches broad and three feet long, one end of which is fixed in front below the navel to a strip of cloth tied round his waist and the other end is passed between the legs and fastened behind to the same waistbelt. Over his shoulders he throws an ochre-coloured sheet about four feet by ten; he holds a holy staff in his hand, and wears wooden shoes. He wears the usual sect-marks, but no sacred thread and no ornaments.

A woman whose husband is alive marks with turmeric powder and water her brow, cheeks, chin, arms to the elbow, and legs to the knee. On her feet, just above her toes, she draws two red lines beginning from the great toe and passing round the heel to the little toe. She marks her brow above her nose with an upright line of red and anoints her eyes with lampblack or kadgi. A small dot is tattooed on her right cheek and on her chin, and a small crescent, with two dots on the brow just above the root of the nose. Some women also tattoo their hands. No Mádhva widow, whether she is a woman or a girl, may mark her brow with red or wear the lucky neck-thread.

Ornaments are of two kinds, for men and for women. They are worn on the head, in the ears, in the nose, on the neck, across the shoulders, on the arms, on the wrists, on the fingers, round the waist, on the legs, and on the toes. Even if a person has a complete set of ornaments all are not worn at the same time. Among the rich, except leg and toe ornaments, all are of gem-studded gold. Kings and queens are alone allowed to wear gold leg and toe ornaments, because, except by kings who are gods, as gold is the goddess of wealth, it should not be touched by the feet.

The head ornaments worn by men and boys are the turái or bouquet and kalgi or pendants, jewels and pendants hung on the right side of the turban; the sirpench or head-crest, on the front of the turban; the arleyeli or fig-leaf, a leaf of gem-studded gold hung on hooks from the middle of the brow; and the julpi huvu or hairflower, a small circular flower with gold bells, worn in the hair over the Boys under five have a tuft of hair above the ear on which to hang the bells. Huvus or flowers of the same form are worn by boys under five above the middle of the brow. The ear ornaments are, kadaku or blazing rings of gem-studded gold, worn in the earlobes; vontimuttus or single pearl rings, also for the lower part of the ears; huttivanti or single and tight rings, similar but smaller and tighter earrings; and bhikbáli or a side earring, a gold ring set with pearls and a pendant emerald, for the middle of the right ear. The neck ornaments are tanmani or beads of life, a light pearl necklace, kanthi a gold chain, and gopa or protector, chains of rich gold, navaratnada kanthi or the nine-jewelled string of nine kinds of precious stones, muttin of pearl, vajrad of diamonds, and kempin of rubies. The arm ornaments are bahukirte or fame of arms, a gemmed gold belt worn by kings a little above the elbow, bájuband or side-tie a jewel tie for the arm, dastana or glove, a band of jewels worn by kings and warriors from the wrist to the elbow. The wrist ornaments are kadga of plain solid gold and sarpali or chain a solid gold hand. On the fingers rings of different kinds are worn.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

waist ornaments are uddhara or waiststring a chain of gold or silver wire, sonkadgejji or waistbelt of silver or gold bells worn only by boys under ten, and gumpgejji or a cluster of bells a variety of belt-The leg ornaments are sarpali or silver chains used by boys under ten. Of women's ornaments, those for the hair are bytalmuttu or pearls on the hair-parting, a pearl or gem-studded gold chain worn on the hair-parting and hanging to the brow; arleyeli or a banian leaf, a gem-studded gold leaf like the men's arleyeli fixed to the end of the gem-studded gold chain or bytalmuttu and allowed to hang down the brow; bindi bijori or gem-studded gold chains, tied in a curve from ear to ear along the border line of hair and brow and fastened to the end of the bytalmuttu and passing under the arleyeli; sheshphul or snake-flower, a sun-shaped gem-studded gold circle fixed by gold hooks into the hair about three inches above the right ear; archandra or half-moon, a gem-studded gold crescent fixed with gold hooks into the hair about three inches above the left ear: chandrakor or moon-part, a crescent-shaped gold ornament for the top of the head; kiadgi a gold petal of the kiadgi flower; hedi kiadqi a gold kiadqi petal with a cobra hood; náq or cobra, the hooded head in gold; mohar, the peacock, peacock shaped in gold; rákdi or a round gold plate worn on the crown of the head; chauri or spire shaped in gold, worn on the chief braid of hair near the neck; barekai or a jujube-berry, a small gold ball worn close to the chauri; huvu or flower, a round gold flower worn on the braid after it is twisted sideways into a half ball; julpi huvu, a round gold flower with bells, worn by girls under five close over the ear; huvu, like the julpi huvu, worn by little girls above the middle of the brow; heralu bhangáras or golden braids, several joined pieces of gold studded with gems, worn hanging about two feet from the neck when the hair is left in a long hanging braid; huvina, a crestflower, gili a parrot, sivhan a lion, and naulin a peacock, varieties of the bhangar or braid-cover consisting of gold flowers, parrots, lions, and peacocks worn by children; agar huru or incense-flower, a small round gold flower worn on the side of the braid when it is twisted into a half ball; pánpatti or leaf-fold, a string of pearls tied straight across the brow from ear to ear. The nose ornaments are mukhrái, a gem-studded gold nose-ring; gadia chaukli a form of the nose-ring worn by Deccan and Konkan Brahmans; besri, a flat gem-studded button of gold worn in the mukhrai hole; bulák, a gem-studded crescent worn in the central cartilage of the nose; mugathi, a thick gold pin worn in the left nostril; archandra or half moon, a gem-studded gold crescent worn by women in the right nostril; and mugli, a long plain piece of gold with a diamond and a large pearl, worn by old women. The ear ornaments are bugdis, a gem-studded gold pyramid or umbrella, worn in the middle of the ear; bália, a pearl triangle or a gem-studded gold triangle, worn below the bugdi; chandra or moon, bália a crescent-shaped bália worn like it under the bugdi, ghosáchi, khidki, havlad or coral, barlin, gili or parrot, yoli, min or fish, and lol or pendant, are different bálias which may be worn one at a time; harlin bália worn on the back of the ear; báli a piece of gem-studded gold worn in the ear-lobe; bendváli or light nosering, a simple váli worn

daily; muttinváli or pearl nosering, a pearl-studded gold ring worn in the ear lobe; vajra a diamond-studded gold ring worn in the lobe, and harlinváli a gem-studded gold ring worn in the lobe; qhanti or bells, a gold-bell hung from the ear lobe; karnful or earflower, a gem-studded piece of gold worn in the ear-lobe; and chaukli or a square, four pearls worn in the lobe. The neck ornaments are mangalsutra or the lucky thread, the wedding thread, a small gold cup with a string of black glass beads. It is tied by the husband round the wife's neck on the marriage day, and is worn until either the woman or her husband dies; sari or wire, a solid round gold ring; asli, a solid eight-cornered gold ring; shringár karmini or decorator, a gem-studded gold fruit tied close to the neck; gejitiki or bell necklet, a necklace of gold beads and bells worked zigzag half an inch broad and worn tight to the neck; gundintiki or ball-necklace, a band of small gold balls; vajrad, muttin, nagar, surli, and addiki tikis, varieties of the balls and zigzag bands of gem-studded gold cobra hoods, squares, and circles; kathani or a necklace of five, seven, nine, or eleven strings of small eight-cornered gold balls, each string being longer than the string above, so as to cover the whole bosom; gundin kathani or ball-necklace, a kathani with round balls; muttin kathani or pearl necklace, a kathani with strings of pearls instead of gold balls; putli sara or necklace of Venetian gold coins; chandrahára or necklace of moons, strings of gold worked into moons and fixed one into the other; gomali sara, godi sara or wheat-necklace, surya sara or sun-necklace, yekvali sara or a singlefold necklace; mavin huvin sara or a mangoe-flower garland; godi huvin sara or a wheat-flower garland; nánáchi petia or Nána's box; and natchetra sara or the planets' thread are different loose necklaces of plain or gem-studded gold; and taita an amulet, lappah a brocade, tanmani or beads of life, and potehe are different kinds of tight necklaces. The wrist ornaments are, gundu a wristlet of alternate gold balls and beads worn by babies; bindhi of plain gold for babies; tandlipot a necklace of gold rice-grains worn by women and girls; muttinpot a bracelet of pearl-studded gold; geri patlai a lined bracelet string-shaped; huvin of gold flowers; patlia of solid gold; havlad patli or coral-studded gold; muttin patli or pearlstudded gold; gode dundu of gold doubled and adorned with parrots; yote or circle, a gold wristlet; todia or rope, round gold chains; hastkadga round gold rings; sivhalalata hastkadga gold rings ornamented with lion's heads; kankana, chhand, chandia, lasina or garlic, duria, channagote or gram, and pack or emerald, different kinds of bracelets; harlin doria, a bracelet studded with precious stones; hardi a bracelet of gold and coral balls; bildvar kadga of eight-cornered gold; kárli kankan a bracelet of zigzagged gold; and vanki also of zigzagged gold. Over the left shoulder and under the right arm a triple gold chain is worn like the sacred thread and called bhangárad; and janivára a triple gold thread. It is worn by the rich both by men and by women. Among women, married women wear it under the robe and prostitutes over the robe. Of finger ornaments there are many rings of different kinds. The arm ornaments are vánki of gold folded on two sides in opposite directions; and . nágmurgi or snake twist of planted gold wire; and bájuband gold

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

side-ties. The waist ornaments are path a solid gold band; makmáli patti or fold of Globe amaranth flower, an ornamented gold piece; vaddina a gold chain; and armadi a waistband from which hangs a silver or gold ornamented plate two inches broad at the top and passing down to a point, worn by girls under three or four. The leg ornaments are sarpali or chains, plain silver chain rings; sarli, plain silver chain rings formed into a circle; moggi or silver chains with bud-shaped link ends; sindesái moggi or silver chains as worn in Sindia's court; pyzan lullu or silver chain rings; kalkadga, ornamented hollow silver rings; pådga or silver anklets and halgadga or silver milk-bracelets for babies. The toe ornaments are kalangura, double stout silver rings worn by married women on the second toe, which must never be taken off; pillia mekti, suttu, pirpillia, anmettu, gendu, minu or fish, and gunda halhuvna, thin flat silver rings for the four smaller toes, which women whose husbands are alive may or may not wear.

Mádhva Bráhmans are generally clever, hardworking, sober, clean, and hospitable.

The chief duties of the priesthood are to read holy books or purans and expound their faith to the laity, to help them in their religious ceremonies, and to beg for alms. The higher laity hold positions in the lower and a few in the higher branches of Government service and as clerks in Government and traders' offices. They also trade in cloth, grain, coarse sugar, indigo, silk, and metal, and are moneychangers. Some hold lands and get them tilled, but do not till with their own hands. Boys begin to work about fifteen or sixteen. few go to school and college and take a degree. The women mind the house, and do not help the men in their work. The traders are wholesale and retail dealers in grain, coarse sugar, silk, and indigo. They buy grain from the growers and sell it to their customers both exporters and local consumers. They bring coarse sugar, indigo, silk, and yarn from Maisur and Bombay, and sell them to local traders and craftsmen. Those who are moneylenders make advances on the security of houses, lands, and other property.

The traders complain that the competition of other castes has reduced their profits. They borrow at one to three per cent a month according to their necessity.

They are at the head of the local Hindus. The different subdivisions eat and meet on an equal footing, and they also associate on equal terms with some Smart Brahmans. Jains and Lingayats hold aloof from them, and they hold aloof from all classes of people except in a few cases from Smart, Konkanasth, Karhada, Kanva, Telang, and Dravid Brahmans. All classes except Jains and Lingayats eat food cooked by Madhva Brahmans.

The daily life of a man and woman depends on the family calling or craft. Children go to school. They keep the usual local and Bráhman holidays. The ordinary monthly feeding charges of a middle-class lay family are 8s. (Rs. 4) a head, that is about £2 (Rs. 20) a month for a man, his wife, two children, and an aged relation or dependant. The corresponding cost of living to a priestly family is less than half this amount, as the members of the family are fed almost daily by the laity.

A small house costs about £30 (Rs. 300) to build and 2s. (Re. 1) a month to rent. Their furniture, including cooking vessels, beds, grindstones, mortar and pestle, and earthen vessels is worth about £10 (Rs. 100). A family of this class does not keep servants. The keep of a cow or a she-buffalo costs about 8s. (Rs. 4) a month. The yearly 'clothes charges are two pairs of waistcloths at 6s. (Rs. 3) a pair, three women's robes at 10s. (Rs. 5) each, six bodices at 2s. (Re. 1) each, and clothes for two children and an aged relation or dependant £1 (Rs. 10) that is a total of £3 4s. to £4 (Rs. 37-40). The clothes kept in store are not worth more than £2 (Rs. 20).

Mádhvas are a religious class and have house and family gods. The rich have family priests, and the poor themselves perform the worship. The laity respect the priests of their own sect, and call them to conduct their ceremonies. The priests perform the worship of their own family gods. The laity worship the usual local and Bráhman gods, and keep all Bráhmanic holidays and feasts.

Every day of the Hindu year has its feast or special observance: but all are not commonly kept. The only person in the neighbourhood of Dhárwár, who, in modern times, has been scrupulous in keeping all observances was the late Mahárája of Maisur, Krishna Rája Vadar Bahádur. The leading feasts observed by the Mádhya Bráhmans of Dhárwárare Ugadi or New Year's Day on the first of Chaitra or March-April. On this day the Mádhvas oil their bodies and wear rich clothes. A pole is set in front of each Mádhva's house. A piece of fine cloth is fied to the end of the pole, and over the cloth is fastened a silver or other metal vessel. In the morning, before any other food, the bitter leaves of the nim or Melia azadirachta are eaten. The new calendar is read and explained by the village astrologer, and money is given to him and other Brahmans. This is a good day for beginning any work. It is considered one of the three and a half luckiest days in the year. The two other leading lucky days are Dasara the bright tenth of Ashvin that is October - November, and Bali-pratipada the bright first of Kartik or November. The half lucky day is Akshayatritiya or the bright third of Vaishákh or May-June. Rámanavmi the bright ninth of Chaitra or April-May the Mádhvas keep as a feast in honour of the birth of Ram. The followers of Shiv fast. On the bright third of Chaitra or April-May in all Brahman houses, whether Madhva or Smart, the image of the goddess Gauri is set in some open place. The women of the house worship the image every day by throwing turmeric and redpowder over it and laying flowers and food before it. In the evening female friends and relations whose husbands are alive are When they come, wet turmeric powder is rubbed on their cheeks, hands, and feet. Their brows are marked with redpowder, and betel, flowers, sandalwood paste, perfumes, and soaked gram are given to each. Two women of the house wave lights and sing round the image and the visitors join in the chorus and then withdraw. This ceremony which is called the huvelia or flower-giving lasts thirty days, that is till the bright third of Vaishakh or May. Then the image is taken down and laid in some safe place in the house. The bright third of Vaishakh or May-June is kept with much joy as Akshayatritiya or the undying third. This is a lucky day

Chapter III.

Population.

Bráhmans.

DESHASTICO.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

for beginning any undertaking. Madhva women keep the Jyesht or June-July full-moon as a feast that their husbands' lives may be prolonged. Smárt women keep this day as a fast. Mádhva women draw on a wall a figure of the beautiful Sávitri, of her husband Sattyaván, his parents, an Indian fig tree, a snake, a river, Yam tho god of death, and the he-buffalo his carrier. Sávitri was told that her husband would die at sunset on the Jyesht full-moon. She went with him to the forest and as the sun set, he fell from an Indian fig tree, and a snake bit him. Yam came on his buffalo and carried off Sattyaván's soul. Sávitri followed and persuaded Yam to give her Sattyaván's soul. She touched the lifeless body and Sattyaván rose, and they lived together long and happily. Some time during Ashadh or July-August the parents of a newly married bridegroom send a silver goddess called Mangal Gauri or Lucky Gauri, a robe and a bodice and several girls' toys to the bride, and a robe and bodice to the bride's mother. These articles are received with great pomp and joy. The bride worships the goddess every Tuesday during the first five years of her married life. On these occasions female friends and relations are asked and treated as on other festive occasions and then allowed to go home. This ceremony is called the Ashádhpáti or Áshádh basket. In return some time during Shrávan or August-September the parents of the bride send a pair of waistcloths, a turban, toys, books, a silver inkstand, pens, and other things suitable for boys, for the use of the bridegroom, and a robe and bodice for his mother. These presents are received with great pomp and joy and a feast is held. This is called the Shrávanpáti or Shrávan basket. On the first Friday in Shrávan or August-September the Friday Gauri is seated on a wooden stool, and worshipped. The worship is repeated every Friday and Saturday for five weeks. friends and relations are called and sing before the goddess, and on Friday evenings an elder in each family tells a story called the Friday Story. The other members sit and listen. On Saturday evening another story called the Saturday Story is told in the same way by an elder of the family and heard by the rest. On Friday the best and most costly meals are served as the Friday Gauri is fond of good living; on Saturdays the poorest and coarsest food is given as the Saturday Gauri, who is the elder sister of the Friday Gauri, likes poor and coarse food. The bright fourth of Shrávan or August-September is a general feast in honour of the Men keep the day as a feast, and women as a half-The following day, the bright fifth of Shrávan, is the great feast of married women. Girls go to their fathers-in-law's houses and They put on their best dress and ornaments, perfume and deck themselves with flowers, and sing, dance, play, and swing with their female friends. Rice is soaked in water, dried, pounded, and strained, and coarse sugar is boiled in a small quantity of boiled butter. Into this sugar, rice flour, poppy seeds, cocoa, and cardamom powder are put. The whole is kneaded into balls about an inch in diameter called tambhittu balls. Sesamum seed and coarse sugar are pounded into thick pulp which is made into balls of the same size called chigli balls. A few balls of both kinds, five dry cocoanut cups, a little turmeric and redpowder, an unsewn bodice, and betel are handed to each female guest and they all make similar return presents. The next day, the bright sixth of Shrávan or August-September is called the Varshtodaku or the entanglement of the year. If any trouble happens on this day trouble will go on during the whole year. All disputes are avoided, and to remove evil, cooked rice and curds are carried out and thrown in some pond outside of the town. On the same day an image is made of Shirál the faithful servant of king Sahadev. worship the image and offer it rice mixed with curds, and make balls of rice and curds. Girls give the balls to other girls and lay some on the bank of a pond. On this the sixth of bright Shrávan Sahadev the youngest of the five Pandavs with his servant Shiral went hunting. Shirál was of great use to his master who in return asked him to name what he would like to have. Shiral asked that the day should be known as Shirál's Sixth. Shrávani or the Shrávan full-moon is a great feast. Bráhmans change their sacred threads and make small presents to new sons-in-law. The dark eighth of Shravan is kept as Krishna's birthday. Mádhvas fast on this day and feast on the next day. The bright fourth of Bhádrapad or September - October is called Ganesh-chauth or Ganesh's fourth and is kept in honour of the elephant-god Ganpati, who is worshipped as the god of wisdom. For several days feasts are given and dancing girls dance. Two peculiarities on Ganpati's Day are that women alone eat the food offered to the god and that on that night it is unlucky for any one to look at the moon. If you see the moon some one will slander you. To avoid the risk of slander a Brahman reads the story of the jewel Syamantak which tells how Krishna looked at the moon and was falsely charged with stealing the jewel, and how he cleared himself of the charge. The next day, the bright fifth of Bhádrapad, the Seers' or Rishis' fifth, is kept as a fast by aged women. On this day elderly women, whether married or widows, worship seven cocoanuts, calling them the seven seers Agasti, Angirasa, Atri, Bhrigu, Kashyap, Vasishth, and Vishvámitra, the seven chief stars in the Great Bear which have power to cleanse from sin. Bráhmans are fed and presented with gifts. The first nine bright days of Ashvin or October-November are the days on which the god Venkataraman was married to his second wife Padmávati. The tenth day is Dasara. These ten days are marked by great feasting and rejoicing. Diváli or the feast of lamps is held on the dark thirteenth and fourteenth of Ashvin or October-November. Sons-in-law are asked to dine and are presented with gifts, and fireworks are let off. Bali Pádva, the bright first of Kartik or November is a great feast. Numbers of lights are lit in houses and temples. The next day, the second, is the sisters' feast when brothers visit their sisters and receive presents, and the third is the brother's day when sisters visit brothers and receive presents. On an uncertain day in Paush or January on Makar Sankránt when the sun enters the sign of Capricorn, a great feast is held and sesamum seed and sugar are handed among friends and relations. During the whole of the previous month when the sun is in Dhanu or the Archer, Madhvas take their breakfast at Chapter III.
Population.
Brámmans.
DESHASTUS.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

sunrise. On the fourteenth of dark Mágh or February-March comes Maháshivrátra or Shiv's great night. During the whole night the ling or emblem of Shiv is bathed with cold water. The Smárts fast and the Vaishnavs feast. On the full-moon of Phálgun or March-April comes the Holi feast. In the houses of the rich a cake called holigi, a little cocoanut, and a sugar scorpion are burnt on a special fire. The male members of the family walk round the fire three or four times making a noise and beating their mouths with their hands as if at a funeral. In the streets the people shout impure songs.

Mádhyas are careful to keep the proper fasts. In the matter of keeping fasts Karnátak Mádhvas are stricter than Deccan Mádhvas, and less strict than South India Mádhavs. Fast days are of two kinds, full and partial. The full fast days are the bright and dark elevenths of every month and the dark eighth of Shrdvan or August-September. The partial fast or one-meal days are tho days immediately before and after the full fast days, except the day before the dark eighth of Shrávan or August-September. Other one-meal days are full and new moon days, days on which the sun enters a new sign, and all Sundays. Those whose parent or parents are dead must not take a second meal on their parents' death-days; no second meal should be taken on the death-day of a chief pries, nor on any of the fifteen days of dark Bhádrapad or September-October, which are allotted for offering food, cakes, and water to dead ancestors. All old and pious people and widows keep the full-fast days and eat only one regular meal on half-fast days. If the eleventh or fast day lasts into the twelfth the twelfth is kept as a second fast day and is called atirikta dvádashi or the empty twelfth. Again, if on either a bright or a dark twelfth the moon is in the mansion called Shravan that day becomes a second fast. When this happens to the forty-eight hours' fast eight hours are added in advance, making a total of fifty-six hours during which nothing is eaten and only a few drops of sacred water are drunk. Besides these regular fasts and half-fasts some bind themselves by certain rules such as never to take food more than once a day. During the four months between the bright twelfth of Ashadh and the bright twelfth of Kártik that is about the middle of July to the middle of November, the pious and aged do penance or vrat. During the latter half of Ashádh they eat only rice-water in which split pulse is boiled, wheat cakes, salt, clarified butter, milk, curds, and powdered pepper, and dry ginger or vegetables and tamarind are avoided. During the second month or Shrávan curds are avoided, in the third month or Bhádrapad milk is avoided, and in the fourth month all grain or fruits whose seeds can be split in two are avoided. Other penances commonly observed by pious and aged Mádhvas are to fast strictly on the new and full moon, on the bright and dark elevenths, and on the day on which the moon is in Shravan. This is called Vishnupanchak or Vishnu's five fasts. Again some strict people eat only every other day, a practice which is known as dharni-párni or fasting and breakfasting. Or the rule of alavan or saltless food, or of ekánna or one-grain is kept for a year.

Others keep the rule of maunavrat or meal-silence refraining from speaking during meals, or the at once or ekavádí service when every article wanted for a meal is served before the dinner is begun. At the end of the year in which a vow of this kind has been kept Bráhmans are fed and presented with money, and a ceremony called uddiapan or fulfilling is performed. There are a few stricter and more unusual penances. Thus in the Chándráyanivrat or moon-keeping penance the devotee takes only one morsel of food on the first day of the moon, two morsels on the second, three on the third, and so on to fifteen on full-moon day. So too in the waning days the allowance of food varies from fourteen morsels on the first dark day to nothing on the no-moon day. The only exception to the steady waxing and waning are the two elevenths on neither of which is any food eaten. Another penance is a five days' fast. This is called Bhishma's Five Days' Fast after the grandfather of the Pándavs.

The chief places to which Mádhvas go on pilgrimage are, in the Madras Presidency, the shrines of Venkataraman at Tirupati in North Arkot, of Narsinha at Ahobala in Karnoul, of Krishna at Udapi in Mangalor, of Varad Raje at Kanchi or Conjiveram, of Kalhasteshvar at Kalastri, of Shrirám at Rámeshveram near Cape Comorin, and of Ranganáth at Shrirang or Seringapatam in Maisur: in the Nizám's country Amba-Bhaváni of Tuljápur; in Bombay Mahábaleshvar at Gokarn in North Kánara, Mahálakshmi at Kolhápur, Vithoba at Pandharpur, Bánshankari in Bádámi, Shriram at Násik, and Krishna at Dwarka in west Káthiáwár. And in Bengal Vishveshvar and Bindumadhav at Benares. Krishna at Gokul, Krishna at Vrindávan, Náráyan at Badari, and Vishau's feet at Gaya. Some visit Tirupati in North Arkot and Pandharpur in Sholapur once a year, others go occasionally, others never go. The Mádhvas have a spiritual teacher called guru or svámi who belongs to their own sect. When a svámi dies some other holy Bráhman of the same sect fills his place. The new teacher becomes an ascetic and then takes the office of teacher. Sometimes the brother or nephew of the deceased teacher succeeds, but never his own son. A teacher may be married, but after he becomes a teacher he never again sees his wife's tace. The Madhyas believe in sorcery, witchcraft, and soothsaying.

Under the head of customs come the sanskars or sacraments. They are of two kinds nitya or usual and naimittik or special. The sixteen usual sacraments must be performed: the performance of the twenty-four special sacraments is a matter of choice. The sixteen sacraments are the garbhádhán or the conception that the woman may conceive, performed soon after the girl comes of age; the punsaran or the son-giving, that the child may be a boy; the anavalobhana or the non-longing, during the seventh month of pregnancy that the child in the womb may grow, when the juice of sacred grass is dropped down the woman's left nostril; the simantonnayan or the carrying to the limit, in the sixth or eighth month, when the woman's hair is parted down the middle, a thorn is drawn

Chapter III.
Population.
BRÁHMANS.
DESHASIBS.

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

over her head and fixed into her hair behind; the vishnubali or Vishnu offering during the eighth month, to free the child from sin and ensure a safe birth; the jútkarm or birth ceremony when on the birth of the child, before the cord is cut, honey is dropped into its mouth; the námkarm or naming, on the twelfth day when also the child is cradled; the suryávalokan or sun-showing in the child's third month, while she shows the child to the sun the mother holds a churning stick in her hand; the nishkraman or getting out, in the third month when the child is taken to a temple and well water is worshipped; the upaveshan or sitting in the fifth month when the child first sits on the ground; the annapráshan or bread-cating the first feeding on solid food in the fifth or sixth month; the chaul or shaving in the fourth or fifth year; the upanayan or initiation also called the munji from the grass Saccharam munja, the girding with the sacred thread in the boy's seventh or eighth year; the samávartan or the freeing from being a Brahmachári on the twelfth day after the munj; the viváha or marriage at any time after the eighth year; and the svargárohana literally heavenmounting that is death. The chief of these sacraments are those at birth, thread-girding, marriage, puberty, pregnancy, and death.

For her first delivery a girl goes to her parents' house. soon as she is in labour a midwife is called. If she suffers much old gold coins are washed in a little water and the water is given her to drink. When the child is born an ancestral gold ring is dipped into honey and some drops of honey are let fall into the child's mouth. The navel cord is cut, the child is bathed, and the after-birth is put in an earthen pot and buried. The mother is laid on a cot and is kept fasting during the rest of the day. On the third day the child is bathed, and the bathing water is run into a small hole called kuilkuni made in the floor of the lying-in room. A woman whose husband is alive and who expects to become pregnant, is asked to dine for ten days. The bath-water hole is worshipped and food is offered to it. The babe is bathed on the fifth, seventh, ninth, and tenth days. fifth day Jivti or the goddess of life is worshipped, and a woman whose husband is alive and who has a babe at the breast is asked to dine. Food is offered to the goddess and the woman is On each side of the outer door-frame of the lying-in room and on each side of the street door rude little figures, one head down the other head up, are drawn with ink or lampblack to scare evil spirits from the house and the room. On the seventh day seven women whose husbands are alive are each presented with seven betel leaves, seven nuts, seven cocoanuts, cups, and a little dry ginger powder mixed with sugar and clarified butter. This ceremony is called geddavillia or betel-handing. It is held in honour of the child's escape from the dangers of the fifth night spirit Shetvi who on that night comes to carry off the child. Nothing is done either on the eighth or on the ninth. On the tenth, the hearth, on which during the nine previous days the mother's meals were prepared and all the cooking vessels are

cleaned, worshipped with flowers and redpowder, and presented with food. A feast is held and cakes are sent to friends and relations. During the first ten days, to keep evil from the child, two Bráhman priests read the rátrisukta or night-quieting prayer. On the eleventh they are fed and given money, and, on the same day the child and the mother, and if it is not the first child, all its brothers and sisters are anointed. Besides the usual festival dinner, a dish called hugi is made by boiling rice and split hesru or green gram in water. Sesamum seed, tamarind, salt, and chillies, are ground into a paste called chatni, and this paste and the rice and gram or hugi are served with the other food. Part of the hugi is made into ten cups and pyramid-shaped balls each ten inches broad. The cups are filled with oil and a wick, and lighted, and one cup and one pyramid are set near each of the four legs of the mother's cot. A cup and a pyramid are laid on each of the four sides of the bath-water hole and the remaining two cups and two pyramids are placed on the spot where the child was born. Some raw rice is laid in a basket, a figure of the god Bulrám is drawn on the rice, and for a few minutes the child is laid on the figure in the idol's room. Then the child is brought back and a churning stick is laid beside it. The mother rubs both her palms with oil and redpowder and five times stamps the wall with her hands, two pairs near the top of the wall, two pairs near the foot of the wall, and one pair about the middle of the wall. Lights are waved round the mother and the babe. Betel is handed and the guests withdraw. The eleventh day ceremony is called erlu. On the twelfth a grand feast is held and the cradle is ornamented and worshipped. The women who came on the third, fifth, and seventh days are asked to dine. Some guggari or spiced soaked gram and a grindstone are laid in the cradle. In the evening the child is laid in the cradle and named by its father's sister. The name-giver is presented with a robe and a bodice, and the women of the family give her three or four gentle blows on the back.

When the child is three or four months old and begins to turn on one side, a feast is held and cakes called kadbus are made and eaten. When the child learns to fall on its face cakes of wheat flour called polis are made and eaten. When the child first crosses the threshold of a room other cakes of wheat flour called kadbus are made and eaten. When the child begins to press one palm on the other, sweet balls are made and eaten. The ears of the child are then bored for earrings. If a woman's first born is a boy, she makes a vow that until her son is married, she will not eat the climbing vegetable called hagalkai Mumordica charantica or pass under a bower of this climber, or eat boiled rice served from a bamboo basket, or from an earthen pot, or eat the relish called sar that is tamarind boiled with water and condiments and seasoned, or eat from a plantain leaf whose top is not cut, or cross a stream in which rice has been washed, or wear a green bodice robe or bangles, or ride in a green litter or carriage, or sit on a three-legged stool or chair. During the marriage, the boy's mother-in-law makes his mother break her vow, and presents her with a gold bangle called the karlibali which is a star or Chapter III.
Population.
BRAHMANS.
DESHASTHS.

Chapter III.
Population.
Bráhmans.
Deshasths.
Thread-girding.

circular saw-shaped ornament. In return the boy's mother fastens a gold hagalkai fruit Mumordica charantica to one of her daughter-in-law's necklaces, to make over to her the duty of keeping these rules until her son gets married.

Eight is the usual age for a boy's thread-girding. The months Mágh or February-March, Fálgun or March-April, Chaitra or April-May, Vaishákh or May-June, and Jyesht or June-July, that is the season from mid-February to mid-July, is the right time for thread-girding. In any one of these months the astrologer chooses a lucky day paying special attention to the month in which, the constellation under which, and the hour of the day at which, the boy was born. A few days before the ceremony the house is cleaned and whitewashed and a porch is raised in front of the house, and its posts' are ornamented with plantain trees, mango twigs, and flowers. On the western side of the shed an altar is raised facing east. Red-marked invitation letters are sent to friends and kinspeople. Two or three days before the chosen day Bráhmans are fed in honour of the family gods or kuldevtás, the village or local gods called grámdevtás, and the special or chosen gods called ishtadevtas. A day before the lucky day comes the ashtavarga or eight-people ceremonies. Lighted lamps are laid in a plate containing water mixed with turmeric and lime, and two married women wave the plate round the family gods. Then the boy, his parents, and their nearest relations are made to sit on a carpet in a line, their bodies are rubbed with oil, and the plates with the lighted lamps in them are waved round their faces. Next the party are taken to the shed or to a bathing room, where they are rubbed with turmeric and oil and bathed, and lighted lamps are again waved round their faces. Next Ganpati or Ganesh, and the Mátrikas or Mothers are worshipped, and Punyáhváchan or the holy-day blessing ceremony is performed, and near relations give presents to the boy and his parents. After this twenty-seven betchuts representing the Nándis or joy-bringing guardians and six betelnuts representing the booth-guardians or mandap devtas are placed in a winnowing fan and worshipped with flowers and redpowder. The winnowing fan is carried into the house and laid in the family god-room. Bráhman men and women are fed and presented with money. Early next day at the boy's house musicians begin to play, and a Bráhman astrologer comes, sets up his water-clock, and sits watching it. The boy is anointed with oil and turmeric and bathed. A barber is called and the boy is shaved leaving three locks if he belongs to the Rigved, and five locks if he belongs to the Yajurved. The boy is again bathed and taken to the dining hall. Boys called battus who have been girt with the sacred thread but are not yet married, are seated in a row and served with food. They eat, and the boy's mother sitting in front of the boys and setting her son on her lap feeds him and herself eats from the same plate.

¹ When, in pursuance of a vow, munj or thread-girding is performed at Tirupati, Udapi, or some other sacred place, it may be held during any month of the year.

This is called mátrubhojan or the mother's meal. It is the last time when the boy and his mother eat from the same plate. As soon as the mother's meal is over, the boy is taken to the barber who shaves all the locks that were left on his head except the top-knot. The boy is bathed and is seated on a low wooden stool which is set on the altar; and his father and mother sit on either The chief priest, the Brahman astrologer, and other Brahmans chant the mangaláshtaks or eight luck-giving hymns. When the lucky moment comes the Brahmans cease chanting, the musicians raise a crash of sound, the guests clap their hands, and the Brahman priests and guests throw red rice over the boy. The chief priest kindles a sacred fire on the altar and throws into the fire offerings of clarified butter, sesamum, and seven woods.2 The priest winds three folds of yellow cotton thread round the boy's waist, and gives him a loincloth or langeti about three inches broad and two feet long. The boy takes a sacred thread and a copper or silver coin and dipping them in water gives them to the priest. The priest formally girds the boy with the sacred thread one part of which rests on the boy's left shoulder and the rest falls below the right arm. The boy is either given a deer's skin to wear or, as is more usual, a piece of deer skin is tied to his sacred thread and a palas or Butea frondosa staff is placed in his hand. Money presents are made to Brahman priests, and cocoanuts, betelnuts and leaves, flowers, and perfumes are handed among the At noon the boy is made to say his mádhyánha sandhya or midday prayers, and in the evening he is made to repeat his suyam sandhya or evening prayer. In the evening, offerings of sesamum-seed and clarified butter are thrown in the sacred fire which was kindled in the morning and rice is boiled on the fire. Part of the boiled rice is offered to the fire and the rest is eaten with milk by three Brahmans. The eating of this rice is believed to carry the sins of the boy into the body of the eater. Brahmans will not run the risk unless they are well paid for it. The mother of the boy comes and stands before him near the altar. The boy says to her Bhavati bhikshám dehi or Be pleased to give alms, and holds a cloth wallet before her. The mother blesses him and throws into his wallet some rice, fruit, and a small gold coin. This mother's gift is worth more than anything the boy will earn to the end of his life. The boy's father next steps forward and the boy repeats to him the words he addressed to his mother, and holds out his wallet. The father throws rice, fruit, and a gold or silver coin into the wallet and retires, friends and kinspeople go to the boy in turn, each is asked to give alms, and each drops rice and silver coins into the wallet. Next the twenty-seven thread-girding or

Chapter III.
Population.
BRAHMANS.
DESHASTES,

² The seven woods are: palas Butea frondosa, ashvath Ficus religiosa, umbar Ficus glomerata, khair Mimosa catechu, rui Calotropis gigantea, agháda Achyranthes

aspera, and shami Mimosa suma.

The substance of the hymns is: 'Sun moon and planets, signs of the zodiac, stars that lie near the path of the moon, and all constellations and gods of the sky and earth and guardians of all quarters of heaven, do ye bless this boy and give him life, learning, and well-being.'

Chapter III.
Population.
BRAHMANS,
DESHASTHS.

muni deities and the six booth deities are worshipped and food is offered to them, and Bráhmans and friends and kinspeople are feasted. Before the Brahmans have begun to eat, the boy goes to several of them with a small plate and says, Bhavati bhiksham dehi or Be pleased to give alms, and each lays a morsel of food in When he has collected some food-gifts the boy lays the plate before him and sits on a low wooden stool. When the Brahmans have begun to eat, the family priest comes and sits near the boy and teaches him the prayer to be said and the rites to be performed before partaking of food. He eats a little of the cooked rice which was given him by the Brahmans and then takes his usual meal. This completes the first day's ceremonies. On the second, third, and fourth days the boy is taught to say his morning midday and evening prayers, and is made to worship the sacred fire which is kindled on the first day. The twenty-seven deities called nandis and the six booth deities called mandap-devtas are daily worshipped and food is offered to them. For four days several Bráhmans are feasted every day, from each of whom the boy begs food as on the first day, eats a part of it, and then takes his usual meals. On the fifth day the last ceremony of the munj or thread-girding which is called the *medha-janan* or mind-giving is performed. the booth near the altar a small square earthen mound is raised, and in the centre of the mound a palas branch or twig is planted. The boy pours water round the plant, prays to Sávitri the goddess of mind, and offers her food. The thread-girding nandis and the boothguardians are then asked to withdraw. The guardians are dismissed by throwing rice on the winnowing fan in which they are placed and they are asked to come back to the next thread-girding. The boy is dressed in fine clothes, and is decked with ornaments and is taken in procession with music to a temple in the village, where he worships the idol and returns home. On the eighth, fifteenth, and thirteenth days good dinners are given to the boy and other members of the family and lighted lamps are set in a plate filled with red-coloured water and are waved round the boy's face by two married women.

Marriage.

Boys are married between eight and twenty, and girls between four and eleven. In return for large sums of money girls of ten are occasionally given to men of sixty or seventy. The offer of marriage comes from the girl's parents who send her horoscope to the boy's house. The horoscopes are shown to an astrologer who says whether they agree. If the astrologer declares against a marriage, nothing further is done. If he declares for the marriage, the parents of the bride and bridegroom settle the dowry or vardakshina and the presents or varopchár to be made to the bridegroom by the bride's father; and the value of the silver and gold ornaments and clothes to be given by the bridegroom's father; also the presents in clothes or money to be given by the bridegroom's party to the bride's parents, sisters, or brothers, to the bride's family priest or purchit, to the village astrologer, to the mathádhikári or monastery-agent who comes yearly for a subscription, and to the katti or hereditary agent of the local svámi or lord. corresponding presents to be given by the bride's family are always

double those given by the bridegroom's family. During the marriage one of the bridegroom's sisters is chosen to be his kalasgitti or best maid; she must always sit on his right side during the religious part of the marriage ceremony. If she is not under ten, some one under ten acts for her. So also one of the bride's sisters becomes her kalasqitti or best maid, and must always sit on her right side. During the marriage great honours are paid to the bride's and bridegroom's best maids and handsome presents are given them. When the presents are settled, two copies of written agreements are prepared and signed by both parties and, before Vishnu Bráhmans and other witnesses, are marked with kunku or redpowder and clarified butter. The bride's father hands one of the agreements with betel to the bridegroom's father, and he makes over the other paper with betel to the bride's father. Presents are given to Brahmans, betel flowers and perfumes are handed, and the guests withdraw. Both parties are now bound to carry out the wedding. Soon after some of the bride's and bridegroom's relations and friends hold a gadagnur or water-pot ceremony. An earthen pot or kalash is filled with water and set in a suitable place in the house. If it is in the bride's house, the bridegroom and his parents, and if it is in the bridegroom's house the bride and her parents are called. When they come, they are anointed with turmeric, oil, and warm water, and all worship the waterpot. After the waterpot has been worshipped, a dinner is given, and before the guests leave, the bride or the bridegroom is presented with clothes. Several such entertainments are given by friends and relations.

When the time for the wedding draws near, after the astrologers have named a good day, the first thing at both the bride's and the bridegroom's is to hold the sajjigi muhurt or the preparatory luckymoment ceremony by preparing cakes of coarse wheat flour and feeding a few Brahmans and their wives. The next thing is to give a dinner in honour of the family gods called deva-samárádhana or preputation of the gods. Two or three days before the wedding, both at the house of the bride and of the bridegroom, large booths are built. The booths are lined with sheets of white or coloured cloth and the ceiling and posts of the booths are decked with many mango leaves. At the bride's house in the western side of the booth facing east, an altar about six feet square and one foot high is raised, and at its western edge is built a wall about six inches thick and two feet high. The wall is whitewashed and diagonal lines in redpowder are drawn over it with a circle representing the sun, and a crescent representing the moon, and on the middle of the wall the name of the god Vyankatesh or the words Shri Lakshmi Vyankatesh Prasanna that is Oh Laksmi, Vyankatesh, be pleased, are written in redlead. Next, at the houses of both the bride and bridegroom the marriage gods are installed and the worship of Ganpati, Punyáhaváchan, and Matrikas is gone through, and, to appease the spirits of dead ancestors, the naudi shráddh ceremony is performed. The bride and bridegroom are anointed with turmeric and oil, bathed in warm water, and their brows marked with redpowder or kunku. Five women, whose husbands parents and parents-in-law are alive, are chosen to be hettalgorierus that is

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

bridesmaids. It is their duty to paint with white and red-wash level upright and cross lines on the stone mortars and wooden pestles and grindstones. They pound wheat in the striped mortar and grind it in the striped grindstone. The flour of this ground wheat is mixed with water, an image of the elephant god Ganapati is made of the mixture, and it is worshipped by the women. This rite is called the varalakki and is performed both in the bride's and bridegroom's houses. After the wheat Ganpati has been made and worshipped, all the women of the family whose husbands are alive and the bride or bridegroom, as the case may be, sit close together on wooden boards. A thread is wound five times round the group, and they rub their bodies with oil and turmeric, and bathe in warm water. This is called the surgi bathing. A day or two after the thread encircling, generally on the day before the wedding day, comes the simantpujan or boundary-worship of the bridegroom. If, as is generally the case, the bridegroom belongs to another village, when he reaches the border of the girl's village the bride's parents come to meet him. The mother pours water over his feet, and the father washes his feet, and the father and mother together wipe them. Sandal paste or gandh and other perfumes are rubbed on the bridegroom's body, flower garlands are thrown round his neck, and he is presented with a turban and other clothes. Two or more married women wave a plate with red water and a pair of inch-high lighted lamps round the face of the bridegroom. When the lamps have been waved round the bridegroom's face, a cocoanut is placed in his hands and with the keenest joy, with music, fireworks, and dancing girls the bride's parents lead him and his party to a house which has been made ready for them. All this time the bride keeps close in her parent's house. A good dinner known as the rukhvat or refreshment is cooked at the bride's, and carried and served at the bridegroom's lodging. In the same evening, an hour before the time fixed for the wedding, the bridegroom, richly dressed and on a richly harnessed horse with music and dancing, is led to the bride's. When they reach the bride's marriage booth the music ceases till the wedding moment, but the dancing girls keep dancing. Tho parents of the bride and bridegroom meet, and the two family priests thrice call aloud the genealogy of the bride and bridegroom for four generations back and their family stocks.2 The bride's father formally promises to give his daughter to the bridegroom, and as he makes the promise, ties a turmeric root, betel, and rice, firmly in a corner of the bridegroom's shoulder-Then the bridegroom's father promises to take the girl for his son, and as he promises ties turmeric, betel, and rice, in the bride's father's shouldercloth. While the genealogy is being recited and the promises are being made, the astrologer is looking

¹ Care is taken to have at least two lamp-wavers. One lamp and one lamp-waver suggest a funeral.

The proclamation or bans run: The great-grandson of A of the family of Jamadagni, the grandson of B, the son of C, the bridegroom D, now under the favour of Vishnu takes in marriage the great-granddaughter of E of the family of Kashyap, the granddaughter of F, the daughter of G, the bride of H, who is, under the favour of Lakshmi, the wife of Vishnu.

passes to the bride.

at his water-clock and watching the approach of the lucky moment About five minutes before the moment the parents of the bride and bridegroom worship the water-clock with redpowder, rice, and flowers, and make presents to the astrologer. The bride and bridegroom are led to the marriage altar and two men hold a cloth between them. At the lucky moment the cloth is drawn aside, the bride and bridegroom throw a few grains of red rice on each other's heads, and for the first time see each other's faces. this instant the whole company throw grains of red rice on the newly married couple, guns are fired, and music is played: All the priests present recite the eight Sanskrit hymns which form the marriage service called manaláshtak or the eight lucky hymns. While the hymns are being chanted, the bridegroom draws a gold wedding ring called madiungara over the fourth finger of the bride's right hand, and the bride draws a second gold wedding ring over the fourth finger of the bridegroom's right hand. The bridegroom ties round the bride's neck the lucky thread or mangalsutra, which consists of a gold cup and some black glass beads strung together by a dancing girl. While the bridegroom is fastening the neck-thread, his mother leaves the house, for it is believed that by tying the

wedding thread the luck in her mother-in-law's wedding thread

The priest then kindles a sacred fire on the altar and clarified butter and parched grains or lája are thrown into the fire. The married couple walk thrice round the fire. A stone called ashma or the spirit is kept near the fire, and, at each turn, as the bride followed by the bridegroom draws near the stone, she stops and stands on the stone until the priest finishes repeating a sacred hymn. Next the small star in the tail of the Great Bear or Seven Seers, called Arundhati, is shown to them to bring them long life and prosperity. Seven heaps of rice are made on the altar and a betelnut is placed on each of the heaps. The priest repeats a verse and the bridegroom lifting the bride's right foot sets it on the first The priest repeats another verse and the bridegroom lifting the bride's right foot sets it on the next heap, and this is repeated five times more. This ceremony is called saptapadi or the Seven Steps. When the seven steps have been taken, the marriage is complete. The priest blesses the married couple and two or more married women wave lighted lamps round the faces of the bride and bridegroom. A dinner is given and festivities are kept up for four days during which Brahmans are fed and presents are given. At these marriage dinners five or more plantain leaf dishes are served touching each other and the bride and bridegroom with their mothers and sisters sit close to each other and dine together. Before beginning to eat the bride's mother brings silver plates filled with wedding cakes and other dainties and serves them. However excellent the dishes, the bridegroom's mother is bound to keep grumbling. The dinner is

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

Arundhati was the wife of Vashishth one of the seven great Hindu sages. The names of the other sages are Atri, Bháradváj, Gautama, Káshyap, Vishvámitra, and Vámdev. All these have been deified by the Hindus and raised to the stars.

Chapter III.
Population.
BRARMANS.
DESHASTHS.

poor, her share has been forgotten, and she is starving of hunger. On the fourth day three-cornered pieces of paper with flowers called báshing or brow-horns are tied to the brows of the bridegroom and bride. Wearing these marriage crowns they go to a temple, pay their devotions to the god, and return home. On the fourth night of the marriage the bridegroom dresses himself and about three in the morning runs off to his own house with some valuable article belonging to the bride's family. The bride's people go and bring him back. Next day the bride's mother richly dressed raises on her head a plate with red water, a pair of inch-high lamps and flowers, and carries it from the middle of the house to the god-room, and brings it back to the middle of the house. When she carries the water and lamps, her brother holds across her head a drawn sword with a lemon fixed in its point. This is called sindopa horona or carrying the red water plate. In return for performing this ceremony the bridegroom's mother presents the bride's mother with a robe and bodice. After the red water and lamp have been carried the bridegroom, his father and mother, and other members of his family, are made to sit in a line. The bride's father brings a square basket, some red coloured liquid, and a bodice. For a few seconds, he seats the bride in the lap of each person in the row, holds the basket over the head of each person while the bride is sitting on his or her lap, and each time pours a little of the coloured water into the basket. Through the holes in the basket the coloured water drops on the heads of those over whom the basket is held. he holds the basket the bride's father says in Sanskrit, 'I have cared for this girl like a son until she is eight years old; I now make her over to you for the use of your son (or brother). Guard her like a friend.' When the bride's father has finished addressing all he bursts into a loud cry, mourning that his daughter has passed out of his charge. Some fathers so thoroughly loose self-control that they have to be taken away by force. Then the bridegroom's party take the bride with them to their house with great rejoicing. On the fifth day the bride's party give a great feast called the mavani to Bráhmans and to the bridegroom's party. On the sixth day, the bridegroom's party give a return feast to the bride's party called the mari mavani dinner. On the seventh day after the morning meal the bridegroom and his party set off for their village. In the evening of the same day Gondhalis are called and made to dance in honour of Amba Bhaváni or some other family goddess.1 Dasara, Diváli, and other feasts the bride's family sends for the bridegroom and gives him a rich dinner and a present of clothes. On other days the bridegroom's family does the same to the bride.

Coming of Age.

When a girl comes of age, friends and relations are told and the bridegroom's friends drench him with red water. The girl is made to sit in an ornamental shed and three days are spent in rejoicing. During these three days the bride's friends and relations bring her presents of cooked food. On the fourth day all are entertained at a great dinner. On the fifth the bride is feasted at

¹ Details are given under the account of Gondhalgars.

the bridegroom's house and they retire together. This is called the phalashabhan or fruit-bearing. Next day the bride's father gives a grand entertainment, which is called the marindandala or the following day's entertainment. The bride's party go to their houses and the ceremony ends. Afterwards during each monthly sickness, the girl sits outside of the house or in the back-yard, and does not come into the house or touch any furniture or grain. Men and women, especially pious men and women, will not look at a woman during her monthly sickness. If they chance to see her or even to hear her voice they bathe, worship their gods, or take When all have dined some one takes food to the sick woman and leaves it in the outer shed or courtyard where the woman eats it. In the three days during which her sickness lasts, a woman is forbidden to bathe, change her clothes, or touch any one else, or even to speak with another woman in her courses. On the fourth day she bathes and comes into the house, but does not cook, go into the god-room, or touch any furniture or a child in arms. On the fifth day after anomating herself the woman is free to lead her ordinary life. After a woman becomes aged, which generally happens when she is about forty-eight, every year, on the bright fifth of Bhádrapad or September, a day known as Rishipanchami or the Seer's Fifth, she worships the seven sages that is the seven stars in the Great Bear. This ceremony makes a woman perfectly clean. She will not speak to a woman in her monthly sickness, or look at her or hear her voice or even hear her spoken of.

During the first and second months of a woman's first pregnancy nothing is done. In the third month she is secretly given a, new green bodice and a good dinner. This is called chorcholi (M.) or kalla kusha (K.) that is the secret bodice. In the fourth month any food a woman longs for is given her, and in the fifth month a yellow robe and bodice are publicly given her, she is decked with buds not with blown flowers and feasted. Nothing is done in the sixth month. In the seventh month she is given a green robe and bodice and a good dinner. In the eighth month the ceremony of passing a thorn to the end of the braid of hair is held with much show. Nothing is done in the ninth month. On several occasions between the fifth and ninth months of a woman's pregnancy, she is anointed, ornamented, richly dressed, perfumed, and decked with flowers. She is sometimes dressed like a Muhammadan woman, sometimes like a Lingáyat woman, and sometimes like a Márwári or Váni or some other caste woman. She is sometimes dressed in a red robe and a black bodice and feasted at six in the morning; in a black robe and a red bodice and feasted at noon; in a red gold-edged robe and yellow bodice and feasted in the evening; in a dark robe and white bodice and feasted at midnight; or in a white robe and a red bodice and feasted by moonlight.

When the sick is on the point of death, he is, if possible, shaved, if not, he is bathed and wiped dry. The sect-marks are painted

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

Pregnancy.

Death.

¹ In the case of a woman who has had several children the seventh and eighth month ceremonies are dispensed with.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

with white earth or gopichandan and the body is stamped with the shrimudra seals, the chakra or discus and the shankh or conch-shell. No sandal or redpowder brow-marks are put on. He is laid on a clean mattress which is spread near the door in the women's room or central hall on a spot which is cowdunged, and strewn with blades of the sacred darbh grass. When he is laid down he is made to sip a few drops of the panchagadvya or five cow-gifts, urine, dung milk, curds, and clarified butter. To take away his smaller sins he is also made to give to Bráhmans a cow and some money. more deadly sins, murder, cow-killing, and spirit-drinking, cannot be cleansed. Some Brahmans sit by reading aloud some religious book, and relations repeat the name of the god Vishnu in the dying man's ears. When life is gone, the women raise a cry, the body is washed, and the shrimudra marks are made on the forehead, arms, and chest. A bamboo and grass bier is made, two earthen pots are brought, and fire is consecrated and placed in one of the pots. The body is stripped of its clothes and laid on the bier. A new cloth is brought and from one end a piece about two inches broad called the vasna or cloth is torn. This shroud-end is knotted in the middle and its ends are tied together and worn round the chief mourner's neck. The rest of the new cloth is wrapped round the body, and a cord is passed round the cloth, the body, and the bier to keep the whole together. When the bier is ready two stones are picked up, one of which is laid under part of the twine tied round the body, and the twine is cut with the other stone. The lower stone is thrown away and the upper stone is supposed to be possessed with the spirit of the dead. Then four bearers, over whom some hymns have been said, lift the bier on their shoulders. The chief mourner walks in front holding the earthen fire-pot and with the cloth or vasna tied round his neck. About half-way to the burning ground the bier is set down and the chief mourner drops into the dead mouth a few grains of sesamum and a few drops of water. The bearers change places those in front going behind and those behind coming in front, and in this way the bier is carried to the burning ground. At the burning ground three small holes are made in the ground and three small pieces of gold, a few sesamum seeds, and a few blades of the sacred darbh grass are put into the holes and over them the pile is raised. Camphor, sandalwood and perfumes are laid on the pile. body is placed on it with the head towards the south. hymns have been repeated by a Bráhman priest, the son sets fire to the pile near the head, then near the legs, and lastly near the chest. He fills with water the second of the two earthen pots, which were bought soon after the death, makes a hole in the pot with the point of the life-stone, and taking the pot on his shoulder walks three times round the pile with his left hand towards it at each turn piercing a fresh hole. At the end of the third round he stands near the head of the corpse with his back towards it and his face towards the south and throws the pot over his shoulder on the ground. the pot smashes he strikes the back of his right hand on his mouth and cries aloud. The funeral party then return home. On their way the chief mourner thrice throws a stone back over his shoulder. If the deceased died on an unlucky day, with the

body are burnt four men of dough, one of which is placed near the head, the second and third near the hands, and the fourth near the feet. Children under three are generally buried. An ascetic, whatever his age, is buried. The body is placed sitting in a pit, a large quantity of salt and mustard are thrown in, and the hole is filled. A holy layman, who is not an ascetic, but has kept the sacred fire always alight, is not carried on a bier, but placed on a cart decked with leaves and flowers, and drawn by men and bullocks to the burning ground and there burnt as in ordinary cases. the house of mourning, if the dead has left a son, on his return from the burning ground, the chief mourner, in the floor of the women's hall close to where the body was laid, digs a hole about a foot deep and keeps a lamp burning in the hole day and night for ten days. The shroud-strip or casna and the life-stone are laid near the light. Close to the hole about a foot from the ground a nail is driven into the wall and two threads are let down from the nail into two small earthen vessels, the one with water the other with milk. During the next ten days, before he begins his meals, the chief mourner carries a morsel of cooked rice from his dish, and lays it before the life-stone, pours water on it, and throws the water on the house-top.

On the first, third, fifth, and seventh days after a death, the chief mourner fastens the shroud-strip or vasna round his neck, holds the life-stone in his right hand, and goes to the burning ground. The burnt bones are gathered from the ashes of the funeral pile, washed and purified by sprinkling cow's urine on them, and the whole of the ashes are thrown into a pond or other water. A hundred pots full of water are poured on the spot where the body was burnt, and then a three-cornered mound is raised. The chief mourner sits on the north side of the triangle with his face towards its The life-stone is set in the middle of the mound. A second stone representing Rudra the destroyer is set in the eastern corner, and a third stone representing Yam the god of death is set in the western corner. Small earthen vessels about an inch high and three inches round with covers on them and large and small flags are set before the three stones. A few sesamum seeds, a few grains of yellow rice and gram, a cotton thread and a pair of dough shoes are laid before the three stones. This ceremony is called the asthi sanchayan shráddha or the bone-gathering ceremony. The burnt bones are then put into an earthen pot, which is carried to some sacred river and thrown into it. From the first to the tenth day after the death the chief mourner goes out of the village to some temple or other clean place, with the shroud-strip or vasna round his neck and the life-stone in his hand and setting the life-stone on the ground, on the first third fifth seventh and ninth days, lays before it a ball of cooked rice or dough, some sesamum seeds, and some water, and returns home. On the tenth day the ceremony held on the bone-gathering day is repeated. On the eleventh day comes the vrishotsarga or bull-freeing ceremony, when the chief mourner holding the tail of a bull in his left hand, and water, sacred grass, and sesamum seed in his right hand, says 'I set this bull at liberty in the name of the deceased, may it save him,' and throws the water, sacred grass, and sesamum seed on the

Chapter III.
Population.
BEÁHMANS.
DESHASTHS.

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

ground. Then comes the ekahi or first pure day sacrifice. After that funeral rites are performed in honour of the Vasugan or the band of Vasus, Rudragan or the band of Rudras, and Shodashagan or the band of sixteen deities. In honour of the Vasugan eight, in honour of the Rudragan eleven, and in honour of Shodashayan sixteen Brahmans are called, their feet are washed, they are fed, and money is given them. A man who cannot feed so many Bráhmans lays eight, eleven, and sixteen pobbles in rows, sets a little rice and dough before them, bows before them, and throws them away. On the twelfth comes the sapind shraddh or the balluniting ceremony. Six Bráhmans are asked to dine. Three round balls of boiled rice are made to represent the great-grandfather, the grandfather, and the father of the dead; and a long oblong ball to represent the dead. Several hymns are repeated, the long ball is cut in three and each of the three parts is mixed into one of the three round balls as a sign that the dead has been gathered to his fathers. From this day the father, grandfather, and great-grandfather of the mourner are alone reckoned his immediate ancestors. His great-great-grandfather, by offering a ball of flour instead of rice called the heaven-opening or svarga pátheya, is raised from being one of the immediate ancestors. On the thirteenth the chief mourner performs certain religious ceremonies outside of the town and comes home. A pestle is set in the front yard, and he is made to sit on it with his back to the house, when some one of the family pours from behind oil and warm water over his head. He comes into the house, bathes, sips a few drops of the five cow-gifts, puts on a new thread, and worships Ganpati. When the worship of Ganpati is over, one of the married women of the family waves a one-wicked lamp round the chief mourner's face. The ceremony ends with a dinner to Brahmans. During the first thirteen days after a death the members of the family eat nothing sweet and do not worship their house gods. On the fourteenth sweet food is cooked and eaten by all. During the first year after a death in every month on the new-moon day, and on the lunar day on which the death happened, a memorial ceremony or mind-rite is held. After the first year during the lifetime of any son of the deceased the death-day is marked by keeping his anniversary every year in the dark half of Bhádrapad or September. For ungirt boys and unwed girls no mind-rites or shraddhs are performed. The only ceremony in the case of an ascetic is on the first day. All Brahmans are careful to hold memorial services in honour of their parents and other family elders, as well as in honour of their more respected chief priests. The dark half of Bhádrapad or September-October by Bráhmans called pakshamás or the spirit-month and by Maráthás mahál a corruption of mahálaya a sanctuary or place of refuge, is set apart for offering funeral cakes, balls, and water to the spirits of the dead. On the day in dark Bhádrapad which corresponds to a male parent's death-day, the mourner offers funeral balls, cakes, and water to the spirit of the dead and feeds two or more Brahmans. This is in addition to the memorial service on the yearly death-day. In the case of a mother or of female ancestors the death-day is alone observed. No service is held on the mahál that is the lunar day in

dark Bhádrapad which corresponds to the lunar day in which the death took place. Mothers and female ancestors who died before their husbands, besides the yearly death-day, are honoured with a special service on the dark ninth of Bhádrapad or September-October which is known as the avidhavánavami or the unwidowed ninth. On this day the chief mourner calls two or more Bráhmans and two or more widowed women, feeds them, and gives them clothes and money. Funeral balls, cakes, water, turmeric, and redpowder are offered to the spirit of the dead. On the fifteenth of dark Bhádrapad or September-October balls, cakes, and water are offered to the spirits of all the elders and two or more Bráhmans are fed. This is done by every Bráhman whose father is dead.

To find the proper day and hour for holding mind or mahal feasts, several puzzling calculations have to be made. The solar day begins at sunrise and ends at the next sunrise. This is not the case with lunar days. The time taken by the moon to go round the earth is divided into thirty tithis or lunar days. These days are numbered from one to fifteen during the first or bright half of the moon, and again from one to fifteen during the second or dark half of the moon. On account of the different positions of the moon with regard to the earth the length of the lunar days varies. the same time for social and festival purposes the date of the lunar day or the age of the moon at sunrise on any solar day is held to be the lunar date of the day, though the lunar day may not actually begin till some time after sunrise. Thus if at sunrise on Sunday the first of January the lunar day was the bright fifth, though the sixth lunar day may begin within an hour after sunrise the whole day until sunrise on Monday, for social and festival purposes, is the bright fifth. The bright sixth begins with sunrise on Monday. If the sixth lunar day has been completed and the seventh has begun before sunrise on Monday, the sixth lunar day is dropped and Monday is called the bright seventh. On the other hand if, as happens about once a month, the same lunar day is running both at Sunday and Monday sunrise both of those days are counted as the bright fifth. This rule applies for social and festival but not for funeral purposes. For funeral purposes supposing sunrise on Sunday the 1st of January fell on the bright fifth of the moon and the bright sixth began at eight in the morning, if a man dies between sunrise and eight, he is held to have died on Sunday the bright fifth, and the bright fifth is his death-day. If he dies after eight his deathday is the bright sixth. Memorial services should be performed between 1-13 and 3-36 in the afternoon which is called the aparánhakál or afternoon time. If the lunar death-day is not current but begins soon after and lasts till the next afternoon the service should be put off till the next afternoon. If, which rarely happens,

Chapter III.
Population.
BRÁHMANS.
DESHASTHS.

¹ The solar day is divided into five times or káls each six ghatkas of twenty-four minutes that is a space of two hours and twenty-four minutes. The first time from 6 to 8-24 A.M. is called prátahkál or first time, the second time from 8-25 to 10-48 A.M. is sangámkál or joining time, the third time from 10-49 A.M. to 1-12 P.M. is módhyanhákál or noon, the fourth time from 1-13 to 3-36 P.M. is aparánhákál or afternoon, and the fifth time from 3-37 to 6 P.M. sáyankál or evening time.

Chapter III.
Population.
BRÁHMANS.
DESHASTAS.

the lunar death day ends before the next afternoon the service should be held the day before. No service is held for an ascetic either on the corresponding lunar day of dark Bhádrapada or on All Saints' Day on the Bhádrapad no-moon. A layman's death-day is called his shraddh or anniversary day, the lunar day of dark Bhádrapada or September-October corresponding to his death-day is called his paksh or fortnightly day. An ascetic's death-day is called his punya tithi or holy-day. An ascetic's memorial rite must be performed during the afternoon of the solar day at whose sunrise his lunar death-day was current.

A birth or a death makes a family impure for ten days. During the ten unclean days they perform no religious ceremonies, do not go into the god-room, or touch the furniture in the house, or any of their friends, or cook food. During those days men and widows make their brow-marks only of white earth and black charcoal without sandal-paste or redpowder. Married women use neither turmeric nor redpowder. Nothing sweet is eaten. Should the death-days of their parents or other relations fall during the ten days of uncleanness, they are not kept, but they keep them on the day they become pure. So long as they are impure they neither give nor receive anything in charity, or study, or teach religious books. the day they become pure, they bathe, sip a few drops of cow's urine, and eat sweets, and the men change their sacred thread. If a birth or death takes place in a family several degrees removed from the common ancestor, the impurity lasts only three days, a day and a half, or half a day according to the distance of the degree. If the relationship is very remote, they bathe on hearing the news of the death and are pure. If a person not related to the family in which a birth or death has taken place touches a person in mourning he baths and is pure. Until he bathes he can neither eat nor drink.

When Mádhvas meet before meals one asks the other 'Are you up?'; the other answers 'I am, are you?' If Mádhvas meet after the dinner hour one asks 'Have you dined?'; the other answers 'Yes, have you?'

In their houses young women are so closely guarded by mothers and sisters-in-law that they dare not speak even with female visitors. But when the young women go to draw water, they speak freely with their friends and tell other women all that goes on in their houses. They send messages to their parents, sisters, and brothers, without the knowledge of their husbands. mothers, or sisters-in-law and with a strict caution not to let their husband's people know. A Mádhva, if he chooses, may marry the sister or sisters of his wife either during her life or after her death. On the other hand women are not allowed to marry their husbands' brothers, either during their first husband's life, or after his death. It is characteristic of the people of Dhárwár, high castes and low castes alike, never to give a straight answer but as far as possible to Thus to the question 'Have you seen Tukáanswer by a question. ram?' the usual answer takes the form of 'When did I see him?', 'Who told you that I saw him?', 'Why should I see him?', 'Did you tell me to see him?', 'How could I see him?'.

During Shrávan or July-August parents of almost all classes ask their married daughters to their houses. The daughters spend a few days with their parents, are feasted, presented with a robe and a bodice, and sent back to their husbands.

Among Mádhvas when a relation comes whom they have not met for long, he is given a good dinner, and presented with clothes and other articles and sweetmeats. Before presents of clothes are made the giver has always to mark the robe or the waistcloth with redpowder. No one will take the present of a cloth unless the giver has marked it with red. A woman who has lately been confined is presented with two bodices, one for the mother and the other for the child. Besides the second bodice the babe is presented with a small jacket, a cap, an armless cloak called kunchi, and 2s. (Re.1). To widows no bodice is given and no red marks are made on the robe. On all marriages, coming of age, and meetings after the birth of a child, in the chief woman's lap some rice and betel, a couple of plantains, and a cocoanut are laid, and she is given a bodice. is called the vuditumbona or lap-filling. In spite of the Brahmans' dislike of Islám and of Muhammadans they lay sugar and fruit before the tábuts or miniature biers of Hasan and Husain in the yearly Moharam festival.

If a Bráhman dies, none of the Bráhmans of the same street can eat or drink till the body has been taken away.¹ On the return from the burning ground, the house of mourning is often the scene of a confused struggle for a share in the presents.

When children get small-pox, chicken-pox, or measles, their parents sleep apart for nine days. At the end of the nine days, pitchers full of water are poured over the steps of the temple of Durgavva the goddess of cholera. Gram soaked in water, a cocoanut, a plantain, turmeric, and redpowder, and boiled rice mixed with curds garlic and onions, are laid before the goddess, and lighted camphor is waved round her. When any member of the family is suffering from fever or sore-eyes the married people sleep apart.

During the last ten or fifteen years the younger men have given up many old religious observances.² The women still keep to their

1 Perhaps from the want of any strong caste organization the Mádhvas compare unfavourably with most classes in the matter of carrying the dead. They make the carrying of the dead a matter of hire instead of a token of respect and sympathy for the mouriers. If a death happens in a poor family no neighbours are to be found. They hide or run off or refuse to answer if asked to help. The few who come demand 2s. to 8s. (Rs. 1-4) and will not lift the body till the money is paid. If the family is poor, rich neighbours have to help them to pay the bearers. Again, when a rich man dies, the priests struggle for a place as carriers, tempted by the hope of fees of £3 to £4 (Rs. 30-40) which are sometimes given.

The following are some of the chief religious changes that have taken place among the younger men of the Madhva sect. Most of the younger men do not observe fasts and take their usual meals even on the Ekadashis or lunar elevenths of bright and dark Ashadh or July and Kartik or November which other Madhvas strictly observe as great fast days. The younger men do not apply any of the sectarian marks except the black line and red round paste mark to the brow. They do not mind if they do not get the holy-water to sip, and when Brahman priests are called to dine they do not ask the priests' permission to take their meals, but begin to eat whether the priest has begun to eat or not. Some of the young

Chapter III.
Population.
BRAHMANS.
DESHASTHS.

Chapter III. Population BRÁHMANS. Deshasths.

old practices. The Mádhvas allow child marriage and polygamy,

they forbid widow marriage, and polyandry is unknown.

The Mádhvas are not bound together as a body. includes many factions whose members settle their own social disputes. When a dispute goes before the chief priest or svámi, he fines one party and receives the amount of the fine as a present. He occasionally puts an offender out of the sect but the offender is generally allowed to come back if he pays a fine. During the last twenty years the power of the caste to enforce its rules has grown very weak. The power of the high priest to settle disputes is not questioned. But the high priest is on tour and the local priests pay more heed to gathering fees than to healing disputes.

Ten years ago Mádhva priests never sent their boys to Government schools. Their parents or other relations taught them Sanskrit until they were sixteen to twenty years old. During the last ten years the practice of sending their boys to Government schools has become general. About one per cent have given up their priestly calling and taken to Government or private service, pleading, and moneylending. The laity have always been eager to send their boys to school. A few send their girls to school, but no girls stay

after they are nine or ten. They are a rising class.

SMART-BHAGVATS.

Sma'rt-Bha'gvats are found all over the district. speak Kanarese. The names in common use among men are Martandbhat, Rudrabhat, Virupákshabhat, Shankaráppa, and Sadáshivaráya; and among women Gangábái, Nágubái, and Párvatībái. They have no surnames. Their chief family-god is Shiv and their chief family-goddess is Párvati. A male Smárt Bráhmaft is recognized by the horizontal sandal-paste mark and a red dot on his forehead, by the cleanness of his loin and shouldercloths, and by his peculiar way of wearing them; and a woman by the horizontal red mark on her brow and the cleanness of her robe and bodice. They are generally fair and goodlooking. Most of them live in houses of the better class two or more storeys high with walls of brick and flat roofs. The houses are clean, neat, and well-cared for. keep one or two cats and sometimes cows and she-buffaloes. Thev are great eaters and good cooks. Their daily food is rice, pulse, and vegetables, and their special holiday dishes are sweet cakes made of wheat, pulse, sugar, and clarified butter. They do not eat animal food except at great sacrifices when they are obliged to kill a sheep and offer its flesh to the god of fire. Most of them drink no liquor but a few who worship the goddess Durga on Friday nights offer her liquor and themselves sip about two tea-spoonfuls. The men wear the loin and shouldercloth, a jacket, a turban, and shoes, and a few wear sleeveless coats, stockings, boots, and neckties in imitation of the English. The women wear a robe and a bodice. The plain end of the robe is tied round the waist and knotted; the upper middle part is folded backwards and forwards about three inches broad and tucked in near the navel; the

men are not careful to keep their parents' death-days. On the anniversary day instead of performing the shraddh ceremony they feed a Brahman, give him a money present or dakshina, and send him away,

lower middle part is passed back between the feet and tucked in at the waist behind; and the upper finer end is carried from the left side under the right arm and thrown over the left shoulder and head so as to cover the chest and allowed to fall loose on the right shoulder. The robe is arranged so neatly that the full border shows from below the right arm to the left shoulder and head. They mark their brows with redpowder or kunku, rub water and turmerio on their brows cheeks hands and feet, and tattoo small dots on their foreheads cheeks and chins, and flowers on their hands and feet. Both men and women are clean and neat in their dress. They have a good store of clothes for daily wear and for special occasions. The men wear gold ear and finger rings and necklaces, and the women wear gold ear, nose, and finger rings, armlets, bracelets, waistbands, and silver anklets and chains. They are hardworking, honest, hot-tempered, hospitable, and orderly. Most of the laymen are moneychangers, cotton and grain dealers, and Government servants; and most of the priests live by house service and almsbegging. They hold themselves equal in position to any local Bráhmans. Strict Vaishnavs hold them inferior and will not take food from a Smart Bráhman, but especially of late years ordinary Vaishnavs eat and drink with them. A family of five spends about £1 10s. (Rs. 15) a month on food, and about £2 10s. (Rs 25) a year on dress.1 Their house goods are worth about £10 (Rs. 100). A birth costs about 10s. (Rs. 5), a thread-girding about £2 (Rs. 20), a marriage about £10 (Rs. 100), a coming of age about £1 (Rs. 10), a pregnancy about £1 (Rs. 10), and a death about £2 (Rs. 20). As a class they are religious. Their family deities are Párvatí and Shiv and they also worship Ganpati, Vishnu, and other Hindu gods. They keep the regular Hindu holidays, the chief of which are Holi-Hunavi in March-April, Ugadi in April-May, Rama-navami in April-May, Nag-panchami in August-September, Ganesha-chaturthi in September-October, and Dasara and Diváli in October-November. They make pilgrimages to Benares, Gokarn, Pandharpur, Rameshvar, and Tirupati. Their spiritual guide is Shankaráchárya. They believe in sorcery, witchcraft, and soothsaying. The sorcerers, witches, and soothsayers belong to all classes, generally to the lower classes, and are consulted when a person falls sick or is overtaken by misfortune. The sorcerers remove the sickness or the ill-luck by the help of some familiar spirit. They keep the sixteen Brahmanic sacraments or sanskars and in their customs

Chapter III.

Population.

BRAHMANS.

SHART-BHAGVATS.

¹ These and other estimates of monthly cost of living are framed on the basis that the family has to buy retail the grain and other articles it uses. The actual cash payments of the bulk of the middle and lower orders who either grow grain or are wholly or partly paid in grain must therefore be considerably less than the estimates. The figures mentioned in the text are not more than rough estimates of the value of the articles which under ordinary circumstances the different classes of the people consume.

² Those are: Sacrifice on or before conception, garbhadhan; Sacrifice on the vitality of the fætus, pussoran; Sacrifice in the third month of pregnancy, anavalobhana; Sacrifice in the seventh month, Vishnubali; Sacrifice in the fourth, auxth, or eighth months, simantonnayan; Giving the infant honey and clarified butter out of a golden spoon before cutting the navel-cord, játatarm; Naming the child on the tenth, eleventh, twelfth, or hundred and first day, namatarm; Carrying the child to be presented to the moon on the third lunar day of the third bright fortnight

Chapter III.
Population.

Bráhmans. Smárt-Bhágvats. and observances do not differ from Vaishnav Bráhmans. Child marriage and polygamy are practised, widow-marriage is forbidden, and polyandry is unknown. They are bound together as a body. Minor social disputes are settled by a majority of the caste and graver offences by their guru or spiritual teacher Shankaráchárya. Any one disobeying these decisions is put out of caste. Of late years the power of the community is said to have declined. They send their boys and girls to school. Their boys are kept at school till they can read and write and in some cases they are given a high education. The girls stay at school till they are nine or ten years old. At home they are taught to draw patterns in rángoli or quartz powder, and something of cooking and other housework. They do not take to new pursuits and are a steady class.

GOLAKS.

Golaks, or Bastards, are returned as numbering five and as found in Gadag. There are two divisions of Golaks, Kund Golaks and Rand Golaks. The illegitimate offspring of a Bráhman woman during her husband's lifetime is a Kund Golak and the children of a Bráhman widow are Rand Golaks. These people eat from Bráhmans. Other Bráhmans neither eat nor marry with them.

KANVAS.

Ka'nvas, also called Yajurvedi or Prátham Shákhi that is First Branch Bráhmans, are returned as numbering about 1323 and as found in Dhárwár, Bankápur, Hángal, Karajgi, Kod, Navalgund, Ránebennur, and Ron. They are called Prátham Shákhis because they belong to the first branch of the white Yajurved which is called Kánya. They speak pure Kánarese. The names in common use among men are Govindbhat, Rámbhat, and Sakhárámbhat; and among women Gangábái, Jánakibái, and Rádhábái. Their family-god is Mailar, who is the same as the Deccan Malhari or Khandoba, and whose chief shrine is said to be at Premapur near Benares. They are divided into Vaishnavs and Smarts. They have gotras or family stocks and a boy and girl of the same stock cannot intermarry. They are dark and stoutly made. Most of them live in houses of the better class one storey high with walls of brick and tiled roofs. Their daily food is rice, pulse, and vegetables; and their special holiday dishes are sweet cakes made of wheat, pulse, sugar, and clarified butter. They neither eat animal food nor drink liquor. In dress and ornaments they do not differ from Smart Brahmans. They are hot-tempered, hospitable, and orderly, but neither hardworking, clean, nor neat. They are priests, cotton and grain dealers, and money-Some are employed as cooks and water-carriers and a few as Government servants. In social position they rank with Smárt Bráhmans. A family of five spends about £1 10s. (Rs. 15) a month on food and about £3 (Rs. 30) a year on clothes. A house costs them about £30 (Rs. 300) to build and 4s. (Rs. 2) a month to A birth costs about £2 10s. (Rs. 25), a thread-girding about

nishkraman; Carrying the child to be presented to the sun in the third or fourth month, suryúvalokan; Feeding the child with rice in the sixth or eighth month, annapráshan; Tonsure in the second or third year, chudákarm; Investiture with the sacred thread, upanayan; Instruction in the Gáyatri verse after the thread ceremony, mahánámya; Loosening of the munj grass and preparing the boy for his marriage, samávartan; Marriage viváka; and Death svargárohan.

£5 (Rs. 50), a marriage about £20 (Rs. 200), a girl's coming of age about £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death about £4 (Rs. 40). As a class they are religious. In their houses they worship stone images of Shiv, Vishnu, Ganpati, Surya, and Shakti. Their family god Mailar or Malhári is represented as an old man with a long beard holding in his hand a trishul or trident and smoking a hubble-bubble. His forehead is smeared with turmeric powder, he rides a horse and is accompanied by his mistress Kurabatteva a woman of the shepherd caste, and several dogs. The chief local shrine of this god is at Gudguddápur in Ránebennur. Besides the figures of this god the Gudguddápur temple contains a figure of his minister Heg Pradháni who is said to be an incarnation of Vishnu, and another of the lady Kurabatteva. The temple also contains figures of dogs. Several beggars live in the temple and dress themselves with cotton and woollen rags and call themselves Vággayás or dogs of the god. They bark at each other like dogs and in return are given alms. Great merit accrues from feeding these human dogs. Kánvas keep the leading Hindu holidays and make pilgrimages to Vithoba at Pandharpur, Mahálakshmi at Kolhápur, Venkataraman at Tirupati, and Vishveshvar at Benares. They say that their forefather's teacher was the sage Yadnyavalkya, but they have no spiritual guide or quru. They keep the sixteen sanskars or sacraments according to the rules of the white Yajurved. Their customs and rites do not differ from those of Smart Brahmans. Child-marriage and polygamy are allowed, widow-marriage and divorce are forbidden, and polyandry is unknown. They are bound together as a body. Social disputes are settled by men of the caste and any one disobeying the common decision is put out of caste. They send their boys and girls to school, do not take to new pursuits, and are a steady class.

Kanoj or Upper India Bráhmans are returned as numbering about 290 and as found in Dhárwár, Bankápur, Hubli, Karajgi, and Navalgund. They take their name from Kanoj in North India. They claim to belong to the Angiras, Bárhaspatya, Bháradváj, and Vashishth gotras or family-stocks. The names in common use among men are Bálprasád, Bhavadiga, Devidin, Deviprasád, Gopináth, Jagannáth, and Shankarprasád; and among women Jamuna. Jánki, Lachhimi, and Sundar. Their common surnames are Agni-hotri, Bachape, Bál, Chaube, Dikshit, Kibe, Páthak, Shákta, and Trivedi. Persons having the same surnames cannot intermarry. They speak the Brij language at home and Hindustáni and impure Kánarese out of doors. They are stronger and stouter than the local Deshasths. They live in houses of the better class with walls of brick or stone and tiled roofs. They are moderate eaters. Their staple food is rice, wheat cakes, vegetables, and clarified butter. They do not use flesh or intoxicating drinks. The men wear a waistcloth, a coat, a shouldercloth, a turban, and shoes; and the women wear a petticoat and robe and a backless bodice called káchli. Both men and women keep rich clothes in store for holiday wear. Kanojs are generally clean, hardworking, and sober, but vain and

Chapter III.
Population,
BRÁHMANS,
KANVAS.

Kanojs.

² Details are given under Gudguddápur in Places of Interest.

Chapter III.
Population.
BRÁHMANS.
KANOJS.

fond of show. Their main calling is service as soldiers and messengers. Some have taken to husbandry and some to money-They are religious, having priests belonging to their own caste, and making pilgrimages to Benares and Allahabad. They keep the leading Hindu holidays and believe in sorcery, witchcraft, and soothsaying. When a woman is in labour a midwife is called and cuts the navel cord. The child is made to suck honey for the first three days. On the sixth day the women of the house wash their hands in a mixture of turmeric water and redpowder, and press them five times against the walls of the lying-in room. In front of these hand-marks a golden image of Satvái is set on a stone, with a sheet of blank paper, a reed pen, and a pomegranate, and it is worshipped by the women of the house with flowers and red powder. The impurity caused by a birth lasts ten days. Boys are girt with the sacred thread between seven and ten. On a day fixed as lucky by an astrologer the boy is shaved and for the last time eats from his mother's plate sitting on her lap. The boy and his father are made to stand on a low wooden stool facing each other, with a cloth drawn between them. The priest repeats sacred verses, the guests throw red rice, and the cloth is withdrawn. The priest gives the boy a sacred thread to wear. The father seats the boy on his lap and whispers into his right ear the holy sun-hymn or gáyatri, and the priest kindles a sacred fire. A feast is given to Brahmans friends and kinspeople, and the ceremony is over. Boys are married between fifteen and thirty, and girls beween five and fifteen. On a lucky day the boy dressed in a fine suit of clothes with a marriage coronet tied to his brow, goes in procession with his friends and kinspeople with music, to the bride's. On reaching the bride's the bridegroom is taken into the marriage-hall and the bride is made to stand in front of him. A curtain is held between them, and the priest repeats marriage songsand throws rice grains over the couple. The priest kindles the sacred fire, and the bride and bridegroom throw clarified butter and fried rice into it. They walk six times round the fire. At the end of the sixth turn the bride goes into the house, and with tears in her eyes takes leave of her home. When she comes out her father mentions his own and the bridegroom's family-stock or gotra, and the bridegroom, after asking leave of the guests, takes the seventh turn round the fire followed by the bride. Next day a feast is given to friends and relations and the marriage is over. When a girl comes of age she is unclean for four days. On the sixth day she and her husband are bathed together, and the family-priest kindles a sacred fire and pours clarified butter and sesamum-seed over it. The girls's lap is filled with a cocoanut, plantains, dates, almonds, and sweat meets, some bent grass is pounded, and her husband squeezes a few drops of the juice down the girl's right nostril, and friends and relations are feasted on wheat-cakes and curds. Any time after this the boy and girl may begin to live together as husband and wife. After death the body is bathed in cold water and laid on a bier. The body is carried on the shoulders of four castemen and the chief mourner walks before them carrying a fire-pot in his hand. On their way the bearers set down the bier, change places, and pick a stone called ashma. On reaching the burning ground the chief mourner has his head and face hair shaved except the top-knot and eyebrows, and the dead is laid on the fire and burnt. When the body is nearly consumed the chief mourner sets an earthen pot filled with water on his shoulders and a man near him makes a hole in the pot with the stone called the ashma or life-stone. The chief mourner makes three rounds and at each turn a fresh hole is pierced. At the end of the third turn he throws the jar over his head, beats his mouth with the back of his right hand, and calls aloud. The party bathe, go to the house of the deceased where cow's urine is poured over their hands, and return to their homes. On the third day the ashes of the dead are gathered and thrown into water, and three dough balls or pinds are made, sprinkled with flowers and redpowder, and offered wheat-cakes and curds. On the tenth day ten dough balls are made at the burning ground, nine of which are thrown into water and the tenth is offered to crows. On the eleventh day the family of the deceased bathes and becomes pure. On the twelfth day comes the sapindi or ball-uniting. oblong ball is made representing the deceased, and three round balls representing his father, grandfather, and great-grandfather; then the ball of the deceased is divided into three and each part is united with the three round balls. On the thirteenth friends and relations are asked to dine at the house of mourning and present the chief mourner with a turban. They are bound together by a strong caste feeling. Their social disputes are settled at caste meetings and any one who disobeys a common decision is put out of caste. They send their children to school, take to new pursuits, and are a steady class.

Karha'da's or natives of Karhad in Satara, are returned as numbering about 239 and as found in Dhárwár, Bankápur, Hángal, Hubli, Karajgi, Kalghatgi, and Navalgund. Their head-quarters are at the meeting of the Krishna and Koina rivers in Sátára. Dhárwár they are settled as traders and Government servants. Their dress and way of living differ little from those of Chitpávans. Sátára and Kolhápur Karhádás eat and marry with Vaishnav Deshastla; in Dhárwár the two classes neither eat together nor intermarry. Formerly the practice prevailed among the Karhádás of securing the favour of their house-goddess Mahálakshmi by poisoning a human victim at some great festival, as on Dasara or Diváli. The practice is believed to have been given up, but some people are still shy of dining with a Karhada. Their customs and rites differ little from those of Chitpávans. Their spiritual teacher is Shankaráchárya to whose representative they make money presents when he visits the district. They send their children to school, take to new pursuits, and are a rising class.

Konkanasths, also called Chitpa'vans, are returned as numbering about 1449, and as found all over the district. Most of them seem to have come to Dhárwár since its conquest by Báláji Bájiráo or

Chapter III.
Population.
BRAHMANS,
KANOJS.

Karhádás.

KONKANASTHS.

¹ Details are given in the Poona Statistical Account.

Chapter III,
Population,
BRÁHMANS.
KONKANASTHS.

Nánásáheb Peshwa in 1753. In appearance they are fair and slender. Their expression is lively, the eyes large and often gray, the face oval, the nose high, the lips thin, the cheek-bones low, the cheeks round, the head hair long with a ruddy tint, and the face hair thick. Most of the women have weak eyes. They speak Marathi at home, and impure Kánarese with the people of the district. They live in houses one storey high with walls of brick and tiled or flat roofs. They are great eaters and good cooks. Their daily food is rice. pulse, clarified butter, buttermilk, and vegetables, and their special holiday dishes are sweet cakes made of wheat flour sugar and spices. Their exceeding fondness for spiced and boiled buttermilk has given them the name of buttermilk-men kadhi (M.) or paldias (K.). They eat no animal food except at great sacrifices when they offer a sheep to the god of fire, and eat part of the offering. They drink no liquor. The men wear loin and shouldercloths, a jacket, a coat, a headscarf or a turban, and shoes; and the women a robe and a bodice. They are thrifty, crafty, and persevering, cringing if a favour has to be gained, proud and overweening when in power. Some are landowners, others are traders, and a large number are in Government service. They are prosperous and successful. They claim equality with Deshasths, but the Deshasths do not admit their claim. As a rule the Dhárwár Deshasths, especially those of the Madhva sect, do not eat from the hands of Chitpavans. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs about £50 (Rs. 500) to build and about 4s. (Rs. 2) a month to rent. The furniture is worth about £20 (Rs. 200), and their servants and animals cost them about £10 (Rs. 100) a year. A birth costs about £1 (Rs. 10), a thread-girding about £3 (Rs. 30), a marriage about £20 (Rs. 200), a girl's coming of age about £1 (Rs. 10), a pregnancy about £1 10s. (Rs. 15), and a death about £2 10s. (Rs. 25). As a class they are religious. They keep the sixteen Hindu sanskars or sacraments, and their customs and rites differ little from those of the Smarts. Their caste feeling is strong but among the younger members it is declining. Social disputes are settled by their guru or spiritual guide Shankaráchárya whose local representative lives at Sankeshvar in Belgaum. Any one disobeying the teacher's decision is put out of caste. They send their boys and girls to school, take to new pursuits, and are a rising class.

SARVARIAS.

Sarvarias are returned as numbering about fifteen, and as found only in Dhárwár. Their ancestors belonged to Upper India and are said to have settled in Dhárwár about seventy-five years ago. They speak Hindustáni at home and Kánarese abroad. The names in common use among men are Rámprasád, Shivlálprasád, and Venkatprasád; and among women Gangábái, Jamnábái, and Tulsábái. They have no surnames. Their household gods are Mahádev and Ganpati; and their household goddesses Yallamma and Lakshmi. Yallamma's chief shrine is near Savadatti in Belgaum, and Lakshmi's is in Kolhápur. They have no divisions.

¹A detailed account of the Chitpávans is given in the Statistical Account of Poona, Bombay Gazetteer, XVII. 98 - 158,

They are strong, stout, and commanding. They live in houses of sunburnt bricks and tiled roofs, generally one-storeyed, clean, and well-cared-for. They are moderate eaters and good cooks. Their daily food is rice, wheat-bread, vegetables, milk, curds, and clarified butter; and their special holiday dishes are sweet cakes made of wheat-flour, coarse sugar, and pulse. They neither eat flesh nor drink liquor. The men wear the loin and shouldercloths, a jacket, a coat falling to the knees, a headscarf, and shoes. The women wear a robe and a bodice, but do not pass the skirt of the robe back between their feet. Both men and women are neat and clean in their dress. Their widows do not shave their heads like other Brahman widows. The men wear earrings made of gold and set with pearls and gold finger rings; and the women wear ear finger and nose rings, armlets, wristlets, necklaces, and waistbands. They are honest, clean, neat, hardworking, and hospitable, but hot-tempered and quarrelsome. Many are landholders and traders, some are Government servants, and a few are priests. They rank among Gaud Bráhmans. A family of five spends about £1 10s. (Rs. 15) a month on food and about £2 10s. (Rs. 25) a year on dress. A house costs about £20 (Rs. 200) to build, and about 2s. (Re. 1) a month to rent, and the value of their house goods is about £10 (Rs. 100). A birth costs about £2 (Rs 20), a thread-girding about £3 (Rs. 30), a boy's marriage about £20 (Rs. 200), a girl's coming of age about £1 12s. (Rs. 16), a pregnancy about £1 (Rs. 10), and a death about £1 10s. (Rs. 15). A daughter's marriage costs more than a son's because £5 (Rs. 50) have to be paid to the bridegroom. They are religious, and make pilgrimages to Gokarn in Kanara, Benares in Upper India, and Rámeshvar in Southern India. Their spiritual teacher or guru is called Dandisvámi and lives near Benares. He is a Gaud Bráhman and has several Gaud Bráhman deputies in different parts of the country. The Sarvarias believe in sorcery, witchcraft, and soothsaying. They keep the sixteen Hindu sanskars or sacraments. Child-marriage and polygamy are allowed, widow-marriage is forbidden, and polyandry is unknown. 'They are bound together by a strong caste feeling. Social disputes are settled by the members. of the caste and the local deputy of their guru or spiritual teacher. Any one who disobeys these decisions is put out of caste. They send their boys and girls to school, take to new pursuits, and are a steady class.

Savva'ses, or a Hundred and Twenty-fivers, are returned as numbering about eighty-four and as found in Hángal and Karajgi. They say that the founder of their class was called Sahavási or companion, because he attended Rám the hero of the Rámayan in his exile. According to the common story they are called Savváses, literally one hundred and twenty-fivers, because their forefathers belonged to a band of hundred and twenty-five Bráhman families who lost caste by eating with a Bráhman who married a Chámbhár girl. The only Bráhmans who eat in the same row as the Savváses are the Bráhmans of Rághavendra Svámi's house who are their religious teachers. Their home speech, names, and house-gods are the same as those of the Mádhva Vaishnav Bráhmans to which community they formerly belonged. They have no surnames. They

Chapter III
Population.
BRÁHMANS.
SABVARIAS.

SAVVÁSES.

Chapter III.
Population.
BRAHMANS.

SHENVIS.

are divided into Vaishnavs and Smarts who eat together and intermarry. In appearance dress and ornaments they do not differ from Mádhva Bráhmans. They are clean, neat, hardworking, perservering, hot-tempered, hospitable, and orderly. Their main calling is trade and moneychanging. As a class they are prosperous. Their customs and religious rites and ceremonies do not differ from those of the Mádhva Vaishnav Bráhmans. They send their boys and girls to school, take to new pursuits, and on the whole are a rising class.

Shenvis, also called Sárasvats or inhabitants of the country near the Sarasvati river, are returned as numbering about 430 and as found chiefly in Dhárwár, Bankápur, Gadag, Hubli, and Navalgund. Their original West Indian settlement seems to have been Goa whence many of them are said to have fled to Kanara, Belgaum, and Dhárwár early in the sixteenth century when Goa fell to the Portuguese. The names in common use among men are Anáppa, Durgáppa, Mangáppa, Shántárám, and Vaikunth; and among women Godu, Ganga, Shanta, and Yamna. Their common surnames are Bhándáre, Bichu, Kánvinde, Kulkarni, Rege, and Telang. Their leading family stocks are Atri, Bháradváj, Gautam, Jamdagnya, Kaushik, Vashishth, Vatsa, and Vishvámitra. Their family deities are Mangesh and Shánta-Durga. In appearance they are middlesized, fair, and well-made. Their women are handsome and graceful, and like the women of Goa are fond of decking their hair with flowers. Both men and women speak Maráthi and occasionally Kánarese. home they speak the Konkani dialect of Maráthi. They live in houses one or two storeys high with walls of bricks, stones, and tiled roofs. Many of them eat fish and keep to rice as their daily food. As a class they are well-to-do; some of them are moneychangers, some village accountants, some Government or merchants' clerks, and a few are husbandmen. In religious matters Shenvis are either Smarts or Vaishnavs each sect being under the jurisdiction of a separate 'sanyási or head priest called svámi or lord. The Smárt svámi lives at Sonavda in Goa and the Vaishnav svámi in Goa. The two sects dine together and intermarry. The Shenvis are generally fond of show and somewhat extravagant, but intelligent, hardworking, and orderly. Their customs and religious rites do not differ from those of their brethren in Kanara and Belgaum. Social disputes are settled by the men of the caste, the graver cases being referred to their srámis or religious heads for disposal. They send their children to school, take to new pursuits, and appear to be a rising class.

Shriyaishnavs

Shrivaishnavs, or Rámánuja Bráhmans, are returned as numbering thirteen. They are found in large numbers in Maisur and Madras. They speak Tamil at home and Kánarese abroad. The names in common use among men are Bhaskaráchárya Rámánujáchárya, Sheshádriáchárya, and Tirmaláchárya; and among women Andalamma, Kámakshema, Minakshema, and Rukhminiamma. They have no surnames. They have many gotras or family stocks, and persons of the same gotra do not intermarry. They are divided into Vadagales whose sect-mark is a half circle of white earth with a straight line of yellow in the middle, and Tengales whose

mark is trident-shaped. Shrivaishnavs are well-made, fair, strong, and muscular. Most live in good one-storey houses with walls of brick and flat or tiled roofs. They are great eaters and good cooks. Their daily and holiday food is the same as that of the Mádhva Vaishnav Bráhmans, the only difference being that they use more tamarind, chillies, and salt. They are famous for their skill in preparing a sweet dish called chitranna or variegated Rice is boiled and spread on a flat stone or a tinned plate, sweet oil is poured over the rice, and it is left to cool. Oil, mixed with powdered mustard seed and chillies, is poured into an iron pan and heated. To this, when hot, tamarind juice is added, and the whole is allowed to boil till it slightly thickens. When it begins to thicken rice, salt, sesamum powder, cocoa scrapings, and ground mustardseed are added and the whole is seasoned. Shrivaishnavs make this food into small bundles and carry a supply of bundles when they go travelling. When they halt, they bathe, perform the daily worship, and eat the food. In dress the men do not differ from other Vaisnav Bráhmans. The women wear a robe and a bodice, but except the widows they do not cover their heads with the end of their robes. Their ornaments do not differ from those of other Vaishnav Bráhmans. They are hardworking, clean, neat, thrifty, even-tempered, hospitable, and orderly. They are generally traders or moneychangers, and Government or private servants. successful and free from debt. As a caste they are on a par with Deshasths. They eat and meet socially on an equal footing with the persons of their own class but do not eat from the hands of other Bráhmans. A family of five spends about £2 (Rs. 20) a month on food and about £5 (Rs. 50) a year on dress. It costs them about £40 (Rs. 400) to build and about 4s. (Rs. 2) a month to rent a house. Their house goods are worth about £20 (Rs. 200). A birth costs about £2 10s. (Rs. 25), a thread-girding about £5 (Rs. 50), a marriage about £20 (Rs. 200), a coming of age about £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death about £3 (Rs. 30) They are religious. Their chief deity is Vishnu. They have family priests who are called There are two gurus or spiritual guides among them named Ahobalasvámi and Parkalasvámi. The former lives at Ahobal in the Madras Presidency and the latter in Maisur. Both the teachers travel about the country and brand their disciples with copper seals called the chakra or discus on the right arm and the shankh or conch on the left arm. Their chief holidays are Makar-Sankránt in January-February, Ugádi in April-May, Rám-návami in April-May, Narsinh-jayanti in May-June, and Krishnajayanti in August-September. They keep no holidays or festivals in honour of Shiv. They believe in sorcery, witchcraft, and soothsaying. Except for a few sectarian peculiarities their observance of the sixteen sanskars or sacraments does not differ from that of the Vaishnav Bráhmans. Some of their customs seem strange to other Bráhmans. Other Bráhmans shave the moustache only on a parent's death. The Shrivaishnavs shave the moustache during their parent's lifetime because they hold that if water touches the moustache in passing into the mouth it becomes the same as liquor. At meals other Brahmans as a rule serve salt first, but among the

Chapter III.

Population.

BRAHMANS.

SHRIVAISHNAVS

Chapter III.

Population.

BRÁHMANS.

SERIVAISHNAYS.

Tengale Shrivaishnavs sugar and not salt is served first. Among Shrivaishnavs it is considered essential that a man should give a portion of his food to his wife, for this reason every married man leaves a portion of his food on his plate for his wife, and his wife takes her meals on the same plate adding fresh food to her husband's leavings. Shrivaishnavs consider glass bangles impure and their women do not wear them after coming of age. They hold that a woman is likely to sicken any time after the eighteenth day since her last monthly sickness, and so after that day they do not allow her to cook. Other Brahmans do not wear shoes after they have bathed and before they have said their sandhya or daily prayer. Shrivaishnavs have no objection to wearing shoes after bathing, provided they are sewn with leather not with cotton thread. Shrivaishnavs are bound by a strong caste feeling. Their social disputes are settled by their spiritual teachers or qurus, and any one who disobeys these decisions is either put out of caste or fined. They send their boys to school, seldom take to new pursuits, and are a rising class.

TAILANGS.

Tailangs, or Telugu Bráhmans, are returned as numbering about 250 and as found all over the district except in Bankápur and Navalgund. They include five sections, Kásalnadu, Murikinadu, Telaganya, Vagnadu, and Velnádu, who eat together but do not intermarry. They have several family stocks, as Atri, Bháradvái, Gautam, Jamadagni, and Káshyap. The names in common use among men are Bhimayya, Rámayya, and Somayya; and among women Gangamma, Nagamma, and Singamma. Their surnames are Bhamidivaru, Gantigunipadivaru, Innuvaru, Kampuvaru, and Kotavaru. They are tall strong and dark. Their home tongue is Telugu, but with the people of the district they speak impure Kánarese. They are great eaters, and have a special fondness for sour dishes. Their daily food is rice, whey, and vegetables. men wear a short waistcloth, a waistcoat, a shouldercloth, a headscarf, and sometimes shoes; and the women wear a robe and a bodice and pass the skirt of the robe between the feet and tuck it behind. They are clean, idle, quarrelsome, hot-tempered, and thrifty. They are religious and keep the usual Hindu fasts and feasts. Their spiritual teacher is Shankaráchárya. They believe in sorcery, witchcraft, and soothsaying. When a child is born the midwife cuts the navel cord and the child is bathed. The navel cord is not buried but is laid to dry in the lying-in room. On the afternoon of the fifth day in the mother's room a grindstone is laid on the floor and on the stone is set an image of Satvai and the child's navel cord, and they are worshipped by the midwife or other elderly woman. The family is impure for ten days. On the eleventh the members are cleansed by winking cow's urine. Boys are girt with the sacred thread between seven and eleven. The day before the girding an invitation is sent to the village-god with music. On the threadgirding day a sacred fire is kindled and a sacred thread is fastened round the boy's neck and his right arm. Girls are married between six and ten, and boys between twelve and twenty-five. On the marriage day the devapratishtha or marriage guardian's enshrining

takes place at the houses both of the bride and the bridegroom. The bride and bridegroom are rubbed with turmeric and bathed at their The bridegroom is carried on horseback to the girl's in procession with music and the boy and the girl are made to stand on low stools facing each other. A piece of yellow cloth is held between them, marriage verses are repeated, and a sacred fire is kindled. A turban is presented to the girl's brother, and betelnuts and leaves are handed to relations and friends. On the second and third day, the boy's relations are taken to dine at the girl's house, and on the fourth day the sade or robe ceremony is performed when the boy's relations go to the girl's house and present the girl with ornaments and clothes. The dead body is washed, dressed in a white sheet, and carried to the burning ground by four persons on a bamboo bier. On approaching the burning ground, the bier is lowered and a stone called ashma or life-stone is picked up. At the burning ground the body is laid on the pyre and burnt. When the body is burnt the chief mourner takes an earthen pot filled with water on his shoulder, and walks thrice round the pyrex At each round a hole is made in the pot with the stone called ashmet and at the end of the third round the pot is dashed on the ground. The ashes are thrown into water and all return home. From the third to the ninth day a rice ball is offered to the dead. On the tenth day all the adult males of the family go to a river, offer cakes and rice balls, set up red flags six inches high, and ask the crows to touch a rice ball. As soon as a crow touches the ball the mourners pour water and sesamum-seed over the life-stone or ashma and throw it into water. On the eleventh day the family is purified. A sacred fire is kindled in the burning ground and money is distributed among beggars. On the thirteenth day the shraddh ceremony is performed and this is repeated at the end of each month for a year. Social disputes are settled by men of their own caste, and any one who disobeys the common decision is put out of caste. They send their boys to school, seldom take to new pursuits, and on the whole are prosperous.

Tirguls, or Betel-vine Brahmans, are returned as numbering about 276, and as found only in Kod. They grow the betel-vine and are said to have lost position because in growing the betel-vine they are forced to kill insects. They were originally Deshasth Bráhmans, but Deshasth Bráhmans neither eat nor marry with The names in common use among men are Atmárám, Mártand, Ragbunáth, and Shankar; and among women Lakshmi, Radha, and Savitri. Their surnames are Arankele, Arole, Bhinge, Javalkar, and Supekar. They live in houses of the better class. Their daily food is rice, wheat-bread, vegetables, curds, and clarified butter. They use neither flesh nor liquor. Both men and women dress like Deshasth Bráhmans. They are traders, writers, landowners, and betel-vine growers. They are hospitable, thrifty, clean, and hardworking. A family of five spends about £1 10s. (Rs. 15) a month on food. They are Smarts, and worship all the Brahmanic gods and goddesses, and keep the ordinary Hindu fasts Their customs do not differ from Deshasth customs. They send their boys to school and on the whole are a rising class.

Chapter III.
Population.
BRÁHMANS,
TAILANGS.

TIRGULS.

Chapter III.
Population.
Lingáyats.

Linga'yats, properly Lingavants or Ling-wearers, are found all over the district with a strength probably of not less than 300,000 or 38 47 per cent of the district Hindus. Lingáyats are called Vir or Fighting Shaivs as opposed to Smarts or Lukewarm Shaivs.1 They belong to two main divisions, laymen and clergy. The clergy, who are generally called Jangams, are divided into two classes the Dhatasthalas or Viraktas who are unmarried and the Gurusthalas who are married. The thirty-one divisions of lay Lingáyats may be arranged under three groups, four classes of True or Pure Lingayats, sixteen classes of Affiliated Lingáyats, and eleven classes of Half-Lingáyats. The four classes of True or Original Lingáyats are Dhulpávads, Shilvants, Banjigs, and Panchamsális. Dhulpávads or Dust-Purified are considered the purest section of the Lingayat laity. They are very religious and do not eat with any other section except when a chief priest is present. So strict are they that even the firewood and cowdung cakes with which their food is cooked have to be washed before they are used. When they bring water from a public well, pond, or river, they are careful to cover the mouth of the water-vessel with cloth that neither the sun's rays nor a passing evil eye may defile the water. Many of them, apparently because the sun shines on streams and pools, draw their water from a hole dug in the river-bed sand, and close the hole as soon as they have filled The Shilvants or Pious are also strict though less their jars. scrupulous than the Dhulpávads. Next in purity and religious strictness come the Banjigs or Traders. Last come the Panchamsális, ordinary Lingáyats who are not generally careful to keep their religious rules. The group of sixteen classes of Affiliated Lingáyats are generally known by the name of their calling or occupation and do not hold so high a religious or social position as the four main classes. It is not easy to say whether they are offshoots from the original classes whose calling or practices have in some way taken from their religious purity, or whether they are classes who adopted the Lingávat faith after the original members of the sect ceased to allow new-comers to enter on terms of equality. second explanation is probably correct. The third group of eleven classes of Half-Lingavats, in allowing their girls to remain unmarried after they come of age, and in their slight regard for ceremonial purity, lean towards, or perhaps explain the origin of the Lingáyat book rules against child-marriage and ceremonial purity. They also prefer Jangams as priests to Brahmans, especially to perform their funeral rites. A love of flesh and liquor in many cases seems to have hindered them from becoming proper Lingayats. An account of each of the Affiliated and Half-Lingavats is given under its caste name. The details are:

¹ Mr. Rice (Mysore, I. 383) says, those who adopt the extreme views of the sect are called Vir Shaivs or warrior Shaivs to show their polemical zeal. According to Brown (Madras Journal of Literature and Science, XI, 175) the Vir Shaivs were formerly warlike. Even since the beginning of British rule they have twice raised insurrections at Kittur (1829) and at Mangalor (1837).

Dhárwár Lingáyats, 1881.

Division.	Males.	Females.	Total.	Division.	_	Males.	Females.	Total.
Pure Lingdyats.				Nágliks		1054	1124	2178
Ayyas or Jangams	19,681	19,435	39,116	Niláris	٠,	256	242	498
Daniel	10 715	11,042	21,787	Patta Sális	٠ ا	110	130	240
Daulpavads	010	924	1767	Shivshimpig árs *	. 1	**		•
Panchamasális		67,678 575	185,857 1071	Total		14,119	15,956	30,075
	100	0.0		Half-Lingdyats.				
Total	99,444	99,654	199,098		1		{	
				Agasarus or Parits*	•••	424	459	888
Affiliated Lingupats.	ĺ	1 1		Ambigs . Devangs .	٠.	2706	2691	5397
Adibanjigars	4492	4306	8798	Dhors	•	258	240	499
Description	About		2000	Háslára		18	18	36
Dalas Salama A	Audi	2000		Ilgerus		605	645	1250
Chelvádis	1535	1590	8125	Kurubar Gurus t				_
Ganigara *	1000	.,		Nádigárs		l :::	1	_
Gaylis*	: '	1		Sadars	•••	21,956	21,466	43,425
Hugars	859	857	1716	Samagárs		1070	1266	2545
Kudayakalıgars .	4360	4148	8508	Sális		1077	1003	2080
Kumbhars	1		1		!			
Lokabalikis	1321	1431	2752	Total	•• ,	28,318	27,783	56,106
Mulavara	111	113	224				-	
Matinpatis	21	15	36	Grand Total	•••	141,881	143,398	285,279

*These castes are not shown separately in the census returns but are included in the Brahman Hindu castes of the same name. †These castes are not shown in the census returns.

Lingáyats say that the ling which they wear and worship is the oldest object of worship in India; that they are descended from the five mouths of Shiv named Aghora, Ishána, Sajjojáta, Tatpurush, and Vámdev; and that the practice of wearing the ling was introduced by Basav (a.d. 1100-1160) an incarnation of Nandi Shiv's bull, who reformed the Lingáyat religion and revived the worship of the ling. There seems little reason to doubt that the Lingáyats are right in describing Basav as the reviver of an old form of worship rather than the founder of a new faith.

Basav¹ was the son of Madiga Ráya, also called Mandenga Madamantri, and his wife Madevi, also called Madala arasu and Mahámba, Arádhya² Bráhmans of Hingaleshvaram, a village near Bágevádi about forty miles south-east of Bijápur. They were devout worshippers of Shiv, and in reward for their piety Nandi Shiv's bull was born in their house, and, as the word Basav in Kánarese means a bull, the child was called Basav. It is said that when, as a boy, he was being girt with the sacred thread, Basav refused to wear it because it entailed the repeating of the gáyatri or sunhymn. He said he would have no guru or teacher but Ishvar or Shiv. For this offence Basav's father drove him from his house. Basav's sister Akka Nágamma, also called Padmávati, fled with him, and they made their way to Kalyán about a hundred miles west of Haidarabad, then (A.D. 1156) the capital of the country

² Arádhyas are Vir Shaiv Bráhmans (Brown in Madras Journal, XI. 144). The word means reverend. They are supposed to have joined the Lingáyats from personal liking to Basav. Jangams do not eat with them because they say the *gayatri* or sunhymn. In Madras they are bound to attend Lingáyat funerals. Ditto, 147.

Chapter III.
Population.
Lingáyats.

¹ Basav's name is also written Basava, Basavanna, and Basaváppa. (Wilson's McKenzie Collection, 2nd Ed. 305). In Madras he is also called Allama (Brown in Madras Journal of Literature and Science, XI. 161). The details of Basav's life and doctrines are taken from Wilson's McKenzie Collection, 2nd Edition, 305-307; Madras Journal of Literature and Science, XI. 144-147; Rice's Mysore and Coorg, I. 210-211; and Fleet's Kanarese Dynasties, 60-61.

Chapter III.
Population.
LINGAYATS.

and the seat of Bijjal, a Jain king of the Kalachurya or Kalachuri dynasty (1156-1182). Basav's maternal uncle, who was minister of police or dándanáyak at Kalyán, sheltered Basav in his house, appointed him to a post in the service of the state, and gave him his daughter Gangamma in marriage. Basav improved his fortunes by giving his sister in marriage to the king. When his uncle died the king appointed Basav chief minister and general. Basav made use of his power to dismiss the old state officers and put friends of his own in their places. He spent his wealth in lavish charities and endeared himself to the mass of the people. When he thought his influence established, he began, in opposition to the doctrines of the Jains, the Smarts, and the Vaishnavs, to preach a religion whose adoration for the ling, dislike of Brahmans, and contempt for child marriage and ceremonial impurity revived the early or southern beliefs of the lower classes of the people. At the same time by forbidding flesh and liquor he sought to win over the Jains. At last, Bijjal, either enraged at Basav's conduct or stirred on by the Jains, attempted to seize him. Basav escaped, routed a party sent in pursuit, gathered a large body of friends and adherents, and, when Bijjal advanced in person to quell the rebellion, defeated him and forced Bijjal to restore him to his post of minister and general. According to Jain accounts, when he was restored to power, Basav determined to take the king's life, and finally poisoned him on the banks of the Bhima while returning from a successful expedition against the Siláhára king of Kolhápur. According to Jain accounts Ráya Murári, the king's son, resolved to avenge his father's death. Basav, hearing of his approach, lost heart, and fled to Ulvi in North Kanara about twenty miles south of Supa, was pursued by Ráya Murári, and finding that the city could not stand a siege in despair drowned himself in a well. According to Lingáyat accounts the origin of the contest between Basav and king Bijjal was that the king put out the eyes of Allayya and Madhuvayya two of Basav's staunchest followers. Basav left to his friend Jagaddev the task of punishing the king's cruelty, cursed Kalyan, and retired to Sangameshvar the sacred meeting of the Krishna and Malaprabha about a hundred miles west of Bellári. At Kalyán, soon after Basav left, under his curse, cocks crew by night, jackals howled by day, there were eclipses, storms, earthquakes, and darkness. The people's hearts failed them. Under the taunts of his mother Párvati and with the help of two Lingáyat saints Maflaya and Bommaya, Jagaddev, Basav's champion, swore to avenge Basav's wrong. The three champions smeared their bodies with ashes, took swords and spears, and started to slay the king. Before them went a bull goring all who came in its way. They passed through the palace and the courtiers, and slew the king in his hall of state. They came out of the palace, danced in front of the people, and told them that the king had perished because he had lifted his hand against two of the saints of the new religion. on the city, man fought with man, horse with horse, elephant with

¹ Bijjal was slain in 1168. Madras Journal of Lit. and Science, XI. 145.

elephant, till Kalyan was destroyed. Basav continued to live at Sangameshvar. He was weary of life; his task of reviving the old and true faith was done: he prayed Shiv to set him free. Shiv and Párvati came forth from the ling, raised Basav and led him into the holy place, and he was seen no more. Flowers fell from the sky and his followers knew that Basava had been taken into the ling. According to Lingávat books Basav was helped in spreading his religion by his power of working miracles. He turned corn into pearls, found treasures, fed the hungry, healed the sick, and Basav spent the king's treasury in alms to raised the dead. Jangams. A noble told the king who called Basav to account: Basav smiling handed the key to the king and the treasure was found untouched. The mistress of a Jangam, who was a dancing girl, envied Gangamma, Basav's wife, the richness of her robes. The Jangam asked Basav to spare him one of his wife's robes. Basav took his wife's robe off her body and gave it to the Jangam. Other dresses sprang from Gangamma's body and all were given to the Jangam. The leading doctrines and rules of Basav's faith were that there is one god who guards from evil; that between this god and his worshipper there is no need of a go-between and no need of sacrifices, penances, pilgrimages, or fasts; that as all lingwearers are equal, the Lingáyat woman is as high as the Lingáyat man, and that therefore she should not marry till she comes of age and should have a voice in choosing her husband; that as all ling-wearers are equal all caste distinctions cease; that a true believer and ling-wearer cannot be therefore birth, women's monthly sickness, and death cause the Lingayat no impurity: that at death the true believer goes straight to Shiv's heaven, therefore his soul cannot wander into a low caste man or an animal, therefore he needs no funeral rites to help him to heaven or to keep him from wandering on earth an uneasy ghost; that as Shiv is an all-powerful guardian the wearer of his emblem need fear no evil, astrology is useless as the influence of the stars is powerless, the evil eye, wandering spirits, spells, and charms, none of these can harm the Lingayat. Many of these beliefs are not acted upon even by Shilvants and Banjigs the strictest of Dhárwár Jangams, and some of the lower classes of Lingáyats, the Sális, Patta Sális, and some of the Sadars do not even wear the ling though they profess to be Lingávats. The rules against observing ceremonial purity and performing after-death rites are kept by the higher classes of Dhárwár Lingáyats, but the lower classes do not strictly obey them. The Dhárwár Lingáyat Sális either burn or bury their dead, and when they burn the dead they keep all the after-death ceremonies observed by Bráhmanic Hindus. Among the Patta Sáli Lingáyats birth and death cause impurity for five days, and a woman in her monthly sickness is impure until she bathes, and, even after bathing, she does not cook or enter the idol room for three days. Basav's views regarding the uselessness of sacrifice, penance, and fasting, are strictly observed by all high class Dharwar Jangams. In

Chapter III.

Population.

Lingáyars.

¹ Wilson's McKenzie Collections, 306-307.

Chapter III. Population. LINGÁYATS.

Dhárwár though the Lingáyats consider the ling their chief god, they occasionally worship the village goddesses Dayamava and Durgava, and sometimes the Vaishnav god Hanumán. The same practice prevails in Bijápur and to some extent in Belgaum. In Kolhápur, Poona, and Sátára even Lingáyat priests do not scruple to worship the Bráhmanic gods Ganpati, Hanumán, Rádha, and Krishna.¹ The feeling of caste exclusiveness is stronger in Dhárwár than in Bijápur. In Bijápur all pure Lingáyats like Banjigs and Shilvants can perform diksha or initiation; in Dharwar no one but a Jangam can be initiated as a priest. In Dhárwár, as in Bijápur, Lingáyats of all classes eat together in a religious house or in the presence of a Jangam, and a Jangam can marry the daughter of a pure Lingáyat a Shilvant or a Banjig. In Kolhápur neither eating together nor intermarriage is allowed among the different classes of Lingáyats. If it was ever put in practice Basav's theory of the equality of women and men is no longer acted on. In Dharwar the position of married women is much the same as among Bráhmanic Hindus, except that special honour is paid to the Basavis or unmarried women devotees.2 In Kolhápur Poona and Sátára the position of Lingáyat women is much the same as of Bráhmanic women and even the Basavis are held in little respect. The Bráhmanic rule of early marriage is strictly observed in Kolhápur and Sátára, it is less strict in Bijápur and in Dharwar, though early marriage is the practice, it is not held binding, and the custom of the bride and bridegroom passing the first night together, even though children, suggests that the present practice of adult marriage in Maisur was once prevalent in Dhárwár. Widow marriage is allowed by all classes in Dharwar, and in Bijapur by all classes except Jangams; in Kolhápur the higher classes forbid In all places widows are held unlucky; in none have they to lose their hair, bangles, or bodice. In the northern districts, in Poona, Sátára, Kolhápur, and Belgaum, the Lingáyat faith is declining and many Lingáyats are adopting Bráhmanical ways of worship, ceremonies, and gods. On the other hand in Bijápur, in Dhárwár, and in parts of Southern India, Lingáyatism appears to be gaining ground.3 In Bijápur Mr. Cumine (1877-1879) found that the preference for Jangams over Bráhmans was constantly spreading; in Dhárwár the Ilgerus who a few years ago used to keep the Bráhmanic ritual and burn their dead, have lately begun to bury their dead and call Jangams to their funerals; and in the Bastar plateau in Madras a number of Kois have lately become Lingáyats. As regards the future state Lingayats believe that the wearers of the ling are not liable to transmigration. According to his conduct a Lingáyat after death is sent either to heaven or to hell, and where he is

¹ Ráma Nágu a Sátára Jangam, now in Bombay, has in his house images of Radha, Krishna, Virupáksh, the Lang, Nandi, the Sháligrám, and the goddess Vardani. All of these he daily worships. He says that many Jangams in Sátára and Kolhápur worship Brahmanic gods.

2 These Basavis are probably the celibate women to whom Mr. Brown refers.

³ Bijápur Statistical Account, Bombay Gazetteer. The Reverend J. Cain in Ind. Ant. VIII, 219.

Chapter III. Population. LANGLY ATEL

sent there he stays. The Lingayat belief that none of the house spirits can come back frees them from one great section of the Brahman ritual. They have no offering to the dead of sesamum, sacred grass, burnt sacrifices, new moon and full moon rites, and pourings of water.1 In their disregard of after-death rites the Lingayats agree with the Jains. In the matter of eating and drinking the Jains and Lingayats are also at one. Both forbid the use of liquor and of animal food; and hold that to take life is the greatest crime.2 The Lingáyats have borrowed their prayers from the Vedas, and so have the Jains; and, so far as the doctrines they teach are conformable to the Jain tenets, the Vedas are admitted and quoted as an authority by the Jains.4 The Lingayats, instead of using the Bráhman sun-hymn, use the panchákshari or five-syllabled spell Namasshiváya that is Glory to Shiv, and the Jains instead of using the sun-hymn use the five-syllabled spell Namassiddhaya or Glory to the Siddhas or Saints.5 In these and in other points Jainism and Lingávatism seem to be nearer each other than to Bráhmanism. Many Lingayat practices are early and southern, the result of Basav's attempts to win the lower orders, and of the influence of low-caste men who at first were let into the community and rose to the rank of saints. The resemblance between the Jain and the Lingáyat rules about eating and drinking, about tenderness for life, and about the non-return of the spirits of the dead suggest that many Lingayats represent converts from Jainism. This view finds support in the fact that the strength of the Lingayats is in a Váni class who were formerly chiefly Jains, and that the Panchams or Panchamsális, another leading branch of Lingáyats, appear to take their name from and to represent the fifth or lowest class of Jains, a despised community to which all widow-marrying Jains are degraded. It was natural that Panchams should take to a religion that did not hold widow-marriage an offence. Again, after the overthrow of the Kalachurya dynasty of Kalyan and after the conversion of the Hoysala Ballal king Vishnu Vardhan (1117-1138) to Valshnavism, the Karnátak Jains were depressed. Their power was

* Brown in Madras Journal of Literature and Science, XI. 171.

Wilson in Asiatro Researches, XVII. 243. Wilson in Asiatio Researches, XVII. 273.

Madras Journal of Literature and Science, XI. 172. ² The root of the Lingayat and Jain dislike of taking life seems to be that it is by taking life that the world is haunted with spirits, or in modern language is laden with sin. The Jain disbelief in a soul takes away from the faithful the chief cause of spirit production; it destroys the great army of family ghosts. If no outside spirit is killed and therefore enraged, spirits will pass through their circle of lives till they cease and the world will be sinless, that is ghostless. So, also, Lingáyat family ghosts are impossible for all are safe either in heaven or in hell, and so Lingáyats consider the taking of life the deadliest of sins because if the outside spirits were not more and they would now through their phases of life and cease. In practice sickness worried they would pass through their phases of life and cease. In practice sickness and ill luck, the two chief forms of spirit influence, come to Jains, Brahmans, and Lingayats alike. The world swarms with outside spirits; neither Jineshvar nor the Ling, though no doubt of great value, can do everything. We must consult the stars, get the help of turmeries, exercists, bel leaves, cowdung ashes, anything of proved worth as a spirit scarer. So in practice Jains and Lingsyats are not less given to exorcism and magic than the corresponding classes of Brahmanie Hindus.

Among the Jangam saints are many Pariahs and women, but not one Brahman. Madras Journal of Lit. and Sc. XI. 146. The Lingayat worthies are shoemakers, hunters, and weavers. Ditto, 151.

Chapter III.
Population.
Lingayats.

going and their guardian Jineshvar failed to save them in this life and gave them little to look forward to in the world to come. The ling perhaps could not save the wearer from trouble in this world, but it ensured a life of enjoyment in the next. Basav's book ideas of the joys of heaven may have been as refined and unreal as a Jain's. What his followers, at least his fighting followers, believed to be the fruits of ling-worship is shown by the garlands, heavenly damsels, and feasts, which paint the true believer's future on the Shaiv Virgallas or Hero tomb-stones.

JANGAMS.

Jangams, literally moveables, that is ling-possessed mortals, also called Ayyas or Lingáyat priests, numbering about 40,000, are found all over the district. They speak Kánarese. The names in common use among men are Changasayya, Mállayya, and Rudrayya; and among women Basava, Mállava, and Ningava. They have no surnames, and are generally known by the names of the towns or villages in which they live. In appearance, in some respects, they resemble Sanyúsis They live in maths or religious or ascetics of the Smart sect. houses which are generally one-storeyed buildings, clean, and cared for. Jangams are divided into two classes, Dhatasthalas or Viraktas who are unmarried and Gurusthalas who are married. The Virakta or recluse is holy, free from worldly cares, and unwed. Viraktas are not allowed to become gurus or spiritual guides or to exercise religious authority over other Lingáyats. They are expected to spend their time in reading and explaining the holy books. There are few Viraktas, and they are respected and worshipped. When they grow aged or are about to die they choose a successor from some religious and virtuous Gurusthal or married Jangam The successor is generally a boy under ten and in most cases is related to the Virakta whom he is to succeed. Before being made a Virakta the boy is consecrated. The Gurusthalas are a class of Lingáyat clergy who become the gurus or spiritual guides of Lingáyat laymen. Unlike Lingáyat laymen they can only marry maidens and not widows or divorced women. They conduct all religious ceremonies on occasions of births, marriages, and deaths under the direction or superintendence of Patdayas or monastery heads. From the Gurusthala class boys are chosen to fill the office of Virakta or Patdaya. Viraktas and Patdayas never leave their religious houses. They direct their chief assistants who are called Charantis or movers to do all the work of the house, to gather the money grain and cloth offerings made by laymen, and generally to look after the affairs of the monastery. The Viraktas and Patdayas, besides their Charantis or chief active assistants, have two to twelve junior assistants called Maris or youths, however old they may be. The youths' duties are to bring flowers for the daily worship performed by the chief priests, to arrange the vessels used in worship, to light lamps, and to bring fire to burn incense at the time of worshipping. The Charantis and Maris are chosen when boys from Gurusthala families. The Patdayas, the Charantis, and such of the Maris as may be intended to be made Patdayas or

¹ Jangams is a Vedic word and meant that they were the living houses of the deity. Brown in Madras Journal of Lit. and Sc. XI. 145.

monastery-heads are not allowed to marry. The remaining Maris or youths are free to marry if they choose. The Patdayas superintend all religious work in their parish which includes one village or a group of villages, punish religious offenders by putting them out of caste, and let them back into caste on paying a heavy fine and undergoing religious penance. Besides Maris or youths the Viraktas, Patdayas, and Charantis have servants to cook, to bring water, to wash their clothes, and to make their beds. Viraktas lead the lives of recluses, and, as far as they can, avoid mixing with their relations. Gurusthalas, though they live in the monasteries, lead a married life and do not object to have their relations staying with them. All of these classes are included under the general term Jangam. Viraktas, Patdayas, Charantis, and Maris bathe once, twice, or three times a day according to their purity. The incomes of their maths or religious houses consist of money, grain, and cloth presents from the laity and fines paid by religious offenders. The heads of the houses are either Viraltas or Patdayas helped by Charantis and Maris. A few maths are under Charantis helped by Maris or youths. Daily in the morning and evening in their religious houses the Viraktas and Patility as worship the ling and deck it with flowers. disciples wash their feet twice. The water in which the feet are first washed is called dhulpádodak or feet-dust water. Lingáyat laymen sprinkle this water over their bodies and on the walls of their The water in which the priests' toes are washed for the second time is first used to wash and worship the stone lings worn round the high priests' necks. This water becomes very holy and is called karuna or grace. When laymen and others come to the religious house they throw themselves before the Viraktas or Patilayas, receive a few drops of karuna water and sip it. The priest gives the layman a cocoanut or other fruit from their own hands as a blessing, and sets his right foot on the visitor's head who withdraws. Jangams are great eaters and bad cooks. Their daily food is rice, wheat, or Indian millet bread, michu or granulated Indian millet boiled in water and made into a hard mass, ambli or ragi-flour boiled in water and made into gruel, vegetables including onions and garlic, boiled butter, milk, curds, and pickles. They do not use flesh or intoxicating drinks. Some take their meals once a day only, others are obliged to eat several times a day, as, when several laymen invite them to dine at their houses, they consider it discourteous to refuse. The Jangams go to as many houses as they can on the same day, eat a little in each house, and withdraw. When they take their meals in their religious houses long mats or cloth carpets are spread on the ground and a threelegged wooden stool about ten inches high and ten inches across called an addangi, is set in front of each person who sits on the mat and a brass or bellmetal plate is placed on each of the stools. Food is served in each plate and they eat it. After finishing their meal, the priests and other religious persons are forced to wash the plates with a little water which they drink as such water must not be thrown away. When this is done each person wipes the plate set before him with his shouldercloth and sets it again on the stool.

Chapter III.
Population.
JANGAMS.

Chapter III.
Population.
JANGAMS.

Any of the brass plates may afterwards be set before any other person and he will take his meals out of it, but a bellmetal plate can be used by only one person. The Virkatas, Patdayas, Charantis, and Maris wear a loincloth, a piece about six inches broad and two feet long, one end of which is fixed to a string tied round the waist and the other is passed between the legs and tied behind to the same string. Over this loincloth the priests but not the laymen roll a larger cloth. They cover their shoulders and tie round their heads two other pieces of cloth all of red other. They wear shoes of cotton or hemp cloth, or of wood, but never of leather. Other Jangams that is Gurusthalas or married priests, in addition to the above dress wear a coat, and like other Lingáyat women, their women wear a robe and a bodice. The men mark the brow and the body with white ashes, wear a garland of rudráksh Eleocarpus lanceolatus beads round the neck, a chauka or cubical silver box the upper side of which is like a pyramid, and a gundgurdgi or round silver box in which they keep the ling. The women wear silver or gold armlets, ear and nose rings, necklaces, and waistbands. They are honest, even-tempered, hospitable, and orderly. The daily life of Jangams, especially of the Virkatas and Patdayas, that is the heads of the different religious houses, passes in performing ablutions, in worshipping the lings which they wear, in receiving the adoration of laymen, in taking their meals, and in reading and explaining religious books to the laity. The Patdayas also enquire into and dispose of religious disputes, punish religious offenders by fine or excommunication, re-admit them into caste on their paying the fines imposed upon them and undergoing certain penances, and conduct birth, marriage, death, and other religious ceremonies. The Charantis and Maris obey the orders given to them by the Viraktas and Patdayas. Jangam women mind the house and sometimes keep inns for the convenience of the people of the town or of travellers belonging to the Lingayat sect. A family of five spends about £1 (Rs. 10) a month on food. A house costs them about £20 (Rs. 200) to build, and the value of their house goods is about £5 (Rs. 50). A birth costs about 16s. (Rs. 8), an initiation into the priesthood about £2 10s. (Rs. 25), a marriage about £20 (Rs. 200), a girl's coming of age about £2 10s. (Rs. 25), a pregnancy about £1 (Rs. 10), and a death about £2 10s. (Rs. 25). They are very religious. They do not worship the ordinary Bráhmanic gods as Vishnu, Rám, and Krishna, and do not respect Brahmans. Daily in the morning and evening before taking their meals they present flowers, ashes, and sandal-paste to a stone ling which they wear bound round their neck. They make pilgrimages to Ulvi in North Kánara and to Dhrisel in Madras. Their head guru or pontiff, called Murgyasvámi, lives at Chitaldurg in They do not keep the sixteen Bráhmanic sanskárs or sacraments, but have special ceremonies of their own. When a child

¹ The chief sacred books of the Lingayats are the Basav and the Chena Basav puráns written in Hale Kánnada or old Kánarese. They contain tales and miraculous stories regarding their gurus and saints. All their literature is more popular than learned. Rice's Mysore and Coorg. I. 383.

is born its navel cord is cut and a Lingáyat priest is called. When the priest comes he is seated and his feet are washed with water in a brass tray. The water is called dhulpádodak or foot-dust water. It is rubbed all over the bodies of those present, and a few drops of it are sprinkled on the walls to purify the house. The priest's great toes are washed in a cup, verses are repeated, and his feet are worshipped. He washes the ling which he wears in the water in which his toes have been washed and the water is called kriya pádodak or holy feet water. He next applies the brim of the cup to his lips and sips a few drops of the water. The sipping of this holy water is by the Lingáyats called karuna or grace. The priest keeps his hand on the cup for about half an hour, during which pious Lingáyats bow before him and ask for a sip of karuna or grace. The priest allows each person to take a few drops of the holy water from the cup and then washes the stone ling he wears round his neck with the water, sips it, and rubs his fingers over his body till they are dry. Next the priest consecrates a new ling by washing it in the rest of the karuna or holy water; he folds it in a piece of cloth and ties it round the neck of the babe for a minute or two, then gives it to the mother to take care of till the child grows old enough to wear it. The priest is fed, presented with money, and allowed to leave. It is believed that on the fifth day the goddess Sathi comes to take away the life of the child. please her she is worshipped on that night and cooked food is offered to her. The Lingáyats say that this is not a pure Lingáyat custom, but that it is practised by their women in imitation of other Hindus. On the thirteenth day a Lingáyat priest is again called, and, after performing the foot-dust and holy water ceremonies, names the child, and blesses it by laying the palm of his right hand on its head. In the evening five women whose first husbands are alive are invited. A cradle is brought and put in the women's rooms, and five lighted lamps are set near it. Friends and kinswomen present the mother with robes and bodices and the five women put the child into the cradle. Betelnuts and leaves are handed among the guests and they withdraw. A day or two before the end of the month several women take the mother to a river pond or well where she worships water, offering turmeric paste flowers and redpowder, and returns with a pitcher of water. When the child is about a year old a Lingayat priest is called, his feet are washed, and he is feasted and presented with a small sum of money. The priest holds two betel leaves in the form of a pair of scissors and with them touches the longest hair on the child's head. The barber then trims the hair. This is called sadi katri sona or the hair-cutting. If the hair-cutting is not performed before the end of the first year, it is done in the course of the third year, and if not in the third it is done in the fifth year. The hair of boys is trimmed at any time even after their fifth year; girls' hair is not cut after they are five years old. Lingáyats say that they cut the hair of girls under five, as, if their hair is long, it might touch a woman in her monthly sickness which they believe would give the child certain diseases. When a boy is about ten the diksha or initiation is performed. When a marriage is settled the first thing Jangams do is to see whether the parties are followers of the same guru or spiritual guide or belong to the

Chapter III.

Population.

JANGAMS.

Chapter III.
Population.
Jangams.

same family-stock. If they have the same spiritual guide or if they belong to the same family-stock they cannot marry. If they have different spiritual guides and belong to different family-stocks a Lingáyat Ayya or a Bráhman astrologer is asked to compare the horoscopes of the boy and girl. If the horoscopes agree, on a lucky day named by the astrologer, the boy's party with friends and kinspeople go to the bride's house, and, in the presence of a Lingáyat priest, some respectable men of the town and five women whose husbands are alive, make the marriage settlement and fix a lucky day for the marriage. Betelnuts and leaves and cocoa-kernel are handed to the guests and a feast is given to the bridegroom's party. A few days before the day fixed for the wedding the bride's party send a letter to the bridegroom's house with two pieces of bodicecloth, five cocoanuts, five pieces of palm-leaves, five shers of rice, five lemons, five betelnuts, five turmeric roots, and five lumps of coarse sugar, and ask them to come and take the bride in marriage ou a certain day. On the day named, when the bridegroom lives in a different village from the bride, his party with friends and kinspeople come to the bride's village and halt at the boundary. The bride's party go in procession with friends, kinspeople, priests, and music, and bring them into the village where a suitable lodging has been made ready for them. Next day at the bride's five small earthen vessels are worshipped and then the bride with a few friends and relations goes to the bridegroom's. The bride and bridegroom are seated on low wooden stools and rubbed with sesamum-seed and turmeric-powder mixed together by the aidgetterus or five women whose first husbands are alive and cotton thread is wound five times round them. This is called surgi suttona or thread-winding. The bride and bridegroom are then taken to the bride's house where a priest gives them karuna or sacred water to sip. Next day the bride and bridegroom are again rubbed with turmeric and sip holy water and the bride's party carry to the bridegroom's house a basket full of sweet eatables and provisions and a pitcher full of water. The bridegroom's party receive the same. and present the bearers with cloths and betelnuts and leaves. the houses of both the bride and the bridegroom the family gods are worshipped and provisions are sent to the Lingayat religious houses. Next comes the gugala when either the boy's or the girl's party or both carry earthen pots full of lights to a Lingayat temple. This closes the day's ceremonies. Next day married women rub the bride and bridegroom with turmeric and powdered sesamum-seed and the priest prepares holy water and gives them a few drops to sip. The bride's party takes cooked food called misaluta to the bridegroom's house and the bridegroom eats some of it. bride's father sets the bridegroom's feet in a plate and washes them with water, and the father and mother lay flowers and redpowder before them. The bridegroom, dressed in fine clothes, decked with the marriage coronet and ornaments, and rubbed with vibhuti or cowdung ashes goes in procession on a bullock to a Lingayat temple, worships the god, and goes on to the bride's. On reaching the bride's the bridegroom is seated on a sofa, new clothes

¹ Lately in imitation of Bráhmans rich Lingáyats have begun to seat the bridegroom on a horse instead of on a bullock.

and ornaments are presented to him, and turmeric powder is

rubbed over his cheeks, hands, and feet. He is led into an inner room where the officiating priest conducts the religious part of the ceremony. The bride and bridegroom are seated on a rice-strewn carpet which is spread on a cowdunged floor, and to their right two unmarried girls called talgudamas or bride's maids are seated. In front of them are set the pancha kalasha or five vessels one at each corner of a square and one in the middle, and into each vessel pearls, precious stones, silver, gold, brass, and copper coins are dropped. Betelnuts and leaves and cocoanuts are placed on the vessels, and a thread is passed five times round them, and, without, any break, continued into the hands of the priest, and thence into the right hand of the bridegroom. The part of the long unbroken thread that is tied round the vessels is called surgi, and the portion between the hands of the priest and the bridegroom is called guru sutra or the priest's holy thread. All this time the priest repeats sacred verses and the bride holds the bridegroom's right hand. The mathpati or Lingayat beadle and sexton mixes curds, milk, clarified butter, sugar, and honey in a small vessel, pours some of the mixture on the bridegroom's right hand which is touched by the bride, and five times washes the hands of the bride and bridegroom. The Lingayat priest and all who are present throw a few grains of red rice over the heads of the bride and bridegroom, the five married women dropping on them large double handfuls of red rice and five times waving lighted lamps round their faces. The priest worships the mangalsutra or lucky thread by laying on it flowers, redpowder, and grains of rice, and gives it to the five married women who bind it round the bride's neck. The part of the long thread held by the priest and the bridegroom is cut from the part which is round the five vessels and is tied round the right wrist of the bridegroom with a piece of turmeric root and a betel leaf. This thread is called

guru kankan or the priest's bracelet. The five married women tie the thread that was round the five vessels together with a turmeric root round the bride's right wrist and this is called the vadhu kankan or the bride's bracelet. The bride and bridegroom bow to the priest, to the family gods, and to the elders. Friends and kinspeople and the Lingayat priests are feasted, and the bride and bridegroom are made to eat from the same plate. This ends the wedding-day rites. Next day the boy and girl worship the priest by laying before them flowers, sandal paste, and grains of rice, and sip holy water. After dinner they are carried through the chief streets of the town in procession with music, drums, fireworks, dancing girls, and lighted torches to a Lingayat temple. There the pair bow to the god, offer flowers and fruit, and the whole party return home with the same state. As the bride and bridegroom are entering the house the bridegroom's sister, and if he has no sister some other girl, stops them at the threshold, holds their feet, and makes them promise to give their daughter to her son. They promise and are allowed to enter the house. The bride is then made over to her mother-in-law. The bridegroom's mother sits on a bullock's saddle placed on the ground as if upon a chair with her knees open. The bridegroom sits on her right knee and the bride on her

Chapter III.
Population.
JANGAMS

Chapter III.
Population.
JANGAMS.

left knee. The bride and bridegroom then change places. married women ask the mother which of the two flowers or fruits is heavier, meaning which of the two the son or the daughterin-law she likes best. The mother replies Both are equal. The married women advise the mother to take care of the son and his wife equally, and this the mother agrees to do. The bride and bridegroom are taken into the marriage-shed where a barber rubs turmeric powder on their hands and feet, and the five married women bathe them and wave lighted lamps round their faces. wet clothes which the married couple leave belong to the barber and are taken by him. A feast is given to friends and relations and the marriage is over. The bridegroom's party return to their village while the bride remains at her father's house. When the bride grows about twelve or thirteen years old the bridegroom's party comes to the bride's house and take the bride and her parents in procession to the house of the bridegroom. At the bridegroom's house festive dinners are given, new clothes and ornaments are presented to the bride and bridegroom, and after waving lighted lamps round their faces they are sent into the bridegroom's room, although the bride may not have come of age. On the following day a feast is given to friends and relations. When a girl comes of age she is bathed and seated for three days in an ornamental canopy prepared for the purpose. Female friends and kinswomen are asked. and flowers, betel leaves, turmeric, redpowder, and wet gram are served to them. Near relations bring cooked food and sweetmeats part of which the girl is told to eat. On the fourth day the girl is bathed and no other ceremonies are performed. During her future monthly sicknesses though she is not held impure, the Jangam woman is not allowed to cook or to go into the god-room. When a Jangam is on the point of death he is bathed and made to sit on a clean bedding spread on a freshly cowdunged part of the floor. Lingayat priest is sent for. When he comes his feet are twice washed with water, and a few drops of the water are poured into the dying man's mouth. The priest rubs the dying man with vibhuti or cowdung ashes and fastens a necklace of rudráksha Eleocarpus lanceolatus beads round his neck. The dying man in return gives the priest betel leaves and nuts, a ball of vibhuti or white ashes, and some money. When life is gone the priest is again sent for. the dead is a married man or woman, or a priest, he is placed sitting, marked with white ashes, and decked with ornaments. The chief priest sets his right foot on the head, and the mathpati or Lingáyat beadle lays flowers and redpowder on the priest's foot. If other Lingayat priests are present they touch the head of the deceased with their right foot. The body is brought out of the house and set in an ornamental wooden car prepared for the occasion. The beadle tears in front of the corpse a piece of new cloth as a token that the deceased's connection with the world is severed. Four Lingayats carry the body in the car-shaped bier to the burial ground and set it at a little distance from the pit which is dug to receive it. All the good clothes and ornaments are removed from the body and taken by the deceased's son or other relation, and the deceased's headdress is put on the head of his eldest son. Two priests go forward to the grave and then come back towards the funeral party, as if messengers from heaven sent by Shiv. They ask whose body it is and where his spirit is going. The people name the deceased and add His spirit is on its way to Shiv's heaven The priets say Come, and lead the funeral party with the body to the side of the grave. The body with the ling round its neck is put into a cloth bag and placed in a sitting posture in a niche in the grave-side. The sexton goes into the grave and the Lingávat priest gives him twenty-one small copper pieces, with some holy words written on them, which he places on the different parts of the body. A cloth is held over the body and all present repeat holy verses and throw leaves of bilva Ægle marmelos, flowers, and white ashes into the cloth. The sexton gathers the leaves and flowers and lays them on the body and every one present throws a handful of earth on the body. The sexton comes out of the grave, salt is thrown in, and the grave is closed. The priest stands on the grave, a cocoanut is broken at his feet, flowers and redpowder are laid on his feet, and the party return home. On reaching home, the eldest son of the deceased purifies the house by sprinkling foot-dust water over the walls and floor of the house and feeds one or two priests.1 At the end of a month a feast is given to a few Lingáyat priests. Children and the unmarried dead are carried on biers and buried lying at full length. The priest does not stand on the grave and his feet are not washed. When the burial ground belongs to a Lingáyat priest some money is paid to him as hire-money and the clothes worn by the dead are given to him. When the body is buried in a public ground the clothes are taken by the Holayas or villagewatchmen. Jangams with their disciples or adherents have formed themselves into associations called Samújs or meetings, each having a distinct name as Komar, Murgy, Chillal, and Kempu. Each religious

Traders, included sixteen classes with a total strength of 53,108 or 6.80 per cent of the Hindu population. The details are:

the whole they are a steady class.

house or math is called after the name of the meeting to which its chief priest belongs. Some houses and priests belong to no meeting. Jangams have no strong caste feeling. Child and widow marriage and polygamy are allowed; polyandry is unknown. Many of them send their children to school and a few take to new pursuits. On

Dhárwár Traders, 1881.

Division	Males.	Females.	Total.	Division.	Males.	Females.	Total.
Adınbajıgars Gurjars Jams Lads Lavanas Lungayat Vanis or Banjus Lokabalıki Linga- yats	4360 82 5872 723 2144 10,745	4148 66 5154 753 2002 11,042	8508 148 10,526 1476 4146 21,787	Mārwārie Nārvekars and Bān- dekars Shilvant Lingāyats Sunnāgārs Tambons Teiugu Banjīgārs TeluguOshnumarus. Vaishyas or Komtis.	16 105 496 28 3 691 95 434	1 153 575 24 6 661 83 389	17 258 1071 54 9 1354 183 828
				Total	26,615	26,493	58,108

ChapterIII. Population. Jangame.

TRADERS.

¹ In Madras a ling is put on the grave and is worshipped fourteen days, Madras Journal of Lit. and Sc. XI. 169.

Chapter III.
Population.
TRADERS.
Adibanjigars.

Adibanjiga'rs, numbering about 8500, are found in all sub-divisions of the district except in Hubli. The name Adibanjigár is derived from the words adi first and banjigar Lingayat, and means the first Lingáyats. They speak impure Kánarese. The names in common use among men are Basáppa, Malláppa, and Ningáppa; and among women Basava, Kareva, and Mallava. They live in tiled houses with walls of sun-burnt brick and mud. The houses are neat, clean, and well-cared for. They keep cows, buffaloes, and oxen. moderate eaters and good cooks. Their daily food is Indian millet bread, vegetables, curds, and milk, and their holiday dishes, in addition to the above, are rice and sweet cakes. They do not use animal food or intoxicating drinks. In matters of dress and ornaments they do not differ from other Lingáyats. In character they are hospitable, hardworking, neat, clean, even-tempered, and orderly. Their main calling is to trade in grain, cotton, and other articles, and to retail opium, hemp-flowers or gánja, and hemp-water or bháng. They are helped in their work by their women and children. calling prospers. Most of them are well-to-do, and they make good use of their money putting it into trade, not hoarding it and burying it like many other classes. Their busiest months are May June and They do not work on holidays and their holidays are the same as those of other Lingáyats. A family of five spends about £1 (Rs. 10) It costs them about £40 (Rs. 400) to build a house, and about 4s.(Rs. 2) a month to hire a house. The value of their household furniture is about £30 (Rs. 300), and of their dress about £2 (Rs. 20). A birth costs about 8s. (Rs. 4), a son's marriage about £20 (Rs. 200), a coming of age about £2 (Rs. 20), a pregnancy about 10s. (Rs. 5), and a death about £2 (Rs.20). A daughter's marriage costs more than a son's as a considerable sum has to be paid as dowry. Their religious rites and customs differ little from those of other Lingáyats. are bound together by a strong caste-feeling, social disputes are settled by the majority of the caste, and any one who disobeys their decisions is put out of caste. They send their boys and girls to school, take to new pursuits, and are a steady class.

Gurjars.

Gurjars, or Gujarát Vánis, numbering about 148, are found in Gadag, Hubli, Kalghatgi, and Navalgund. Their home tongue is Gujaráti and they speak impure Kánarese with the people of the district. They have settled in Dhárwár as moneylenders and bills brokers. They are honest and thrifty and are said to be careful to keep to Gujarát customs.

Jains.

Jains, literally Conquerors, returned as numbering about 10,526, are found all over the district. The Dhárwár Jains are old settlers and have no memory of any former home. They seem to be the remnant of the community of Jains whose faith was the ruling or one of the ruling religions of the Bombay Karnátak from about 1540 to 1763. They say that an ancient Hindu king named Iksbváku had two family priests named Parvat and Nárad who held different views on the subject of animal sacrifice. Parvat sacrificed sheep to the god of fire, and Nárad sacrificed parched grain. The descendants of Parvat are the Bráhmans and their followers, and the descendants of Nárad

¹ Details are given under Lingáyats, Banjigs, and Jangams.

are the Jains. According to the Jain books there were formerly four divisions, Brahmans or priests, Kshatris or warriors, Vaishyas or merchants, and Shudras or labourers. Jain Kshatris have disappeared, but Jain Bráhmans, Vaishyas, and Shudras remain. Jain Shudras are also called Jain Chaturthas that is the fourth estate. Of the whole Jain community and especially of the Jain Chaturthas, those who allow widow marriage form a separate class called Jain Panchams or Jain Fifths. At present a Jain of any of the first four classes who marries a widow joins the Panchams. A Jain priest eats from any of the other four classes, and will take in marriage the daughter of a Vaishya Jain, but not of a Chaturtha or of a Pancham Jain. Jain priests give their daughters in marriage to no one but priests. and Jain Chaturthas and Jain Panchams do not marry with each other. These rules are observed only in the Deccan and the Bombay If Karnatak Jains go to Gujarat, they do not dine with Gujarát Jains, nor, when they come to Dhárwar, do Gujarát Jains dine with local Jains. In some past time about a hundred families of Jains committed some fault against their religion and were put out Their descendants are called Shatavallas or the hundred families and other Jains neither eat nor marry with them.

Dhárwár Jains speak Kánarese. The names in common use among men are Aharadás, Balálráya, Jindás, and Padmanábháppa; and among women Chandramateva, Padmava, Rajamateva, and Ramabai. They have no surnames. Their chief god is Jineshvar whose leading shrine is at Belgol in Maisur. In appearance they are strong and muscular, some of them dark and others fair. Most of them live in houses of the better class, two or more storeys high with walls of brick and tiled roofs. They are moderate eaters and good cooks. Their daily food is rice, bread, vegetables, clarified butter, curds, and milk. Their holiday dishes are sweet cakes made of wheat, sugar, clarified butter, and spices. They take their meals only during the day and never at night. They do not use flesh or intoxicating The men wear the loin and shouldercloths, a jacket, a rumál or headscarf, and shoes, and the women wear a robe and a bodice. Both men and women are clean and neat in their dress. In character they are honest, hardworking, thrifty, active, even-tempered, hospitable, and orderly. Their main calling is dealing in brass and copper vessels, in cloth silk and indigo, and in money. Some have entered Government service and Jain Chaturthas and Jain Panchams till and labour for hire. As a class Jains are prosperous and free from debt. Socially they rank next to Brahmans. The food charges of a family of five are about £1 10s. (Rs. 15) a month, and the yearly dress charge about £5 (Rs. 50). A house costs about £50 (Rs. 500) to build, and about 4s. (Rs. 2) a month to hire, and their house goods are worth about £10 (Rs. 100). A birth costs about £2 (Rs. 20), a thread-girding about £4 (Rs. 40), a marriage about £30 (Rs. 300), a girl's coming of age about £1 10s. (Rs. 15), a pregnancy about £1 (Rs. 10), and a death about £3 (Rs. 30). They are religious. Their family gods are Chakreshvar and his wife Gomukha, Dharanendra and his wife Padmávati, Lakshmi-Náráyan, and Kshetrapál, whom the head of the family daily worships. They do not respect Bráhmans or call them to conduct their ceremonies. All these are performed

Chapter III.
Population.
TRADERS.

Chapter III.
Population.
TRADERS.
Jaint.

by their own priests. They do not worship Brahmanic gods, but keep all the leading Hindu holidays, some of them in a way different from the Brahman way. On the Ganesh-chaturthi the bright fourth of Bhadrapad or September-October, instead of worshipping Ganpati, they worship the sage Gautam under the name of Ganádhip or Ganpati, and, during the nine days before Dasara in October, instead of worshipping Venkataraman like Dhárwar Bráhmans, they worship Bharataraj an ancient king They go on pilgrimage to the shrine of Padmávati at Hombas in Maisur, and of Guneshvar at Mudbidali in South Kanara. There are three leading sects Palatkárgana whose head-quarters are at Hombas in Maisur, Lakshmishaingana whose head-quarters are at Kolhápur, and Jináshaingana whose head-quarters are at Nandanagi near Kolhápur. The Jain priests and the Kshatriya and Vaishya Jains are members by the Balatkargana sect, the Chaturthas of the Lakshmishaingana, and the Panchams of the Jináshaingana sect. Each sect has a guru or spiritual teacher who is a Jain ascetic. gives the members religious instruction and they support him. He does not try to make converts. Jains of all classes believe in sorcerers, witches, and soothsayers, and consult them in cases of sickness or other misfortune. The Jains eat twice a day when the sun is above the horizon. Except some who take a night meal at night by stealth, they never eat at night for fear they may swallow insect life. At their meals they do not wear silk or woollen clothes like Bráhmans, but wear clothes made of cotton or of hemp. As silk and wool are the produce of animals they consider them impure. They also, unlike Brahmans, consider it impure or polluting to touch the skin of a tiger or a deer after bathing. Their special religious days are eight days in every fourth month in the year that is from the eighth to the fifteenth of the bright half of the months of Ashadh or July-August, Kartik or November-December, and Fálgun or March-April; the eighth and fourteenth of the dark and bright halves of every month in the year; dashaparva or ten special days in every month in the year, that is the second, fifth, eighth, eleventh, and fourteenth days of both the bright and dark halves of all months; Mangala trayodushi or the thirteenth of the dark half of the month of Kártik or November-December; and Sruta panchami or the fifth day of the bright half of the month of Jeshta or June-July. On all these days the Jains either fast or take only light food. During the four months of the south-west monsoon that is from June to October, except the Jain Chaturthas and Jain Panchams, Jains do not eat cucumbers, brinjals, menthi or Greek grass, the snakegourd, nuggikai Guilandina moringa, onions, and garlic. At the time of worshipping they first bathe their idols with milk, curds, clarified butter, sugar, and pieces of ripe plantains, and then with water. They offer sweet-smelling flowers to their idols, but neither the leaves of the tulsi or sweet basil nor of the bel Ægle marmelos. They do not sacrifice any animal to their gods. When water is brought from a pond, a well, or a river, it is never used for cooking and drinking until it has been strained in a cloth to remove insects. When a Jain makes his obeisance to a priest he joins his hands and says Namostu or My reverence. If he is a common person the priest in reply says Punya-vriddhirastu or

Chapter III.
Population.
TRADERS.
Jains.

May merit grow; if the priest be a great and holy man he says Saddharma-vriddhirastu or May religion prosper. A Jain must give away ten things in charity, food, protection, medicine, education, gold, silver, a girl in marriage, a cow, a horse, and a set of ropes or bags to draw water from a well. When a Jain gets holy water from his priest he does not sip it like a Bráhman but throws it on his head. Jains keep most of the sixteen sacraments or sanskárs like Bráhmans. When a child is born its navel cord is cut, the mother and the child are bathed, and some honey and castor-oil are put into the babe's mouth by any one but its father. On the third day a Jain priest comes and worships the family idols and offers them food. On the fifth night the goddess Sathi is worshipped, and on the thirteenth day the child is named and cradled by its paternal aunt. On the eleventh day all the members of the family bathe, a feast is given to Jain priests, and the family becomes pure. On some day between the thirtieth and fortieth the mother and the child are bathed and taken to a temple and the child is presented to the god. The mother and child are taken to a well where she worships water, gives betelnuts and leaves to several women whose husbands are alive, and returns home with the child and a pitcher full of water. When a girl comes of age she is decked with flowers and ornaments and is made to sit for three days in a shed made of paper and tinsel. On the fourth day she is rubbed with oil and bathed in warm water. Within sixteen days from the day she came of age a lucky day is chosen, certain religious rites are gone through, a feast is given to members of the caste, and the girl and her husband are sent together into the marriage room. During the third month of a woman's first pregnancy the things she may have a craving for are given to her, and, on the last day of the third month, the girl is taken to a temple where vegetables are offered in honour of the gods. On the last day of the fifth month the vegetable-offering is repeated. In the seventh month of her pregnancy the girl is given a green robe and a bodice and from then till she is brought to bed she is specially well fed. The dead are burnt and the family is impure for ten days among Jain priests, for eleven days among Kshatriya and Vaishya Jains, and for fifteen days among Chaturthas and Panchams. Child marriage, widow marriage, and polygamy are allowed, and polyandry is unknown. In Maisur Jain girls are not married until they come of age. The members of each class of Jains are bound together as a body. Minor social disputes are settled by their priests and graver quarrels by their gurus or spiritual guides. Any one who disobeys a guru's decision is put out of caste. Caste authority is growing weaker day by day. They send their boys and girls to school, do not take to new pursuits, and are a rising class.

La'ds, or South Gujara'tis, numbering about 1476, are found all over the district except in Kod. They say that their ancestors formerly lived in Northern India, and came and settled in Dhárwár about two hundred years ago. They speak impure Kánarese. The names in common use among men are Ishvaráppa, Kristáppa, and Subrayáppa; and among women Kristáva, Subhadreva, and Yelláva. They have no surnames. Their family gods

Ldds.

Chapter III.
Population.
TRADERS.
Lads.

are Krishna and Pandurang, and their family goddesses Tulja-Bhavani and Yellava. They are fair, strong, and muscular, more like Shimpis than any other class. They have large eyes, high noses, thin lips, low cheek-bones, and round cheeks. They live in tiled houses with walls of stone and mud. The houses have generally three or four rooms and are clean and well cared for. keep cows and she-buffaloes and drink their milk. They are moderate eaters, but poor cooks. Their daily food is Indian milletbread, rice, pulse, and vegetables; and their special holiday dishes are sweet cakes made of wheat-flour, molasses, pulse, and clarified They do not use animal food or intoxicating drinks. The men wear the loin and shouldercloths, a jacket, and a rumál or headscarf; and the women a robe and bodice. Some of the women pass the skirt of the robe between the feet and tuck it into the waist behind; others let the skirt fall like a petticoat. Both men and women are clean and neat in their dress. The men wear gold or silver ear and finger rings, and the women wear ear finger nose and toe rings, necklaces, waistbands, and chains. They are clean, neat, even tempered, hospitable, honest, and orderly, but idle. The main calling of the most important subdivision, the Kshatriya Láds, is dealing in perfumes. Their calling is prosperous and they are free from debt. Their busy months are April, May, October, and They eat from the hands of Brahmans and the members of their own subdivision only. A family of five spends about £1 10s. (Rs. 15) a month on food. A house costs about £30 (Rs. 300) to build and about 2s. (Re. 1) a month to rent. The value of their house goods is about £20 (Rs. 200), and of their clothes about £4 (Rs. 40). A birth costs about £1 10s. (Rs. 15), a marriage about £20 (Rs. 200), a girl's coming of age about £5 (Rs. 50), a pregnancy about £2 10s. (Rs. 25), and a death about £5 (Rs. 50). A daughter's marriage costs more than a son's as a dowry is paid to the bridegroom. They are religious. They respect Brahmans and call them to conduct their marriages. They make pilgrimages to Tuljapur and Pandharpur, and keep the leading Hindu holidays. They have a guru or spiritual guide who lives at Benares. He does not try to gain new followers and is a Gosavi by caste. They believe in sorcery, witchcraft, and soothsaying. When a child is born its navel cord is cut and the child and the mother are bathed. On the fifth day the goddess Sathi is worshipped and friends and kinspeople are feasted. On the thirteenth the child is cradled and named. For three months the mother worships the goddess Sathi every Monday. At the end of the third month the child is carried to a temple and presented to the idol, plantains and betel are offered to the deity, and the child is brought home. Nothing further is done till marriage. The day before the wedding a feast called devaruta or god-dinner is given in honour of the family gods, and, on the wedding day, the bride and bridegroom are rubbed with turmeric, bathed, and made to sit on a raised seat. The Brahman priest repeats verses and throws red rice over the heads of the couple. This completes the marriage. The dead are buried and the family is held impure for ten days. Some funeral rites are performed from the fifth to the thirteenth day, and on the thirteenth day a feast is given to men of the caste. They are bound together as a body. Caste disputes are settled by their guru or spiritual guide, or by a majority of the castemen. Any one who disobeys their decisions is put out of caste. He is again admitted on paying the caste-people a fine of £1 (Rs. 10). They send their boys and girls to school, take to no new pursuits, and on the whole are a steady class.

Lava'nas, or Pack-bullock Carriers, numbering about 4146, are found all over the district. They generally live near forests or on They speak a mixture of Maráthi and Hindustáni, The names in common use among men are Imám, Lálu, Mansi, Rupa, Sheda, and Valya; and among women Dhavi, Damali, Jaki, and Siti. They have no surnames and no subdivisions. Their family god is Venkataraman. Sometimes Bedars, Rajputs, Dheds, and Musalmans join their parties and dress and trade like them and then they also are called Lavánas. Though they do not marry or eat together, all go by the name of Lavánas. In appearance the Lavánas proper are stout, short, and dark brown. Most of them live in thatched houses. They never live in flat-roofed or tiled houses because they say that one of their ancestors built a fine flat-roofed house and he and his family forthwith died. Their daily food is bread made of wheat or Indian millet, rice, pulse, and vegetables. They also eat the flesh of fish, fowls, and sheep. They are intemperate in the use of intoxicating drinks. The men wear a loincloth or trousers, a shouldercloth, and a rumúl or headscarf round which they sometimes tie a belt of red cloth sewn with shells, and hold in their hands a cloth bag fantastically studded with shells. The women wear a gown called phetia from the waist to the ankles, and a bodice called kachli, and fix a scarf called tukdi to the left of the waist, carry it over the right shoulder and head, and allow it to fall loose on the left shoulder. They braid their hair in three places, a main braid behind the head, and another in a small rope-like stripe above each ear. If they are married they fix to each of the small braids a half ball called ghugri made of brass and silk or cotton thread fringes. These balls are the signs of marriage and are always worn on the temples except when they are bathing. In addition to the balls a bell-shaped tube with fringes of silk is tied to the ends of the two small braids. The tube hangs over the cheeks and moves about and strikes the cheeks while walking. They do not wear glass bangles like other Hindu women, but cover both arms from the elbow to the wrist with brass or ivory rings. Lavánas are honest, hardworking, and orderly, but extremely dirty and Their main calling is carrying goods on bullocks or untidy. asses and labouring when they can find nothing to carry. A few trade in grain. They rank socially as Shudras that is as low class Hindus. A family of five spends about £1 10s. (Rs. 15) a month on food. A birth costs about 4s. (Rs. 2), a boy's marriage about £4 (Rs. 40) including a dowry of £2 (Rs. 20), a girl's coming of age 4s. (Rs. 2), a pregnancy 2s. (Re. 1), and a death 12s. (Rs. 6). Their family god is Venkataraman whose image they keep tied in a bundle in their houses and worship it once or twice a year. They have no gurn or spiritual guide and they do not call Brahmans or other priests to their religious ceremonies. At their marriages the caste people meet, the bride and bridegroom are

Chapter III.
Population.
Tanbers.

Lavanas.

Chapter III.
Population.
TRADERS.

rubbed with turmeric and oil, bathed, and decked with fine clothes and ornaments, their heads are knocked together, a feast is given to the caste, and the ceremony is over. The dead are buried, and no funeral rites are performed. Child and widow-marriage and polygamy are practised, but not polyandry. They believe in sorcery, witchcraft, and soothsaying. They are not bound together as a body, do not send their children to school, do not take to new pursuits, and are a falling class.

Lingáyat Vánis.

Linga'yat Va'nis, or Banjigs, returned as numbering about 21,787, are found all over the district. Banjig is the Kánarese form of the word Váni from the Sanskrit vanik a trader. The names in common use among men are Basáppa, Khandáppa, and Rudráppa; and among women Basamma, Ningamma, and Shivamma. They have no surnames except place or calling names. Their family god is Virabhadra, and their family goddess is Párvati. Both men' and women are dark, short, and strongly made. Their home tongue is Kánarese. They live in one or two storeyed houses with walls of mud and sun-burnt bricks, and terraced or tiled roofs. Their house goods include cooking vessels, metal plates, cots, a grinding stone, a stone mortar and pestle, and low wooden stools. They are great eaters and good cooks and strict vegetarians, neither eating flesh nor drinking liquor. Their daily food is millet-bread, boiled pulse, cooked rice, vegetables, onions, and garlic. They eat from brass plates placed before them on low stools. On holidays in addition to their ordinary food they prepare a variety of dishes, the chief of which are godihuggi or wheat rice molasses and milk boiled together, hulgi or stuffed cakes, as well as the cakes called bundis, kadleus, karchikais, and vades. The men wear a waistcloth, a shouldercloth, a jacket or a long coat, a headscarf, and shoes, and the women a robe and bodice without passing the skirt of the robe between their legs. Both men and women are neat and clean in their dress and have clothes enough both for daily wear and for special occasions. The men wear gold or silver ear and finger rings and the women wear gold ear and nose rings, silver or brass toe-rings, gold bracelets, and silver anklets. women either braid their hair or tie it into knots. They apply black salve to their teeth and tattoo parts of their brows and cheeks, and their chins, hands, and feet. The print on the brow is a black dot or a crescent with a black dot inside. The marks on the chin and cheeks are simple dots and on the arms single or double snakes. The Banjigs are hardworking, thrifty, hospitable, and clean, but law-going and quarrelsome. Their main calling is trade. Some own land and a few are in Government service. As a class they are well-to-do, few of them being in debt. A family of five spends about £1 10s. (Rs. 15) a month on food. It costs them about £50 (Rs. 500) to build a house and about 4s. (Rs. 2) a month to rent one. A birth costs 16s to £1 12s. (Rs. 8-16), a marriage about £20 (Rs. 200), a girl's coming of age about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, and believe strongly in soothsaying, sorcery, and ghosts. The chief object of their worship is Shiv in the form of the ling which both men and women hang in a silver box from the neck. The ling which is generally of slate is covered with a paste of powdered slate, cowdung ashes, and marking-

nutashes. Banjigs keep most leading Hindu holidays and go on pilgrimage to Ulvi in Kánara and to Mallikárjun on the Parvat hills in North Arkot. They have a guru or spiritual guide named Murgasvámi who lives at Chitaldurg in North-West Maisur. He makes visitation tours once in three or four years, gathering contributions from his adherents, and, in return, giving sacred ashes vibhuti and water in which his feet have been washed. Though Banjigs allow early marriages they are in no way bound to marry their daughters before they come of age. Widow marriage and polygamy are allowed; polyandry is unknown. Most of their customs and religious rites are the same as those of the Jangams, except that the Jangams have to perform the diksha or initiation into the priesthood which the Banjigs are not required to do. They are bound together as a body. To settle important social questions, involving excommunication divorce or readmission into caste, the adult men meet together in some public place. Their office-bearers include the Hirematada ayya or priests of the chief monastery in the village or group of villages, the Mathada ayya or the parish priest, the Shetti or head layman who is generally a direct representative of the oldest leading family of the place, the Patnashetti or superintendent of the market, the Madanshetti or deputy superintendent of the market, the Chelvadi or the religious symbol bearer, and the Basavi or female temple servant.1 offices are hereditary. The Hirematada avya is saluted first, then the Mathada ayya, and so in order the Basavi coming last. The Chelvadi is a Mhár or Holaya by caste. He is well dressed and stands with a blanket under his arm. He carries a brass image of Shiv seated on a bull. The image is overshadowed with the hood of a snake and is fixed to the upper end of a brass spoon. A brass bell hangs from the handle of the spoon to the Chelvádi's knee in front. From time to time the Chelvadi sings hymns in honour of Shive and rings the bell. The Basavi calls people to meetings and sweeps and spreads carpets. Ordinary caste disputes are settled by caste meetings and specially important points by the gurus or spiritual guides. Most Banjigs send their children to school, some have taken to new pursuits, and on the whole they are a rising and prosperous class.

Loka baliki Linga yats, numbering about 2752, are found all over the district except in Kalghatgi and Ron. They speak impure Kanarese. The ordinary names among men are Basappa, Mallappa, and Singappa; and among women Kallava, Maritangava, and Virava. They have no surnames and no family gods. They have a guru or spiritual guide who lives in Aralimatha in Hangal. They have no subdivisions. In appearance they resemble other Lingayats and are tall, strong, and muscular. The eyes are large, the nose high, the lips thin, the cheek-bones high, and the cheeks gaunt. They live in tiled and flat-roofed houses one or two storeys high which are generally neat, clean, and well cared for. Their houses have five or six rooms, one for cooking, one for bathing, one for sitting, and two or three for keeping household goods, clothes, and grain.

Chapter III.
Population.
TRADERS.
Lingdyat Vánse.

Lokábalıki Lingáyats.

¹ Details are given under Chelvadis and Basavis.

Chapter III. Population.

TRADERS.

Lokábalıkı

Lingayats.

They keep one or two servants to help them in their shop-work and pay them 8s. to 10s. (Rs. 4-5) a month. They keep cows, oxen, and buffaloes. Their daily food is Indian millet bread, pulse, rice, milk, curds, and vegetables. They do not use animal food or intoxicating drinks. The men wear the loin and shouldercloth, a headscarf, and a jacket, and the women dress like ordinary Lingayat women. The men wear ear and finger rings and the women wear the same ornaments as other Lingayat women. They are sober, clean, honest, even-tempered, hospitable, and orderly. Their main calling is trading as petty shopkeepers in rice, salt, sugar, molasses, and chillies. The men sit in their shops from morning till evening and are helped by their wives and children. Their calling is prosperous and few are in debt. Their busy season is from April to They rest on the ordinary Hindu holidays. A family of five spends about £1 (Rs. 10) a month on food: It costs them about £40 (Rs. 400) to build a house and 4s. (Rs. 2) a month to rent The value of their house goods is about £30 (Rs. 300) and the value of their dress about £10 (Rs. 100). A birth costs them about £1 (Rs. 10), a girl's marriage about £40 (Rs. 400), a girl's coming of age about £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death about £2 10s. (Rs. 25). A girl's marriage costs more than a boy's because of the dowry. Their customs and religious ceremonies do not differ from those of other Lingáyats. They are bound together as a body. Social disputes are settled by a majority of the caste and any one who questions the decisions is put out of caste. They send their boys and girls to school, take to new pursuits, and are a steady class.

Márwaris.

Ma'rwa'ris, numbering about seventeen, are found in Dharwar, Gadag, Hángal, and Navalgund. They have come from Jodhpur and other parts of Márwár and have established themselves as cloth-sellers and petty merchants. Their home-speech is Márwáriand with the people of the district they speak Maráthi with a mixture of Kánarese words. The names in common use among men are Chenáji, Keshavarám, and Khomaji; and among women Okibái, Sampábái, and Sundrábái. Their family goddess is Ambábái. They have no surnames. say that in Marwar they have nine subdivisions, Hambads of two divisions Dash and Vish, Oshvals of two divisions Dash and Vish, Porvals of the Vish division, Sarmális of two divisions Dash and Vish, and Shravagis of two divisions Dash and Vish. Only a few of these subdivisions are found in Dhárwár. Members of these subdivisions eat together but do not intermarry. They have many gotras or family stocks, the chief of which are Bába, Ratur, and Solanki. Persons of the same stock do not intermarry. They are rather fair, hardy, and short. They live in houses one or two storeys high with walls of brick and tiled roofs. Their daily food is rice, wheat, pulse, and vegetables; and their special holiday dishes are sweet They do not use flesh or intoxicating drinks. The men wear the loin and shouldercloth, a jacket, a turban, and shoes; and the women a robe, a bodice, and a scarf, one end of which is tucked to the gown and the other end is carried over the left shoulder and head and allowed to fall loosely on the right shoulder. shave the head leaving a top-knot and a lock of hair over each ear. They are hardworking, cunning, dishonest, and hot-tempered. Their main calling is moneylending and dealing as petty shopkeepers. Some of them deal in pearls and European cloth. They have a bad name for hardness and unfairness in their dealings. family of five spends about £1 (Rs. 10) a month on food. costs them about £20 (Rs. 200) to build a house, and about 4s. (Rs. 2) a month to rent one, and their house goods are worth about £10 (Rs. 100). A birth costs them about £2 10s. (Rs. 25), a girl's marriage about £20 (Rs. 200), and a death about £5 (Rs. 50). A son's marriage costs more than a daughter's as £10 (Rs. 100) have to be paid to the bride's father. They are religious. They respect Bráhmans and call Sarmáli Bráhmans from Márwár to conduct their marriages. They worship the ordinary Hindu gods, and make pilgrimages to Girnár near Junágad and to Shatrinjaya near Bhavnagar both in Káthiáwár. They say they do not believe in soreery, witchcraft, or soothsaying. Child marriage and polygamy are practised, widow marriage is forbidden, and polyandry is unknown. They burn the dead and the relations of the dead are considered impure for ten days. They form a closely connected community. Social disputes are settled by a majority of the caste. Slight breaches of caste rules are forgiven, but grave offences such as dining with lowcaste people are punished by loss of caste. They send their boys and girls to school, take to no new pursuits, and are a rising class.

Na'rvekars and Ba'ndekars are returned as numbering about 25%, and as found in Dhárwár, Bankápur, and Kalghatgi. Most of them come from Goa with salt, cocoanuts, cocoanut-oil, dates, and manking nuts, and after selling their stocks go back. The Nárvekars are Hindus and the Bándekars are both Hindus and Portuguese Christians.

Shilvants, or Pious Lingáyats, numbering about 1071, are found all over the district. They seem old settlers and have no memory of any former home. They speak impure Kánarese. The names in common use among men are Basáppa, Chingáppa, Guráppa, and Mallappa; and among women Basava, Kareva and Rachava. Their surnames are local not tribal. Their family god is Virbhadra whose chief shrine is at Rachoti in the Kadapa district of Madras. They have no subdivisions. In appearance they do not differ from other Lingayats. They live in tile-roofed houses with walls of stone and mud. The houses are neat, clean, and well cared for. keep cows, oxen, and buffaloes. Their daily food is Indian millet bread, pulse, milk, curds, and vegetables. They do not use flesh or intoxicating drinks. In matters of dress they do not differ from other Lingáyats. In character they are neat, clean, hardworking, honest, even-tempered, and orderly. Their main calling is trading in grain and other articles and working as goldsmiths and carpenters. Their craft prospers and none are in debt. Their busy months are April, May, and December. They rest on the leading Hindu holidays. A family of five spends about £1 10s (Rs. 15) a month on food and about £5 (Rs. 50) a year on clothes. A house costs about £20 (Rs. 200) to build and 2s. (Re. 1) a month to rent. Their house goods are worth about £50 (Rs. 500). A birth costs about £1 (Rs. 10), a marriage about £20 (Rs. 200), a girl's coming of age about £2 (Rs. 20), a pregnancy about £2 (Rs. 20), and a death about £1 10s. (Rs. 15). They are religious, and respect Bráhmans

Chapter III.
Population.
TRADERS.
Marwarie.

Nárvekars and Bándekars,

Shilvants.

Chapter III.
Population.
TRADERS.
Shilvants.

as astrologers but not as priests. They call Lingayat priests to conduct their religious ceremonies, and keep the leading Hindu They go on pilgrimage to the shrines of their god Basav at Ulvi in Kánara and at Kudla in Dhárwár. Their spiritual guide is a Lingáyat priest who lives at Chitaldurg in north. west Maisur. He does not proselytise or try to make new followers. They occasionally worship Lingayat priests. When a priest is called his feet are washed with water which is called foot-dust water or dhulpadodak. A little of the water is rubbed over their bodies and the rest is sprinkled over the walls and the floor of the house to purify it. Next the priest's great toes are washed in a cup full of water and the water is called kriya-pádodak or holy feet water. The priest takes off the stone ling which he wears round his neck, lays it on the palm of his left hand, and pours a part of the water in the cup on it. He takes the ling off his hand, sips the water left on his palm, fastens the ling round his neck, and dries his hand by rubbing it over his body. The water left in the cup is called karuna or grace. It is considered holy and the priest pours a little of it on the right palm of each of the olders of the family, who sips the water and dries the palm by rubbing it over his body. The younger members of the family dip one of their fingers in the water and rub the finger over the body. Food is served on plates laid on small stools placed before every one present. The priest takes on his thigh the plate which has been set before him and eats, and the members of the family offer the food to the ling which they wear round their neck and cat. When the meal is over the priest washes his hands in the plate from which he has eaten, drinks the water, and dries his hands by rubbing them over his body. Their other religious rites do not differ from those of other Lingayats. They believe in sorcery, witchcraft, and soothsaying. The feeling of caste and of caste discipline is strong. Social disputes are settled at meetings of castemen and disobedience to the decision of the community is punished by loss of caste. They send their boys and girls to school, take to new pursuits, and are a steady class.

Sunnágárs.

Sunna'ga'rs or Chuna'ris, that is Lime-sellers numbering about fifty-two, are found in Dhárwár, Hángal, and Ránebennur. They take their name from sunna the Kánarese word for lime. They are tall and muscular. They gather lime nodules in the fields and hills and burn them into lime. They make lime both for masonry work and for eating with betcl leaves.

Támbolis.

Ta'mbolis, or Betel-leaf sellers, are returned as numbering nine and as found only in Hubli. They get large quantities of betel leaves and nuts from the gardens of Ránebennur and Sigaum and sell them in retail in and around Dhárwár. Both Musalmáns and Hindus are engaged in this trade. The Hindus belong to the Kshatri caste and are excessively fond of drink.

Telugu Banjigárs. Telugu Banjiga'rs are returned as numbering about 1352, and as found in Bankapur, Gadag, and Navalgund. They are said to have come from the Madras Presidency about two hunderd years ago. They speak Telugu and Tamil among themselves and Kanarese with the people of the district. The names in common use among men

are Perumaladu, Rangayya, and Venkatsvámi; and among women Náráyanamma, Shrirangamma, and Sheshakka. Their surnames are Apluvandlu, Gudramavaru, Pasaptetivaru, and Pamarativaru. Their family god is Venkataraman of Tirupati in North Arkot, and their family goddess is Kateri whose chief shrine is at Kanchipur or Conjeveram in Southern India. They say they have about eighteen subdivisions in their own country none of which eat together or Telugu Banjigars are dark, tall, and slender. The intermarry. features are regular, the face oval, the eyes large, the nose high, the lips thin, the cheek-bones low, and the cheeks round, but a sulky hard expression takes much from their appearance. They live in ordinary houses with walls of sun-burnt bricks and tiled or flat roofs. They are moderate eaters and good cooks. They eat from banian or plantain leaves, not from brass or copper and other plates like local middle-class Hindus. Their daily food is rice, Indian millet bread, and vegetables, and their special holiday dish is sweet cakes. They are unusually fond of pickles. They use flesh and liquor and some of them take hemp-water or bhang and tobacco. The men wear the loin and shouldercloths, a jacket, and a headscarf; and the women a bodice and a robe, the skirt worn hanging from the hips like a petticeat and the upper end drawn over the right shoulder. Both men and women are neat and clean in their dress and have a good store of clothes for every-day wear and for special occasions. They are intelligent, clean, neat, honest, hardworking, thrifty, eventempered, and orderly. Most of them earn their living by trading in cloth or grain and lending money on interest. Some of them have entered Government service, some till, and a few work as masons or carpenters. A family of five spends about £2 (Rs. 20) a month on food and £6 (Rs. 60) a year on dress. A house costs about £30 (Rs. 300) to build and about 2s. (Re. 1) a month to rent. Their house goods are worth about £10 (Rs. 100). A birth costs them about £2 (Rs. 20), a marriage about £20 (Rs. 200), a girl's coming of age about £1 12s. (Rs. 16), a pregnancy about £1 (Rs. 10), and a death about £2 10s. (Rs. 25). They are religious respecting Bráhmans and calling them to conduct their religious ceremonies. They keep the leading Hindu holidays and make pilgrimages to the shrines of Venkataraman at Tirupati in North Arkot, Rángnath at Trichinapalli, Shri Rám at Násik, and Vishveshvar at Benares. Their guru or spiritual guide is Tirmal Tátáchária, a Shri Vaishnav Bráhman, who brands his disciples with red-hot copper seals stamped with Vishnu's discus or chakra and conch-shell or shankh. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child its navel cord is cut, it is bathed, and a little honey and castor-oil are dropped into its mouth. For the first three days the mother is bathed from the waist downwards. On the fifth day the goddess Jivati is worshipped to secure long life to the child, and on the seventh the whole of the mother's body is bathed. On the twelfth the child and the mother are bathed, and the child is named and cradled, and lighted lamps are waved round its face. When a marriage is settled a shed is raised in front of the bride's house with

Chapter III.
Population.

Traders.
Telugu
Banjugars.

¹ Details are given in the account of Jangams.

Chapter III.
Population
TRADERS.
Telugu
Banjiyars.

twelve posts, an altar is made in the middle of the shed, and a small canopy also of twelve posts is built over the altar. The shed is decorated with mango leaves and flowers. In front of the canopy is placed a wooden mortar three feet high and a lighted lamp is set on the mortar. Twelve large and small earthen pots and nine earthen tumblers with handles are bought, whitewashed, and ornamented with various colours. One large pot is set on each side of the mortar and one small pot on each side of the big posts. Between the lines of the two pots the nine earthen tumblers are placed in a row and filled with earth. Nine kinds of grain seeds are sown in the earth in the tumblers, a little water is poured over them, and the seeds are left to sprout. In the morning of the wedding day a Brahman priest comes, kindles the sacred fire, and girds the bridegroom with the sacred thread. In the evening the bride and bridegroom are robed in yellow garments and seated on raised seats. A Brahman priest comes, repeats verses, throws red rice on the heads of the bride and bridegroom, and ties yellow thread bracelets or kankans round their right wrists. Married women wave lighted lamps round their faces. The bride and bridegroom are taken in procession to a temple, where they bow to the god and return, and the day ends with a feast to friends and relations. For three days after the wedding day the Brahman priest kindles the sacred fire twice a day, and, on the fourth day, comes a ceremony called Nágávali or the Snake Row. The smaller pots which were laid on the bigger pots in front of the marriage-altar are taken down. The larger pots are filled with water, and an ornament, either a gold finger or nose ring, is dropped into one of the pots. The bride and bridegroom search for it and success in finding the ring is taken as an omen of who will rule the house in after-life. bride and bridegroom are then made to walk five times round the canopy. Rice and a cocoanut are placed in the bridegroom's hands, he makes them over to the bride, and she unties his thread wristlet or kankan. Some women whose husbands are alive wave lighted lamps round the pair. If at the time of marriage the bride is of age, the bride and bridegroom are made to present money and fruits to the Brahman priest and are led by married women to the marriage bed-room. They are seated together on a cot, decked with flowers and leaves, and lighted lamps are waved round their faces. The women lay food and milk in the room, leave, and lock the door from the outside. When a death takes place a priest of the Satáni caste is called. He washes the corpse and decks it with sect-marks. He makes a small discus or chakra and a conchshell or shankh of split bamboo, lays flowers on them, and fastens the bamboo discus on the right arm and the conch-shell on the left arm of the body on the spots where the deceased's spiritual guide After leaving them for a short time the bamboo had branded him. discus and conch are taken off and kept in the house for five days. This is said to be done because it is sinful to brand a dead body. The fastening and taking off of the bamboo discus and couch is considered to be the same as removing the brands. The body is carried to the burning ground and is burnt. On the fifth day the bones are picked from the ashes, and laid in an earthen pot.

bamboo discus and the conch are laid along with the bones, and, on some future day the whole is taken to a holy river and thrown into the water. Girls are married either before or after they come of age. Polygamy and divorce are allowed, widow marriage is forbidden, and polyandry is unknown. Minor social disputes are settled by the castemen and graver disputes by the guru or spiritual guide. They send their children to school, take to new pursuits, and on the whole are a steady class.

Telugu Oshna'marus, numbering about 184, are found in Dhárwár, Gadag, Hángal, Koo, and Ránebennur. They are said to have come from Madras and to have been settled in Dhárwár for several generations. They speak Telugu at home and Kánarese abroad. The names in common use among men are Hanama, Ráma, Venka, and Yella; and among women Hanmakka, Hulgava, Marava, and Yellamma. Their surnames are Bhandi, Boshetti, Dhanshetti, and Satnur. Their family deities are Hanumán, Hulgava, and Yellamma. They have no subdivisions. They have five gotras or family stocks, Achintru, Kamal, Nilu, Pal, and Pasani. Members of the same stock cannot intermarry. They are dark, slender, tall, and hardy, and resemble the middle-class Hindus of Kadapa and Bellári in Madras. Their expression is lively, the form of face oval, the eyes large, the features regular, the nose high, the lips thin, the cheek-bones low, and the cheeks gaunt. They are moderate eaters and good cooks. Their daily food is rice, pulse, tamarind, plantain fruit and flower, vegetables, onions, salt, condiments, cocoanuts, and chillies. On holidays they eat sweet cakes made of wheat flour, pulse, and coarse sugar, and vades or small cakes made of pulse, chillies, salt, and condiments. They also eat the flesh of fishes, fowls, and sheep, but of no other animal. They use all intoxicating drinks. The men wear a loincloth one end of which is passed between the legs and tucked in near the navel, a headscarf, a jacket, and sandals; and the women wear a bodice and a robe without passing back the skirt between the feet. Their holiday dress is the same as their every-day dress but is of new materials. They have no store of rich clothes for special occasions. The men wear ear and finger rings and wristlets; and the women ear and nose rings, bracelets, and armlets. They are neat, hardworking, honest, and well-behaved, but dirty.

Their chief employment is the making of kunku or redpowder and tooth-powder, and trading in perfumes. Their women help them in their work. A family of five spends about £1 (Rs. 10) a month on food, and about £1 10s. (Rs. 15) a year on clothes. A hut costs about £1 (Rs. 10) to build and their house goods are worth about £1 (Rs. 10). A birth costs about 4s. (Rs. 2), a marriage about £5 (Rs. 50), a girl's coming of age about 2s. (Re. 1), a pregnancy about 4s. (Rs. 2), and a death about 10s. (Rs. 5). They are religious, but do not respect Bráhmans, Lingáyats, or other priests. They act as their own priests on ceremonial occasions. They keep the leading Hindu holidays and go on pilgrimage to the shrine of Yellamma at Sávadatti in Belgaum. Their guru or spiritual guide is a Vaishnav Bráhman named Tatiachária who lives at Kánchi or Conjeveram in

Chapter III.
Population.

THADERS.

Telugu Oshnámarus. Chapter III.
Population.
TRADERS.
Telugu
Oshnámarus.

Madras. He does not proselytise or try to gain new followers. profess not to believe in sorcery, witchcraft, or soothsaying. When a child is born its navel cord is cut and a little sugar mixed with castor-oil is dropped into its mouth. The after-birth is worshipped, redpowder and incense are laid before it, it is laid in an earthen pot, and is buried outside of the house near the bath-water channel. On the ninth day the child is named and cradled by the midwife. On the first day of marriage the bride and bridegroom are rubbed with turmeric and bathed, and a dinner is given in honour of the family deities. On the second day the bride and bridegroom are again rubbed with turmeric and bathed and a casto dinner is given. On the third day they are rubbed with turmeric, bathed, and seated on wooden boards placed on a blanket which is spread on a raised seat. A few grains of rice are dropped round the wooden boards, kunku or redpowder is rubbed on to their brows, and yellow threads are tied to their right wrists. The bridegroom binds the marriage string of gold and glass beads round the bride's neck, five married women throw grains of red rice over the couple, and a feast is given to friends and relations. On the fourth day the marriage shed is worshipped and the marriage is over. When an Oshnamaru dies a cocoanut is broken before the dead body, and the body is carried in a sitting posture to the burial ground and is buried. On the third day cooked food and water are laid on the Child and widow marriage and polygamy are allowed; grave. polyandry is unknown. They are bound together as a body. Minor social disputes are settled by castemen and grave questions by their guru or spiritual guide. Any one who disobeys the guide's decision is put out of caste. They do not send their boys to school or take to new pursuits. They are a steady class.

Váishyás.

Komtis or Va'ishya's are returned as numbering 823, and found chiefly in Gadag and Navalgund. They are said to have come to Dhárwar about 350 years ago from Bellari and Kadapa in Madras. They used to speak Telugu, but they now speak Kánarese both at home and abroad. In 1818 some Komtis came from Madras with the British army and settled at Dhárwár. The home speech of these lately come Komtis is still Telugu. The old and the new settlers eat and marry with one another. The men's names are Govindappa, Lacháppa, Malláppa, Venkáppa, and Viráppa; and the women's names are Durgamma, Gangamma, and Rádhamma. They have no surnames. They are said to have about one hundred and two family-stocks and members of the same stock do not intermarry. Their chief deity is Nagareshvar. They also worship Dayamava, Hanumán, Ganpati, Venkataraman, Virbhadra, and Yellava. They are dark, short, and stout. Their faces are round, the expression lively, the eyes large, the features regular, the nose high, the lips thin, the cheek-bones low, and the cheeks round. Most of them live in better class houses two or more storeys high, with walls of brick and mud and flat roofs. The houses are neat and clean and are well cared for. They keep cows and buffaloes. They are moderate eaters and good cooks. Their every-day food is rice, pulse, Indian millet bread, vegetables, milk, curds, and buttermilk, and they are specially fond of sour dishes. Their holiday dishes include

several kinds of cakes made of wheat, pulse, and sugar. They do not use flesh or intoxicating drinks. The men wear a headscarf, a jacket, a loin and shouldercloth, and shoes. The women wear a robe and a bodice like those worn by Brahman women. Though not clean, both men and women are neat in their dress, and fond of gay colours. Their holiday dress is the same as their every-day dress but richer. They have good stores of clothes for every-day wear and for special occasions. The men wear ear, finger, and wrist rings, waistchains, and necklaces. The women wear ear and nose rings made of gold and studded with pearls and precious stones, toe-rings, bracelets, armlets, and waistbands. They are quarrelsome, hardworking, keen, and proverbially cunning.1 main calling is trading in grain, oil, clarified butter, cloth and sugar, and moneylending. A family of five spends about £1 10s. (Rs. 15) a month on food, and their store of clothes varies from £10 to £200 (Rs. 100 - 2000). A birth costs about £2 (Rs. 20), a thread-girding about £3 (Rs. 30), a marriage about £10 (Rs. 100) besides a dowry of £1 to £3 (Rs. 10-30), a girl's coming of age about £2 (Rs. 20), a pregnancy about £2 (Rs. 20), and a death about £5 (Rs. 50). They are religious. They worship the usual Brahmanic gods, respect Brahmans, and call them to their ceremonies. They keep the usual Hinduholidays and go on pilgrimage to Benares, Rámeshvar, Tirupati, Udpi, Gokarna, Pandharpur, and to the chief shrine of Nagareshvar at Náráyan-Devarkeri. Their spiritual guide is Shankaráchárya, the pontiff of the Smarts to whom and to whose delegate, a Smart Tráhman whose title is Bháskaráchárya, they give presents. The present Bháskaráchárya is Arunáchal Svámi who lives at Náráyan-Devarkeri in Bellári. He is a married man. He travels about the country, inquires into religious offences committed by Komtis, and punishes them either with fine or with loss of caste. The offending persons are let back into caste on undergoing certain renalties. The Komtis believe in sorcery, soothsaying, and witchcraft. They keep all the sixteen sacraments or Brahman sanskars. On the eleventh day after a birth the mother is bathed and a feast chiefly of rice and pulse is given to friends and kinspeople. The family is considered impure for sixteen days. On the sixteenth the cradle is worshipped with flowers and redpowder, a lighted lamp is waved round it, and the child is named by its maternal aunt and laid in the cradle, and sugar and scraped cocoanuts are handed to the guests. When a woman comes of age she is made to sit apart for three days and on the fourth she is anointed and bathed. The impurity caused by a death lasts fifteen days. Child-marriage and polygamy allowed, widow-marriage is forbidden, and polyandry is unknown. The Komtis have a rule that a boy is bound to marry his maternal uncle's daughter, however sickly or deformed she may They are bound together by a strong caste feeling. Minor social disputes are settled by castemen and graver questions by Bháskaráchárya, their deputy spiritual guide. They send their boys and girls to schools and take to new pursuits. Komtis are a rising class.

Chapter III.
Population.
TRADERS.
Váishyás.

¹ In Dhárwár any man who has a name for cunning is called Komti.

DISTRICTS.

Chapter III.
Population.
Husbandmen.

Husbandmen, according to the 1881 census, included ten classes with a total strength of 123,134 or 15.78 per cent of the Hindu population. The details are:

Dhárwár Husbandmen, 1881.

Division.	Males	Females	Total.	DIVISION.	Males.	Females	Total.
Dásárs Halepáiks Haslárs Kámátis Kudavakaligárs. Malavars	299 64 18 995 3882 113	841 58 18 937 8512 117	640 122 86 1932 7094 224	Maráthás Radders Rajputs Sádars Total	 22,029 10,970 1722 21,956	22,056 10,559 17,28 21,466	44,085 21,729 3450 43,422 123,134

Dúsárs.

Da'sa'rs, literally Servants, are returned as numbering about 640 and as found chiefly in Dhárwár, Bankápur, Hubli, Hángal, Kod, Navalgund, Ránebennur, and Ron. They are divided into two classes, Galla Dásárs and Byad Dásárs who neither eat together nor intermarry.

The Galla Dásárs speak impure Kánarese. The names in common use among men are Dásáppa, Govindáppa, and Rámáppa; and among women Hanamava, Rukhmava, and Yellava. family gods are Hanuman and Venkataraman of Tirupati. They are tall and dark, with a dreamy have no subdivisions. look, regular features, small eyes, high noses, thin lips, low cheekbones, gaunt cheeks, lank head-hair, and thick face-hair. They live in flat-roofed houses which are dirty and ill-cared for. are great eaters and bad cooks. Their daily food is Indian millet bread, vegetables, and curds, and their holiday dishes are sweet cakes, rice, clarified butter, vegetables, and curds. They do not use flesh or intoxicating drinks. The men wear loin and shouldercloths, a jacket, a headscarf, and sandals; and the women wear a robe and a bodice, but they do not pass the skirt of the rote between their feet. They are hardworking, honest, even-tempered, and orderly, but unclean and untidy. Their main calling is husbandry. They work from morning till evening and are helped by their women They do not work on the leading Hindu holidays. and children. Though their calling is prosperous most are in debt, chiefly owing to the heavy rates of interest at which they borrow money. A family of five spends on food about 10s. (Rs. 5) a month and on dress about £1 (Rs. 10) a year. Their houses cost about £10 (Rs. 100) to build, and their house goods are worth about £5 (Rs. 50). A birth costs about 8s. (Rs. 4), a marriage about £10 (Rs. 100), a coming of age about £2 (Rs. 20), a pregnancy about 10s. (Rs. 5), and a death about £2 10s. (Rs. 25). They are religious. They respect Bráhmans and call them to conduct their marriage ceremonies, and Lingayut priests to manage their funeral rites. Their guru or spiritual teacher is Shrinivasáchárya who lives at Anigundi near Hampi in Bellári. He does not try to gain new followers. They occasionally worship the village deities Dayamava and Durgava. They believe in sorcery and witchcraft and consult sorcerers and witches when any one falls sick. On the birth of a child its navel cord is cut, laid in an earthen vessel, and buried in some clean place. On the fifth day the goddess Jivati is worshipped and a feast is given to castepeople, and on the twelfth day the child is named and cradled. No further ceremony takes place till marriage. On the day fixed for marriage the bride and bridegroom are rubbed with turmeric and oil, bathed, and made to sit on a raised seat. The village astrologer comes, repeats texts, and throws grains of red rice on the couple, betelnuts and leaves are handed among the guests, a feast is given to the men of the caste, and the ceremony is over. The deadare burned. Child and widow marriage and polygamy are allowed; polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste and any one neglecting the decision is put out of caste. They do not send their children to school or take to new pursuits. They are said to be rather a declining class.

Byad or Begging Dásárs speak impure Kánarese. The names in common use among men are Basava, Bhima, Govinda, and Hanman; and among women Basákka, Bayámma, Dayámákka, and Marekka. They have no surnames and are called after the names of the villages in which they live. Their family gods are Venkataraman of Tirupati and Hanuman. They have no subdivisions. A man of this class is known by his peculiar dress. He wears a waistcloth, a headscarf, and a long jacket, and over the jacket a waistband. He hangs an image of the monkey-god to his neck in such a way that it may fall on his chest, holds a conch or a blowing shell in his left hand, ties a gong to his right wrist, and holds a round stick about five inches long and one inch round between the thumb and the two first fingers of his right hand to strike the gong. He hangs a long basket from his left shoulder to hold alms, carries a lamp in his hand about three feet high, and marks his forehead with two stripes of white earth with a red or yellow stripe in the middle. Dressed in this way he goes from house to house blowing his conch, repeating the name of the god Govind, and asking for alms. When he gets alms he again blows his cench, strikes the gong, and repeats seven or eight names of Hindu gods. Dásárs are like local lower class Hindus. live in dirty ill-cared for huts with mud walls and straw roofs. They keep pet animals. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse, and vegetables, and their heliday dishes are sweet cakes made of wheat flour, sugar, and pulse. They eat the flesh of sheep, fishes, fowls, hares, and They use intoxicating drinks but are temperate in their Their women wear a robe and a bodice but do not pass the skirt of the robe between the feet or tuck it behind. The men wear brass ear and finger rings, and the women wear brass ear, finger, and nose rings and bracelets. Their main calling is begging. They are even-tempered and orderly, but dirty and idle. social position is much like that of the Deccan Rámoshis. feeding expenses are nothing as they live on alms. A birth costs about 6d. (4 as.), a boy's marriage about £2 2s. (Rs. 21) including a downy of £1 12s. (Rs. 16) paid to the bride's father, and a death about 2s. (Re. 1). They are religious, respect Bráhmans, and call them to conduct their marriages. They have a guru or spiritual teacher who is a Satáni by caste. They say they do not believe in sorcery,

Chapter III.
Population.
Ht-BANDMEN.
Davirs.

Chapter III.
Population.
Husbandmen.
Dásárs.

witchcraft or soothsaying. When a child is born its navel cord is cut and a few drops of castor-oil are put into its mouth. eleventh day their teacher comes and stamps the child's shoulders with a jessamin flower dipped in paste called nám. If the child is a boy either in the ninth month or in the ninth year the teacher heats two brass seals made in the shape of a discus and a conch and brands the boy's right shoulder with the discus-seal and the left shoulder with the conch-seal. When a marriage is settled, on the wedding day the bride and bridegroom are seated on a blanket, the village astrologer ties yellow threads to the right wrists of the bride and bridegroom, and throws redrice over them, a feast is given to men of the caste, and the marriage is over. The dead are either burnt or buried according to their relations' means. On the eleventh the teacher purifies the family by giving them holy water to sip. Child and widow marriage and polygamy are practised; polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the community, and any one who disobeys the decision is put out of caste. They do not send their boys or girls to school, do not take to new pursuits, and on the whole are a falling class.

Halepá $\imath ks$.

Halepa'iks, said to mean Old Soldiers, are returned as numbering about 122 and as found in Hangal and Kod. They speak pure Kánarese. The names in common use among men are Basava, Bhimnáik, Badaknáik, and Kárenáik; and among women Bhairakka, Durgava, Kannakka, and Maridyavakka. They have no surnames. Their house deities are Hanmappa and Guttemma. Except that they are shorter and slenderer they do not differ in appearance from other local low-class Hindus. They live either in one-storeyed tiled houses or in straw huts which are generally ill-cared for. Their daily food is bread made of Indian millet or rági flour, rice, pulse, and vegetables. On holidays they make sweet cakes of pulse, wheat, and coarse sugar. They use flesh and intoxicating drinks. Every year at harvest they sacrifice a sheep to the field gods. They say the field gods are not their gods, still they are forced to make offerings to them or their crops will not grow. They also yearly sacrifice a sheep to their house goddess Guttemma. The men wear a loin and shouldercloth, a headscarf, and sandals. The women wear a robe and bodice like other Dhárwár lower class Hindu women, and mark their brows with turmeric instead of with kunku or redpowder. The men wear brass or copper ear and finger rings, waistchains, and kádes or silver wristlets. The women wear the gold hair ornaments called rágti and chauri, ear and toe rings, a necklace of coral, silver arm and wristlets, and glass bangles. They are honest, hardworking, even-tempered, hospitable, and orderly, but unclean and untidy. Their main calling is husbandry in which they are fairly skilful. They say that during the time of the Svádi chiefs they held lands free of rent and had much power. They are in debt and have to pay about twenty-five per cent on their loans. A family of five spends about 16s. (Rs. 8) a month on food and about £2 (Rs. 20) a year on clothes. A house costs. about £20 (Rs. 200) to build and their house goods are worth about £10 (Rs. 100). A birth costs about 10s. (Rs. 5), a marriage about £40 (Rs. 400) of which about one-half goes to the bride's

father, and a coming of age, a pregnancy, and a death about 8s. (Rs. 4) each. They are religious, respecting Brahmans and calling them to their marriages and other ceremonies. Their spiritual teacher is a Shrivaishnay Bráhman named Tátáchárya who lives at Hampi in Bellári. They do not believe in sorcery, witchcraft. or soothsaying. As soon as a child is born a few drops of honey and cow's milk are put into its mouth, its navel cord is cut, and the mother and child are bathed. On the fifth day the child is put into the cradle, and, on the eleventh day, the mother and the members of the family bathe and are purified. When a marriage is settled a shed is built in front of the house, and the bride and bridegroom are rubbed with turmeric and brought into the shed. A Brahman priest ties the ends of their garments together, and tells them, accompanied by the bride's maternal uncle, to walk several times round the shed. After this the bridegroom ties the marriage string round the bride's neck and the priest ties the brow-horn or bashing round the bridegroom's brow and the tondla or marriage-bonnet round the bride's head. The bride and bridegroom are set on a raised seat. and, while women sing marriage songs, grains of red rice are thrown over them and lighted lamps are waved round their faces. Several boys are feasted and after the boys the bride and bridegroom and the caste-people. On the fourth day red water is thrown over the bride, the bridegroom, and their parents and friends, the priest is given about 3s. (Re. 11), and blesses the married pair, and retires. The bride is told to hide herself and the bridegroom is told to find her out. If he finds her it is well, if not the bride will have the upper hand in the house. When a Halepáik dies, his son or other chief mourner carries with the corpse to the burning ground a pot filled with cooked rice. At the burning ground the chief mourner spreads three haf plates and serves the food on the plates for the spirit of the dead. The body is burnt. The impurity caused by a death lasts a month. At the end of the month a dinner is given to caste-people and the family is purified. Child and widow-marriage and polygamy are allowed, and polyandry is unknown. They are bound together by a strong caste feeling, and have an hereditary headman. Social disputes are settled by their castemen and any one who disobeys the decisions is put out of caste. They do not send their boys or girls to school, and do not take to new pursuits. They are a steady class.

Hasla'rs are returned as numbering thirty-six and as found only in Hángal. They speak impure Kánarese. The names in common use among men are Hucha, Maria, and Suttana; and among women Basakka, Diami, Fakiri, and Ramakka. They have no surnames. Their chief god and goddess are Malláppa and Guttemma. They have no subdivisions. They are strong, stout, dark, and muscular. They are hardworking and orderly, but dirty and untidy. They live in thatched houses which are dirty and ill-cared for. They are great eaters and bad cooks. Their daily food is bread made of rági flour, Indian millet gruel, garlic, onions, and vegetables. Their holiday food is sweet cakes made of wheat pulse and coarse sugar, rice, milk, curds and butter. They eat mutton, employing a mulla to kill the sheep, and drink liquor. The men wear a loin and shouldercloth, a

Chapter III.
Population.
Husbandmen.
Hubbandmen.
Hab paiks.

Haslárs.

Chapter III.
Population.
Husbandmen.
Haslars.

headscarf, and a short coat. The women wear a robe and a bodice without passing the skirt of the robe between the feet. They have no stock of good clothes for daily use or for special occasions. The men keep the top-knot or shendi and ear-tufts or jhulpis. They wear no ornaments. Their main calling is field work in which their women help. Many are in debt. A family of five spends about £1 (Rs. 10) a month on food and about 8s. (Rs. 4) a year on clothes. A birth costs about 8s. (Rs. 4), a marriage about £10 (Rs. 100), a coming of age about 4s, (Rs. 2), a pregnancy nothing, and a death about 2s. (Re. 1). They are religious. They do not respect Brahmans and do not call them to perform their religious ceremonies. All their ceremonies are performed by Lingayat priests, and their guru or spiritual teacher is also a Lingáyat who lives at Togsi in Maisur. He punishes all religious offences and receives homage from his disciples. They do not believe in sorcery, witchcraft, or soothsaying. At their marriages a Lingayat priest comes and ties kankan or yellow threads to the wrists of the bride and bridegroom. Then the bridegroom fastens the marriage string to the bride's neck, the women sing marriage songs, and wave a lighted lamp round the faces of the married couple. The priest is dismissed with a present of about 3s. (Rs. 1½), a caste feast is given, and the marriage is over. When a girl comes of age sho sits by herself for three days. On the fourth she is bathed, dressed in fine clothes, and sent to her husband's room. When a person dies the body is carried to the burning-ground and is there either burnt or buried according to the family's means. Child and widow-marriage and polygamy are practised, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by the members of the caste and if any one neglects the decisions he is put out of caste, unless he pays a fine of £1 (Rs.10) half of which is given to the teacher and the rest is spent on a caste feast. They do not send their boys or girls to school, and do not take to new pursuits. They are a steady calss.

Kámátis.

Ka'ma'tis, also called Kunchigárs, are returned as numbering about 1932 and as found in Dhárwár, Hángal, Kod, and They speak incorrect Kánarese. The names in Ránebennur. common use among men are Bhima, Hanuma, Kalla, Ninga, and Naga; and among women Basava, Kallava, Mallava, and Ningava. Their family gods are Hanumán and They have no surnames. The chief shrine of Narsivha is at Kadari in the Narsivha. Kadapa district of Madras. They have no subdivisions. They are like ordinary Kánarese labourers. They live in dirty and ill-cared for thatched houses with walls of mud and stones. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse, and vegetables; and their holiday dishes are sweet cakes made of wheat, pulse, coarse sugar, milk, curds, and vegetables. They use the flesh of fishes, fowls, sheep, and deer, but not of other animals. They do not use intoxicating drinks. The men wear a loin and shouldercloth, a jacket, and a headscarf, and the women a robe and bodice without passing the skirt of the robe back between the feet or tucking it behind. The men wear ear and finger rings, and the women ear, finger, toe, and nose rings, necklaces,

waistbands, and glass bangles. They are hardworking, honest, even-tempered, and orderly, but dirty and untidy. Their main calling is husbandry. They work in the fields from morning to evening. They generally grow rice and when the rice crop is cut sow some vegetable. Their women help in the field and their children tend cattle. A family of five spends about £1 (Rs. 10) a month on food and about £1 10s. (Rs. 15) a year on clothes. A hut costs about £1 (Rs. 10) to build and 6d. (4 as.) a month to rent. The value of their house goods including cattle is about £20 (Rs. 200). A birth costs about 4s. (Rs. 2), a son's marriage about £10 (Rs. 100) of which £2 (Rs. 20) go to the girl's father, a girl's coming of age about £1 (Rs. 10), a pregnancy about 1s. (8 as.), and a death about £2 (Rs. 20). They are religious, respect Brahmans, and call them to conduct their marriage ceremonies. Their funeral rites are performed by men of their own caste. They make pilgrimages to Kadari and Tirupati in Madras. Their spiritual teacher lives at Tirupati. He does not try to make new followers. They believe in sorcery, witchcraft, and soothsaying. When a child is born its navel cord is cut and the child and mother are bathed. On the eleventh day they clean the house, bathe, and are purified. thirteenth the child is named and cradled. A day or two before a wedding, a dinner is given in honour of the family gods, and the bride and bridegroom are rubbed with turmeric and bathed. On the wedding day the bride and bridegroom are seated on a blanket, the Bráhman repeats verses and throws red rice over the couple, and a feast without flesh is given to caste-people. day the bride and bridegroom are seated on a horse and carried through the chief streets in procession, and the marriage is over. When a Kamati dies the body is carried to the burial ground in a bamboo car adorned with flags and plantain leaves, and is buried. Child and widow marriage and polygamy are allowed, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by castemen and any one neglecting such decisions is put out of caste. They do not send their boys or girls to school, take to no new pursuits, and are a falling class.

Kudavakaliga'rs, or Hoemen, are returned as numbering about 7694 and as found all over the district. They are said to be called Kudavakáligárs from the iron field-hoe or kudav. They speak impure Kánarese. The names in common use among men are Basáppa, Malláppa, and Ningáppa; and among women Basava, Kallava, and Ningava. They have no surnames. Their family-gods are Basavána, Virabhadra, and Yellava. Basavána's chief shrine is at Ulvi in North Kánara, Yellava's at Savadatti in Belgaum, and Virabhadra's at Rachoti in the Madras district of Kadapa. They have two divisions Taddodi and Dandavati who eat together but do not intermarry. They are tall, strong, and muscular. They live in neat but rather dirty flat-roofed houses and keep cows, oxen, and buffaloes, and sometimes one or two farm servants on 4s. to 6s. (Rs.2-3) a month. They are great eaters and bad cooks. Their daily food is Indian millet bread, vegetables, and buttermilk, and their holiday dishes are sweet cakes, rice, and milk. They do not use flesh or intoxicating drinks. The men

Chapter III.
Population.
HUSBANDMEN.
Kamatis.

Kudavakáligárs.

Chapter III.
Population.
Husbandmen.
Kudavakáligárs.

dress in a loin and shouldercloth, a jacket, a headscarf, short trousers ending a little above the knee, a blanket, and sandals. The women dress in a robe and bodice, but do not pass the skirt of the robe between the feet. Their holiday dress is the same, but of better and costlier The men wear ear and finger rings, and the women ear, materials. nose, and toe-rings, waistbands, glass and silver bangles, and silver armlets. They are hardworking, honest, even-tempered and Their main calling is husbandry. They work every day orderly. from morning till evening except on Monday which is sacred to their god Basav. The women help in the field and the children tend cattle. They are skilful workers. Some are landholders and others field labourers. Their women sell butter, milk, and curds, the produce of their cows and she-buffaloes. They are a well-to-do class, generally free from debt, seldom borrowing except to meet marriage expenses. A family of five spends about £1 (Rs. 10) a month on food and £2 10s. (Rs. 25) a year on clothes. A house costs about £40 (Rs. 400) to build and about 4s. (Rs. 2) a month Their house furniture is worth about £30 (Rs. 300). A birth costs about 10s. (Rs. 5), a son's marriage about £15 (Rs. 150) of which £8 (Rs. 80) is paid to the girl's father, a coming of age about £1 (Rs. 10), a pregnancy about £1 (Rs. 10), and a death about £1 10s. (Rs. 15). They are religious and respect both Bráhman and Lingáyat priests. They call a Bráhman to conduct their marriages and a Lingayat to conduct their funerals. keep the leading Bráhmanic holidays. On every Tuesday in the month of Ashadh or July-August their women worship the goddess Gulkava, and in the first half of the month of Shrávan or August-September the goddess Changalkava is worshipped. The Jeshth or June-July full-moon is called Karhunvi and is held in great honour. The day before the full-moon, Indian millet is boiled, made into thick gruel, and given to working bullocks; and on the full-moon day eggs are broken and mixed with oil and forced down the bullocks' They are dressed in rich blankets or woollen cloths, decked with flowers, and have their horns painted red. In some cases rich husbandmen put their women's silver anklets on the bullocks' legs. All the husbandmen meet together taking their white and red but not their black bullocks, and go in procession half a mile out of the village. A hemp rope is tied across the village gates about ten feet from the ground. The husbandmen form a return procession with the bullocks in front, and race their bullocks at top speed towards the village gates. If a white bullock is first to enter the gates, the white Indian millet crop will be plentiful, and if a red bullock wins the red Indian millet crop will be plentiful. The owner of the winning bullock is allowed to break the rope across the gate with his whip, a ceremony which is called karihariyona or the rope-breaking. They do not go on pilgrimage. The village Lingayat priest is their guru or spiritual teacher and they occasionally ask him to dine at their houses. They worship the village goddesses Dayamava and Durgava and believe in sorcery, witchcraft, and soothsaying. Their religious rites and customs do not differ from those of Lingayats. Child marriage and polygamy are practised, widow marriage is forbidden, and polyandry is unknown. They do not consider that birth, death, or women's sickness causes impurity. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste, and if any one disobeys the decisions he is put out of caste. They do not send their boys or girls to school, take to no new pursuits, and are a steady class.

Mara'tha's are returned as numbering about 44,085 and as found all over the district. Between 1675 and 1752 when the great Shiváji and other Marátha chieftains carried their arms into the Karnátak. thousands of Maráthás and Bráhmans followed them and many settled in Dhárwár. The present Marátha population of Dhárwár are the descendants of these people and of others who from time to time followed the conquerors. Their home speech is Maráthi, but they speak Kánarese with the people of the district. The names in common use among men are Sambháji, Santáji, Shiváji, and Survaráo; and among women Ambabai, Jijabai, Soyarabai, and Yesubai. Their surnames are Bhoslé, Chaván, Daphalé, Ghárgé, Ghátgé, Gáikwár, Máné, Nimbálker, Sinde, and Thorát. Their chief gods are Khandoba of Jejuri, Vithola of Pandharpur, and Venkataraman of Tirupati, and their chief goddesses are Ambábhaváni and Tuljábhaváni of Sátára and Mahálakshmi of Kolhápur. They have no subdivisions. They are dark, bold, and muscular. They live in one-storeved houses with walls of sun-burnt bricks and flat or tiled roofs. They are moderate eaters and bad cooks. Their daily food is Indian millet bread, pulse, vegetables, onions, and garlic, and their special holiday dishes are sweet cakes made of rice or wheat flour, sugar, clarified butter, and flesh. On the Dasara holiday in October and on other festive occasions they sacrifice a sheep to their goddess Durgadevi and entits flesh. They use intoxicating drinks. The men wear a loincleth or short trousers coming to the knees, a jacket, a shouldercloth, and a turban, and tie a waistband tightly round the waist. The women wear a robe and hodice but do not pass the skirt of their robe between the feet. Both men and women are clean, neat, and tasteful in their dress having a marked liking for gay colours. They have a good stock of clothes for ordinary wear and for special occasions. The women of rich Maráthás do not appear in public and when they go out their hands and faces are completely covered. The Maráthás are active, hardworking, intelligent, honest, hot-tempered, hospitable, and spirited. They work as husbandmen, labourers, messengers, constables, and house-servants. trade and a few have risen to high posts under Government. family of five spends about £1 4s. (Rs. 12) a month on food. house costs £20 to £50 (Rs. 200 - 500) to build and their house goods are worth about £5 (Rs. 50). A birth costs about 16s. (Rs. 8), a marriage about £10 (Rs. 100), a girl's coming of age about £3 (Rs. 30), a pregnancy about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, respecting Brahmans, and calling them to conduct their religious ceremonies. They keep the usual Hindu holidays and make pilgrimages to the shrines of Vithoba at Pandharpur, Mahábaleshvar at Gokarn in Kánara, and Tuljábhaváni in Sátára. Their spiritual teacher is Shankaráchárya the pontiff of the Smart Brahmans. They believe in sorcery, witchcraft, and

Chapter III.

Population.

HUSBANDMEN.

Maráthas.

Chapter III.
Population.
HUSBANDMEN.
Maráthas.

and soothsaying. They do not keep all the sixteen Brahmanic sanskárs or sacraments. Their chief ceremonies are birth, marriage, coming of age, death, and mind feasts or maháls which are performed with a Brahman's help. On the maháls or ancestral mind-days they bathe, dress, and offer balls of cooked rice to crows. If the crows eat the food the ancestors are satisfied; if not they are displeased. Child and widow-marriage and polygamy are practised, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by the castemen and any one who disobeys the decision is put out of caste. The authority of the community is said day by day to be failing. They send their boys and girls to school, take to new pursuits, and are a rising class.

Malarárs.

Malavars, or Woodlandmen, a class of Lingayats, are returned as numbering about 224 and as found in Gadag, Hangal, and Karajga. They say they are called Malavárs because they used to live in the malanád or hilly country. Other Lingáyats say, they were called Malavárs or the dirty people because they did not keep the rules of the Lingayat religion. The names in common use among men are Basáppagavda, Ningangavda, and Rudráppagavda; and among women Basava, Gangava, and Ningava. They have no They have two divisions Muskin Malavars or face surnames. hiders, whose women cover their faces like Muhammadans, and Nira Malavárs or water-hiders who cover their water-pots with a cloth when bringing water from a well. They do not differ in appearance from the ordinary local Lingávats. Most live in one-storeyed houses of the better class with walls of brick and tiled roofs. Their daily food is Indian millet bread, rice, pulse, and vegetables, and on holidays they eat sweet cakes. They do not use flesh or intoxicating drinks. Their dress does not differ from that of other Lingáyats. They are generally eventempered, hardworking, and orderly. Most of them are landholders and village headmen, and some of them trade. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £10 (Rs. 100) to build and 2s. (Re. 1) a month to rent. A birth costs about 8s. (Rs. 4), a son's marriage about £15 (Rs. 150), a girl's coming of age about £1 (Rs. 10), a pregnancy about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, respecting Bráhmans and calling them to conduct their marriages. At their marriages the Brahman priest ties yellow threads or kankans round the right wrists of the bride and bridegroom and throws grains of rice over their heads. The rest of the marriage ceremony and all other religious rites are conducted by Lingáyat priests. They have a spiritual teacher who lives in North Kanara and gives them religious instruction. They keep the leading Hindu holidays and believe in sorcery, witchcraft, and soothsaying. All their ceremonies from birth to death are like those of other Lingayats. Child and widow marriage are allowed, but neither divorce nor polyandry. They are bound together by a strong caste feeling. Their social disputes are settled by their castemen and any one who disobeys is put out of caste. They send their children to school, take to new pursuits, and are a steady class.

Radders are returned as numbering 21,529 and as found all over the district. They have several divisions as Chitnat, Matmat, Namad, Nurval, and Páknák. Most of them are Lingáyáts and wear the ling. The members of these subdivisions eat together but do not intermarry. The names in common use among men are Bharmáppa, Chandáppa, Fakiráppa, and Guráppa; and among women Basava, Irakka, Somakka, and Yellamma. They speak Kanarese. In appearance they are dark and muscular. Most of them live in dirty one-storeyed houses with walls of brick and They keep cows, bullocks, and buffaloes. They are great eaters and bad cooks. They take three to four meals a day. Their daily food is bread, vegetables, and pulse, and their special holiday dishes are rice, curds, and sweet cakes. They do not use flesh or intoxicating drinks. The men wear short breeches or a waistcloth about seven and a half feet long, a shouldercloth, a headscarf, and sandals. The women wear a robe and a bodice like other low-class Lingayat women. They are orderly, hardworking, thrifty, and hospitable, but very unclean and untidy. Their main calling is husbandry. Some work as gardeners and labourers and a few are beggars. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs them about £20 (Rs. 200) to build, a birth costs about £1 10s. (Rs. 15), a marriage about £20 (Rs. 200), and a death about £1 10s. (Rs. 15). They are religious. They worship Máruti, Venkatesh, and Yellamma, and are specially devoted to Venkatesh. Most call Jangams or Lingáyat priests, and a few call Bráhmans to conduct their religious ceremonies. They keep the leading Hindu holidays. On all new-moon days, except the Margashirsh or December new-moon, they offer kadbus or sugar dumplings to the goddess Lakshamava, and taking some of the dumplings and other cooked food to their fields, throw a little to the four corners of heaven and eat the rest. During harvest time they please the goddess Lakshmava by offering her a goat or plantains and cocoanuts. In making these offerings the goddess is worshipped at her house in a stone placed under a tree. This stone is first rubbed with lime-water and then with redlead. They believe in sorcery, witchcraft, and soothsaying. They admit that ghosts abound, but they seldom seek the help of exorcists, having great faith in Hanumán as a guardian and spirit-scarer. When a person is possessed he is made to sit in front of Hanuman and his brow is marked with ashes taken from a pot of burning incense placed before the god. It is believed that by this means the evil spirit is driven away. When a child is born its navel-cord is cut and the mother and child are bathed. On the fifth day a feast is given to caste-people and in the evening the goddess Sathi is worshipped and a lighted lamp is waved round her face. The father of the child is not allowed to see the lamp waved. If he sees it they fear that the child and its mother will sicken. On some day between the thirteenth and the thirtieth an unsewn bodice and some sweet cakes are offered to the goddess Sathi as it is believed that for a month after its birth the child is under the control of the goddess from whom comes any sickness from which the child may suffer. When a marriage is settled an astrologer is asked to choose a lucky day. Two or three days

Chapter III.
Population.
HUSBANDMEN.
Radders.

Chapter III.
Population.
Husbandmen.
Radders.

before the day fixed the bride and bridegroom are rubbed with turmeric and bathed at their homes and a feast is given to friends and relations. Next day the bridegroom is led to the bride's where his relations pile a large heap of rice on a blanket. In front of the heap a platter, a lamp, and the ornaments to be given to the girl are placed; at each corner of the heap a half cocoanut is set and round the heap a line of turmeric powder is drawn. whose husbands are alive come each with a platter on which is a lamp, wave the lamp round the heap, and burn incense before it. They take the lamps off the platters and fill them with rice from the heap, and then set the lamps on the rice. They carry the platters to the girl's house-shrine throwing rice on either side as they go, and set the platters before the house-god. When this is over the bridegroom's party return home. On the wedding day the bridegroom, wearing a rich dress and seated on a bullock, goes with music, friends, and relations to the bride's house. The bride and bridegroom are made to stand in two bamboo baskets filled with rice in which a copper coin is placed. A white sheet with a central turmeric cross is held between them. The priest ties cotton threads to the right wrist of the bridegroom and to the left wrist of the bride and repeats sacred verses. He tells the bridegroom to touch the lucky thread or mangalsutra and ties it round the bride's neck and throws grains of rice on the heads of the pair. Betelnuts and leaves are handed among the guests, a feast is given to the castemen, and the wedding is over. Of the Radders those who are Lingayats bury their dead and the rest burn them. If the dead is burnt, on the third day the ashes are gathered and thrown into water, and on the ninth, tenth, or eleventh the clothes of the dead are washed and set near the house-gods with the deceased's ornaments, and cooked food is offered to them. To the spirit of the headman of a family an offering of food is made every month after his death. The images of the dead are worshipped along with the house-gods and once a year a headscarf or a waistcloth, or a robe if the deceased was a woman, are offered to the images of the dead. Some do not allow their widows to marry, and others allow widows and divorced women to marry once. A few send their boys They do not take to new pursuits and on the whole are a to school. steady class.

Páknák Radders.

PÁKNÁK RADDERS are found scattered all over the district. They form a subdivision of Radders. Their home tongue is Telugu, but out of doors they speak an impure Kanarese and Hindustani. Their names are the same as those of other Rádders. Their family deities are Hanumán, Hulgeva, and Yellamma. The chief shrine of Yellamma is at Savadatti in Belgaum and of Hulgeva near Hospeth in Bellári. Though they are Hindus they dress somewhat like Musal-The men dress in a long cloth about four feet broad round the waist, and taking a second cloth tie its two ends behind the neck and let them fall loosely in front. They throw a long cloth over the head, allowing the ends to fall on both shoulders, and over that they wear a long piece of cloth round the head like a turban. The women dress in a robe and bodice without passing the skirt of the robe between the feet. The men wear ear and finger rings and wristlets, and the women wear nose, ear, and toe rings, a necklace, and glass bangles.

They live in thatched houses which are generally dirty and ill-cared for. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse, and vegetables, and on holidays they eat rice and flesh. They use intoxicating drinks and are intemperate in their habits. They are even-tempered, dirty, and idle. Their main calling is begging from door to door. When they go on their begging rounds they carry a palm-leaf book bound by a thread passed through holes made in the leaves. Figures of men, children, bullocks, horses, trees. and other fanciful objects are engraved on the leaves as well as mysterious Telugu verses. They hold an iron pin in their hands. and when any one wishes to know his fortune they tell him to put the pin in the book. When the person has put the pin in the book the Radders open the book and interpret the meaning of the figure painted on the leaf. A snake means death, a scorpion misfortune. a mango or a plantain good luck. A few till lands and labour for hire. A family of five spends about 8s. (Rs. 4) a month on food. A hut costs about £1 (Rs. 10) to build and their house goods are worth about 10s. (Rs. 5). A birth costs about 2s. (Re. 1), a marriage about £3 10s. (Rs. 35), and a death about 1s. 6d. (12 as.). They do not respect Brahmans or call them to their marriages which are conducted by men of their own caste. They do not worship Bráhmanic gods and do not keep the usual Hindu holidays. Their spiritual teacher is a Lingayat priest named Virabikshavati who lives in Kattikeri in Bangalore. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child the midwife cuts its navel-cord, and puts a few drops of castor-oil into its mouth. On the third day the goddess Sathi is worshipped, caste-people are feasted, and the child is laid in a cloth cradle and named. No further rites are performed till marriage. The day before the wedding they offer food to their family goddess, and on the wedding day five women whose first husbands are alive make the bride and bridegroom sit on a blanket, throw red rice over the pair, wave lighted lamps round their faces, and say So soban that is Happiness to the bride and bridegroom. Caste-people are feasted on liquor and bhang and the wedding is over. The dead are buried. On the next day cooked rice, the flesh of a fowl, liquor, and bháng are offered at the grave to the spirit of the dead. Some once a year offer boiled rice and flesh to the spirits of their dead ancestors. Those who do so are supposed to get children, wealth, and prosperity. widow marriage and polygamy are allowed, but not polyandry. are bound together by a strong caste feeling. Their social disputes are settled by men of their caste and any one who disobeys the decisions is put out of caste. They do not send their children to school. take to no new pursuits, and on the whole are a falling class.

Rajputs are returned as numbering about 3450 and as found all over the district. They say that their ancestors were Kshatriyás who added to their names the word sinha or lion latterly corrupted into sing; and that they formerly lived in Upper India, and came to Southern India as soldiers and military adventurers. They speak Hindustáni at home and impure Kánarese with the people of the district. The ordinary names among men are Bhavánsing, Gangárám, Govindsing, and Parasharámsing; and among women Bhavánibái, Gangábái, Sundrá-

Chapter III.

Population.

HUSBANDMEN.

Paknák Radders.

Rajputs.

Chapter III.
Population.
Husbandmen.
Rajputs.

bái, and Tulsábái. They have no surnames. Their family deities are Venkataraman or Báláji of Tirupati and Durga. They have several subdivisions the particulars of which are not known. It is said that when they settled in Southern India some Rajputs kept or married local women and that their issue formed the clans of Chaváns, Pavárs, and Jádhavs who afterwards became heads of powerful Marátha families. They have gotras or family-stocks and a boy and girl of the same stock cannot intermarry. They are tall, robust, fair, and handsome. Most of them live in one-storeyed houses of the better class with walls of brick and tiled roofs. The houses are clean and well-cared for. They are great eaters and bad cooks. Their daily food is Indian millet or wheat bread, pulse, vegetables, and clarified butter; and their special holiday dishes are sweet cakes made of wheat, sugar, clarified butter, almonds, raisins, and spices. They do not drink liquor. Unlike other Hindus they use iron pincers to keep their cooking vessels on the hearth and to take them off the hearth. The men wear a loin and a shouldercloth, a jacket, a waistband, a turban, and shoes; and the women wear a robe and a bodice without passing the skirt of the robe back between the feet. On festive occasions women wear a petticoat and a scarf called chungi, one end of which is fixed to the waist on the right, brought under the left arm-pit from behind the back, carried over the right shoulder and head, and allowed to fall loose on the left arm. Women wear false hair and shoes when they go out, but they do not appear in public. Both men and women are neat, clean, and tasteful in their Rajput men and women wear the same ornaments as other Hindus, except that the shapes are Upper Indian shapes. The nose-ring of the local upper class Hindu women is about an inch and a half in diameter, while the Rajput nose-ring is about six inches in diameter. Part of the ring passes through a hole in the left nostril and part is lifted up and tied by a string to the hair above the The Rajputs are honest, hardworking, brave, hottempered, hospitable, and orderly. Their main calling is to serve Government or private persons as constables, watchmen, and messengers. Lately many have taken to husbandry. They complain that they can find no work suited to their strength, honour, or tastes. Their caste position is at the foot of the Kshatriyas. They eat from the hands of Gaud Brahmans only. A family of five spends on food about £1 (Rs. 10) a month, and on clothes about £3 (Rs. 30) a year. A house costs about £10 (Rs. 100) to build, and 2s. (Re. 1) a month to rent. Their house furniture is worth about £5 (Rs. 50). A birth costs about £1 (Rs. 10), a thread-girding about £2 (Rs. 20), a daughter's marriage about £30 (Rs. 300) including the dowry to the bridegroom, a girl's coming of age about £1 (Rs. 10), a pregnancy about £1 10s. (Rs. 15), and a death about £5 (Rs. 50). Their family priests are Gaud Brahmans, and they call them to conduct their ceremonies. A Gaud Bráhman bairági acts as their spiritual teacher, giving them religious instruction and getting presents of food and money. The teacher tries to make new followers. keep the sixteen sanskars or sacraments like Brahmans. marriage and polygamy are allowed, widow marriage is forbidden, , and polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by their spiritual teacher. They send their boys and girls to school, and are a steady class.

Chapter III.

Population.

HUSBANDMEN.

Sádars,

Sa'dars are returned as numbering about 43,422 and as found all over the district. They say that their name is a corrupt form of the word sádhu or saint. They eat only with high-class Lingáyats such as Silbalkis and Panchamsális. They never marry out of their own class. They wear the ling and allow divorce and widow marriage. They do not eat flesh or drink liquor. Shiv is their god and the Lingáyat priest belonging to the Rotti religious house is their religious head, whom they often invite to dine with them. They bathe twice a day and worship the ling. They dress like other Lingáyats, their women wearing the robe like a petticoat. They are husbandmen, traders, and village headmen. Their marriage ceremonies are performed either by a Bráhman astrologer or by a Lingáyat priest. They sometimes fast on Monday till sunset. They bury their dead.

Craftsmen, according to the 1881 census, included sixteen classes with a strength of 47,585 or 6·10 per cent of the Hindu population. The details are:

Dhárwár Craftsmen, 1881.

Division.	Males	Fe- males.	Total.	Division.	Males	Fe- males	Total.
Badiges or Carpenters Gavand'is or Masons Hugurs or Flower Sellers "ligeres or Palm-Tappers Jargurs or tiold-washers Jingars or 8 ddflers Kammers or Blacksmiths Kuthkatars or Chhatris Kumbhars or Poiters	1051 2732 859 605 1 205 613 214 1356	962 3008 897 645 1 204 604 231 1286	2013 5990 1726 1250 2 409 1217 445 2641	Lád Suryavanshis Medars . Nágliks or Lingáyat Dyers . Páncháls . Shimpis or Tailors Sonagárs or Goldsmiths . Sanadi Koravars *	728 539 1054 9290 3229 1359	533 1128 8885 3350	18175 6579 2405

* Not in the census returns.

Badiges, or Carpenters, are returned as numbering about 2000, and as found all over the district. They are old settlers in Dhárwár. They speak impure Kánarese. The names in common use among men are Bálláppa, Bassáppa, and Kálláppa; and among women Dayamava, Kallava, and Lakshamava. They have no surnames, and they are known by the names of the towns and villages in which they live. Their family deities are Dayamava, Kállava, Mallava, and Manava. They have no subdivisions. They are fair, short, strong, and muscular. They live in houses of the better class with walls of mud and sun-burnt bricks. Their daily food is Indian millet bread, rice, vegetables, and curds; and their special holiday dishes are sweet cakes. They do not use flesh or intoxicating drinks. men wear a loin and shouldercloth, a jacket, a turban, and shoes; and the women a long robe and bodice passing the skirt of the robe back between the feet. Both men and women are neat and clean in their dress. The men wear ear and finger rings and waistchains, and the women ear nose and toe rings and waistbands. They are hardworking, honest, even-tempered, hospitable, and orderly. Their main calling is to build houses and to prepare wooden field-tools. They also do the petty iron work required for house use as making CRAFTSMEN.

Badiges.

Chapter III.
Population.
CRAFTSMEN.
Badiges.

locks, hinges, and sickles. Some make idols of sandalwood and teakwood. They work from six to twelve in the morning and from two to six in the evening, and are helped by their children. Their busy season is from December to May. Their craft is prosperous and few of them are in debt. A family of five spends about 16s. (Rs. 8) a month on food. It costs about £10 (Rs. 100) to build a house and about 2s. (Re. 1) a month to rent one, and the value of their house goods is £5 (Rs. 50); a birth costs about £1 (Rs. 10), a thread-girding about £5 (Rs. 50), a marriage about £10 (Rs. 100), a girl's coming of age about £2 (Rs. 20), a pregnancy about £1 10s. (Rs. 15), and a death about £2 (Rs. 20). They are religious and respect Brahmans, but do not call them to their religious ceremonies. All their religious ceremonies are conducted by priests of their own caste. They keep the usual Hindu holidays, and make pilgrimages to Gokarn in Kanara and Shirsangi in Belgaum. Their spiritual teacher called Gurappayya lives at Yatgiri in the Nizam's country. Occasionally they worship the village goddesses Dayamava, Durgava, and Yellamma. Their family-goddess Kállamma is represented as a woman sitting on a raised seat with four arms, each holding a separate weapon. They say that they do not believe in sorcery, witchcraft, or soothsaying. Of late they have begun to keep the sixteen Bráhmanical sanskárs or sacraments which under the Peshwa's government were forbidden them. When a child is born its navel-cord is cut and the mother and child are bathed. On the fifth day the goddess Jivati is worshipped, and food is offered her, and on the twelfth day the child is named and cradled. They have lately begun to perform all religious ceremonies like Brahmans with the help of priests of their own class. Child marriage and polygamy are practised, widow marriage is forbidden, and polyandry is unknown. They are bound together as a body. Their social disputes are settled by their teacher and castemen, and any one who disobeys their decisions is put out They send their children to school, take to new pursuits, and are a steady class.

Gavandis.

Gavandis, or Masons, or as they call themselves Ságarchakravartis that is Sea-rulers, are returned as numbering about 6000 and as found all over the district. They speak impure Kánarese. names in common use among men are Bassanna, Timmanna, and Yelláppa; and among women Bhimova, Sarova, and Sávakka. They have neither surnames nor family-stocks. Some classes among them go by particular names as Badagus, Dannánávurs, and Kannánávurs. A boy and girl of the same class cannot intermarry. They are of two divisions Trinámadháris and Pákutras, the members of which eat together and intermarry. Their family gods are Venkataraman of Tirupati and Hanumán. They are tall, dark, and slender. Most of them live in houses of the better sort with walls of sun-burnt bricks and flat or tiled roofs. They are great eaters but bad cooks. Their daily food is Indian millet bread, pulse, and vegetables, and their special holiday dishes are sweet cakes. They use flesh and liquor. The men wear a loin and shouldercloth, a jacket, a headscarf, and shoes; and the women wear a robe and a bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women ear finger and nose rings, and

wristlets. They are hardworking, even-tempered, and orderly, but dirty and untidy. Their main calling is working as masons in building houses, bridges, temples, and ponds. They spend large sums on marriages, and though their craft is prosperous many are A family of five spends about £1 10s. (Rs. 15) a month A house costs about £7 10s. (Rs. 75) to build and about 6s. on food. (Rs. 3) a year to hire. A birth costs about £1 10s. (Rs. 15), a son's marriage about £25 (Rs. 250) including £5 (Rs. 50) paid to the girl's father, a girl's coming of age about £2 (Rs. 20), a pregnancy about 16s. (Rs. 8), and a death about £2 10s. (Rs. 25). They are religious, respect Bráhmans, and call them to conduct their marriages. They worship the usual Brahmanic gods and make pilgrimages to the shrine of Venkataraman at Tirupati. Their spiritual teacher is Tátáchárya who lives at Hampi in Bellári. He gives a sacred thread to such of them as wish to wear it and brands them on the arm with · a copper discus or chakra. They believe in sorcery, witchcraft, and soothsaying. As soon as a child is born its navel cord is cut and the mother and child are bathed. On the fifth day the goddess Sathi is worshipped and on the twelfth day the child is named and Their marriage ceremonies last four days. On the first day a dinner is given in honour of the family gods; on the second day the bride and bridegroom are rubbed with turmeric and oil and bathed; on the third day a Brahman priest is invited, repeats texts, and the regular wedding ceremonies are gone through; and on the fourth day the bride and bridegroom are made to sow seeds of five grains in the marriage shed. The dead are either burnt or buried. A birth, monthly sickness, and death cause impurity for ten, four, and ten days. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste and any one who disobeys the common decision is put out of caste. Caste authority grows weaker day by day. They send their boys to school, take to no new pursuits, and on the whole are a steady class.

Huga'rs, or Lingáyat Flower-sellers, are returned as numbering about 1700 and as found in Bankápur, Gadag, Hubli, Karajgi, Navalgund, Ránebennur, and Ron. They speak impure Kánarese. The names in common use among men are Basáppa, Kálláppa, and Nágáppa; and among women Basava, Gursava, and Irava. have no divisions and no surnames. Their family-gods are Rachana and Basavana. They do not differ in appearance from ordinary They live in flat-roofed houses which for the most part are neat and clean, and keep flower-plants in their yards. Their daily food is Indian millet bread, pulse, and vegetables, and their special dishes are rice and sweet cakes. They do not use flesh or liquor. The men wear a loin and shouldercloth, a jacket, a headscarf, and sandals; and the women a robe and bodice without passing the skirt of the robe back between the feet. They are honest, even-tempered, and orderly, but lazy. Their main calling is to sell flowers and flower garlands and bel or Ægle marmelos leaves. Every morning they bring flowers and distribute them among Lingayats each of whom in return gives them a small dole of grain. Their women help them in their work. Some of them till land. Their calling is poorly paid and many are in debt. A family of five spends about

Chapter III.
Population.
CRAFTSMEN.
Gavandis.

Hugárs.

Chapter III.
Population.
CRAFTSMEN.
Hugárs.

£1 (Rs. 10) a month on food; a house costs about '£10 (Rs. 100) to build and 2s. (Re. 1) a month to rent, a birth costs about 4s. (Rs. 2), a son's marriage about £10 (Rs. 100) including £4 (Rs. 40) paid to the bride's father, a girl's coming of age about 6s. (Rs. 3), and a death about £1 (Rs. 10). They are religious, respecting Lingayat priests, and calling them to conduct their religious ceremonies. Their auru or spiritual teacher is a Lingayat priest who lives at Chitaldurg in Maisur. They keep the leading Hindu holidays and occasionally worship the village godesses Dayamava and Durgava. They believe in sorcery, witchcraft, and soothsaying. Their birth, marriage, and death ceremonies are like those of other Lingávaty. Child and widow marriage, divorce, and polygamy are practised, and polyandry is unknown. They are bound together by a strong caste feeling. Minor social disputes are settled by their priests, and graver questions by their quru or spiritual teacher. They do not send their children to school, take to no new pursuits, and on the whole are a steady class.

 $\Pi gerus.$

Ilgerus, or Palm-Tappers, are returned as numbering about 1250 and as found in Dhárwár, Bankápur, Gadag, Hángal, Karajgi, Kod, Navalgund, and Ron. Ilgeru is said to be a corrupt form of Ilsoavaru the Kánarese for a palm-tapper. They speak impure Kánarese. The names in use among men are Dharmayya, Mollayya, and Rámayya; and among women Basava, Mahava, and Parava. They have no surnames. They are of four divisions, Kaudanya, Kárunya, Kátunya, and Váschalya. The first and second eat and marry with each other, but the first and second neither eat nor marry with the third and fourth. They are like other Lingayats except that they mark their brows with a circle of sandalwood paste. are short, slender, dark, and strong. Most of them live in houses of the better class, one storey high, with walls of brick and tiled roofs. The houses are generally clean and well cared They are great eaters and good cooks. Their daily food is rice, pulse, Indian millet bread, clarified butter, and milk, and their special holiday dishes are sweet cakes made of wheat, pulse, and coarse sugar. They eat the flesh of sheep and fowls but of no other animal. They drink no liquor because they are prevented by the curse of the goddess Parvati. The men wear a headscarf, a loin and shoulder cloth, a jacket, and shoes; and the women a robe and bodice, like those worn by Lingáyat women. They are honest, hardworking, even-tempered, neat, clean, hospitable, and orderly. Their main calling is to draw and sell palm-juice, and a few are engaged in They are busy during the fair season and idle during the trade. rains. They rank below Lingáyats and among middle-class A family of five spends about £1 10s. (Rs. 15) a month on food and about £3 (Rs. 30) a year on dress. A house costs them about £20 (Rs. 200) to build and about 4s. (Rs. 2) a month to rent. The value of their house goods is about £10 (Rs. 100). A birth costs them about £1 (Rs. 10), a marriage about £20 (Rs. 200), a girl's coming of age about £1 (Rs. 10), a pregnancy about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious. Their family gods are. Basavana, Hanumán, and Yellava. They call both Brahmans and Lingayats to conduct their marriages and their other

ceremonies are performed by Lingáyat priests. Their principal holidays are Ugádi in April-May, Nág-panchami in August-September, Ganesha-chaturthi in September-October, Dasara in October-November, Diváli in November, and Holihunavi in March-April. They make pilgrimages to the shrine of Sangameshvar at Kudla about twelve miles from Hángal. Their guru or spiritual teacher is a Lingávat priest named Ajayya who lives at Nidsingi about eight miles from Hángal He gives them religious instruction and in return receives presents. They occasionally worship the village goddesses Dayamava and Durgava by offering them flowers, sandal paste, perfumes, fruit, and uncooked food. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child honey is dropped into its mouth and its navel cord is cut, and on the fifth day the goddess Sathi is worshipped to secure long life to the child. On the thirteenth day a Lingayat priest is called. He blesses the child and its mother and gives her some fruit, and in return is given money and uncooked food. The child is put into a cradle and named by its paternalaunt. Both Bráhman and Lingáyat priests are called to their marriages. The Brahman priest makes the bride and bridegroom stand in two baskets filled with rice and holds a cloth between them. Five married women whose first husbands are alive throw red rice over the couple, the Lingáyat priest ties kankans or yellow threads round the right wrists of the bride and bridegroom, and two lighted lamps set in a plate containing red water are waved round their faces. A feast is given to members of the caste and the marriage is over. After death the Lingayat priest comes and sets his right foot on the head of the body. The foot is worshipped and the body is carried sitting in a vimán or car to the burial ground. As the carriers draw near the burial ground two men come from the grave to the car and ask, Who are you? and Where are you going? The mourners answer; It is Rámayya Mollaya who is going to Shiv's The two men lay a cocoanut in the car and say, Come. bearers move on to the grave. The body is taken out of the car and set in the grave. The Lingayat priest repeats charms, throws bel leaves and earth on the body, and the grave is filled. The priest stands on the grave, his feet are worshipped, and all go home. No further funeral ceremonies are observed. Eight years ago the Ilgerus used to burn their dead, but lately, under the advice of Lingáyat priests, they have begun to bury. A birth, a girl's coming of age, or a death causes no impurity. They pay special respect to all lings whether in temples or in houses, but do not wear the ling round their necks like the Lingáyats. They are bound together by a strong caste feeling. Their social disputes are settled by members of their caste and Lingáyat priests, and if any one disobeys a common decision he is put out of caste. An outcaste may rejoin if he pays a fine of 10s. (Rs. 5) and drinks charantirth or water in which a priest's feet have been washed. They send their boys to school, take to new pursuits, and are a steady

Jalga'rs, apparently Watermen, that is Gold-washers, are returned as numbering only two and as found in Ránebennur. Several other families who are gold-washers by descent have probably been

Chapter III.
Population.
CRAFTSMEN.
Ilgerus.

Jalyárs,

Chapter III.
Population.
CRAFTSMEN.
Jalgárs.

returned under some other name. They speak impure Kánarese. The names in common use among men are Kálláppa, Málláppa, and Rangappa; and among women Adiveva, Basava, Fakirava, Kallava, and Yellava. They have no surnames. Their house gods are Basappa, the river Ganga, and Huligeva. They have no subdivisions. They are short, strong, and muscular. They live in dirty untidy and ill-cared for houses with flat roofs and walls of brick and mud. They keep oxen, fowls, and dogs. They are great eaters and poor cooks. Their every-day food is Indian millet bread and vegetables, and their special holiday dishes are sweet cakes, rice, and vegetables. They eat flesh and drink liquor. The men wear a headscarf, a jacket, a shouldercloth, a loincloth, and a blanket; and the women wear a robe and a bodice, without passing the skirt of the robe back between the feet. They wear flowers in their hair. Their clothes are made in the local handlooms and they generally have one or two suits for holiday wear. The men wear ear and finger rings, and the women nose ear and toe rings, and waistbands. They are hardworking, even-tempered, and orderly, but unclean and untidy. They wash the dust in goldsmiths' shops for particles of gold, and the sands of the gold-yielding streams in the Kapoti hills. They can practise goldwashing in the Kapoti streams only during a few months in the cold weather and even when at work make little more than the wages of a day-labourer. Their craft is falling and they are in debt. They eat from all higher class Hindus but not from Musalmáns, Holayas, or Mádigárs: A family of five spends about £1 (Rs.10) a month on food and about £1 10s. (Rs.15) a year on dress. A house costs about £5 (Rs. 50) to build and 2s. (Re. 1) a month to rent. Their household goods are worth about £5 (Rs. 50). A birth costs about 4s. (Rs. 2), a son's marriage about £10 (Rs. 100) including £2 10s. (Rs. 25) paid to the girl's father, a girl's coming of age about £2 (Rs. 20), a pregnancy about Ss. (Rs. 4), and a death about 16s. (Rs. 8). They are religious. Their family deities are Yellava, Huligeva, and Hanamappa. They have no family-priests. They respect Brahmans and call them to conduct their marriage ceremonies. They keep the Hindu holidays of Holihunvi in March-April, Ugadi in April, Dasara in October, and Diváli in November. They make pilgrimages to Yellamma in Belgaum and to the Musalmán tomb of Rája Bagovar the saint of Yamnur in Navalgund. They worship the village deities Dayamava and Durgava, and say they do not believe in witchcraft, sorcery, or soothsaying. They do not keep the regular Hindu sacraments or sanskars. On the birth of a child they cut its navel-cord; on the fifth they worship the goddess Kállamma, give a caste dinner, and sacrifice a sheep at the tomb of Rája Bagovar the Pir of Yamnur; and on the twelfth cradle the child. On the first day of a marriage they rub the bride and bridegroom with turmeric. On the second day they give a caste dinner. On the third day they set the bride and bridegroom on a horse and carry them through the town with great pomp. On the death of a man or woman they carry the dead body to the burning ground, set it on the pile of wood or cowdung cakes, and burn it. Childmarriage and polygamy are allowed, and polyandry is unknown. The

heads of widows are not shaved but they are not allowed to marry again. They are bound together by a strong caste feeling. Social disputes are settled by the caste people and if any one breaks their rules he is put out of caste. They eke out a living as labourers

and are a poor class.

Jinga'rs, or Saddle-makers, also called Chitragars or Painters, are returned as numbering about 400 and as found in Dhárwár, Gadag, Hubli, Kod, and Ránebennur. Their home speech is Maráthi and they speak Kanarese with the people of the district. The names in common use among men are Dhondiba, Krishnappa, and Ramappa; and among women Bhágirathi, Ganga, and Sarasvati. Their surnames are Amblékar, Kamblékar, Khaprekar, and Topekar. Boys and girls of the same surname do not intermarry. Their family goddess is Nimshadevi whose chief shrine is in Maisur. They have no subdivisions. They are short and fair. They live in houses of the better class with tiled or flat roofs. Their daily food is Indian-millet bread. rice, pulse, and vegetables, and their special holiday dishes are sweet cakes. They neither eat flesh nor drink liquor. The men wear a loin and shouldercloth, a jacket, a turban or headscarf, and shoes; the women wear a robe and bodice like Bráhman women. They are hardworking, hospitable, and orderly. They work as carpenters, tailors, blacksmiths, painters, and saddle-makers. The women do not help the men in their work. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £30 (Rs. 300) to build, and their house goods are worth about £10 (Rs.100). A birth costs about £1 (Rs. 10), a thread-girding about £5 (Rs. 50), a marriage about £25 (Rs. 250), a girl's coming of age about £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death at out £5 (Rs. 50). They are religious. respect Brahmans, and call them to conduct their religious ceremonies. Their spiritual teacher is called Shankar Bhárati. They make pilgrimages to Pandharpur and Gokarn. They profess not to believe in sorcery, witchcraft, or soothsaying. They keep the sixteen Bráhman sanskárs or sacraments. Child-marriage and polygamy. are allowed; widow marriage is forbidden, and polyandry is unknown They send their children to school, take to new pursuits, and are a rising class.

Kamma'rs, or Blacksmiths, are returned as numbering about 1200 and as found all over the district. They speak Kanarese as well as Maráthi. The names in common use among men are Fakiráppa Hanamáppa, Havláppa, and Yelláppa; and among women Bhimava, Fakirava, Hanmava, and Kállava. They have no surnames except place names. Their house goddess is Kállava whose chief shrine is at Shirsangi near Rámdurg in Belgaum. They have no divisions. They are dark and strong. They live in one-storeyed flat-roofed houses, generally small and ill-cared for. In front of each house is a large veranda in which they make many iron articles. moderate eaters and bad cooks. Their every-day food includes rice bread, vegetables, clarified butter, curds, and milk; and on holidays they use flesh. They drink all kinds of liquor and some are intemperate; some wear top-knots and others shave the crown of the head. They shave the beard, but keep the moustache. The women tie the hair into a back knot and deck their hair

Chapter III.
Population.
CRAFTSMEN.

Jingárs.

Kammárs.

Chapter III.
Population.
CRAFTSMEN.
Kammárs.

with flowers. The men dress in a loincloth, a shouldercloth, a coat, a headscarf, and a pair of sandals; and the women in a robe and bodice without passing the skirt of the robe back between the feet. men wear ear-rings of brass or false pearls and brass or silver finger rings, and the women wear silver armlets, ear and nose rings, and waistbands. They are honest, hardworking, even-tempered, and hospitable, but unclean. Their main calling is making iron tools. They work from morning till evening except two hours' rest at midday for a meal and a sleep. Their women and children help in their work. Their earnings amount to about 6d. to 1s. (4-8 as.) a day. Their calling is steady but some are in debt. A family of five spends about 16s. (Rs. 8) a month on food. A house costs about £10 (Rs. 100) to build and their house goods are worth about £1 10s. (Rs. 15). A birth costs 8s. (Rs. 4), a marriago about £10 (Rs. 100), a girl's coming of age about 16s. (Rs. 8), and a death about 16s. (Rs. 8). The are very religious, respecting Brahmans, and calling them to conduct their marriages and other ceremoniès. They worship the ordinary Bráhmanic gods, keep the usual Hindu holidays, and make pilgrimages to Pandharpur, Tuljápur, and Kolhápur. They have no spiritual teacher. home they worship the image of Kallamma and the images of their ancestors, and on holidays sacrifice a sheep to Kállamma. They believe in sorcery, witchcraft, and soothsaying. They keep none of the sixteen Bráhmanic sanskárs or sacraments. On the twelfth day after birth a child is named and cradled. Nothing further is done till marriage. On the wedding day the bride and bridegroom are dressed in fine clothes, a dandi or flower chaplet is tied round the bride's head, and a báshing or brow-horn is tied round the bridegroom's head. They are seated on a raised seat, the village astrologer throws red rice over them, the bridegroom ties the mangalsutra or lucky thread round the bride's neck, and betel is served to the The astrologer is paid about 2s. (Re. 1). The bride and bridegroom are seated on horseback and taken in procession to a Hindu temple with music. They bow to the god and return Friends and relations are feasted and the marriage is over. The dead are burnt. They are bound together by a strong caste feeling. Social disputes are settled by the castemen, and any one who disobeys the common decision is put out of caste, and allowed back on paying a fine of 10s. (Rs. 5). Some send their children to school. They take to no new pursuits and are a steady class.

Killikiatars.

Killikiatars or Chhatris are returned as numbering about 445, and as found all over the district except in Hubli and Navalgund. They speak Maráthi at home and Kánarese abroad. The names in common use among men are Dakalya, Fakirana, Gidya, Shettenna, and Yella; and among women Basakka, Hulagakka, Kállamma, and Mugakka. Their common surnames are Allak, Pachange, and Sinde. Persons having the same surname do not intermarry. The name of their chief god is Bhadmana, and of their chief goddesses Hulgemma and Yellamma, whose shrines are at Hulgi near Hospeth in Bellári and at Savadatti in Belgaum. They are of two subdivisions Minahidiyo and Gombiadiso. The Minahidiyos make their living by catching and selling fish, and the Gombiadisos by playing with leather

dolls behind a curtain. They do not eat together or intermarry. In appearance they are strong, stout, muscular, and dark like ordinary lower-class Hindus. They live in dirty ill-cared for mat huts. Their house goods include a few earthen pots, one or two brass plates, a drum which they use in their plays, and a large box with six or seven dolls. They keep sheep and fowls. They are great eaters and bad cooks. Their every-day food is Indian millet bread, gruel of rough Indian millet flour, vegetables, salt, onions, and garlic. Their special holiday dishes are animal food and liquor. They eat fish, fowls, deer, and hares, but no other animals. All drink liquor and The men wear a loin and shouldercloth, a short some to excess. coat, a blanket, and a headscarf; and the women a robe and bodice. They have no stock of good clothes either for ordinary wear or for special occasions. The men wear brass ear and finger rings and waistchains, and the women wear copper or brass ear, finger, and toe rings and silver arm and wristlets. The women do not mark their foreheads with kunku or redpowder. The Chhatris are hardworking but dirty and hot-tempered. Their main calling is showing leather dolls of various shapes all naked and indecent. These dolls are placed behind a curtain with a lamp close by. man sits near, explains the movements, and beats a drum. motions and the explanations cause much laughter among the spectators, but are so indecent that Government have forbidden the performance in public places. Since their show has been stopped some have begun to work as field labourers. A family of five spends about 16s. (Rs. 8) a month. A house costs them about 10s. (Rs. 5) to build, and their house goods are worth about 4s. (Rs. 2). A birth costs about 4s. (Rs. 2), a marriage about £5 (Rs. 50), a girl's coming of age 4s. (Rs. 2), and a death about 10s. (Rs. 5). They keep the leading Hindu holidays, and call men of their own caste not Brahmans to conduct their religious ceremonies. in sorcery, witchcraft, and soothsaying. When a child is born its navel cord is cut, on the fifth day friends and relations are feasted, and on the seventh day the child is named and cradled. The day before a wedding day a sheep is sacrificed to their goddess Hulgeva, and friends and relations are feasted on the flesh. On the wedding day the bride and bridegroom are rubbed with turmeric and oil and bathed in warm water. A báshing or marriage-coronet is tied round the head of the bridegroom and a dandi or flower bonnet round the head of the bride. They are seated on an altar and grains of red rice are thrown over them. They are then taken to a temple where they throw themselves before the god, offer cocoanuts and betel nuts and leaves, and the marriage is over. The dead are either burnt or buried according to the means of the deceased's relations. Child marriage, widow marriage, and polygamy are allowed, and polyandry is unknown. They are bound together by a strong caste Their social disputes are settled by their headman or ganáchári who is also their priest. They do not send their children to school, take to no new pursuits, and are a falling class.

Kumbha'rs, or Potters, are returned as numbering about 2650, and as found all over the district. They are old settlers in Dharwar and are Lingayats by religion. They speak impure Kanarese. The

Chapter III.
Population.
CRAFTSMEN.
Killkiatars.

Kumbhars.

Chapter III.
Population.
CRAFTSMEN.
Kumbhárs.

names in common use among men are Guráppa, Sidáppa, and Viráppa; and among women Basava, Chinava, and Nagava. They have no Their house-gods are Basavana, Ishvar, and Virabhadra. The shrine of Basavana is at Ulvi and of Ishvar at Gokarn both in North Kánara; Vırabhadra's shrine is at Rachoti in Bellári. have no subdivisions. They are dark, strong, and muscular. live in tiled as well as flat-roofed houses with walls of sun-burnt bricks and mud. They keep one or two asses to carry mud and litter. Their daily food is Indian millet bread, vegetables, chillies, and buttermilk, and their special holiday dishes are rice and sweet cakes. They neither eat flesh nor drink liquor. The men wear a loin and a shouldercloth, a short coat, and a headscarf, and a blanket during the cold and wet months. The women wear a robe and bodice without passing the skirt of the robe back between the feet. They have no stock of clothes for special occasions. Both men and women wear a ling and apply vibhuti or white cowdung ashes to their brows. They are hardworking, honest, even-tempered, and orderly, but proverbially dirty and so ignorant that Kumbhár is a local name for a dullard. Their main calling is making tiles, bricks, and various earthen vessels. They work from morning till dark in the rainy season and from morning till eight at other times. They are helped by their women. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs them about £10 (Rs. 100) to build, and their house furniture is worth about £5 (Rs. 50). A birth costs about £1 (Rs. 10), a marriage about £10 (Rs. 100), a girl's coming of age about 10s. (Rs. 5), a pregnancy about £1 (Rs. 10), and a death about £1 10s. (Rs. 15). They are religious, respecting Lingávat priests and calling them to their religious ceremonies. They keep the leading Hindu holidays. Their spiritual teacher is a Lingáyat priest who lives at Chitaldurg in Maisur. They believe in sorcery, witchcraft, and soothsaving. When a child is born its navel-cord is cut, and on the twelfth day it is named and cradled, and a feast is given to Lingáyat priests and to the caste-people. The day before a wedding the bride and bridegroom are rubbed with turmeric and bathed, and a caste feast is given. On the wedding day the bride and bridegroom are seated on a four-cornered altar, a red and white vessel half-filled with water and betelnut is set at each corner of the seat, and a Lingáyat priest repeats verses and throws red rice on the couple. Next day a caste feast is given and the ceremony is over. After death the body is placed sitting and decked with flowers, ornaments, and redpowder. It is set in a car-shaped bier and carried to the burial ground by four men. About sixty years ago all classes of Hindus used to come to the houses of potters and bring either images of earth or raw earth to make images. On such occasions people used to bring enough dry provisions to keep a man his wife and two children for a day, or 3d. to 6d. (2 to 4 as.) in cash, an unsewn bodice, and turmeric and redpowder. They gave these things to the potter and asked them to give them the required earthen pots, images, or clay. The potters worshipped the pots, images, and clay and handed them to the people who carried them in procession to their houses. At present as Jingárs and goldsmiths prepare excellent clay images people

prefer buying from them than from potters. The occasions when people used to bring clay images from the potters were, on the last day of the month of Jeshth or June-July when a pair of earthen bullocks were brought from the potters and worshipped; on the last day of Ashadh or July-August when an image of the goddess Divasi Gavri was bought and worshipped; on the bright fourth of Shrávan or August-September when one are more images of snakes were brought from the potter's and worshipped; on the bright sixth of the same month, when an earthen image of the faithful servant of the king Sahadev one of the five Pándavs was brought from the potter's and worshipped; on the dark eighth of Shravan or August-September, when an image of Krishna was bought; on the bright fourth of Bhádrapad or September-October, when the image was of Ganpati; and on the full-moon of Ashvin or October-November, when the image was of Sigi Gavri or the new crop goddess, were brought from the potter's and worshipped. seven occasions pots and raw clay are still brought from the potters, on the full moon of Fálgun or March-April, the Jingars bring earth from the potters and make images of the god Kám which they sell to people; on the first Friday of Shravan or August-September a small earthen pot with a lid is brought from the potter's, the face of the goddess Lakshmi is drawn with red and yellow on the shutter which is placed on the pot, the neck of the pot is adorned with ornaments and the pot is worshipped by Bráhman women on every Friday up to the eighth of the month of Bhádrapad or September-October; on the bright eighth of Bhádrapad or September-October another pot is brought from the potter's, decorated in the same way, and called Jeshta Lakshmi or the elder sister of Lakshmi, this is placed near the former pot and worshipped; at the beginning of a thread-girding or a marriage, especially among Bráhmans, several pots are brought from the potters and one of them is called Avighna Kalash or the guardian pot and is worshipped; at the beginning of a Lingáyat wedding eight pots are brought from the potter and worshipped in honour of their family Before the beginning of the festival of Durga the goddess of cholera five earthen pots are brought from the potter's and given to five members of the village community, the garda or headman, the head cultivator, the talvar or watchman, the barika, and the holays or the messenger, who worship the pot till the festival is over. When cholera breaks out in a village the village potter is asked to make an image of the goddess of cholera. When the image is ready the village people go in procession to the potter's house and tell the potter to carry the image to a spot outside of the village. When the image is taken to the spot named it is first worshipped by the potter and then by the villagers, food is offered to it, and the food is eaten by all the villagers present. Child and widow marriage and polygamy are practised, but polyandry is They are bound together by a strong caste feeling; social disputes are settled by a majority of their castemen and any one who disobeys their decisions is put out of caste. They do not send their children to school, take to no new pursuits, and on the whole are a steady class.

Chapter III.
Population.
CRAFTSMEN.
Kumbhárs.

Chapter III.
Population.
CRAFTSMEN.
Ldd Suryavanshis.

La'd Suryavanshis, a class of Butchers, are returned as numbering about 1470 and as found all over the district except in Kod. They speak impure Hindustáni. The names in common use among men are Bábu, Divánji, Maddana, and Margana; and among women Balava, Lachmava, Rajava, and Yellava. They have no surnames. Their family-goddesses are Durgava and Hulgava whose shrines are found all over the district. They have no subdivisions. rather fair, strong, and muscular. Their features are regular, the face oval, the eyes large, the nose high, the lips thin, the cheek-bones low, and the cheeks gaunt. They live in thatched and sometimes in tile-roofed houses which are generally dirty and ill-cared for. Their daily food is rice, Indian millet bread and gruel, and vegetables, and their special holiday dish is flesh. They drink liquor and some take hemp-water or bháng and opium. The men wear a loin and shouldercloth, a jacket, a waistband, and a headscarf: and the women wear a robe and a bodice. The men wear ear and finger rings, and the women ear, finger, and nose rings and bracelets. Their main calling is killing sheep and selling the flesh. Their profits have been reduced by enforcing orders against the sale of damaged flesh. A family of five persons spends about 16s. (Rs. 8) a month on food, and about £2 (Rs. 20) a year on dress. A house costs about £5 (Rs. 50) to build and about 1s. (8 as.) a month to rent. A birth costs about £1 4s. (Rs. 12), a marriage about £5 (Rs. 50), a girl's coming of age about 6s. (Rs. 3), and a death about 16s. (Rs. 8). They are religious, respecting Bráhmans, and calling them to their marriages. They make pilgrimages to the shrine of Yellamma at Savadatti in Belgaum and to the tomb of a Musalmán saint named Daval Málik at Navalgund in Dhárwár. They have no spiritual teacher and they profess not to believe in sorcery, witchcraft, or soothsaying. As soon as a child is born its navel cord is cut and a few drops of castor-oil are dropped into its mouth. On the fifth a sheep is killed and a few friends and relations are feasted, and on the thirteenth the child is named and cradled. No further ceremony is observed till marriage. On the wedding day the bride and bridegroom are seated on an altar, the village astrologer repeats verses and throws yellow rice on the pair, the bride and bridegroom rub each other's brows with turmeric, lighted lamps are waved round their faces, a feast is given to friends and relations, and the ceremony is over. After death the body is washed, set in a sitting posture, and decked with new clothes, flowers, and ornaments. It is carried on a bier to the burial-ground and buried. On the third day after death milk is taken to the burial-ground and poured on the grave. If the death occurs on an unlucky day the house in which the death took place is abandoned for three months, its doors being closed with bunches of thorns. It is believed that if the family lived in the house some fresh evil fortune would fall on them. Child marriage and polygamy are allowed, widow marriage is forbidden, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by the elders of the community and any one who disobeys their decision is put out of caste. They send their boys to school, take to no new pursuits, and on the whole are a falling class.

Medars, or Basket-makers, are returned as numbering about 1070 and as found all over the district. They speak impure Kánarese. The names in common use among men are Adiva, Rajáppa, and Yelláppa; and among women Basava, Kállava, and Yellava. They have no surnames except place names. Their family goddess is Yellamma whose chief shrine is at Savadatti in Belgaum. There have no subdivisions. They are short, dark, and weak. Their features are irregular, eyes small, nose high, lips thin, cheek-bones low, and cheeks gaunt. They live in dirty and ill-cared for thatched or tiled houses. Their daily food is millet and vegetables and they occasionally eat flesh and drink liquor. Their dress does not differ from that of other local Hindu labourers. The men wear a loin and shouldercloth and a headscarf; and the women wear a robe and bodice. The men wear finger rings of brass and copper and earrings of false pearls, and the women wear ear and nose rings of false pearls and armlets and toe rings of bellmetal. They are hardworking, honest, and even-tempered, but neither clean nor orderly. Their main calling is bamboo basket and mat making. They work eight or ten hours a day and are helped by their women and children. Though their craft is steady most are in debt. A family of five spends about 14s. (Rs. 7) a month on food. A house costs about £6 (Rs. 60) to build and about 6d. (4 as.) a month to rent. A birth costs about £1 4s. (Rs. 12), a marriage about £15 (Rs. 150), a girl's coming of age about £2 (Rs. 20), and a death about £2 (Rs. 20). They are religious, respecting Bráhmans and calling them to conduct their marriages. They have a quru or spiritual teacher named Gurusiddhasvámi who lives at Hubli. They occasionally offer a sheep to their goddess Durga. They believe in sorcery, witchcraft, and soothsaying. On the thirteenth day after birth the child is named and friends and relations are feasted. During her first pregnancy a woman is given a new robe and bodice, her head is decked with flowers, and she is taken to the temple of Basappa to bow to the god. After death the body is placed sitting and the chief of a Lingayat religious house comes and sets his foot on the corpse's head. The body is taken to the burial ground and buried. They are bound, together by a strong caste feeling. Social disputes are settled by men of the caste and any one disobeying their decisions is put out of caste. They send their boys to school, take to no new pursuits, and are a steady class.

Na'mdev Nila'ris, or Indigo-dyers, are returned as numbering about 500 and as found in Hubli, Karajgi, Kod, Navalgund, Ránebennur, and Ron. They speak Kánarese. The names in common use among men are Hanamáppa, Námdeváppa, and Tukáppa; and among women Bhágava, Shántava, and Subava. Their surnames are Bagade, Basme, Nadari, and Paste. Their family gods are Venkoba and Vithoba and their goddesses Bhaváni and Yellamma. They have no divisions. They do not differ in appearance from other local labourers. They live in ordinary one-storeyed houses with walls of sun-burnt bricks and flat or tiled roofs. They are moderate eaters and bad cooks. Their daily food is Indian millet bread and gruel, rice, chillies, and vegetables, and their

Chapter III.
Population.
CRAFTSMEN.
Medare.

Námdev Niláris.

Chapter III.
Population.
CRAFTSMEN.
Námdev Niláris.

special holiday dishes are sweet cakes and flesh. They drink liquor and some of them hemp-water, opium, and tobacco. The men wear a loin and shouldercloth, a jacket, and a headscarf, and the women a robe and bodice. They are hardworking, thrifty, and hospitable, but dirty. Their main calling is to dye yarn with indigo and prepare it for the weavers. Some of them also weave. They suffer from the competition of other local dyers. They work from morning till evening except two or three hours at noon for dinner and rest. Their women help in the work. They do not work on ordinary Hindu holidays. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs 200) to build, and the value of their house goods is about £5 (Rs. 50). A birth costs about £1 (Rs. 10), a marriage about £10 (Rs. 100), a girl's coming of age about 8s. (Rs. 4), and a death about £1 10s. (Rs. 15). They are religious, respecting Brahmans and calling them to conduct their religious ceremonies. They go on pilgrimage to Pandharpur and Gokarn. Their guru or spiritual teacher is a man of their own caste, who is called Nagnath. He travels from place to place giving religious instruction and his followers support him. He does not try to make fresh converts. They believe in sorcery, witchcraft, and soothsaying. Child and widow marriage, divorce and polygamy are practised; polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by their caste-people and any one disobeying their decisions is put out of caste. Casto authority is day by day growing weaker. They send their children to school, take to no fresh pursuits, and on the whole are a steady class.

Náglike.

Na'gliks, a sect of Lingáyat dyers, are returned as numbering about 2200, and as found all over the district except in Kalghatgi. Their home speech is Kánarese. The names in common use among men are Parappa, Rudrappa, and Sidappa; and among women Gangava Gurava, Satava, and Irbasava. They have no surnames. Their family gods are Basavána, Shankar, and Virabhadra. They have no subdivisions. In appearance they do not differ from other local Lingavats. They live in dirty ill-cared for houses of the better class with walls of sun-burnt brick and flat roofs. They are moderate eaters and bad cooks. Their daily food is Indian millet bread, rice, pulse, and vegetables, and their special holiday dishes are cakes of wheat flour, pulse, and coarse sugar. They neither eat flesh nor drink liquor. Their dress and ornaments are the same as those of other Lingáyats. They are hardworking and orderly, but dirty. Their main calling is to dye yarn and prepare it for weavers. Some of them till and others work as labourers. Their women and, children help them in their work. As day-labourers are well paid, every man earning about 1s. (8 as.) a day. of them are in debt. A family of five spends about £1 (Rs. 12) a month on food. A house costs about £10 (Rs. 100) to build. A birth costs about 8s. (Rs. 4), a son's marriage about £10 (Rs. 100) including £3 (Rs. 30) paid to the bride's father, a girl's coming of age about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, respecting Lingayat priests and calling them to conduct their religious ceren inies. They keep the leading Hindu

holidays. Their teacher is Murgisvámi who lives at Chitaldurg in Maisur. They believe in sorcery, witchcraft, and soothsaying, and consult exorcists when any member of the family falls sick or when any misfortune befalls them. Their birth, marriage, and death ceremonies do not differ from those of other Lingáyats. They are bound together by a strong caste feeling. Their social disputes are settled by men of the caste, and any one who disobeys their decisions is put out of caste. Caste authority is day by day growing weaker. They send their children to school, take to new pursuits, and on the whole are a rising class.

Pa'nchals, numbering about 18,000, are found all over the They are said to get their name because they include district. the five crafts of Kammararu or blacksmith, Badigeru or carpenter, Kanchgararu or bellmetal maker, Kalkutkaru or stonecutter, and Agasaleru or goldsmith. They eat and marry with each other, but with no other class. They use mutton and liquor, and live on millet, rice, wheat, pulse, vegetables, sugar, milk, and curds. Their chief object of worship is Kálikadevi or Kállamma; some also worship Hanumán. Their high priest is an ascetic who lives at Yátgiri near Sirpur in the Nizám's country. Their religion and family observances differ little from those of Bráhmans. The dead are burnt except the chief priest who is buried. They have their own priests who perform all their religious rites. Among some Pancháls widow-marriage is not allowed. Poverty, necessity, religious disputes, and the pride of their priests, have forced many Pánchals to form subordinate communities with priests of their own. Except that they do not obey the old priests or eat with their old castefollows, and that they allow widow-marriage and divorce, their customs do not differ from those of the main body of Páncháls. The members of each of their subordinate classes eat and marry among themselves only. As a class the Páncháls are short, fair, wellfeatured, and hardy. They speak Kanarese and very few are able to read or write. Their chief religious books are the Nágarkhand, and Padmabhukhand, and parts of the Skandapurán. The men wear the waistcloth sometimes folded and tucked like the Brahman waistcloth; the women wear the bodice and the robe either drawn through the legs in Brahman fashion or hanging like a petticoat. In former times some of the Panchals were famous craftsmen, and there are still very skilful workers among them. As a class they are wellto-do.

Shimpis, or Tailors, are returned as numbering about 6580 and as found all over the district. They are divided into two classes, Námdev Saimpis and Lingáyat Shimpis or Shiv Shimpigárs. Námdev Shimpis are found all over the district. They speak Maráthi at home and Kánarese abroad. The names in common use among men are Narsáppa, Svámiráo, and Vithobáppa; and among women Ganga, Rádha, and Rukhmái. Their surnames are Jádhav, Kotháre, and Songaji. They have no subdivisions. In appearance they are rather fair and strong and like Maráthás. They live in flatroofed houses with walls of mud and sun-burnt bricks. Their daily food is Indian millet bread, rice, pulse, and vegetables; and their chief holiday dishes are sweet cakes and flesh. They are excessively

Chapter III.
Population.
CRAPTSMEN.

Páncháls.

Shimpis.

Chapter III.

Population.

CRAFTSMEN.

Shimpis.

fond of intoxicating drinks. The men wear a loin and shouldercloth. a jacket, a coat, and shoes; and the women wear a robe and bodice. On holidays they wear better and costlier clothes. In character they are hospitable and even-tempered, but proverbially dishonest. Their main calling is to sew coats, waistcoats, caps, and other articles of dress. They work daily from seven to twelve and from two to six, and are helped by their women. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs. 200) to build, and 2s. (Re. 1) a month to rent. A birth costs about £1 (Rs. 10). a marriage about £20 (Rs. 200), a girl's coming of age £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death about £5 (Rs. 50). They are religious, respect Bráhmans, and call them to conduct their religious ceremonies. Their family god is Vithoba of Pandharpur. keep all Hindu holidays. They have two spiritual teachers named Bodhalábáva and Tuljáharanbáva. Bodhalábáva is much stricter in demanding the homage of his followers than Tuliáharanbáva. During the Navarátra or the nine nights' festival in the month of Ashvin or October-November they offer liquor and flesh to their goddess Bhaváni. They believe in sorcery, witchcraft, and sooth-saying. They keep some of the sixteen Bráhman sanskárs or When a child is born its navel cord is cut and the mother and the child are bathed. On the fifth day the goddess Sathi is worshipped and a feast is given to friends and relations. and on the twelfth day the child is named and cradled. The dead are burnt and the family of the deceased remain impure for ten days. Every year in the month of Bhadrapad or September-October they keep a mind or memorial feast in honour of their dead They are bound together by a strong caste feeling. Minor social disputes are settled by their caste-people and graver questions by their spiritual teachers. They send their children to school, take to new pursuits, and are a rising class.

Shiv Shimpigárs are a class of Lingáyat tailors. They speak Kánarese. The names in common use among men are Basáppa, Kalláppa, and Rudráppa; and among women Gurbasava, Irava, and Their family deities are They have no surnames. Rudrava. Rachana and Virabhadra whose chief shrines are at Gadag in Belgaum and at Rachoti near Kadapa in Madras. They have no In appearance they do not differ from ordinary subdivisions. local Lingáyats. They live in flat-roofed houses with walls of mud and sun-burnt bricks. The houses are neat, clean, and well-cared for. They are moderate eaters and bad cooks. Their daily food is Indian millet bread, chillies, vegetables, and buttermilk, and their special holiday dishes are rice and sweet cakes. They use neither flesh nor liquor. The men wear a loin and shouldercloth, a coat, a headscarf, and sandals; and the women a robe and bodice without passing the skirt of the robe back between the feet. They have no good stock of clothes for ordinary wear, but they keep one or two sets of new clothes for special occasions. The men wear gold earrings and gold or silver finger rings; and the women wear a mugti or pin-like gold nose ornament, necklaces of gold and glass beads, silver armlets, and glass bangles. In character they are eventempered, hardworking, and thrifty, but proverbially cunning and

dishonest. Their main calling is sewing coats, waistcoats, caps, and other articles of dress. Their women sew bodices and do house work. A family of five spends about £1 (Rs. 10) a month A house costs them about £10 (Rs. 100) to build and on food. about 2s. (Re. 1) a month to rent. A birth costs about 10s. (Rs. 5), a marriage about £10 (Rs. 100), a girl's coming of age about £1 (Rs. 10), a pregnancy about £1 10s. (Rs. 15), and a death about £1 (Rs. 10). They are religious, respect Lingáyat priests, and call them to conduct their religious ceremonies. Their spiritual teacher is a Lingáyat priest who lives at Chitaldurg in Maisur. They believe in sorcery, witchcraft, and soothsaying, and consult exorcists when any member of their family falls sick or any misfortune befalls them. Their customs and religious ceremonies do not differ from those of other Lingáyats. Child and widow marriage, divorce, and polygamy are practised but not polyandry. They are bound together by a strong caste feeling. Social disputes are settled by their priests and castemen, and any one who disobeys their decisions is put out of caste. They send their children to school. Some of them have begun to take to new pursuits, but on the whole they are a falling class.

Sona'rs, Sonagars or Agasalerus, that is Goldsmiths, are returned as numbering about 2400, and as found all over the district. They form one of the five classes of Páncháls. The Sonagárs have several family-stocks and persons of the same stock do not intermarry. They speak Kánarese. The names in common use among men are Basáppa, Kálláppa, and Mállápa; and among women Bhimava, Kállava, and Rámava. Their family deities are Kállava and Bánashankari. They are fair, strong, and muscular. They are moderate eaters and good cooks. Their daily food is rice, Indian millet bread, clarified butter, and curds; and their special holiday dishes are sweet cakes. They profess to use neither flesh nor liquor. The men wear a loin and shouldercloth, a jacket, a headscarf, and shoes; and the women a robe and a bodice. Both men and women are clean and neat in their dress. They are eventempered and hospitable but dishonest. Their main calling is to make ornaments and idols of gold and silver. Some of them sell earthen images of Ganpati and Krishna. They are skilful workers, and are well paid. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs. 200) to build. A birth costs about £1 (Rs. 10), a girl's marriage about £30 (Rs. 300) including a heavy but varying dowry paid to the bridegroom, a girl's coming of age about £1 10s. (Rs. 15), and a death about £3 (Rs. 30). They are religious though they neither respect Bráhmans nor call them to conduct their religious ceremonies. All their ceremonies are performed by men of their own caste. They go on pilgrimage to Shirsingi in Navalgund and to Gokarn in North Kánara. Their spiritual teacher is a man of their own caste who lives at Torgal in Kolhápur. Their family goddess Kállamma is shown as a female

Sondrs.

Chapter III.
Population.
CARFISMEN.
Shiv Shimpis.

The proverb is, Sonar Shimpi kulkarni Appa; Yanchi sangat nakore bappa, that is My friend, have no dealings with the goldsmith, the tailor, and the village accountant.

Chapter III.
Population.
CRAFTSMEN.
Sonárs.

sitting on a camel having eight arms each holding a separate weapon. They do not believe in sorcery, witchcraft, or soothsaying. They have lately begun to keep the sixteen Brahmanic sanskars or sacraments. They have composed new religious books in imitation of Brahman books and have increased the number of their priests. Early marriage and polygamy are allowed, widow marriage is forbidden, and polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by their spiritual teacher named Patadasvámi. They send their boys to school, take to new pursuits, and are a prosperous class.

Sanadi Koravárs.

Sanadi Korava'rs who seem in the census to have been included under Koravárs are a small tribe who have been long settled in Dhárwár. They speak incorrect Kánarese abroad, and at home a mixture of Kánarese, Telugu, and Tamil. The names in common use among men are Bhima, Bála, Hanma, Fakira, and Yella; and among women Bhimava, Hanamava, Karava, Nágava, and Tipava. Their surnames are local not tribal. Their house deities are Hanumán and Yellava. Every one of their villages and towns has a shrine of the god Hanumán. The chief shrine of Yellava is in Parasgad in Belgaum. They have two subdivisions Sanadi or clarion-playing Koravárs and Kunch or brush-making Koravárs who neither eat together nor intermarry. Koravárs may be known by their black, stout, and ugly faces, and their dirty clothes. They are like Vaddárs strong and tall. Most of them live in small one-roomed dirty thatched huts, with no furniture except a grindstone, two or three earthen jars, and a few brass vessels. They keep one or two asses to bring the strong grass called madi from river banks, to make brooms, ropes, and netting for hanging vessels containing milk or curds. They are great eaters but poor cooks. Their daily food includes Indian millet bread, pulse, and vegetables. At their caste feasts they eat hare, sheep, and fish, but do not take beef or pork. They are excessively fond of liquor. Some use opium and hemp water or bháng. The men wear a loin and shouldercloth, a headscarf, a jacket, and a pair of shoes. women wear a robe and a bodice. The dress of both men and women is dirty and untidy. Their holiday dress is the same as their everyday dress except that the clothes are new. The men wear brass ear and finger rings, and the women wear bracelets and a pin-like nose ornament called mugti. In character they are hot-tempered, idle, dishonest, and dirty. The men play the drum. The women make brooms, ropes, and netting from the madi grass which grows on river-banks. Boys learn music from the age of ten. A skilled musician earns about a shilling (8 as.) a day. Their craft is hereditary. Though the demand for their services is fairly constant and well paid their intemperate habits keep most of them in debt. social position is low about the same as the Vaddárs but above the Mhárs and Bedars. They keep the usual Bráhmanic and local holidays. A family of five spends about 16s. (Rs. 8) a month on food and £1 10s. (Rs. 15) a year on dress. A house costs about £5 (Rs. 50) to build and their house goods and cattle are worth about £1 10s. (Rs. 15). The birth of a child costs about 16s. (Rs. 8), a son's marriage about £5 (Rs. 50) including £2 10s.

(Rs. 25) paid to the bride's father, a girl's coming of age about 8s. (Rs. 4), and a death about 12s. (Rs. 6). Their ceremonies are performed by men of their own class and not by Brahmans. worship the usual local and Bráhmanic deities and hold Hanumán in special respect. They never go on pilgrimage and have no teacher or quru. They believe in witchcraft, sorcery, and soothsaying. On the fifth day after the birth of a child a caste dinner is given and the child is laid in a cradle and named. When the child is three months old the goddess Sathi is worshipped and a caste dinner is given. No further ceremony is performed till marriage. Child and widow marriage and polygamy are allowed and polyandry is unknown. Some of them burn and others bury their dead. They are bound together by a strong caste feeling. Social disputes are settled by the men of the caste, and any one who disobeys their decision is put out of caste. The authority of the community shows no sign of declining. They send their boys to school, and take to new pursuits, but on the whole are a falling class.

Chapter III Population.

CRAFTSMEN. Sanadi Koravars.

MANUFACTURERS.

Manufacturers according to the census of 1881 included nine classes with a strength of 53,667 or 6.86 per cent of the Hindu population. The details are:

Dhárwár Manufacturers, 1881,

DIVISION.	Males.	Females	Total.	DIVISION.	Males	Females	Total.
Rilejúdars* In vangs or Hatgárs Ganigars I hatne or Patvegárs Hires urvinavarus*	290 6 11,298 2103	287 5 11,201 1957	5779 22,499 4060	Istarerus * . Kurvinshetis Salis or Koshtis Shivajogis Total	1175 9597 12 27,001	1179 9356 10 26,576	2354 18,953 22 53,667

^{*} These castes do not appear in the census returns, they are probably included under either Koshtis of Salis.

BILEJÁDARS a class of Lingáyat weavers seem to have been included in the census under Salis or Koshtis. Their home speech is Kánareso. The names in common use among men are Basáppa, Lingáppa, and Viráppa; and among women Gurbasava, Parvateva, and Virava. They have no surnames. The names of their family gods are Amareshvar, Basavana, and Virabhadra. They have four divisions, Shivashamashetti, Samasali, Pattasali, and Kurvinshetti. The members of these divisions do not eat together or intermarry. They do not differ in appearance from ordinary Lingáyats. Most of them live in houses of the better class one or two storeys high with walls of stones or sun-burnt bricks and flat roofs. Their houses are clean and well-cared for. They are moderate eaters and good cooks. Their daily food is rice, Indian millet bread, onions, garlic, and vegetables; and their special holiday dishes are sweet cakes made of wheat coarse sugar and pulse. They do not use animal food or intoxicating drinks. The men wear a loin and shouldercloth, a short coat, a blanket, and a headscarf; and the women wear a robe and a bodice. The plain end of the robe is tied to the waist, the middle part folded up neatly and tucked to the left of the navel, and the embroidered end is passed from behind the back below the right arm, carried over the left

Bilejadars.

Chapter III.
Population.
Manufacturers.
Bilejadars.

shoulder and head, and allowed to fall on the right shoulder. The men shave the head clean, and wear the moustache and whiskers. The women either tie their hair into a ball or braid it into a plait. Both men and women mark their brows with vibhuti or white cowdung ashes and wear the ling. The men wear gold ear and finger rings and silver waistchains, and the women wear gold armlets, earrings set with pearls, and gold or silver waistbands. They are honest, hardworking, even-tempered, hospitable, and orderly. Their main calling is weaving sáris or women's robes and dhoturs or men's robes. They work from morning till evening except two hours for meals and rest at noon. They are helped by their women. Their craft prospers and few are in debt. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £50 (Rs. 500) to build and about 4s. (Rs. 2) a month to rent. A birth costs about £1 10s. (Rs. 15), a marriage about £10 (Rs. 100), a girl's coming of age about £1 (Rs. 10), a pregnancy about 10s. (Rs. 5) and a death about £1 (Rs. 10). They are religious, not respecting Brahmans or calling them to conduct their ceremonies, but having their religious ceremonies performed by Lingáyat priests. They keep the usual Hindu holidays and go on pilgrimage to Gokarn and Ulvi in North Kánara and to Hampi in Bellári. The guru or spiritual teacher is a Lingáyat priest who lives at Chitaldurg in Maisur. They believe in sorcery, witchcraft, and soothsaying. As soon as a child is born its navel cord is cut, and the mother and the child are bathed, and a Lingayat priest ties a small ling to the right arm of the new born child. On the fifth day the knife with which the navel cord was cut, the place in which the cord was buried, and a curry-stone, are worshipped with flowers red powder and turmeric, and a feast is given to friends, relations, and Lingayat priests. On the thirteenth the child is cradled and named by its paternal aunt. In the third month five women whose first husbands are alive take the child and its mother to some Lingáyat temples, where cocoanuts, plantains, and betelnuts and leaves are offered to the idol and all return home. Their marriage rites and customs do not differ from those of other Lingáyáts. When a married man or woman dies the body is washed with water and placed in a sitting posture. A Lingáyat priest comes and sprinkles on the body charanatirth or the water in which his feet are washed and sets his right foot on it and the foot is worshipped. The body is dressed in new clothes and decked with flowers and ornaments. The Lingáyat priest reads the Basava Purán for two or three hours during which the friends and relations of the deceased come with perfumes and garlands and throw them round the neck of the dead. The body is placed in a wooden car and carried to the burial ground. As they pass betel leaves, dates, and perfumes are thrown on the body and music is played. At the burial ground the body is set sitting in a niche in the pit dug for it. The mathpati or Lingayat beadle washes the body, rubs on cowdung ashes, and lays flowers, perfumes, and a cocoanut before it. Each relation throws a

¹ Details are given under Lingáyat Jangams.

handful of earth on the body and the grave is filled. The Lingáyat priest stands on the grave, his feet are worshipped, and the party go home. They are bound together by a strong caste feeling. Their social disputes are settled by a majority of the castemen under the presidency of Lingáyat priests. Any one disregarding such a decision is either fined or put out of caste. The authority of the community shows no sign of declining. They send their children to school, take to no new pursuits, and are a rising class.

Devaings or Hatgairs a class of weavers are returned as numbering about 5700, and as found in Dhárwár, Gadag, Hángal, Kalghatgi, Kod, Ránebennur, and Ron. They seem to be long settled in the district. Their holy book the Devánga Purán has the following account of their origin. At first both gods and men went naked. In time they began to long for some covering. Gods and men together went to Shiv and prayed him to give them clothes. Their prayer so puzzled Shiv that he fell in a swoon. While in the swoon he saw a man come out of his own body. The man was fierce-looking, wore a loincloth, and a sacred thread, had a necklace of rudráksha beads, and his body was smeared with cowdung ashes. When Shiv recovered from his swoon he found that the vision was true, and that a man in all points as he had seen was standing before him. He called the man Deváng or god-born. Shiv told him to weave clothes for gods and men, and Deváng at once began to weave. The sage Kashyapa was so pleased with Deváng's skill that he gave him his sister Devadatti in marriage. While Deváng was throwing offerings into the sacred wedding-fire a virgin called Agnidatti came out of the fire and espoused him as her husband. From these two wives Deváng had several sons the eldest of whom named Bhánu Govind is said to be the forefather of the Dharwar Devangs. They are also called Hatgars a name which they trace to hudga-kararu or ship-mover because they used to make sails. There are two main divisions among them, the Janav Devángs who wear the sacred thread as well as the ling, and the Ling Devángs who wear only the ling. These two main divisions neither eat together nor intermarry. Besides these there are some eighteen minor divisions, the most important of which are Devasális, Nágasális, Padamsális, Pattasális, Shubrasális, and Somasális. These six subdivisions neither eat together or intermarry, nor do the Janav Devángs and Ling Devángs eat or marry with them. Though they neither eat together nor intermarry, the divisions are so much alike and differ so little in customs condition or religion that the same details apply to all. In appearance the Devangs do not differ from ordinary Lingáyats, except that the men mark their brows with sandal wood paste and the women mark theirs with redpowder or kunku. They speak Kánarese. They live in houses of the better class one or two storeys high with walls of brick and flat or tiled roofs. The houses are clean and well-cared for. They are moderate eaters and good cooks. Their daily food is wheat or Indian millet bread, rice, pulse, and vegetables, and their special holiday dishes are sweet cakes made of wheat, sugar, and clarified butter. They do not use flesh or intoxicating drinks. Their dress

Chapter III.
Population.
Manuvacturers.

Devángs.

Chapter III.
Population.
Manufacturers.
Devángs,

does not differ from that of other Lingáyats except that the women of the Deváng priests pass the skirt of their robes back between their feet and tuck it behind. They are honest, thrifty, hardworking, and hospitable, but quarrelsome. Their main calling is weaving cotton cloth. Some of them trade, and a few lend money. work from morning till evening except two hours at noon for dinner and a sleep. Their women help in the work. Their calling prospers and few are in debt. A family of five spends about £1 (Rs. 10) a month on food and about £3 (Rs. 30) a year on clothes. A house costs about £20 (Rs. 200) to build and 4s. (Rs. 2) a month to rent. A birth costs about £1 (Rs. 10), a thread-girding about £2 10. (Rs. 25), a marriage about £15 (Rs. 150), a girl's coming of age about £1 10s. (Rs. 15), a pregnancy about 10s. (Rs. 5), and a death about £1 10s. (Rs. 15). They are religious. Their family gods are Mallikárjuna, Rámeshvar, and Virabhadra, and their family goddess is Bánashankari. She is also called Shákhámbari because at the great festival held in her honour in the month of Paushya or February-March, one hundred and eight shakhas or vegetables are cooked and offered to her. The Devángs respect Bráhmans and call them to help the Deváng priests who are not versed in religious Their marriage and other ceremonies are conducted by priests of their own class with the aid of Brahmans. They keep all the usual Hindu holidays, and make pilgrimages to all Hindu shrines except the shrine of Yellamma whose son Parashurám is supposed to have killed some of the children of their first ancestor Deváng. They have a quru or spiritual teacher who is called Deváng [Svámi. He lives at Hampi in Bellári, leads a life of celibacy, and does not try to make new followers. They believe in sorcery, witcheraft, and soothsaying. They profess to keep the sixteen sanskars or sacraments like Brahmans, but in practise many of them are not strictly observed. As soon as a child is born a few drops of honey are put into its mouth and its navel cord is cut. On the fifth day the goddesses Jivati and Sathi are worshipped; in the fourth year if the child is a boy its first hair is cut and a feast is given to Deváng priests and relations; and in the eighth year the threadgirding is performed. Their marriage ceremonies differ little from those of Mádhva Bráhmans except that when a thread-wearing Deváng marries the daughter of a ling-wearing Deváng the following ceremonies are performed to cleanse the girl. She is rubbed with earth and white cowdung ashes, a blade of the sacred darbha grass-is passed over her head like a razor, she is rubbed with oil, and bathed in warm water. A sacred fire is kindled, offerings are thrown into the fire, the family gods are washed in water, the girl is made to sip a few drops of the water, she is cleansed and fit to marry into a thread-wearing family. Though the thread and lingwearing Devángs intermarry the marriage parties cook and eat separate wedding feasts. The dead are burnt and the funeral rites are gone through with the aid of a priest of their own caste. Birth and death cause impurity for twelve days, and monthly sickness for three days. Child and widow marriage, divorce, and polygamy are allowed and practised, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a

majority of the castemen, and those who disobey are put out of caste. If a Deváng drinks liquor his tongue is branded, he is fined, and allowed back to caste. They send their boys to school, take to

new pursuits, and are a rising class.

Linga'yat Ga'niga'rs, or Oil-makers, are returned as numbering about 22,500 and as found all over the district. They speak Kánarese. The names in common use among men are Basáppa, Málláppa, and Ningappa; and among women Basava, Ningava, and Virava. They have no surnames. Their household gods are Basavana and Virabhadra. The chief shrine of Basavana is near Ulvi in Kánara, and of Virabhadra is in Gadag in Dhárwár. They have five subdivisions, Karikuládas, Panchamsális, Padamasális, Sajans, and Sagaradas. The members of these subdivisions eat together and though they do not now intermarry, they differ so little in look, customs, condition, and religion that one account applies to all five subdivisions. They are short, strong, and muscular. They live in dirty, ill-cared for flat-roofed houses with walls of mud and stones. They are moderate eaters and good cooks. Their daily food is Indian millet bread, pulse, oil, and vegetables, and their special holiday dishes are sweet cakes, rice, and clarified butter. They do not use flesh or intoxicating drinks. The men dress in a loin and shouldercloth, a jacket, a headscarf, and shoes; and the women in a robe and a bodice without passing the skirt of the robe back between the feet. Their clothes are of local hand-woven cloth. Both men and women wear the ling, and are generally unclean and untidy in their dress. The men wear ear and finger rings, and the women wear ear nose and toe rings and waistbands. They are hardworking, even-tempered, and hospitable, but dirty and dishonest. Their main calling is pressing and selling oil. They work from morning till evening with two hours' rest at noon. Their busy months are April and May. They do not work on holidays nor on Mondays which they hold sacred to their god Basavana. Their craft is falling as people have begun to use petroleum or rock-oil. A family of five spends about £1 (Rs. 10) a month on food and about £2 10s. (Rs. 25) a year on dress. Including the oil mill a house costs about £50 (Rs. 500) to build and about 4s. (Rs. 2) a month to rent. The value of their house goods is about £20 (Rs. 200). A birth costs about £1 (Rs. 10), a marriage about £20 (Rs. 200), a girl's coming of age about £1 10s. (Rs. 15), a pregnancy about 10s. (Rs. 5), and a death about £2 10s (Rs. 25). They are religious. They do not respect Brahmans, but call Lingayat priests to conduct their marriage and other ceremonies. They keep all the chief Hindu holidays and go on pilgrimage to Ulvi in North Kanara and to Hampi in Bellari. Their spiritual teacher is Tátadasvámi who lives at Dambal in Gadag. He does not try to make new followers. They worship the village gods Dayamava and Durgava, and believe in sorcerers, witches, and soothsayers, and consult them when sickness or any other misfortune befalls the family. Except in two particulars their religious rites and customs do not differ from those of other Lingayats. They refuse to sell oil to any woman who comes into the shop with dishevelled hair, and if a customer brings a dish with a spoon in it into their shop they keep the spoon but give it back the next

Chapter III. Population.

MANUFACTURERS.

Lingáyat Gániyárs.

DISTRICTS.

Chapter III.
Population.
Manufacturers.

Hirekurvinavarus.

day. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Minor social disputes are settled by their caste people and graver questions by their spiritual teacher. They send their boys and girls to school, take to no new pursuits, and are a falling class.

Hirekurvinavarus are returned as numbering about seventy and as found chiefly in Ránebennur. Their home speech is Kánarese. The names in common use among men are Basáppa, Kalláppa, and Nágáppa; and among women Basava, Mallava, and Nágava. They Their family gods are Basappa, Mailar, and have no surnames. Venkataramana; and their family goddess is Yellamma. They have two subdivisions Hire or Great Kurvinavarus and Chik or Little Kurvinavarus who neither eat together nor intermarry. They are dark, stout, and muscular. They live in flat-roofed, dirty, ill-cared for houses with walls of sun-burnt bricks and mud. Their daily food is rice, Indian millet bread, pulse, and vegetables; and their special holiday dishes are sweet cakes, and the flesh of fowls, sheep, or deer. They use intoxicating drinks. The men wear a loin and shouldercloth, a jacket, and a headscarf, and the women a robe and a bodice. They have no store of clothes for ordinary wear or for special occasions. They are hardworking, honest, hospitable, even-tempered, and orderly but unclean and untidy. Their main calling is weaving dhotars or men's robes and sáris or women's robes. They work from morning till evening except a midday rest of two hours. Their women help the men in their work. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs about £20 (Rs. 200) to build and 1s. (8 as.) a month to rent. A birth costs about £1 4s. (Rs. 12), a marriage about £20 (Rs. 200), a girl's coming of age about £2 (Rs. 20), and a death about £3 (Rs. 30). They are religious, respecting Brahmans and calling them to conduct their marriages. On other religious occasions they act as their own priests. They keep the leading Hindu holidays but do not go on pilgrimage to any shrine. Their spiritual teacher is a Lingáyat priest named Nilakanthapanavaru. They profess not to believe in sorcery, witchcraft, or soothsaying. As soon as a child is born its navel cord is cut and the child and its mother are bathed. On the fifth day rice is boiled with pulse and five women whose first husbands are alive are fed, and on the tenth day the child is named and cradled. On the twentieth day the mother and five women whose first husbands are alive go to a pond, well, or river, worship the water with redpowder and turmeric, and return home each with a pitcher of water on her head. When a marriage is settled, sheds are raised before the bride's and bridegroom's houses. On the wedding day the bride is brought to the bridegroom's shed, the bride and bridegroom are bathed, dressed in new clothes, decked with flowers and ornaments, and seated on a blanket spread on a cot in the shed. The village astrologer comes and repeats verses and throws grains of red rice on the heads of the pair, lighted lamps are waved round their faces, betelnut and leaves are served among the guests, a feast is given to friends and relations, and the ceremony is over. When a girl comes of age she is made to sit apart for nine days. On the tenth she is bathed, a feast is given to members of the caste, and in the evening she is taken to her husband's room. After death the body is washed, dressed in new clothes, decked with ornaments, and placed in a sitting posture. It is put in a car, carried to the burial ground, and buried. Child and widow marriage, polygamy, and divorce are allowed and practised, polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a committee of castemen, and any one who disobeys their decision is put out of caste. They do not send their children to school, take to no new pursuits, and are a steady class.

Istarerus a small class of about fifty families seem in the census to have been included under Patvegars. They are found only They are said to be the illegitimate descendants of Patve-They speak Maráthi at home and impure Kánarese out of The names in common use among men are Ránosa, Tukása, and Yellása; and among women Ambábái, Gangábái, and Tuljábái. Their leading surnames are Habib, Jádhav, and Pavár. Their family goddess is Ambábái or Tuljábháváni whose chief shrine is at Tuljápur in Sátára. They are fair, strong, and muscular. They live in flat-roofed houses with walls of mud and stones. Their daily food is Indian millet bread, rice, pulse, curds, and vegetables; and their special holiday dishes are sweet cakes made of wheat, pulse, and coarse sugar. They eat flesh and drink liquor. The men wear a loin and shouldercloth, a jacket, a long turban, and shoes; and the women a robe and a bodice, without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women ear, nose, finger, and toe rings, gold and glass bangles, and silver anklets. They are hardworking, honest, hospitable, even-tempered, and orderly. Their main calling is dyeing and selling silk. Some of them weave silk or silk-cotton robes and waist-They work from morning till evening dining and resting for about two hours at noon. Their women help in their work. They rest on the usual Hindu holidays. They are prosperous and free from debt. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs them about £15 (Rs. 150) to build and 2s. (Re. 1) a mouth to rent, and the value of their house goods is about £20 (Rs. 200). A birth costs about £1 (Rs. 10), a thread-girding about £4 (Rs. 40), a marriage about £15 (Rs. 150), a girl's coming of age about £2 10s. (Rs. 25), a pregnancy about £1 (Rs. 10), and a death about £2 10s. (Rs. 25). They are religious. They worship the usual Bráhmanic gods and keep the leading Hindu holidays. respect Brahmans and call them to conduct their marriage and other ceremonies. They make pilgrimages to Tuljápur near Sátára. They have a spiritual teacher or guru. They believe in sorcery, witchcraft, and soothsaying. When a child is born its navel cord is cut, a little honey is dropped into its mouth, and the mother and child are bathed. On the fifth day the goddess Sathi is worshipped and five women whose first husbands are alive are fed, and on the twelfth day the child is named and cradled by its paternal aunt. A birth causes impurity for five days. When a boy is five years old his hair is cut, and when eight years old he is girt with a sacred thread. Chapter III.
Population.
MANUFACTURERS.
Hirekurvinavarus.

Istarerus.

Chapter III.
Population.
MANUFACTURERS.
Istarerus.

At their wedding the bride and bridegroom are rubbed with turmeric and oil and bathed. A Brahman repeats verses and throws red rice on the heads of the pair, lighted lamps are waved round their faces, betel is handed to the guests, and the bride and bridegroom are made to eat from the same plate. Next day the bride and bridegroom are taken to a temple, and bow to the idol, and this completes the marriage. The dead are burnt. On the eleventh a Brahman purifies the mourning family by giving the men new sacred threads to wear and all of them holy water to sip. Child and widow marriage and polygamy are allowed and polyandry is unknown. They are bound together by a strong caste feeling. A majority of the caste settled social disputes. The guilty are fined 2s. 6d. (Rs. 1-4), bathed, and let back into caste. They send their boys to school, take to no new pursuits, and are a steady class.

Khatris.

Khatris or Patvega'rs are returned as numbering about 4060 and as found in Dhárwár, Gadag, and Karajgi. They say that their proper name is Kshatriya not Khatri, and that they are the descendants of the seven sages Bháradvája, Jamadagni, Kashyapa, Káttiayana, Válmika, Vashishtha, and Vishvámitra. Their home speech is a mixture of Maráthi, Hindustáni, and Kánarese, and out of doors they speak Kánarese. The names in common use among men are Narsingsa, Tuljasa, and Yellása; and among women Gangábái, Renukábái, and Yellábái. Their common surnames are Baddi, Juturi, Kothare, Mogji, and Pavár. Their family gods are Ganpati and Mahádev, and their family goddesses Tuljábhaváni and Yellamma. They have no subdivisions or family stocks. They are fair, tall, strong, and muscular. They live in common houses, with walls of sun-burnt bricks and tiled or flat roofs. Their daily food includes rice, Indian millet bread, vegetables, onions, and garlic, and their special holiday dishes are sweet cakes made of wheat, pulse, and coarse sugar. They use flesh and are excessively fond of intoxicating drinks. Men wear a loin and shouldercloth, a coat, a headscarf, and shoes; and women a robe and a bodice. Except on ceremonial occasions they do not pass the skirt of the robe back between the The men wear ear and finger rings, and the women ear, nose, finger, and toe rings, necklaces of glass or gold beads, and silver anklets. They are dishonest, hot-tempered, cunning, and given to drink, but hardworking and clean. Their main calling is weaving cotton cloth and dyeing silk. They work from morning till evening with two hours' rest at noon. Their women and children help in the work. Their busy months are August, September, October, and November. Their craft is steady but many are in debt. family of five spends about £1 4s. (Rs. 12) a month on food. house costs about £30 (Rs. 300) to build and 2s. (Re. 1) a month to rent, and the value of their house goods is about £10 (Rs. 100). A birth costs about £1 (Rs. 10), a thread-girding about £2 10s. (Rs. 25), a marriage about £15 (Rs. 156), a girl's coming of age about £2 (Rs. 20), a pregnancy about £1 (Rs. 10), and a death about £3 (Rs. 30). They are religious. They respect Bráhmans and call them to conduct their ceremonies. They keep the leading Hindu holidays and make pilgrimages to Ambábái at Tuljápur in Sátára.

Their spiritual teacher is Shankaráchárya the Smárt pontiff whom they give occasional presents of money. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child a few drops of honey are put into its mouth and its navel cord is cut. On the fifth night the goddesses Jivati and Sathi are worshipped, and on the twelfth day the child is named and cradled. When a boy is eight years old he is girt with the sacred thread. Their marriage and death ceremonies differ little from those of Smart Brahmans. Before a marriage a gondhal dance is performed. The dead are burnt and the family is impure for eleven days. They bury boys who die before they are girt with the sacred thread, and girls who die before they are married. They hold mind-feasts on their ancestral death days. On the first of Ashvin or October-November they spread earth on a plantain leaf, lay it before their house gods, and sow five kinds of seed in the earth. On the bright eighth they sacrifice a sheep to Durga. On the tenth, when the seedlings are one or two inches high, their women carry them in pomp to a river or brook and throw them into the water. On the Magha or February-March full-moon the women strip themselves naked in the idel room, tie bunches of nim Melia azadirachta leaves round their waists, walk round the gods, wave lamps and red water, and fall before the gods. Child marriage and polygamy are practised, widow marriage is forbidden, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste and any one disobeying their decision is put out of caste. They send their children to school, take to no new pursuits, and are a steady class.

Kurvinshetis, a class of weavers, are returned as numbering about 1350, and as found in Dhárwar, Hubli, Hángal, Kalghatgi, Kod, Navalgund, and Ron. They say they were once Bilejádar lingayats and left the main caste in consequence of some dispute. They speak impure Kánarese. The names in common use among men are Basappa, Kallappa and Mallappa; and among women Basava, Ningava, and Yellava. They have no subdivisions. They look like ordinary labourers. They live in one-storeyed houses with walls of sun-burnt bricks and flat roofs. Their house goods include one or two looms and some earthen and brass or copper vessels. They sometimes keep cows and she-buffaloes. They are moderate eaters and bad cooks. Their daily food is Indian millet bread, Indian millet-gruel, vegetables, chillies, clarified butter, and milk; and their special holiday dishes are rice, milk, coarse sugar, clarified butter, and flesh. They drink liquor but not to excess. Almost all chew and smoke tobacco. The men wear a loin and shouldercloth, a short coat, and a headscarf, and the women a robe and a bodice. They have no store of clothes for ordinary wear, but they keep one or two sets of new clothes for special occasions. The men wear gold or brass ear and finger rings, and the women silver armlets, wristlets, and waistbands, and a gold nosepin. They are hardworking, honest, even-tempered, and hospitable. Their main calling is weaving robes and bodicecloths, and the coarse loin and shouldercloths worn by the lower classes. The women help the men in their work. Their coarse cloth is in great demand and their calling prospers.

Chapter III.
Population.
MANUFACTURERS.
Khatris.

Kurvinshetis.

Chapter III.
Population.

MANUFACTURERS.
Kurvinshetis.

Few of them are in debt. They keep the leading Hindu holidays, and eat only from the hands of Lingayats. A family of five spends about £1 (Rs. 10) a month on food, and about £2 (Rs. 20) a year on clothes. A house costs them about £10 (Rs.100) to build and about 4s. (Rs. 2) a month to rent. A birth costs about 4s. (Rs. 2), a son's marriage about £5 (Rs. 50) including £2 (Rs. 20) paid to the bride's father, a girl's coming of age about 2s. (Re.1), a pregnancy about 4s. (Rs. 2), and a death about 10s. (Rs. 5). They have no family gods or family priests, and do not wear the ling like other Lingavats. They respect neither Bráhman nor Lingáyat priests, and themselves conduct their marriage and other ceremonies. They have a spiritual teacher who is called Nilakanthasvámi. They occasionally worship the village deities Basavana and Mailar, but do not keep their images in their houses. They profess not to believe in sorcery witchcraft or soothsaying. They form a united community but caste authority is not very strong. They have begun to send their children to school, and are a prosperous class.

Sális or Kostis.

Sa'lis or Kostis are returned as numbering about 18,900, and as found over the whole district. They are divided into seven classes of which Salis, Patta Salis, Padam Salis, Shakuna Salis, and Shuddha Salis, are found in Dharwar.

Sális,

Sális speak impure Kánarese and Maráthi. The names in common use among men are Bharmáppa, Hanmáppa, and Sidáppa; and among women Ambákka, Balava, and Nilava. They have no surnames. Their family deities are Shankari and Tuljábhaváni. The chief shrine of Tuljábhaváni is at Tuljápur in Satara. They are tall well-featured and lively. They live in flatroofed dirty and ill-cared for houses with walls of mud and sun-burnt brick. They are moderate eaters and good cooks. Their daily food is Indian millet bread, curds, and vegetables, and their special holiday dishes include sweet cakes made of wheat, pulse, sugar, rice, and milk. They eat flesh and drink liquor often to excess. The men wear a loin and a shouldercloth, a jacket, a headscarf, and shoes; and the women a robe and a bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings and bracelets, and the women ear, finger, and toe rings, necklaces, waistbands, and anklets. They are hardworking, honest, even-tempered, hospitable, and orderly, but excessively fond of liquor. Their calling is weaving cotton robes and waistcloths. They work from six to twelve and again from two to six. Their women and children help in the work. They are skilful workers, their calling prospers, and they are free from debt. Their busy months are April, May, August, and September. They rest on the leading Bráhmanic holidays and on full-moons. A family of five spends about 16s. (Rs. 8) a month on food and about £2 10s. (Rs. 25) a year on A house costs about £10 (Rs.100) to build, and 2s. (Re. 1) a month to rent. Their house goods are worth about £10 (Rs. 100). A birth costs about 10s. (Rs. 5), a son's marriage about £10 (Rs. 100) including £3 4s. (Rs. 32) paid to the bride's father, a girl's coming of age about £2 10s. (Rs. 25), a pregnancy about 8s. (Rs. 4), and a death about £2 (Rs. 20). They are religious. They respect Brahmans and

call them to conduct their marriages, and Lingáyat priests to conduct their funerals. They have no spiritual teacher. They sometimes worship the village goddesses Dayamava and Durgava, but profess not to believe in sorcery, witchcraft, or soothsaying. On the birth of a child its navel cord is cut and the mother and child are bathed. On the fifth day the goddess Jivati is worshipped, and caste people are feasted. On the thirteenth the child is named and cradled. On the day before a wedding cooked food is offered to their family goddesses Shankari and Tuljábhaváni, and on the wedding day the bride and bridegroom are rubbed with turmeric, bathed, and seated on raised seats, a Bráhman priest repeats verses and throws red rice on the couple, caste people are feasted and the ceremony is over. After death the body is placed sitting close to a wall between two pegs and is decked with ornaments, flowers, new clothes, and redpowder. The relations sit near the body weeping and with their hands touch the cheeks, mouth, and body of the dead. The body is kept in the house till all the relations have come and seen it. It is then seated in a bamboo car gay with flags, plantains, mango leaves, lemons, dates and cocoanuts, and with music is borne to the burial ground and buried.1 On the third day after death cooked rice balls and milk are offered at the grave, and on the eleventh a caste feast is given. The family remains impure for eleven days. They are bound together by a strong caste feeling and their social disputes are settled according to the opinion of a majority of the caste. Child and widow marriage, divorce, and polygamy are allowed, and polyandry is unknown. They do not send their boys to school, take to no new pursuits, and are a steady class.

PATTA Sális are a small class which in the census was probably included under the general head of Salis or Koshtis. They take their name from the Kánarese patte silk and the Maráthi sáli a weaver. Their home speech is Kánarese. The names in common use among men are Basáppa, Ningáppa, and Málláppa; and among women Kareva, Mállava, and Ningava. They have no surnames. Their family deities are Basava whose chief shrine is at Ulvi in North Kánara, Párvati whose shrine is at Hampi near Bellári, and Virabhadra whose shrine is at Rachoti in Bellári. They are strong and muscular and do not differ in appearance from other Lingayats. They live in clean one-storeyed flat-roofed houses. Their daily food is rice, Indian millet bread, pulse, vegetables, and milk, and their special holiday dishes are sweet cakes made of wheat-flour, sugar, and clarified butter. They neither eat flesh nor drink liquor. The men wear a loin and shouldercloth, a jacket, a coat, and a headscarf; and the women a robe and a bodice, without passing The men wear the skirt of the robe back between the feet. ear and finger rings, and the women ear, finger, nose, and toe rings, armlets, wristlets, necklaces, and chains. Both men and women Their chief calling is weaving silk-cotton wear the ling. robes and coarse waistcloths. They work from morning to evening resting two hours at noon. Their women and children help in Chapter III.

Population.

MANUFACTURERS.

Sális.

Patta Sális.

¹ They sometimes burn the dead with ordinary Brahmanic rites.

Chapter III.
Population.
MANUFACTURERS.
Patta Sális.

their work. They are skilful workers and their calling prospers. They do not work on the ordinary Hindu holidays. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs about £30 (Rs. 300) to build, and about 2s. (Re. 1) a month to rent. A birth costs about £14s. (Rs. 12), a son's marriage about £20 (Rs. 200) including £2 16s. (Rs. 32) given to the girl's father, a girl's coming of age about £2 10s. (Rs. 25), a pregnancy about £2 10s. (Rs. 25), and a death about £1 (Rs. 10). They do not respect Bráhmans or Bráhmanic gods. They are staunch Lingáyats and employ Lingayat priests to conduct their marriage and other ceremonies. They have a spiritual teacher or guru named Chikkerisvámi who lives at Sultanpur in the Nizam's country. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child its navel cord is cut, a few drops of castor oil are put into the child's mouth, and the mother and the child are bathed. The family is held impure for five days. On the fifth day the midwife sets an image of the goddess Sathi and a curry-stone under the mother's cot, the image is worshipped by the mother, and wet gram is handed to five women whose first husbands are alive. On the sixth day a Lingayat priest comes and lays the child in an eight-sided figure drawn on the ground with white powder, at each corner of the figure he lays a betelnut, two leaves, and a copper coin, and setting a ling on the left hand of the child's father or maternal uncle, washes it nine times with sugar, milk, honey, and clarified butter, all the while repeating verses. winds a white thread one hundred and eight times round the ling, wraps a silk cloth over it, and ties it to the child's neck. The priest touches the child three times with his right foot, and puts it into the mother's lap who bows to the priest. On the thirteenth day the child is cradled and named by its paternal aunt, who is presented with a bodice. On the first day of marriage the bride and bridegroom are rubbed with turmeric and oil, bathed, and a dinner is given to a few Lingáyat priests, friends, and relations. The dinner is called arishanaduuta or the dinner given in honour of the bride and bridegroom. the second day a direct called devkaryada uta or the god-dinner is given in honour of the gods, and in the evening caste people meet in the marriage shed and betel leaves and nuts are handed among them. Five married women called adgitterus are chosen to attend on the bride and two men called hattagirerus are chosen to attend on the bridegroom. On the same day the headman of the caste called gavda is invited, and presented with five sets of betelnuts and leaves. the third day the bride's father gives the bridegroom uncooked food, clothes, a brass plate, a drinking vessel, and two small lamps, and the bride and bridegroom are made to sit on a raised seat covered with rice, the Lingayat priest repeats verses and throws red rice over the pair, the lucky thread is tied round the bride's neck, lighted lamps are waved round their faces, and the marriage is over. Next day tho bridgroom's two attendants or hattagirerus are presented each with thirty handfuls of rice and Indian millet, thirty betel leaves and nuts, thirty cakes called huplas, and thirty salt relishes called sandagis, and each of the five bride's-women or adgitterus are presented with fifteen handfuls of rice and Indian millet, fifteen betel loaves, fifteen cakes. and fifteen salt relishes. The dead are buried with rites which do not differ from those of other Lingáyats.¹ Birth and death cause impurity for five days, and monthly sickness for three days. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by the men of the caste and any one who disobeys their decisions is put out of caste. They send their children to school, take to no new pursuits, and on the whole are prosperous.

Padamsális speak Kánarese.² The names in common use among men are Basáppa, Hanmáppa and Timáppa; and among women Bhadmava, Mallava, and Timava. They have no surnames. Their family gods are Hanumáppa and Timáppa, whose shrines are found all over the district. They have no divisions. In look they do not differ from the bulk of the local husbandmen. Most of them live in dirty ill-cared for houses with walls of sun-burnt brick and flat roofs. They are great eaters and bad cooks. Their daily food includes Indian millet bread, rice, pulse, and vegetables, and their special holiday dish is flesh. They use all intoxicating drinks. The men dress in a loin and shouldercloth, a short coat, and a white headscarf; and the women in a robe and a bodice without passing the skirt of the robe back between the feet. The men wear gold or brass ear and finger rings, and the women wear the guldáli or lucky marriage necklace, silver armlets and wristlets, and glass bangles. They are hardworking even-tempered and orderly. Their chief calling is handloom-weaving. They work from morning till evening except two or three hours for meals and rest at noon. Their women help in their work. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs. 200) to build. birth costs about £1 (Rs. 10), a marriage about £20 (Rs. 200), a girl's coming of age about £2 (Rs. 20), and a death about £1 10s. (Rs. 15). They are religious respecting Brahmans and calling them to conduct their marriages. They do not employ priests on any occasion except marriage. They keep the regular Brahmanic holidays but make no pilgrimages. Their spiritual teacher is a man of their own caste who lives at Kanchi or Conjeveram in Madras. They worship the god Hanamappa on every Saturday, and believe in sorcery, witchcraft, and soothsaying. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by their caste people, and any one who disobeys their decisions is put out of caste. They send their boys to school, take to new pursuits, and on the whole are a steady class.

Shuddha Sális are a small class who seem to have been included in the census under the general head of Sális. Their

Chapter III.
Population.

Manufacturers.

Patta Sális.

Padamsális.

Shuddha Sális.

Details are given under Jangams.

According to Buchanan (Mysore, I. 256) the Padam Sális tell this story of the origin of their sect. The whole Sáli community formerly wore the ling. A house became haunted by a ghost and the caste were called on to drive him out. All their prayers were of no avail. At last ten of them threw aside the ling, offered prayers to vishnu, and droveout the ghost. They ever afterwards followed the worship of Vishnu. They formed themselves into a separate community and called themselves Padam Sális perhaps from padma the lotus, one of Vishnu's four weapons.

Chapter III.
Population.
MANUFACTURERS,
Shuddha Salis.

home speech is Kánarese. The names in common use among men are Bhimappa, Kariyappa, and Lingappa; and among women Mallava, Manava, and Sankhava. They have no surnames but place names. Their family gods are Hanumán, Mailar, and Sáleshvar. Mailár's chief shrine is in Bellári, and Sáleshvar's at Rathpatti in Kod. They are black, strong, muscular and like local potters. They live in large neat and well-cared for flat-roofed houses with walls of stone and clay. They keep cows and she-buffaloes. They are moderate eaters and bad cooks. Their daily food includes Indian millet bread pulse and vegetables, and their special holiday dishes are sweet cakes, rice, clarified butter, curds, and milk. The men dress in a loin and shouldercloth, a turban and sandals; and the women in a robe and a bodice. They dress in clothes woven by themselves. The men wear ear and finger rings, and the women ear, finger, nose, and toe rings, wristlets, necklaces, and glass bangles. They are even-tempered hospitable and orderly but dirty. Their main calling is weaving coarse cotton robes and waistcloths. They work from morning till evening resting for two hours at noon. The women and children help in their work. They are skilful workers and their calling prospers. Their busy months are August and September. They do not work on ordinary Hindu holidays. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs. 200) to build and 2s. (Re. 1) a month to rent. The value of their house goods is about £15 (Rs. 150). A birth costs about 10s. (Rs. 5), a marriage about £20 (Rs. 200), a girl's coming of age about £1 (Rs. 10), a pregnancy about £1 (Rs. 10), and a death about £2 10s. (Rs. 25). They are They respect Bráhmans, consult them for a lucky day religious. for marriage, and call them to conduct the services. Their other religious ceremonies are performed by men of their own caste. They sometimes worship the village goddesses Dayamava and Durgava, and, on the eighth of dark Bhádrapada or September, they worship their looms and weaving materials. They have no spiritual teacher. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child its navel-cord is cut and the mother and child are bathed. On the fifth day to obtain long life for the child the goddess Jivati is worshipped, and at night four women whose first husbands are alive are made to hold the four corners of the cradle, and the child is named and cradled by its maternal aunt. On the twenty-first day the mother with five other women goes to a well and throws turmeric and redpowder into the water. In the bride's house a day or two before the wedding sugar is handed round and a caste dinner is given, and on the wedding day the bridegroom goes in procession on an ox to the bride's. When he comes near the bride's red water is sprinkled over him, he is taken to the wedding hall, and is there made to sit with the bride on a raised seat. A Brahman gives the bridegroom a few drops of milk and clarified butter to sip, holds a cloth between the bride and bridegroom, repeats verses, and throws red rice on their heads. In the evening lighted lamps are waved round their heads, and they are told to sow the seeds of five grains as a sign of prosperity. Next day a caste feast is given and the marriage is over. The dead are either burnt or buried and the family is impure for ten days. On the eleventh some funeral rites are performed. Child

and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste, and any one who disobeys their decisions is put out of caste. They send their boys and girls to school, take to no new pursuits, and are a steady class.

Chapter III.
Population.
Manusacturers.

Shakuna Bális.

SHAKUNA SÁLIS are a small class who are probably included in the census under the general head of Sális. They speak Maráthi at home and Kánarese out of doors. The names in common use among men are Appana, Vankerappa, and Ummana; and among women Basava, Irava, and Nagava. Their house deities are the sháligrám or black stone found in the river Gandaki in Upper India. and the goddess Tuljábhaváni. They are fair strong and muscular. They live in large clean and well-cared for tiled and flat-roofed houses and keep cows and she-buffaloes. They are temperate eaters and bad cooks. Their daily food is Indian millet bread, pulse, vegetables. and rice, and their special holiday dishes are sweet cakes made of wheat and coarse sugar. They eat flesh and drink liquor. The men dress in a loin and shouldercloth, a jacket, a headscarf, and shoes; and the women in a robe and a bodice without passing the skirt of the robe back between the feet. They weave their own clothes. men wear ear and finger rings, and the women ear, finger, nose, and toe rings, waistchains, anklets, and glass and silver bangles. They do not wear the ling like the Pattasalis. They are honest, hardworking, even-tempered, hospitable, and orderly, but dirty. Their chief calling is weaving coarse cotton robes and waistcloths. They work from morning till evening with a two hours' rest at noon. Their women and children help in their work. Their craft prospers and they are free from debt. They do not work on ordinary Hindu holidays. A family of five spends about £1 4s. (Rs. 12) a month on food. A house costs about £20 (Rs. 200) to build and about 2s. (Re. 1) a month to rent; and the value of their house goods is about £30 (Rs. 300). A birth costs about 8s. (Rs. 4), a marriage about £10 (Rs. 100), a girl's coming of age about £1 (Rs. 10), a pregnancy about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious. They respect Bráhmans and call them to conduct their religious ceremonies. They worship the usual local and Brahmanic gods and make pilgrimages to Pandharpur, Tirupati, and Gokarn. They have a spiritual teacher named Lingasvámi who belongs to their own caste, and lives at Airini in Ranebennur. They occasionally worship the village goddesses Dayamava and Durgava. They believe in witches, sorcerers, and soothsayers. On the birth of a child its navel cord is cut and a few drops of honey and castor oil are put in its mouth. On the fifth day the goddess Sathi is worshipped, wet gram is handed to women, and a feast is given to friends and relations. On the tenth day the house is cleansed and cowdunged and the family bathes and is considered pure. On the thirteenth the child is named and cradled and a caste feast is given. On the first day of marriage the bridegroom's party go to the bride's and present her with clothes and ornaments. On the second day the bride and bridegroom are rubbed with turmeric and oil and bathed, and on the third day a sheep is killed and its flesh and wheat cakes are offered

Chapter III.
Population
Manufacturers,
Shakuna Sális.

to the family gods. Next day which is the chief wedding day the bridegroom is taken in procession to the bride's, and with the bride is seated on an altar. A Bráhman priest holds a cloth between the bride and bridegroom, repeats sacred hymns, and throws red rice over their heads. The married pair are taken to a temple and worship the deity. On their return a caste feast is given and the wedding is over. The rich burn their dead and the poor bury. On the tenth day after death they offer rice balls to the crows in honour of the dead. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound by a strong caste feeling. Their social disputes are settled by a majority of the caste and any one who disobeys their decisions is put out of caste. They send their children to school, take to no new pursuits, and are a steady class.

Shivajogis.

Shivajogis, or Shaiv ascetics, are returned as numbering about twenty-two, and as found in Hángal and Hubli. They say they are descended from a Shaiv ascetic. They speak Kánarese at home and Maráthi as well as Kánarese abroad. The names in common use among men are Lakshmáppa, Ningáppa, and Siddáppa; and among women Bhadmava, Jamálava, and Shetteva. Their family gods are Bhairi, Hanumán, and Vithoba. They have no divisions. They are tall and muscular. They live in neat and clean flat-roofed houses with strong walls of stone and clay. They are moderate eaters and bad Their daily food is Indian millet bread, pulse, vegetables, and curds; and their special holiday dishes are sweet cakes made of wheat pulse and coarse sugar, rice, and clarified butter. They eat flesh and drink liquor often to excess. The men dress in a loin and shouldercloth, a jacket, a headscarf, and shoes; and the women in a robe and bodice without passing the skirt of the robe back between The men wear ear and finger rings, and the women wear ear, finger, nose, and toe rings, bead necklaces, and glass bangles. They are honest, hardworking, good-tempered, neat, clean, and Their chief calling is making the combs or reeds used by weavers which are worth about 8s. (Rs. 4) each: They work from morning till evening except two hours at noon for dinner and rest. The women help in their work. They do not work on ordinary Hindu holidays. Their craft prospers and they are free from debt. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £20 (Rs. 200) to build and about 2s. (Re. 1) a month to rent. Their house goods are worth about £10 (Rs. 100), a birth costs about 10s. (Rs. 5), a marriage about £10 (Rs. 100), a girl's coming of age about £1 (Rs. 10), a pregnancy about 4s. (Rs. 2), and a death about 10s. (Rs. 5). They respect Bráhmans and call them to conduct their marriages. Their spiritual teacher called Goraknáth lives at Benares. They occasionally worship the village deities Dayamava and Durgava. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child the midwife cuts the navel cord and puts a few drops of castor-oil into the child's mouth. On the fifth day the goddess Jivati is worshipped and cooked food is offered to her. On the first day of a marriage the bride and bridegroom are rubbed with turmeric and bathed and yellow threads or kankans are tied to their right wrists. On the second day cooked food is offered to the family gods, and on the third day a Bráhman priest makes the bride and bridegroom sit on a raised seat, holds a square piece of cloth between them, repeats verses, and throws red rice on their heads. On the fourth day the bride and bridegroom are carried in procession through the chief streets and the ceremony is over. The dead are buried and the family is impure for ten days. On the third day after death, boiled rice flesh and liquor are offered at the grave, a sheep is killed, and a caste feast is given. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by their spiritual teachers, and any one who disobeys their decisions is put out of caste. An offender is let back into caste on paying a fine of £3 (Rs. 30). They send their boys to school, take to no new pursuits, and are a falling class.

Chapter III.
Population.

Manufacturers. !Shivajogis.

SHEPHERDS.

Shepherds, according to the 1881 census, included three classes with a strength of 88,374 or 11.33 per cent of the Hindu population. The details are:

Dhárwár Shepherds, 1881.

Class.	Males.	Pemales.	Total.
Gavlis Kurubars Kurubar Gurus	43,938	241 43,830 about a h	506 87,768 undred.
Total	44,203	44,071	88,374

 Gar^hs .

Gavlis, or Cowherds, numbering about 500 are found all over the The original Gavlis or cowherds are said to have been called Golla Gavlis. According to tradition some four thousand years ago Nanda Gop and his wife Yashoda lived at Gokul or Vraj near the Ganges and Jamna in Upper India. In their house the parents of Krishna, the eighth incarnation of Vishnu hid him, when Kansa king of Mathura, Krishna's maternal uncle sought his life. Among the Golla Gavlis Krishna was reared and amused himself with 16,000 Gavli women, besides eight legal wives and concubines. His favourite and most beautiful concubine Rádha, the wife of Anaya, was a Gavli. For this reason Golla Gavlis, of whom there are very few in Dhárwár, are looked on with great respect. They wear neither the sacred thread nor the ling but worship Vishnu in the form of Krishna. They live on millet, wheat, rice, vegetables, milk, and curds, and do not eat flesh or drink liquor. Their god is Krishna, and their priests are Brahmans. They tend cows and buffaloes, and trade in milk, which they make into curds, whey, and butter. They are strong fine-looking men, and the women are handsome. They speak both Kánarese and Maráthi. They bury their dead. Widow marriage and divorce are allowed. They live both in towns and villages. The men dress in a headscarf, a pair of knee-breeches, a blue waistcloth, a shouldercloth, and sandals. The women dress in the bodice and the robe without passing the skirt back between the feet. They hold grand feasts on Krishna's birthday. Besides the original cowherds several other classes have become cow-keepers. They are: Nagar Gavlis, Pancham Gavlis, Lingávat Gavlis, Marátha Gavlis,

Chapter III.
Population.
Shepherds.
Gavlis.

Rajput or Ahir Gavlis, Kurubar or Kánarese Gavlis, Musalmán Gavlis. Of these the Nagar, Pancham, and Lingáyat Gavlis are Lingáyats by religion. They wear the ling, and their god is Siddoji or Siddheshvar. In dress and calling they do not differ from Golla Gavlis. Till within the last four years these three castes of cowherds used to call Brahmans to perform their marriage and other religious ceremonies. Since then Lingayat priests have persuaded them not to employ any priests but Lingáyats. These three castes eat with each other; but they neither marry with each other nor with any other class. Marátha Gavlis wear no ling; in religious matters they differ little from Maráthás and like them eat flesh and drink liquor. other respects their rules about food are the same as the Golla Gavlis' rules. They tend cows and buffaloes and hold a yearly feast on Krishna's birthday. They eat from Bráhmans only, and marry with no caste but their own. In religious matters Rajput or Ahir Gavlis do not differ from Golla Gavlis. They tend cows and buffaloes and keep a yearly feast on Krishna's birthday exactly like Golla Gavlis. The women dress in a petticoat, a shouldercloth, and a bodice. They neither eat drink liquor and neither eat nor marry with any other class. Kurubar or Shepherd Gavlis like other Kurubars or Shepherds eat flesh and drink liquor. They dress like Kurubars, tend cows and buffaloes in forests and waste land, almost never living in towns or villages. They bring milk cards and butter to town and sell them there, or dispose of them to Lingayat and Marátha Gavlis wholesale, who afterwards sell them retail. Their chief holiday is Krishna's birthday. They eat food cooked by Bráhmans, Lingáyats, and Maráthás, but marry with no caste but their own. Musalmán Gavlis eat flesh and drink liquor and are Musalmans in religion, dress, and custome. They do not keep Krishna's birthday. They tend their cows and buffaloes in small villages and sell the milk, curds, and butter to Musalmans and other customers except Bráhmans who do not buy from them. Musalmán Gavlis eat food cooked by all classes except the early tribes. They marry among Musalmans only.

Kurubars.

Kurubars, or Shepherds, are returned as numbering about 87,800 and as found all over the district. They are called Kurubars because they tend sheep, and some of them knit blanket edges. They speak The ordinary names among men are Bharmappa, Maritammáppa, Karibassáppa, Sankáppa, and Mudakáppa; and among women Sanganbasava, Virava, Manava, and Sávakka. Their family gods are Birdevaru whose chief shrine is at Hullikoppi in Bankapur, and Yellava whose chief shrine is in Savadatti in Belgaum. also worship the village gods Dayamava and Durgava the goddess of cholera. They have four divisions, Handekurubaru, Jandekurubaru, Hathikankandavaru, and Unikankandavaru. The first neither eat nor marry with the other three, and the remaining three eat together but do not intermarry. Kurubars are dark, robust, and muscular. They live in tiled houses with one or two store rooms. Their house goods include four or five earthen vessels and brass plates. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse,

milk, and curds; and their holiday dishes are cakes of wheat-flour, coarse sugar, pulse, butter, and vegetables. They eat the flesh of sheep, fowls, hares, and deer, but not of kine or swine. They are excessively fond of liquor, and also use tobacco and hemp water or bhing. men dress in a loin and shouldercloth, short trousers, a coat, a turban, a blanket, and sandals; and the women in a robe and a bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women ear, nose, and toe rings, glass bangles, and necklaces. They are dirty, but hardworking, eventempered, honest, and orderly. Many of them tend sheep, some weave blankets, and some work as labourers and a few as husbandmen. They work from morning till evening except two hours at noon for dinner and rest. They rest on the leading Hindu holidays. family of five spends about £1 (Rs. 10) a month on food. A house costs about £10 (Rs. 100) to build and about 2s. (Re. 1) a month to rent. A birth costs about 4s. (Rs. 2), a son's marriage about £10 (Rs. 100) including £2 (Rs. 20) given to the girl's father, a girl's coming of age about 10s. (Rs. 5), and a death about 16s. (Rs. 8). They do not respect or employ Brahmans their religious ceremonies being conducted by hereditary priests of their own caste. They make pilgrimages to Hullikoppi in Bankápur and to Sibarkatti in Savanur. Their spiritual teacher is Ammayasidda who lives at Sibarkatti. He does not proselytise or try to get new followers. They believe in sorcery, witchcraft, and soothsaying. birth of a child its navel cord is cut and the mother and child are bathed. The midwife buries the after-birth in a corner of the backyard. On the fifth day they worship the goddess Sathi and offer her food, and on the ninth day the child is named and cradled. A day before the wedding the bride and bridegroom are rubbed with turmeric. On the marriage day the bride and bridegroom are seated on carpets, verses are repeated, and red rice is thrown over their heads. Next day a dinner is given to castemen and the wedding is over. The dead are buried, and on the third day after death offerings of rice balls are made at the grave for the spirit of the dead. Child and widow marriage and polygamy are allowed, but polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by the members of the caste, and if any one disobeys their decisions he is put out of caste. They do not send their boys to school. They take to new pursuits and are a steady class.

Kurubar Gurus, or Shepherd Teachers, perhaps about a hundred in all are found chiefly in Bankápur. They are the spiritual teachers or gurus of three classes of shepherds, Hattikankandavarus or cotton bracelet-wearers, Unikankandavarus or woollen bracelet-wearers, and Varasáliavarus a peculiar sect of shepherds. Kurubar Gurus do not act as priests to shepherds of the Handekurubar and Jandekurubar divisions. They speak impure and indistinct Kánarese, and use some strange words as júmbra for kelasa business, bashatikáran for rágnischaya a betrothal, tabandi for tambana a plate, kodpána for koda a pitcher, haredage for munjháne in the morning, and chánji for sánji in the evening. The names in common use among men are Adiveppa, Bankayya, Raváppa,

Chapter III.
Population.
Shepherds.
Kurubars.

Kurubar Gurus.

Chapter III.
Population.
SHEPHERDS.
Kurubar Gurus.

and Sidlingáppa; and among women Basava, Irava, Kallava, Mallava. They have no surnames or family stocks. The name of their chief god is Revansiddheshvar whose chief shrine is at Sarvar near Tálikot in Bijápur. They have no subdivisions. In dress and look they do not differ from other Lingáyats except that like other shepherds their faces are oily. They are stout and dark. They live in dirty ill-cared for houses of the better class, one-storey high with walls of brick and tiled roofs. They are great eaters but bad cooks. Their chief calling is begging alms from their disciples the shepherds and dining at their houses. They go almost every day to dine at their followers' houses and whenever their teachers are asked to dine the shepherds do not cook flesh as the teachers neither eat flesh nor drink liquor. The teachers are ignorant and stupid and know little of the religion they profess to teach. They are idle, dirty, and untidy, but even-tempered and orderly. The shepherds show them less respect than they used to show. Most of them are in debt, and as they have no credit they are unable to borrow. They rank below all Lingáyats except Lingáyat barbers and washermen. A family of five spends £1 10s. (Rs. 15) a year on clothes, and about 16s. (Rs. 8) a month on food. A house costs about £10 (Rs. 100) to build and a shilling (8 as.) a month to rent. Their house goods are worth about £1 (Rs. 10). A hirth costs about 4s. (Rs. 2), a marriage about £5 (Rs. 50), a girl's coming of age about 6s. (Rs. 3), a pregnancy about £4 (Rs. 2), and a death about 10s. (Rs. 5). They are religious. Their family gods are Revansiddheshvar and Basaveshvar. They do not worship the ordinary Bráhmanic gods, and do not respect Bráhmans or call them to their ceremonies. They themselves act as priests ou They keep the leading Hindu holidays ceremonial occasions. Holihunvi in March-April, Ugádi in April-May, Nágpanchami in August-September, Ganeshchaturthi in September-October, and Dasara in October-November. Their spiritual head is the chief Lingayat priest who lives at Chitaldurg in north-west Maisur. Their customs and religious rites do not differ from those of other Lingáyats, except that at their death if a Lingáyat priest is present and sets his foot on the head of the dead no impurity is believed to have been caused. When a Lingáyat priest does not place his foot on the deceased's head the deceased's family is unclean for eight days. When a Kurubar-Guru goes to the house of a follower he and his attendants are fed sumptuously and he is given $\frac{3}{4}d$, to 6d. (\frac{1}{2} - 4 as.). When a shepherd wishes to gain great merit he washes his teacher's feet. The water in which the teacher's feet is washed is called dhulpádodak or dust-washing. The disciple sips a few drops of the water and sprinkles the rest over his house. worships the feet with sandal wood paste, rice, flowers and bel Ægle marmelos leaves, offers plantains, cocoanuts, and sugar, and falls prostrate before them. Next he touches the teacher's toes with his fingers and applies the fingers to his eyes. The teacher tells him that his sins are forgiven and that after death he will go to heaven. The Kurubar Gurus are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste, and any one who disobeys their decisions is either fined or put out of

caste. A few of them send their boys and girls to school. They take to new pursuits and are a steady class.

Chapter III.
Population.

Servants, according to the 1881 census, included seven classes with a strength of 77,624 or 9.95 per cent of the Hindu population. The details are:

SERVANTS.

Dhárwár Servants, 1881.

CLASS.	Males.	Females.	Total	
Ambigs, Fishermen Bedars, Hunters Bhois, Bearers Chelvádis, Messengers. Mathpatis, Beadles Nádigárs, Barbers Parits, Washermen	00.044	2718 27,910 618 1590 15 3356 3401	5273 54,254 1187 3125 36 6830 6869	
Total .	38,016	39,608	77,624	

Ambigs, or River Fishermen, are returned as numbering about

5273 and as found in Dhárwár, Bankápur, Karajgi, Kalghatgi,

Navalgund, and Ron. They take their name from the Sanskrit ambu water. They speak Kánarese. The names in common use among men are Honnappa, Hullappa, Mallapa, and Nagappa; and among women Basava, Honnava, Mallava, and Ningava. Their family deities are Basappa, Udchava, and Yellava. They have no subdivisions. They are dark and sturdy and live in dirty houses with flat roofs. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse, and vegetables, and their special holiday dishes are sweet cakes, clarified butter, rice, and pulse. They use flesh and liquor. Every year they sacrifice a sheep to their goddess Durgava and kill a sheep on their ancestors' death days and eat its flesh. The men dress in a loin and shouldercloth, a jacket, a headscarf, and sandals; and the women in a robe and a bodice, without passing the skirt of the robe back between the feet. The men wear brass ear and finger rings, and the women wear brass ear, nose, and toe rings. They are sober, hardworking, even-tempered, and orderly, but unclean and untidy. Their main calling is fishcatching and ferrying. Some weave and others hire themselves as house servants. A family of five spends about 16s. (Rs. 8) a month on A house costs about £10 (Rs. 100) to build, and their house goods are worth about £5 (Rs. 50). A birth costs about 2s. (Re. 1), a marriage about £10 (Rs. 100), a girl's coming of age about 10s. (Rs. 5), a pregnancy about 4s. (Rs. 2), and a death about £1 (Rs. 10). They are religious, respecting Lingayat priests and calling them to conduct their religious ceremonies. They keep all the leading Hindu holidays. They have no guru or spiritual teacher. They believe in witches, sorcerers, and soothsayers. From the sixth to the twelfth of Bhádrapada or August-September the women of a few Ambig families carry on their heads from house to house a basket with a clay male image called Jokamár whose private parts are three times as large as the rest of his body. In front

of each house the women sing Jokamár's praises and in return get small presents. Rival bands often dispute and fight for the privilege of carrying Jokamár. When a child is born its navel cord is cut Ambigs.

Chapter III.
Population.
SERVANTS.
Ambigs.

and the after-birth is buried in a clean place. On the fifth day the mother of the child worships the goddess Jivati and the place where the after-birth is buried. On the thirteenth day the child is named and cradled. On the wedding day the village astrologer comes and sets his ghatika or bottom-pierced cup in a pot of water. In a ghatika, that is in about twenty-four minutes, the cup fills and sinks. It is emptied and again floated in the pot and this is repeated till the lucky moment comes. When the lucky moment comes the astrologer tells the members of the bride's family to worship the cup. When they have worshipped the cup, he repeats sacred hymns and throws a few grains of red rice on the heads of the bride and bridegroom. Others do the same, a feast is given to castemen, and the wedding is over. The dead are buried. Child and widow marriage and polygamy are practised, and polyandry is unknown. They are bound together by a strong class feeling. social disputes are settled by their caste people and any one who disobeys their decision is put out of caste. They do not send their children to school, take to no new pursuits, and on the whole are a steady class.

Bedars.

Bedars, or the Fearless, also called Byadarus and Berads apparently originally meaning Hunters, are returned as numbering about 54,251, and as found allower the district. They speak impure Kánarese. The names in common use among men are Balappa, Fakirappa, Karappa, and Yellappa; and among women Fakirava, Bhimava, Hanmava, Ningava, and Yellava. They have no surnames. Their chief god is Hanamappa whose shrine is at Navalgund, and they also worship Yellava, Basáppa, and Venkataramana. They have three divisions the members of which do not eat together or intermarry. They are like Deccan Rámoshis who claim to have originally been Bedars or Berads. They are dark, strong, stalwart, and ugly. They live in dirty ill-cared for flat-roofed houses with walls of mud and sun-burnt bricks. They keep buffaloes, goats, fowls, and dogs. They are great eaters but poor cooks. Their every-day food is Indian millet bread, onions, garlic, and vegetables. Their holiday dishes are rice, flesh, and wheat cakes. They eat the flesh of sheep, fowls, hares, deer, fish, and hogs, and sometimes even of cows and buffaloes. They yearly sacrifice sheep to the goddess Durgamma, to the spirits of ancestors, and to pirs or Muhammadan saints. They are excessively fond of intoxicating drinks. They also use tobacco, gánja or hemp flowers, and bháng or hemp water. The men dress in a headscarf, a shouldercloth, a jacket, short and tight breeches, and a pair of sandals. The women wear a robe and a bodice. A few men have their head shaved but most let the head hair grow. The women either tie their hair in a knot or braid it. They have one or two sets of new clothes for holiday use. The men wear ear and finger rings, and the women bracelets, waistchains, bangles, and They are hardworking, dishonest, and hot-tempered. Their chief calling is service. They also fetch firewood, tie it into bundles, and sell it in the market, and also sell mangoes and other

¹ Poona Statistical Account, Bombay Gazetteer, XVIII, 409.

Chapter III.
Population.
SERVANTS.
Bedars.

fruits in their season. They sometimes hunt in the forest lands. Many of them, especially of the Gorvankolla Bedars, are notorious thieves and robbers, and many of the women are prostitutes. work as day-labourers from six to twelve in the morning and from two to six in the evening. Their busy months are March and April. They do not work on ordinary Hindu holidays or during the Moharram. A family of five spends about 12s. (Rs. 6) a month on food and about £1 4s. (Rs. 12) a year on clothes. It costs them about £5 (Rs. 50) to build a house and about 1s. (8 as.) to rent one. The value of their house goods is about £2 10s. (Rs. 25). A birth costs them about 8s. (Rs. 4), a son's marriage about £10 (Rs. 100) including £3 12s. (Rs. 36) paid to the girl's father, a girl's coming of age about 16s. (Rs. 8), and a death about 18s. (Rs. 9). They are religious. They respect Bráhmans and call them to conduct their marriages. funeral ceremonies are performed by priests of their own class. worship the Brahmanic gods and keep the usual Brahmanic holidays. They make pilgrimages to the shrine of the goddess Yellamma in Savadatti in Belgaum, and to the tomb of Pir Ráje Bágsavár at Yamnur in Navalgund. They have a guru or spiritual teacher who lives at Kanakagiri near Gadag. Besides Bráhmanic gods they worship the village guardians Durgava and Dayamava, the latter represented as a lion-riding woman with ten arms each holding a weapon. They profess not to believe in witchcraft, sorcery, or soothsaying. They do not keep the regular Hindu sanskars or sacraments. On the birth of a child they cut its navel cord. On the fifth the goddess Sathi is worshipped and caste people are feasted. On the twelfth they lay the child in a cradle and name it. At marriage the bride and bridegroom are rubbed with turmeric, bathed, and made to sit on a raised seat called jagali. The priest repeats verses and throws red rice on the pair. They burn their dead, and on the third day give a caste dinner. They are bound together by a strong casto feeling. Social disputes are settled by a majority of the castemen and if any one disobeys their decision he is put out of caste. Child and widow marriage and polygamy are allowed and polyandry is unknown. They send their boys and girls to school, take to new pursuits, and are a steady class.

Bhois, or Litter-Bearers, are returned as numbering about 1187 and as found all over the district. They are of four sects Besta Bhois, Gangi Bhois, Sadar Bhois, and Karva Bhois. Besta Bhois wear the ling and eat from Gangi Bhois but not from Sadar Bhois. They do not marry with the other two classes. Gangi Bhois do not wear the ling. They eat from Besta Bhois, but not from Sadar Bhois and do not marry with either of the other two classes. Sadar Bhois do not wear the ling They eat from Besta and Gangi Bhois, but do not marry with them. Till within the last fifty years Bhois were in great demand as litter-bearers. Since roads have been made, they have turned to fishing and labour and many have become constables. They eat mutton pork and fish, but not beef. They are stoutly made and black or brown in colour. The men wear a headscarf, a coat, and a waistcloth, and the women let the robe fall like a petticoat. Their chief gods are Bassáppa, Dayamava, and

Bhois.

Chapter III.
Population.
SERVANTS.

Hanumán. Their home speech is Kánarese. Kárva Bhois were formerly palanquin-bearers and are now fishers and labourers. They do not wear the ling. They eat from all classes except from Musalmáns, Holayas, and Madigars. They are dark, strong, and well-made, and eat flesh and drink liquor. Their dress does not differ from that of other Bhois. They worship Hanumán, Bassáppa, and Dayamava. Other Bhois do not marry with them.

Chelvádis.

Chelva'dis returned as numbering about 3125, are a class of Lingáyat Holayas who neither marry nor eat with other Holayas. They follow the practices of the Lingávats in all respects. They dress so neatly and so exactly like Lingayats that it is often difficult to distinguish them from Lingayats. They wear the ling. Their chief gods are Shiva and Basaveshvar. If they choose they may worship Hanumán and Dayamava, but they are in no way bound to worship them. They are able to read and write Kanarese. The names in common use among men are Baslingáppa, Gurlingáppa, and Virabhadrappa; and among women Buslingava, Gurlingava, and Virabhadrava. They do not use flesh or intoxicating drinks. A family of five spends on food about 16s. (Rs. 8) a month. It costs them about £30 (Rs. 300) to build a house. A birth costs them about 10s. (Rs. 5), a marriage about £20 (Rs. 200), and a death about 10s. (Rs. 5). They do not provide husbands for all their Some are given in marriage, while others live by prostitution. When it is determined that a girl is not to marry and is to become a Basavi or female devotee of the Lingayat gods, a caste meeting is called, and, in presence of the meeting, the Lingayat priests tell her that she has been made a Basavi and that she is to live as a courtezan. The chief duty of the Chelvádi is to attend all Lingayat meetings and temples, and stand with their official brass bell and spoon until the business of the meeting is over, and generally to serve the Lingáyat community. Divorce and widow marriage are allowed. They send their children to school, take to no new pursuits, and on the whole are a steady class.

Mathpatis.

Mathpatis, or Lingáyat Beadles, are returned as numbering about thirty-six and as found in Gadag, Hangal, Kod, and Ranebennur. They speak impure Kánarese. The names in common use among men are Basáppa, Kalláppa, and Ningáppa; and among women Basava, Ningava, and Yellava. They have no divisions. They are strong and muscular. They live in dirty ill-cared for flat-roofed houses with walls of mud and stone, and keep cows and she-buffaloes. Their daily food is Indian millet bread, pulse, and vegetables, and their holiday dishes are sweet cakes, curds, and clarified butter. They do not eat flesh or drink liquor. The men dress in a loin and shouldercloth, a jacket, a headscarf, and sandals; and the women in a robe and bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women ear, finger, nose, and toe rings, waistbands, and anklets. They are clean, neat, hardworking, even-tempered, and orderly. Their chief duty is to act as servants to the Lingayat community. They keep all the leading Hindu holidays. They spend very little on food as they are constantly asked to dine by Lingáyats. A house

costs about £10 (Rs. 100) to build and about 2s. (Re. 1) a month to rent, and their house goods are worth about £5 (Rs. 50). costs about 4s. (Rs. 2), a marriage about £15 (Rs. 150), a girl's coming of age about £1 10s. (Rs. 15), a pregnancy about £1 (Rs. 10), and a death about £2 (Rs. 20). They are religious respecting Lingayat priests and calling them to conduct their religious ceremonies. They make pilgrimages to Ulvi in North Kanara and to Hampi in Bellari. Their spiritual guide called Totadasvámi lives at Gadag in Dhárwár. They profess not to believe in sorcery, witchcraft, or soothsaying. Their religious rites and customs are the same as those of other Lingáyats. At Lingáyat marriages the Mathpati calls the guests. arranges lights, vessels, betelnuts and leaves, cocoanuts, lemons, dates, and other articles, and does all that the Lingayat priest orders. After a death the Mathpati washes the face of the dead. marks it with white ashes, sets it in a sitting posture in the house, and afterwards puts it in a car-shaped bier, walks with it to the burial ground, washes the face at the burial ground, puts it into a cloth bag, and sets it in the grave, and when the pit is filled washes the priest's feet who stands on the grave, and breaks a cocoanut in front of the priest's feet. In return the Mathpati is paid 1s. to 2s. (Re. \frac{1}{2}-1). Child and widow marriage and polygamy are allowed, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste and any one who disobeys the decision is put out of caste. They send their boys to school, take to no new pursuits, and are a steady class.

Na'diga'rs, or Barbers, are returned as numbering about 6880, and as found all over the district. They include Maráthás, Lingáyats, Musalmáns, and a few Pardeshis from Upper India. In matters of food and religion each division follows the practices of its own people.

Lingáyat Nádigárs, who are the largest division in the class, are found in all parts of the district. They speak a badly pronounced The names in common use among men are Basáppa, Mallappa, and Mugappa; and among women Basava, Ningava, and Yellava. Their family gods are Basappa and Hanmappa, and their family goddess is Bánashankari whose chief shrine is near Badámi in Bijápur. They have no subdivisions. They are tall and dark. They live in dirty ill-cared for flat-roofed houses with walls of mud and sun-burnt brick. Their daily food is Indian millet bread, pulse, and vegetables, and their special holiday dishes are sweet cakes, rice, milk, and clarified butter. They do not eat flesh or drink liquor. The men wear a loin and shouldercloth, a jacket, and a headscarf; and the women a robeand bodice, but without passing the skirt of the robe back between They are even-tempered, hospitable, and orderly but lazy and unclean. Their main calling is shaving, but they occasionally act as village surgeons dressing wounds and setting dislocated bones. Their calling is prosperous. The people of Dhárwár used to shave only once a fortnight and not even then unless the day was lucky. Now they are shaved once a week and without much

Chapter III.
Population.
SERVANTS.
Mathpatis.

Nádigárs.

Chapter III.
Population.
SERVANTS.
Nádigars.

regard to unlucky days. This has greatly increased the barber's incomes. A family of five spends about 12s. (Rs. 6) a month on food and about £2 (Rs. 20) a year on dress. A house costs them about £15 (Rs. 150) to build. A birth costs about 10s. (Rs. 5), a marriage about £15 (Rs. 150), a girl's coming of age about £1 (Rs. 10), a pregnancy about 6s. (Rs. 3), and a death about £1 (Rs. 10). They are religious, respecting Lingayat priests and calling them to conduct their religious ceremonies. They worship the Brahmanic god Hanumán, and keep the leading Hindu holidays. They make pilgrimages to Bánshankari near Badámi in South Bijápur. spiritual teacher called Pattadasvámi lives at Navalgund. occasionally worship the village goddesses Dayamava and Durgava. They believe in sorcery, witchcraft, and soothsaying. On the birth of a child its navel-cord is cut, on the fifth day the goddess Sathi is worshipped and friends and relations are feasted, and on the twelfth day the child is named and cradled. On the first day of marriage the bride and bridegroom are rubbed with turmeric and bathed, on the second day the wedding ceremony is performed, on the third day caste people are feasted, and on the fourth day the bride and bridegroom are taken in procession on horse-back through the principal streets of the town. The dead are buried with the same funeral rites as other Lingáyats. Child and widow marriage and polygamy are practised, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by a majority of the castemen. They send their boys to school, take to no new pursuits, and are a steady class.

Parits.

Parits or Agasarus that is Washermen, numbering about 6869 are either Lingáyats, Maráthas, or Musalmáns and are found all over the district. Each of these divisions follows the religion and customs of their own class.

Lingayat Parits or Washermen are found all over the district Their home speech is Kánarese. The names in common use among men are Basáppa, Ningáppa, and Viráppa; and among women Basava, Fakirava, and Ningava. They have no surnames and are generally known from the names of the towns or villages in which they live. Their family god is Virabhadra whose chief shrine is near Rámdurg in Belgaum. They have no subdivisions. are short, strong, muscular, and brown. They live in flat-roofed houses with walls of brick and mud. Their daily food is Indian millet bread and vegetables, and on holidays they eat rice, pulse, clarified butter, and sweet cakes. They eat no flesh and drink no liquor, The men dress in a loin and a shouldercloth, a coat, and a headscarf, and the women in a robe and bodice without passing the skirt of the robe back between the feet. They generally dress in clothes given to them to wash. Both men and women wear the ling and mark their brows with white ashes. The women tattoo their foreheads and hands. The men wear ear and finger rings and waistchains, and the women wear ear, finger, and nose rings, armlets, and necklaces. They are hardworking, even-tempered, hospitable They work from morning till evening except and orderly. two or three hours for meals and rest at noon. Their women and children help in the work. A family of five spends about £1 (Rs. 10) a month on food. A house costs about £10 (Rs. 100) to build, and their house goods are worth about £5 (Rs. 50). A birth costs 10s. (Rs. 5), a marriage £10 (Rs. 100), a girl's coming of age 10s. (Rs. 5), and a death about £1 (Rs. 10). They respect both Bráhmans and Lingáyat priests. They call Bráhmans to conduct their marriages and Lingayat priests to conduct their funeral rites. They keep all Hindu holidays and make pilgrimages to the shrines of Basavana in Kanara and of Virabhadra near Rámdurg in Belgaum. Their spiritual teachers are Lingáyat They believe in sorcery, witchcraft, and soothsaying. Their birth, marriage, and death ceremonies do not differ from those of other Lingayats. Child and widow marriage, divorce, and polygamy are allowed but not polyandry. In Dhárwár among high class Hindus when a woman comes of age the clothes which she were at the time go to the washerman. Parits are bound together by a strong caste feeling. Their social disputes are settled by Lingáyat priests. Some of them send their children to school. They take to no new pursuits, and on the whole are a steady class.

Courtezans irrespective of caste may be arranged under four groups, Pátradavarus or dancing girls, Basavis or Lingáyat devotees, Sulerus or trained courtezans, and Kasbins or strumpets.

Pa'tradavarus, or Dancing Girls, numbering probably about 300. are found in towns and large villages. They claim to represent the heavenly dancing girls Rambha and Urvasi. Their home speech is Kanarese. The names in common use are Chandraseni, Gavraseni, Hulgaseni, Nágaseni, and Pattaseni; and the names of their brothers and sons are Basána, Fakiráppa, Kásána, and Tippána. They have no surnames. Their family god is Mailar whose chief shrine is at Gudaguddápur in Ránebennur, and their family goddesses are Guttema and Hulgemma. The Patradavarus are fair, handsome, and lively. Most of them live in better class neat well-kept houses one-storey high with walls of brick and tiled roofs. They have a good store of cooking and drinking vessels and keep cows and buffaloes. They are hearty eaters and bad cooks. Their daily food includes rice, pulse, vegetables, clarified butter, milk, and cards, and their holiday dishes are sweet cakes of coarse sugar, wheat-flour, and pulse. They eat the flesh of sheep and fowls and occasionally sacrifice a sheep to their goddesses Guttemma and Hulgemma. They occasionally drink spirits, chew tobacco, and use Their robe and bodice are like those worn by Bráhman women except that the plain end of the robe is tucked into the waist and fastened with a knot on the right side, the upper middle part is folded forwards and backwards about three inches broad, brought to the navel, and turned upside down for about an inch to fasten the

COURTEZANS.

Pátradavarus.

Chapter III.
PopulationServants.
Parits.

¹ Among high class Dhárwár Hindus when a girl comes of age the family washerman is sent for. He folds a sheet and spreads it in the ornamental canopy or makhar prepared for the girl to sit in. Coloured lines are drawn on the cloth and the girl is seated on it for a couple of hours during which friends and relations present her with flowers, fruit, turmeric, redpowder, and bodices.

Chapter III.
Population.
COURTEZANS.
Pátradavarus.

cloth to the waist, and the finer end of the cloth is carried behind the back, brought under the right arm, carried over the left shoulder, and allowed to fall loose on the right shoulder. Except when dancing or singing they do not pass the skirt of the robe back between the feet. They generally braid their hair and sometimes tie it in a knot. They rub turmeric powder and water on their They rub turmeric powder and water on their face, hands, and legs, and mark their brows with redpowder. They are neat and clean in their dress and have a special liking for bright colours. Their brothers and sons dress like ordinary middle-class Kánarese. On holidays and when they go to public gatherings to dance and sing the Pátradavarus wear a more costly dress. clothes are of local hand weven cloth bought in the local shops. Their ornaments are the kyadgi, chandrakor, nagara, chadri, and ráhhdi for the head; the bugdi, bálya, and váli for the ears; the nath or nosering for the left nostril, and the besri or pin for the right nostril, the bulak a small ring of precious stones and pearls for the middle of the nose; gold necklaces called tikis, kathanis, and sargis for the neck; gold vankis and bájubands for the arms; gold pátlis, kadgas, hárdis, and kankanas for the wrists; and silver chains called sapalis and paijanas for the legs. They are cunning, clever, neat, clean, even-tempered, hospitable, and orderly. Their main calling is dancing and singing. Their craft is declining from the difficulty which the Indian Penal Code throws in the way of their getting girls to train in their art. Their brothers and sons beat drums and play the sárangi or fiddle behind the girls when they are dancing and singing. They spend each about £1 (Rs. 10) a month on food and about £10 (Rs. 100) a year on clothes. A house costs about £100 (Rs. 1000) to build. A birth costs about £2 (Rs. 20), a brother's or son's marriage about £10 (Rs. 100), a girl's coming of age about £1 10s. (Rs. 15), a pregnancy about £2 (Rs. 20), and a death about £1 10s. (Rs. 15). They are religious and daily worship the images of their family deities Mailar, Guttemma, and Hulgemma. The Hindu Pátradavarus or dancing girls respect Bráhmans and call them to conduct their religious ceremonies, and the Musalmán dancing girls call the Kázi or Mulla to conduct their religious rites. The Hindu dancing girls have a quru or spiritual teacher named Ayyappa, a Kshatriya by caste, who comes twice a year and gives the dancing girls holy water, ashes, and turmeric, and in return receives money and provisions. They believe in sorcery, witchcraft, and soothsaying. As soon as a child is born its nose is touched with a gold ring before it sneezes, its navel cord is cut, and a few drops of honey are poured into its mouth. To guard the child against sickness a needle is heated on a lamp and laid on the crown of the child's head, and on its shoulders, its chest, the palms of its hands, and the soles On the third day a small hole is dug outside of the house, and turmeric and redpowder, and nim Melia azadirachta leaves are thrown into the hole. On the fifth day the goddess Sathvi is worshipped, and on the the thirteenth the child is laid in the cradle and named. On the twenty-ninth some kinswoman goes to a well and brings a pitcherfull of water on her head to the outer gato of the house. The mother comes out and with her own hands

lowers the pitcher from the woman's head. The pitcher is worshipped and a festive dinner is given. At the close of the third month new glass bangles are put on the mother's wrists, the infant is carried to a temple and presented to the god, a few flowers and fruit are offered to the god, and the child is brought home, and on the same day the child's earlobes are bored. During a girl's seventh year a good day is chosen and all the dancing girls of the town are asked to the house. The girl is rubbed with oil and turmeric and bathed in hot water. A twosided drum called madli, the string of metal bells which dancing girls tie to their ankles when they dance, and other musical instruments used in dancing and singing are laid on a carpet and worshipped by the girl. The girl is made to wear a pair of trousers and a bodice, a scarf is thrown over her body, and she is made to dance and sing for the first time in her life. Kunku or redpowder, turmeric, betelnut and leaves, sugar, and scraped cocoa-kernel are handed to the guests. From that day the girl is taught to read and write and to sing and dance. When she is about twelve years old a ceremony called halpudi is performed. A good day is chosen, all the dancing girls of the neighbourhood are called, and the madli or the double drum and other musical instruments used in dancing and singing are laid on a carpet. The girl is made to sit on the left of the drum and all the forms of marriage are gone through as if the drum were the bridegroom and the girl the bride, presents are made to Brahmans, the dancing girls are feasted, and the marriage is over. When a girl comes of age she is made to sit by herself for three days. On the fourth day she is anomated, feasted and decked with ornaments, and two lighted lamps set in a plate with red water are waved round her face. Before a girl comes of age arrangements have generally been made with some one to become the girl's first lover and protector. The protector comes to the girl's house and after a feast they retire The girl must live with her first lover for at least a month. He keeps a special position among her admirers, and, as a husband, ranks next to the drum. A dutiful dancing girl, till they are parted by death, continues to treat her first lover with special respect. Among dancing girls daughters inherit the mother's property. The brothers of dancing girls marry private women, and their daughters either become dancing girls or are given in marriage into other families. If any one strikes a dancing girl with a shoe, though she may have done nothing wrong, the girl loses caste and has to pay a fine and undergo penance before she is let back. They are bound together by a strong caste feeling. Social disputes are settled by members of their caste and by their spiritual teacher. They send their boys and girls to school, but on the whole are a falling class.

Basavis, or Lingáyat Women Devotees, probably numbering about 2000 are found over the whole district. They speak Kánarese. Their names are Basava, Dayamava, Irava, Kallava and Rachava; and the names of their brothers and sons are Guráppa, Kalláppa, Mulláppa, Sangáppa and Shivarudráppa. They have no surnames except place names. Their gods are Basavana and Mallikárjuna

Chapter III.
Population.
COURTEZANS,
Pútradavarus.

Lingáyat Basavis.

Chapter III.

Population.

Courtezans.

Lingdyat Basavis.

whose shrines are found in almost all large Dhárwár villages. They live in clean and neat flat-roofed houses with walls of mud. They keep cows and buffaloes when they can afford it. daily food is rice, Indian millet or wheat bread, pulse, vegetables, milk, curds, and butter. They neither eat flesh nor drink liquor. They wear a robe and a bodice like Lingayat women. They have no stock of clothes for special occasions. They wear car, nose, finger, and toe rings, necklaces, armlets, and a silver ling box hanging from the neck. They rub themselves with white cowdung ashes or vibhuti. They are clean, neat, even-tempered, and hospitable. Most of them openly act as courtezans. Their main calling is to attend caste meetings and marriage and other ceremonies, to help women in performing religious rites, and to wave lighted lamps round the bride and bridegroom. Basavi spends about 10s. (Rs. 5) a month on food and about £1 (Rs.10) a year on clothes. Basavis have no special ceremonies. They send their boys and girls to school, and take to no new pursuits. On the whole they are a falling class.

Sulerus.

Sulerus, numbering perhaps about 1000, are women trained to They are neither allowed to pass the robe between be courtezans. They do not dance or sing and never the feet nor to wear ankle bells. appear in public assemblies, nor, except by stealth, in the houses of respectable persons. They speak Kánarese. The names in common use among them are Bharmi, Heli, Nági, and Sávitri. They have no special family gods and have no divisions. They vary much in appearance, some being dark, some fair, and some wheat-coloured. They live in small houses one-storey high with walls of sun-burnt Their daily food is rice, Indian millet, pulse, and brick and mud. vegetables. Occasionally they sacrifice sheep and fowls to the goddesses Dayamava, Durgava, and Yellava, and eat their flesh. They are excessively fond of intoxicating drinks. They are artful cunning and quarrelsome. Their expenses vary according to their A Suleru spends 8s. to £1 (Rs. 4-10) a month on food and 6s. to £1 10s. (Rs. 3-15) a year on dress. When a girl is about ten years old she is married to the god Parashurám. Some grains of rice are spread on a carpet before the image of the goddess Yellamma the mother of Parashurám and the girl is made to sit on the rice. Five elderly Sulerus come and tie a necklace of gold and glass beads round her neck, put a silver toering on her great toes, dress her in a new robe and bodice, and marry her to an image of Parashurám. Caste people are feasted and the girl becomes a member of the courtezan community. When sho comes of age her protector who must be a Bráhman, Lingáyat, Jain, or Rajput ties a necklace of gold and glass beads round her neck and a feast is given. They do not send their children to school, and show no signs of improving.

Kasbins.

Kasbins are low class courtezans without any training or accomplishments. They are generally recruited from women who have been divorced or deserted by their husbands, and all married or unmarried women and widows who have left their relations and friends of their own accord and have chosen to live as prostitutes.

They do not go through any form of marriage or other ceremony like the dancing girls. They generally belong to the lower classes. A Bráhman woman never becomes a Kasbin though she may have been put away by her husband because of adultery. Kasbins dress and adorn themselves well enough to draw public attention. They do not eat together unless they happen to belong to the same caste. In other matters the social position of Kasbins of all castes is the same. They are not allowed to wear ankle bells or to sing dance or sit in a public assembly. The three better classes of trained courtezans, the

Patradavarus, Basavis, and Sulerus, have no dealings with Kasbins. Wanderers, according to the 1881 census, included five classes

WANDERERS.

Chapter III.

Population.

COURTEZANS.

Kasbins.

with a strength of about 22,700 or 2.91 per cent of the Hindu population. The details are:

Dhárwar Wanderers, 1881.

Division.	Males.	Females	Total.	Division.	Males.	Females	Total
Advichanchars*, Potnbars		162	dred. 276	Shikalgårs Vaddars	62 8486	56 8374	118 16,860
Rollevars	oravars 2667 2683	5350	Total .	11,329	11,275	22,704	

^{*} This caste is not shown in the census returns.

Advichanchars, or Forest Wanderers, number about a hundred. They generally live in forests, and occasionally come to towns or villages either to beg or to sell reed baskets. They take their name from the Sanskrit words atavi a forest and sanchar a wanderer. They are tall, active, lean, and dirty. They dress like other local low class Hindus except that their clothing is often extremely scanty. They live by hunting and begging, and sometimes by making baskets called galgi or gummi three feet wide and four or five feet high which villagers buy, cowdung, and use for storing A division of these people called Josigerus also make black-stone vessels of various sizes, which are used in keeping pickles and sometimes in cooking. They use animal food. They do not marry with any other caste and do not eat from the impure They have no special object of worship. They bow to Hanumán, Bassáppa, and Dayamava when they come into a village. Otherwise they live in the forests, in the open air during the hot season, and under small mat coverings during the rains. carry their babies in small baskets, or in pieces of cloth about two fect square slung from a pole about three feet long.

Dombars are returned as numbering about 276 and as found all over the district. They are tall, powerful, intelligent, and rather handsome. Both men and women climb single bamboo poles twenty or thirty feet high, walk on long ropes with great weights fastened to their bodies, jump, and perform other feats. They dress like ordinary Hindus and eat animal food. Divorce and widow marriage are allowed and practised. They have no special object of worship. They are part Hindus and part Musalmans, but are not careful to keep religious rules. They marry with no other caste and do not eat from Holayas or Mádigárs.

Advichanchars.

Dombars.

Chapter III.
Population.
Wanderers.
Koravárs.

Korava'rs, numbering about 5350, are found scattered all over the district in groups of eight or ten families who live on the outskirts of some village for a year or so and then move. Their home tongue is a mixture of Telugu, Tamil, and Kánarese, and they speak Kanarese with the people of the district. The names in common use among men are Adivia, Jira, Hanma, Rama, and Sanka; and among women Báli, Nági, Sávitri, Sanki, and Timmi. They have no surnames. Their family goddess is Sankalamma and each family keeps an image of the goddess in their house. They have no divisions. The men wear a langoti, a piece of cloth three inches broad and two feet long, one end of which is fixed to a waist string in front and the other passed between the feet and tied to the waist string behind. They wear a second piece of cloth round the waist and a third round the head. The women wear a robe and bodice like lower class Hindu women. They are apparently a very early tribe, smaller and slighter than the rest of the people of the district. They are a wandering tribe and have no fixed homes. They live in small huts made of reed mats, about four feet high and three broad, which can be moved at pleasure, carried from place to place, and again set up. As a rule their huts do not last for more than a year. They keep sheep, cows, and buffaloes. Their daily food is boiled rice or rági-flour balls boiled in water, and tamarind boiled with pulse and condiments. On holidays they eat the flesh of sheep, hares, swine, fowls, and other game animals and birds, and use molasses with their food. They drink liquor. The men wear ear, finger, and wrist rings, and the women in addition wear brass armlets and a nose-pin called mugti. They are dirty, untidy and given to stealing, but hardworking and eventempered. Their chief employment is plaiting bamboo baskets and mats and hunting. In hunting they steal into the forests hiding as far as possible behind their buffaloes. When in a suitable place they set up nets and begin to call like birds. The birds answer and gather and the men start up and frighten them into the nets. The women do not help them in snaring. They do not find full employment as basket-makers. Some are in debt and others do not own more than £1 to £1 10s. (Rs.10-15). They rank below Shepherds and above Holayas and Mádigárs. They keep four holidays in the year, Ugádi in April-May, Nágpanchami in August-September, Dasara in October-November, and Diváli in November. A family of five spends about 16s. (Rs. 8) a month on food and about 2s. (Re. 1) a year on their reed-hut. A birth costs them about 4s. (Rs. 2), a boy's marriage about £6 (Rs. 60) including £3 4s. (Rs. 32) paid to the bride as dowry, and a girl's coming of age about 4s. (Rs. 2). They spend nothing either on a pregnancy or on a death. They are religious. Every Tuesday they worship an earthen image of their family Sanklamma and offer her a cocoanut and plantains, burn incense, and wave a lighted lamp round her face. They do not respect Bráhman or Lingáyat priests and have their religious ceremonies

¹ Many of the men are called Sanka and the women Sanki probably after their family goddess Sankalamma.

conducted by men of their own tribe. They believe in sorcery, witchcraft, and soothsaying. When a person sickens or a misfortune befalls him they go to Adibhat, a Smart Brahman priest in the village of Hangal, and ask him the cause of the sickness or misfortune. The Brahman priest tells them to pray to their goddess and to set apart \ anna or \ d. in her honour. They give \ a. to the priest for his trouble, and after coming home pray to their family goddess, set & a. apart in her honour, and make a vow that if the sickness or misfortune is removed they will adorn the goddess with silver eyes and moustaches. Sometimes the evil spirit which brought the sickness or ill-luck comes and tells them in a dream that it wants food. The Koravars boil a little rice, mix it with red water, make it into three balls, and set them in an earthen plate. They make a small hole on the top of each ball, put some oil and a wick in each, light the wicks, place turmeric, fried rice, gram, lemons, and plantains in the plate, wave the whole three times round the sick and carrying it into the forest throw it away. The evil spirit eats the food and the sick person forthwith gets well. As soon as a child is born the navel cord is cut, and it is anointed with castor-oil and bathed in warm water. The mother is not bathed, and for five days is fed on the flesh of a fowl. On the eleventh day the mother is bathed, the child is named and put into a cloth cradle by the midwife, and a feast is given to members of the caste. In the third month both boys and girls have their hair cut by a barber who is given a small present. They hold it improper to allow the first hair especially of a girl to remain on her head. No lucky day is required for a marriage. When a marriage is fixed a dinner is given in honour of the goddess Sanklamma and no flesh is cooked on that day. On the marriage day the bride and bridegroom are rubbed with turmeric, bathed, and made to sit on rice sprinkled over a blanket, spread on a raised seat. is seated to the left of the bridegroom and the little finger of the bridegroom's left hand is linked in the little finger of the bride's right hand. Five married women come and sing marriage songs, tie the kankan or yellow threads round the wrists of the bride and bridegroom, throw grains of red rice over their heads, and wave lighted lamps round their faces. Food is made ready and the bride and bridegroom with their little fingers still linked are taken to an inner room, their linked hands dipped in a dish of water and unlinked under water. When this is over the marriage is complete, and the pair are held to be bound together till parted by death. The bride and bridegroom take a meal together, and, on the fourth day, a caste feast, the chief dish in which is animal food, is given. When a girl comes of age a little liquor is brought and given to friends and relations to drink, and the husband and wife begin to live together. The dead are buried. 'Child and widow marriage and polygamy are allowed, but divorce is forbidden even if a wife commits adultery. They are bound together by a strong caste feeling. Their social disputes are settled by the caste people and any one who disobeys their decisions is either put out of caste or fined. They do not send their children to school, do not take to new pursuits, and on the whole are a falling class.

Chapter III.
Population.
Wanderers.
Koravárs.

Chapter III.
Population.
Wanderers.
Shikalgars.

Shikalga'rs, or Armourers, a class of wandering beggars, are returned as numbering about 118. They travel about the district and halt in the outskirts of villages for three or four days at a time. Though neither Hindus nor Musalmans they bear both Hindu and Muhammadan names. The names in common use among men aro Jangli, Krishna, Daval, and Fakirsab; and among women Bhima, Gavriamma, Rájamma, and Ránamma. They speak a corrupt Hindustáni. They have no divisions. They are tall and dark-brown. They live in huts or tents made of reed mats, about eight feet long, four feet broad, and four feet high. Their daily food is Indian millet bread, ráqi gruel Eleusine corocana, and wild vegetables. They are so poor that they are often scrimped for food. They eat flesh, except the flesh of kine or swine, and drink liquor. The men wear a piece of ragged cloth two or three inches broad and two feet long. fasten one end of this cloth to a waist-string, and, passing it back between the feet, tie the other end to the same string behind. They use another piece of old and torn cloth about four or five feet broad and six or seven feet long to cover their bodies. The women wear old robes, but do not pass the skirt between their feet, and allow the upper end to fall on the left shoulder instead of on the right. men wear brass ear and finger rings, and necklaces of black beads. They blacken their teeth and sometimes bore holes in them for ornament. The women wear brass ear and finger rings, and red or white coral or black bead necklaces. They do not braid their hair or tie it into a knot behind but let it fall loose on their shoulders. They are even-tempered, lazy, and dirty. Their chief calling is begging and occasionally cleaning swords. The men are idle and neither work nor beg. The women go into the villages, gather alms and support their husbands and children. They rank below all classes except Holayas, Mádigárs, and Dhors. Their feeding and clothing charges are nothing as they live on alms and old clothes. A marriage costs 4s. to 8s. (Rs. 2-4). They spend nothing either at births, coming of age, or deaths. They have no family gods. They occasionally worship Durgava the goddess of cholera, and the tomb of the famous Musalmán saint Ráje Bagsoar near Yamnur in Navalgund. They have no spiritual teacher. They keep no holidays and never go pilgrimage. They believe in sorcery, witchcraft, soothsaying. As soon as a child is born its navel cord is cut, and is buried in some secret place. For two or three days the mother is fed on rice and on the fourth or fifth day she is ready to travel as usual. On the tenth the mother carries five betel leaves, and one betelnut to a river or a well, lays them before the water, burns incense, and brings home a pitcher full of water. No other ceremony is observed till marriage. At their marriages the caste people meet and an elderly man ties a betel leaf to the right wrists of the bride and bridegroom. They are fed and the wedding is over. When the marriage is over a brass nose-ring is pierced into the left nostril of the bride, and, on the third day, it is drawn out and the hole allowed to heal. The dead are buried face down, and on the third day some cooked rice is placed on the grave as an offering to the spirit of the dead. They have the rule that, when a man dies, his brother should take the dead man's widow in addition

to his own wife. Birth, monthly sickness, and death cause no impurity. Child and widow marriage and polygamy are practised, but not polyandry. They are bound together by a strong caste feeling. Their social disputes are settled by the oldest members of the community. If any one disobeys their decisions he is put out of caste, but is allowed back on paying a fine of 3d. (2 as.). They do not send their children to school, take to no new pursuits, and show no signs of riving

show no signs of rising.

Vaddars are returned as numbering about 16,860 and as found They generally live in the outskirts of all over the district. villages and in forest lands. They speak Telugu and impure Kánarese. Their pronunciation is indistinct and they speak so hastily that a conversation sounds like a quarrel. The names in common use among men are Gidda, Hanama, Nága, and Timma; and among women Durgava and Hulgeva. Their house gods are Hanumán, Durgava, Hulgeva, and Venkataramana. The chief shrine of Venkataramana is at Tirupati in North Arkot, and of Huligeva at Hulgi near Hospeth in Bellári. They have two divisions, Kál Vaddars or stone-quarriers and Mán Vaddars or earth-diggers. The members of the two divisions eat together and intermarry. They are strong, muscular, tall, and black. They live in dirty ill-cared for huts made of grass mats and bamboos like the covers of native carts, with an opening on one side, for getting in and out by. They keep asses to carry their house goods. Their ordinary food is Indian millet bread; pulse, and vegetables, and their holiday food is rice, wheat-bread, and coarse sugar. They eat the flesh of fish, fowls, foxes, sheep, deer, hogs, crabs, and rats, but not of kine or of the hare. They are famous for their skill in catching rats and highly relish the rat as food. They use all intoxicating drinks and are proverbial drunkards. The men wear breeches, a headscarf, and a shouldercloth. The women wear a long robe the plain end of which is tied to the waist by a knot, the upper middle part of it is tucked near the navel, and the ornamental end is passed over the back, brought under the right arm, and carried over the left shoulder covering the breast and chest on its way, and again brought from behind under the right arm, and carried over the left shoulder, and head, and allowed to fall losely on the left shoulder. Young women are particular in dressing themselves in this fashion. A religious rule forbids their wearing Men wear brass ear and finger rings, and women the bodice. brass ear and nose rings and necklaces. They wear glass bangles only on their left wrists and do not wear flowers in their hair or mark their brows with redpowder. They are hot-tempered, dirty, hardworking, and orderly. Their main calling is to make ponds and wells and to dig earth and stones for public and private works. They also cut canals. They are very hardworking, and are always employed if any large work is in hand. Their digging tools are spades, pickaxes, and bamboo baskets for carrying the earth. They work from morning till evening except two hours at noon when they dine and rest. They are busy during the fair weather. They are well-paid, their employment is steady, and few

Chapter III.
Population.
Wanderers.

Vaddars.

Chapter III.
Population.
Wanderers.
Vaddars.

are in debt. They keep the regular Hindu holidays. They rank among low class Hindus. A family of five spends about 12s. (Rs. 6) a month on food, and 8s. (Rs. 4) a year on dress. A hut or tent costs 2s. to 4s. (Rs. 1-2) to make. Their house goods are worth about 16s. (Rs. 8), a birth costs about 2s. (Re. 1), a marriage about £5 (Rs. 50), a girl's coming of age about 4s. (Rs. 2), and a death about 8s. (Rs. 4). They do not respect Brahmans or call them to their They act as their own priests on ceremonial occasions. ceremonies. They occasionally worship Durgava the goddess of cholera, and make pilgrimages to the shrine of Venkataramana at Tirupati. They have no spiritual teacher. They believe in sorcery witchcraft and soothsaying. As soon as a child is born its navel cord is cut, the mother is given a little liquor to drink, and the mother and child are put to bed. For four days the mother is fed on Indian millet gruel, and on the fifth pepper, ginger, ajván Carum ptychotis, coarse sugar, poppy seeds, cocoanuts, and oil are pounded and mixed together and made into balls. One of these balls and a little liquor are given to each of the relations and friends. The child is laid in a cradle and named by the midwife and from that day the mother is ready to work. marriages as a rule take place on Sundays provided the day does not fall on a new-moon or a full-moon. The day before the wedding the bride and bridegroom are rubbed with turmeric and oil five times, bathed in warm water, and made to sleep in a blanket booth with a girl eight or nine years old between them. On the wedding day the bride and bridegroom are again rubbed with turmeric, bathed in hot water, and made to sit on rice sprinkled over a blanket spread on a raised seat, and all present throw grains of red rice over the pair. On the same day a feast without flesh is given to friends and relations, and on the eighth day a feast with flesh is given to members of the caste and the wedding is over.1 The dead are buried. On the third day after a death a fowl is killed, its flesh and rice are cooked separately, taken to the burial ground with an earthen pot filled with water, and set on the grave as an offering to the dead. The person who carries these things on his return does not look behind him. In the evening of the same day the four men who carried the body to the burial ground are feasted and no further funeral rites are observed. The Vaddars are bound together by a strong caste feeling. Social disputes are settled by a majority of the caste; any one who disobeys their decision is put out of caste. They do not send their children to school, take to no new pursuits, and are a steady class.

· Beggars.

Beggars according to the 1881 census included thirteen classes with a strength of 6845 or 0.86 per cent of the Hindu population. The details are:

¹ In their marriage the Vaddars do not use any of the five articles generally used by Hindus, the mangala sutra or lucky thread, glass bangles, flowers, a bodice, and the báshing or marriage crown.

Dhdrwar Castes, Beggars, 1881.

Division.	Males.	Fe- males.	Total	Division.	Males.	Fe- males.	Total.
Bháts or Bards Bairagis Budbudkis Golfárs Gosavis Gondhalgárs Helavarus Kshetridásas	28 47 1879 57 77 132	7 12 54 1921 52 75 149 20	13 35 101 3800 109 152 281 45	Jogis Kābāligārs Masslarus Satānis Vaggayas* Total	520 15	254 540 8 2 out	523 1060 23 3 700

* Not shown in the census.

Population.
Beggars.

Chapter III.

Maratha Bhats.

Mara'tha Bha'ts, or Bards, are returned as numbering thirteen and as found in Bankápur, Hubli, and Ránebennur. They are found in large numbers in Maisur and occasionally come north to Dhárwár. They speak Maráthi and Telugu among themselves, and Kánarese with the people of the district. The names in common use among men are Hanmantráo, Nágojiráo, and Rámráo; and among women Durgábái, Jánkibái, and Narsubái. Their surnames are Jádhav. Kadam, Kamble, and Sinde. Their chief god is Vithoba, and their chief goddesses Ambábái, Durgava, and Yellamma. They have no divisions. Bhats are tall and fierce-looking with regular features. They live in dirty and ill-cared for thatched houses. They are great eaters and bad cooks. Their daily food is Indian millet bread and gruel, pulse, and vegetables, and their special holiday dish is flesh. They sacrifice sheep and fowls to their goddesses Durgava and Yellamma and eat their flesh. They use intoxicating drinks. The men wear a pair of long trousers, a coat hanging to the knee, a large turban, and a shoulder-kerchief. They hold a long spear in their right hand with five or six pieces of coloured cloth tied to the point. Their women dress like ordinary Marátha women. The men wear brass or copper finger rings and wristlets, and the women wear ear finger and nose rings, wristlets, and glass bangles. They are bold honest and even-tempered, but idle, unclean, and untidy. Their chief calling is to praise any one they meet, and beg for money and clothes. Their women do house work and occasionally sew the quilts, coats, and bodices which are used by the lower classes. Their calling is declining as few listen to their praises. They spend nothing on food. A hut costs them about £2 (Rs. 20) A birth costs them about 10s. (Rs. 5), a marriage about £5 (Rs. 50), a girl's coming of age about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, respect Brahmans, and call them to conduct their marriages. They keep the leading Hindu holidays. They worship the village goddesses Dayamaya and Durgava, and profess not to believe in sorcery, witchcraft, or soothsaying. When a child is born its navel cord is cut, and the mother and child are bathed and a few drops of castor-oil mixed with sugar are put in the child's mouth. On the fifth day the goddess Sathi is worshipped and a caste-dinner is given, and on the ninth the child is named and cradled. No further ceremony takes place till marriage. A day before the marriage a feast is given in honour of the family gods, and, on the wedding day, the bride and bridegroom are rubbed with turmeric and bathed, and are seated

Chapter III.
Population.

Beggars. Marátha Bháts. on a blanket spread on a raised seat. The village astrologer comes, repeats texts, and throws red rice on the pair, and women sing marriage songs and wave lighted lamps round their faces. Next day the couple is seated on horseback and taken to the temple of their goddess Durga where they offer the goddess a cocoanut, plantains, and betel and go home. After a death the body is seated, decked with new clothes flowers and ornaments, and taken in a car-shaped bier to the burial ground and buried. They are bound together by a strong caste feeling. Social disputes are settled by the castemen and any one disobeying their decisions is put out of caste. They send their children to school, take to no new pursuits, and are a falling class.

Bairágis.

Baira'gis, numbering about thirty-five, are beggars from Upper India. They stay in Dharwar and beg for a few days and move on to some other halting place. They are tall, strong, and well-featured. Their home speech is Hindustani.

Budbudkis.

Budbudkis, a class of Marátha fortune-tellers, are returned as numbering about one hundred and as found in Gadag, Kod, Navalgund, and Ron. They do not generally live in one place, but go from village to village telling fortunes and begging. They speak impure Maráthi. The names in common use among men are Bharmáji, Durgáppa, and Shiváppa; and among women Bharmakka, Nagava, and Savakka. Their common surnames are Garad, Ghavat, Parge, and Sindgan. Their family deities are Durgava, Udchava, and Yellava. A boy and a girl of the same surname cannot intermarry. A Budbudki may be known by his curious dress. He wears a loincloth, a long coat reaching to his ankles, a large and round turban. and two or three shouldercloths, and hangs all over his body several handkerchiefs to the ends of which brass bells and shells are tied. He holds in his right hand a small double drum to each side of which two strings each two inches long with a knob at the end are tied, and two hollow brass rings containing pebbles are fastened. The Budbudki turns the drum right and left in quick succession and the knobs strike the sides of the drum making a bubbling noise, and the pebbles in the hollow brass rings jingle together. On his chest is fastened the skin of some bright coloured bird and on his brow is a round sandal paste mark. The women dress like ordinary Marátha women. They are too poor to wear ornaments, except a magical silver ring which the men wear on the fourth finger of the right hand. The women wear ear and nose rings of brass and Most of them live in small dirty huts which are untidy and ill-cared for. They are great eaters and bad cooks. Their daily food is Indian millet bread, pulse, salt, and chillies, and their special holiday dish is flesh. They occasionally sacrifice sheep and fowls to their goddesses and to the tombs of Musalman saints. They are excessively fond of intoxicating drinks. Their fortunes are generally so full of nonsense and lies that Budbudki is a regular Dharwar term for a liar. They are idle, dirty, and untidy. Their main calling is to wander from house to house and village to village telling fortunes and begging. They rise about three in the morning, go to some ruined buildings or some large trees outside of the village, and consult the spotted owlet or pingala, whose notes they

understand. About four or five o'clock they come back into the village, and, standing at the door of each house and sounding their double drum, awaken the people and tell their fortunes. forecast sometimes includes one or two not unlikely misfortunes and the inmates growing uneasy come out and ask the Budbudki how the misfortunes can be avoided. He tells them what to do, receives a money fee, and wanders on from house to house till nine in the morning and then goes home. In the evening they also go about the streets, but do not pretend to tell fortunes and beg for alms like other beggars. Their calling is declining as few listen to their prophecies. They spend nothing on food. A hut costs about 10s. (Rs. 5) to build and their house goods are worth about 6s. (Rs. 3). A birth costs about 10s. (Rs. 5), a marriage about £8 (Rs. 80), a girl's coming of age about 4s. (Rs. 2), and a death about 10s. (Rs. 5). They are religious, respect Brahmans, and call them to conduct their marriages. Their other ceremonies are conducted by priests of their own caste who are called ganácháris. They keep the leading Hindu holidays but never go on pilgrimage to any shrine. They believe in sorcerers, witches, and soothsayers, and consult them when sickness or other misfortune falls on the family. Their religious rites and ceremonies are like those of Maráthás. If a Budbudki's wife runs away from her husband the ganáchári sends for the woman and her lover and asks the woman whether she wishes to return to her husband or to stay with her lover. If she prefers her lover the priest allows her to stay with him if she pays the priest £1 (Rs.10). When he receives the money the priest heats a nim twig, lays it on the tongue of the woman and of the man, and tells them to go. Should the woman prefer to stay with her husband she is allowed back on paying him 10s. (Rs.5). Child and widow marriage, polygamy, and divorce are allowed, and polyandry is unknown. They are bound together by a strong caste feeling. Social disputes are settled by their castemen and their priest and any one who disobeys their decision is put out of caste. They do not send their children to school, take to no new pursuits, and on the whole are a falling class.

Gollars, numbering about 3800, are a class of wandering beggars. They generally live in the skirts of towns and villages. Their home speech is Telugu, and they speak Kanarese out of doors. The names in common use among men are Bhima, Hanama, and Ninga; and among women Basava. Giriyava, and Ningava. have no surnames or family gods. They worship Hanuman, Hulgeva, and Yellamma. They include five divisions, Ambir Wandlu, Bindu Wandlu, Chesru Wandlu, Galla Wandlu, and Gobbar Wandlu, who eat together and intermarry. A boy and a girl of the same division cannot intermarry. dark, robust, and muscular. They have no fixed houses but generally live in small reed huts which can be opened folded and carried from place to place at pleasure. Their daily food is balls of ragi-flour and rice. They eat flesh and drink liquor whenever they can afford to buy them. The men wear a loincloth about six inches broad, a blanket, and a piece of cloth about two feet broad and four feet long to cover the head. The women wear a robe and

Chapter III.
Population.
Beggars.
Budbudkis.

Gollárs,

Chapter III.

Population.

BEGGARS.

Gollárs.

a bodice without passing the skirt of the robe between the feet. The men wear brass wristlets and finger rings, and the women brass ear and nose rings, bracelets, and glass bangles. They are dirty, idle, and hot-tempered, and some of them are given to stealing. Their main calling is begging. When they go begging they carry a round basket with their god a live cobra which they show to people and ask for alms. Some of them occasionally hunt and labour for hire, and others sell forest roots as cures for snake-bite. They spend nothing on food. A girl's marriage costs about 6s. (Rs. 3), and a boy's £1 2s. (Rs. 11) as he has to give the girl a dowry of 16s. (Rs. 8). They do not respect Brahmans or call them to their marriages. On some Tuesday or Friday, at any time during the year, they wash the images of Hanumán and Yellamma, and burn incense before them. To Hanuman they offer flowers, sandalwood paste, plantains, and cocoanuts, and to the goddess Yellamma they offer a goat. They rub turmeric powder on the brow of the goat, burn incense before it, cut its throat before the goddess, cook the flesh, offer it to the goddess, and then eat it and drink liquor. They have no spiritual teacher. They believe in sorcery, witchcraft, and soothsaying. child is born its navel cord is cut and the child is bathed. On the third day the images of Hanuman and Yellamma are worshipped, and the child is named and cradled by the midwife. When a marriage is settled, a shed with twelve posts is built in front of the bride's hut, and twelve earthen pots filled with water are kept at the posts, worshipped, and allowed to remain there five days. On the first day friends and relations are feasted on animal food in honour of their gods; on the second day the bride and bridegroom are rubbed with turmeric and bathed; on the third day a feast of sweet cakes and animal food is given; and on the fourth day the maternal uncles of both the bride and bridegroom tie yellow wristlets or kankans to the couple's right wrists, their brows are marked with turmeric powder and marriage coronets of oleander or bangoh leaves are fastened round their heads. The bridegroom ties the lucky thread round the bride's neck, betelnuts and leaves are served to the guests, and five women whose first husbands are alive sing marriage songs and call with a loud voice Vy bhagiamo that is May the bride and bridegroom prosper. On the fifth day caste people are feasted on flesh and liquor, and five women whose first husbands are alive send the bride and bridegroom into their room, and from that time they live together as husband and wife. When he sends the bride to her husband's house her father presents his son-in-law with a dog. Should the bride ever afterwards wish to visit her parents she is not allowed to go alone or even with some member of the bridgeroom's family. The husband himself must go with her, stay for three days and return with her. When a girl comes of age a branch of the lakki tree is fixed in the floor of one of the rooms in the house, and the girl is made to sit under the branch for three days, and on the fourth day she is bathed and is pure. No future monthly sickness is held to make a woman impure. The dead are buried. On the third day a Lingáyat priest is called, his feet are washed, three copper coins are placed on his right foot and two on his left, incense is burnt before them, and a few drops of the water in which the feet are washed are sipped by the members of the family. The priest gives them white ashes which they rub over their body and are purified. Gollár women are said almost never to commit adultery, and even for adultery a man may not divorce his wife. If a woman is taken in adultery a hole about two feet deep is dug in the ground, and the adulteress is made to stand in the hole. Thorns are spread round the edge of the hole and the woman is made to sit on the thorns with her feet in the hole, as if on a chair. A grindstone is set on her head and she is made to drink three small spoonfuls of cowdung The people of the caste lecture her and she mixed with water. is considered to be purified and her husband continues to live with her. Child marriage and polyandry are not allowed, but widow marriage and polygamy are practised. They are bound together by a strong caste feeling, disputes are settled by a majority of the caste people, and if their decision is not obeyed the offender is put out of caste. They do not send their children to school, take to no new pursuits, and on the whole are a steady class.

Gosa'vis are returned as numbering about one hundred, and as found in Dhárwár, Gadag, Hubli, Kalghatgi, Karajgi, Kod, and They speak Hindustáni. The names in common use among men are Hanmantpuri, Kisunpuri, and Rámpuri; and among women Champágiri, Chambeligiri, and Fulgiri. They have no surnames. They have four divisions, Bán, Bhárti, Giri, and Puri, all of whom eat together. Except a few Báns and Giris none are married. They are dark and lean. The men wear a red ochre loin and shouldercloth, and some of them wear only a loincloth about nine inches broad and two feet long. The women wear a white robe without passing the skirt back between their feet. They have no houses, and generally live in temples and monasteries. Their daily food is rice, Indian millet bread, pulse, and vegetables. They eat flesh and drink liquor to excess. Many wear a necklace of rudráksh Eleocarpus lanceolatus berries. They are quarrelsome, idle, intemperate, and Their main calling is to wander from house to house begging. They are idle and pass their time in talking, sleeping, and drinking bháng or smoking hemp and tobacco. Almost their only expense is 6d. (4 as.) a month for bháng. They pretend to be very religious and carry a ling with them and an image of Hanumán which they daily worship. They do not observe the sixteen sanskurs or sacraments. When a man wishes to become a Gosávi his head is clean shaved, he is anointed with oil and water, a Gosávi blows into his ears and says Om soham that is I am he, meaning that the soul and the universe are one, and he becomes a Gosávi. The dead are buried sitting. They are not bound together by a feeling of caste, take to no new pursuits, and on the whole are a falling

Gondhalga'rs are returned as numbering about 150. They are Maráthás by caste and are found in Dhárwár, Bankápur, Hángal, Karajgi, Kalghatgi, and Ron. They are votaries of the goddess Ambábhaváni or Tuljábhaváni of Tuljápur in Sátára. Three or four of them go begging daily, one of them with a double drum in

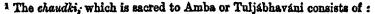
Chapter III.
Population.
BEGGARS.
Gollárs.

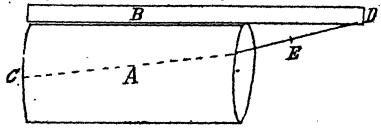
Gosavis.

Gondhalgárs.

Chapter III.
Population
BEGGARS.
Gondhalgars.

his hand, another with a one-stringed instrument called chaudki,1 a third carrying a torch, and a fourth a jolgi or wallet and a cowrie necklace. They sing and perform a gondhal or confused dance and extort alms in the name of the goddess Amba. In return they bless the givers and give them a pinch of turmeric powder called bhandar which is sacred to their goddess. When called by Marátha Bráhmans or Maráthás, they go to their houses and perform the gondhal ceremony for a whole night and are well fed and paid. Their home tongue is Marathi but they speak Kánarese with the people of the district. The names in common use among men are Hanmanta, Satváji, and Yelláppa; and among women Bharmava, Yellava, and Yemnava. Their surnames are Garod, Guru, Pachangi, and Wugde. Their family goddess is Amba or Tuljábhaváni of Tuljápur. They have no divisions. They are tall and strong. The men wear a loin and shouldercloth, a long robe, a cap covered with cowrie shells which are sacred to their goddess Amba, and shoes; and the women wear a robe and bodice like other Marátha women. They live in dirty and ill-cared for thatched houses. They are great eaters and bad cooks. Their daily food is Indian millet bread pulse and vegetables, and their special holiday dishes are sweet cakes and flesh. They are excessively fond of intoxicating drinks. The men wear brass ear and finger rings and necklaces of shells, and the women wear silver armlets and toe rings, and nose rings of brass wire and false pearls. They are hospitable and even-tempered, but dirty and idle. Their main calling is to beg and to perform the gondhal ceremony. Their calling is declining as people do not ask them to perform the gondhal so often as they used to do. When a gondhal is to be performed the Gondhalgars are sent for, fed, and paid for dancing and singing. The giver of the dance asks friends and relations. The Gondhalgars keep singing and dancing the whole night. About five in the morning one of the Gondhalis becomes possessed with the goddess, dashes from one place to another, jumps and dances with frantic





A, a hollow round cylinder of wood or metal, about a foot long and six or eight inches broad; B, a round and solid rod about twenty inches long and an inch thick fixed in the outside of the cylinder. One end of a catgut string is fixed at the point C in the centre of the inside of the cylinder A, and the other end is fixed to the end of the rod B at the point D. The Gondhali holds the cylinder under his left arm with the rod. Upwards he strikes the string at the point E, with a wooden pin held between the thumb and the two first fingers of the right hand. Every stroke gives a sound like pluck pluck and this serves as an accompaniment to the Gondhalis singing the praises of the goddess Amba or Tuljabhavani. The chaudki is worshipped by the votaries of the deity, with turmeric powder, redpowder, sandal paste, flowers, incense, lights, and food.

energy, and foretells future events. The people fall at his feet one by one, and each makes him a present of \(\frac{1}{4}\) anna (\(\frac{3}{6}d.\)). Gondhalgar then takes a lighted torch and touches his own body all over with the lighted end, but without doing himself any harm. He rubs the brows of all present with the turmeric powder offered to the goddess. At the close of the dance the leading Gondhalgár takes an unsewn bodice about eighteen inches broad and three feet long and holds two ends of it in front of the image of Tuljábhaváni and asks the hostess who will hold the other two ends. To hold the ends of the bodice is considered a high honour and the host and his wife discuss whether she or one of her daughters-in-law is to enjoy it. At last one of them is told to step forward and holds the two ends of the bodice between the Gondhalgar and herself. The bodice is then formed into the shape of a cradle, and in this cradle a wooden doll is laid and rocked for a few seconds. The Gondhalgar then takes the doll out of the bodice and lays it with a little turmeric powder in the girl's lap. He asks for her husband's name and she gives it, and after falling before the idol she retires. This ceremony ensures the birth of a son before the year is over. After this, the torches that were lit during the night and placed before the goddess are put out in a cup full of milk and clarified butter, and the gondhal ends at about half-past six in the morning. They rank among lower class Hindus; high class Maráthás consider it below their dignity to eat or marry with them; low class Maráthás sometimes eat at the same time as the Gondhalgárs, but sit at a distance. They generally live on food gathered by begging. A hut costs about £1 10s. (Rs. 15) to build. A birth costs about £1 (Rs.10), a marriage about £10 (Rs. 100), a girl's coming of age about 10s. (Rs. 5), and a death about 8s. (Rs. 4). They are very religious, respect Bráhmans, and call them to conduct their marriages. They keep the leading Hindu holidays and also the Musalmán Moharram. They go on pilgrimage to the shrines of Tuljábhaváni in Sátára and of Yellamma in Belgaum. They have no spiritual teacher. profess not to believe in sorcery, witchcraft, or soothsaying. On the birth of a child its navel cord is cut, and a dinner is given to caste people, and on the seventh day the child is named and cradled. No further ceremony is observed till marriage. A day before the wedding day the bride and bridegroom are rubbed with turmeric and bathed, and on the wedding day they are seated on a raised seat, five married women whose husbands are alive place four earthen vessels at the four corners of the seat, and pass a white thread five times round the vessels. The village astrologer comes and makes the bride and bridegroom stand opposite each other, the bride facing west and the bridegroom facing east. He holds a white cloth between them, repeats sacred hymns, and throws red rice on their heads. A caste feast is given and the ceremony is over. They burn their dead. Child and widow marriage and polygamy are allowed, and polyandry is unknown. They are bound together as a body. Social disputes are settled by castemen, and any one disobeying their decisions is put out of caste. Caste authority is steady. They do not send their children to school, take to no new pursuits, and are a falling class.

Chapter III.
Population.
BEGGARS.
Gondhalgars.

Chapter III.
Population.
BEGGARS.
Helávars.

Hela'vars are returned as numbering about 280 and as found all over the district. The founder of the class is said to have been a lame beggar who went about riding on a bullock. He held a bell in his hand, which he rang in front of every house in the street, repeated the genealogy of each family, and in return got alms. The present Helávars though not lame follow their founder's example. They speak Telugu at home and Kánareso The names in common use among men are Halgáppa, abroad. Mallappa, Nagappa, and Ningappa; and among women Barava, Hulgeva, and Nagava. They have no surnames. Their only family deity is the goddess Hulgeva whose shrine is at Hulgi near Hospeth in Bellári. They have no divisions. They are weak and dirty. The live in dirty ill-cared for houses with mud walls and thatched roofs. They are great eaters and bad cooks. Their daily food is Indian millet bread, vegetables, tamarind, chillies, salt, onions, and garlic. Their special holiday dishes are rice, milk, coarse sugar, and butter, and the flesh of sheep, pigs, or fowls. They are excessively fond of intoxicating drinks. The men dress in a loin and shouldercloth, a short coat, and a headscarf, and the women in a long robe and bodice without passing the skirt between the feet. Both men and women are dirty in their dress. They have no stock of clothes either for ordinary wear or for special occasions. The men wear copper or brass ear and finger rings, and the women besides ear and finger rings wear silver armlets and wristlets, glass bangles, and a nosc-pin They are honest, even-tempered, hospitable, and called mugti. orderly but idle and dirty. They rank with other beggars. They spend nothing either on food or on clothes. A house costs them about £2 10s. (Rs. 25) to build. A birth costs them about 2s. (Re. 1), a marriage about £2 10s. (Rs. 25), a girl's coming of age about 4s. (Rs. 2), a pregnancy about 2s. (Re. 1), and a death about 10s. (Rs. 5). They do not respect Brahmans and conduct their own ceremonics. They keep the leading Hindu holidays. They have no guru or spiritual teacher. They believe in sorcery witchcraft and soothsaying. As soon as a child is born a little coarse sugar mixed in castor-oil is dropped into its mouth and the navel cord is cut. The after-birth is put into an earthen vessel, sprinkled with redpowder, incense is burnt before it, and it is buried on the spot where the child was born. The mother and the child are bathed. On the fifth day the child is named and cradled. Two two-feet long sticks are struck into the ground about three feet apart, two ropes are tied to them, and a doubled piece of cloth is thrown over the ropes and made into a hollow, and the child is put into the cloth and rocked as if in a cradle. When a marriage is settled the bride and bridegroom are rubbed with turmeric, bathed, and made to sit on a blanket spread on a raised seat. Yellow threads are tied round the right wrists of the bride and bridegroom, grains of red rice are thrown over them, a feast is given to friends and relations, and the ceremony is When a girl comes of age she is bathed and made to sit apart for three days. On the fourth day she bathes and is considered pure. Births and deaths cause no impurity. Child and widow marriage and polygamy are practised, and polyandry is unknown. They are bound together by a strong caste feeling.

Their social disputes are settled by a majority of castemen and any one who disobeys the decision is put out of caste. They do not send their boys or girls to school, take to no new pursuits, and are a steady class.

or Devda'sas literally God Servants. Kshetrida'sas numbering about forty-five, are a class of wandering beggars who are found scattered over the district in small numbers. Their ancestors are said to have come from Kadapa in Madras to gain a livelihood. Their home speech is Kánarese. The names in common use among men are Bhimdás, Gangádás, Rangadás, and Timmádás; and among women Rangava, Timmi, Yengeramma, and Yenkava. They have no surnames. Their chief gods are Venkataramana of Tirupati in Madras, Máruti of Kadarmandali in Ránebennur, and Manjunáth of Udpi in Kánara. They have no divisions or family stocks. A Kshetridása may be known by his strange dress. A streak of white earth or gopichandan stretches from the tip of the nose to the middle of the brow, with a red mark in the middle of the white streak. He wears a turban of two long strips of cloth twisted together like a rope, a long coat falling to the knee, a pair of trousers, brass ear-rings containing false pearls, brass wristlets, and several necklaces made of sweet basil wood. He holds three or four handkerchiefs and a bundle of peacock feathers in his left hand, covers his back with the skin of a tiger or deer, and hangs round his neck a circular plate about three inches in diameter and a quarter of an inch thick, containing an image of the monkey god Hanumán, a leather wallet on his shoulder to receive the alms given to him, and a conch shell on his right shoulder. From his right wrist hangs a gong about a quarter of an inch thick and nine inches in diameter and in his right hand he holds a gunki or a round piece of wood about six inches long and one in diameter, to strike the gong. He goes from house to house, striking the gong, blowing the shell, repeating the names of his god, and begging alms. The Kshetridásas are like ordinary low class Dhárwár Hindus. They have no fixed homes. Their daily food is Indian millet bread, onions, garlic, salt, chillies, and vegetables, and their holiday dishes are the same but of better quality. They eat the flesh of deer, sheep, fowls, and fish whenever they can afford it, but do not use intoxicating drinks. The women dress in a robe and bodice without passing the skirt of the robe back between their The men wear brass ear and finger rings and the women brass car and finger rings and a nose ring called mugti. The dress of both men and women is very dirty. They are honest, even-tempered, hospitable, and idle. Their main calling is begging. They eat only from Bráhmans, Vaishyás, and Jains. They keep most Hindu holidays. Their house goods are worth about 4s. (Rs. 2). A birth costs about 2s. (Re. 1), a marriage about £5 (Rs. 50), a girl's coming of age about 4s. (Rs. 2), a pregnancy about 2s. (Re. 1), and a death about 10s. (Rs. 5). They respect Bráhmans and call them to conduct their marriage and other ceremonies. They make pilgrimages to Venkataramana at Tirupati. Their spiritual teacher is a Shrivaishnav Bráhman named Tátáchárya who lives at Benares, and to whom they pay homage whenever he visits them. They believo

Chapter III.
Population.
Beggass.

Kshetrilásas.

Chapter III.Population.
BEGGARS.
Kshetridásas.

in sorcery, witchcraft, and soothsaying. They do not keep the sixteen regular sanskars or sacraments. As soon as a child is bon its navel cord is cut and the after-birth is put in an earthen vess and buried outside of the house. The child is anointed with castor-oil and bathed in warm water. On the thirteenth day the chil is put into a cradle and named. Nothing further is done till marriage On the day fixed for marriage the bride and bridegroom are rubbe with turmeric, anointed with cocoanut oil, and bathed in warm water They are seated on a raised seat, and friends and relations ar invited to witness the ceremony. The village astrologer comes recites verses, and throws red rice on the pair. All present als throw rice, and betelnut and leaves are handed to the guests. the evening a marriage dinner is given and the ceremony is over They burn their dead. Birth, monthly sickness, and death caus impurity for nine, three, and five days. They are bound together by a strong caste feeling. Social disputes are settled by men of their caste, and, if the decision is not obeyed, the offender is put out of They do not send their children to school, take to no new pursuits, and are a falling class.

Jogerus,

Jogerus or Jogis, originally Yogis that is meditators, a class of singing beggars are returned as numbering about 520 and a found all over the district. They are said to be very old settlers, The names in common use among men are Bhaira, Durga, and Sidda; and among women Durgava, Nimbava, and Ranava. Their house-gods are Bhairu whose chief shrine is near Ratnágiri, and Siddheshvar. They speak a rough incorrect Kánarese as well as They have four divisions Bhairi-Jogis, Kindri-Jogis, Maráthi. Paman-Jogis, and Tawar-Jogis. The Bhairis and Kindris eat and marry with each other; the Tawars and Pamans are separate. appearance Jogis differ little from Budbudkis. They live in dirty ill-cared for thatched houses. They keep dogs, fowls, and sheep and sometimes oxen to carry the soft slate-like stone which they make into stone vestels. They are great eaters and bad cooks Their ordinary food is Indian millet bread, pulse, and vegetables and their special holiday dishes are sweet cakes made of wheat-flour coarse sugar, and pulse. They eat the flesh of hares, sheep, fowls fish, deer, and crabs, but not of cows or pigs. They drink liquor whenever they can afford to buy it. The men wear a loin and shouldercloth, a jacket, and a headscarf, and the women a robe and bodice without passing the skirt of the robe between the feet. Their supply of clothes is got by begging. The men wear ear and finger rings and necklaces of glass and brass beads, and the women ear, finger nose, and toe rings, glass beads, necklaces, and brass and glass bangles. They are even-tempered but dirty, idle, and dishonest Their chief calling is begging and they sometimes wander about the streets and carry off anything they can lay their hands on. sometimes pretend to be doctors and have a stock of roots for the cure of diseases. They also occasionally make and deal in fine smooth stone vessels. The stone for making these vessels is brought from the Kappat hills in Gadag. Their leading holidays are Dasara in September-October and Diváli in October-November. A family of five spends about 8s (Rs. 4) a month on food, and a hut costs about

8s. (Rs. 4) to build. Their house goods are worth about £1 (Rs. 10). A birth costs about 1s. 6d. (12 as.), a marriage about £4 (Rs. 40), a girl's coming of age about 4s. (Rs. 2), and a death about 8s. (Rs. 4). They respect Brahmans and call them to conduct their marriage ceremonies. Their funeral rites are performed by men of their own Their spiritual teacher or guru, Bhairinath by name, is said to live on the Badaganáth hills near Ratnágiri. They worship the village deities Dayamava and Durgava, and believe in witchcraft, sorcery, and soothsaying. As soon as a child is born they cut its navel cord and bathe the mother and child. On the fifth day the goddess Sathi is worshipped to secure long life to the child, and on the seventh day the child is named and cradled. A day or two before the marriage a sheep is sacrificed in honour of their family gods, and a feast is given to friends and relations. On the marriage day the bride and bridegroom are rubbed with turmeric, bathed, and made to sit on a raised seat. A Brahman priest and five women whose first husbands are alive tie yellow threads round the bride's and bridegroom's right wrists and throw grains of red rice on their heads. A caste feast is given and the ceremony ends. The dead are buried and on the fifth day cooked food is offered to the deceased at the grave. Child and widow marriage and polygamy are allowed and polyandry is unknown. They are bound together by a strong caste Social disputes are settled by men of the caste, and any one who disobeys the decisions is driven out. They do not send their boys to school, take to no new pursuits, and are a falling

Ka'ba'liga'rs are returned as numbering about 1060, and as found mostly in Dhárwár. They originally lived in Bellári and seem to have come to this district about fifty years ago. Their home speech is Telugu and they speak Kánarese with the people of the district. The names in common use among men are Bhimappa, Muuestra, and Nágestra; and among women Bhimava, Durgava, and Nágava. They have no surnames. Their family goddess is Yellava whose chief shrine is at Savadatti in Belgaum. They have no subdivisions. They are very dark. The men wear a turban, a waistcoat, and a loincloth. They gather human hair and plait it into ropes. They pass one rope of hair several times over their left shoulder and under the right arm and tie a second rope round the right arm and fasten to it several strips of coloured cloth. The women wear a robe and bodice like ordinary lower class Hindu women. wear a pair of iron wristlets on the right wrist, an iron armlet on the left arm, and rub red earth on their brows, shoulders, and eyes. The women wear brass ear and finger rings, bracelets and glass bangles, and tattoo their foreheads and hands. They are idle, hottempered, dirty, and ill-behaved. Their chief calling is begging for alms. If nothing is given them, they cut their arms and other parts of their body till blood flows, and threaten to kill themselves. Their reed huts cost about 2s. (Re.1) to build. A birth costs about 1s. (8 as.), a marriage about £1 (Rs. 10), a girl's coming of age and a pregnancy nothing, and a death about 2s. (Re. 1). They do not respect Brahmans or call them to their ceremonies. Their marriages are conducted by their spiritual teacher or guru and their other

Chapter III.
Population.
Brogars
Jogerus.

Káháligárs,

Chapter III.

Population.

BEGGARS.

Kábáligárs.

ceremonies by men of their own caste. Their spiritual teacher called Virupakshasvámi lives at Hampi in Bellári. They believe in witchcraft, sorcery, and soothsaying. When a child is born its navel cord is cut and the mother and child are bathed. The mother is given some liquor to drink, cocoa-kernel, coarse sugar, ginger, and pepper are pounded together and made into balls, and for three days one ball a day is given to the mother to eat. On the fifth day the mother is bathed on the spot where the after-birth was buried. She offers flowers turmeric and redpowder to water, and on the same day the child is named and cradled. When a marriage is settled they take the bride and bridegroom to Hampi where their spiritual teacher performs the marriage ceremony. They bury their dead, and, on the third day after death, carry a lighted earthen lamp to the burial ground, set it on the grave, and drink a little liquor. lamp is set on the grave they do not allow the Holayas to come near or look at it. Child and widow marriage and polygamy are practised and polyandry is unknown. They are bound together by a strong caste feeling. Their social disputes are settled by their spiritual teacher or guru. They do not send their children to school, take to no new pursuits, and are a falling class.

Másálars.

Ma'sa'lars are returned as numbering about twenty-three and as found in Kod and Navalgund. They generally live in the outskirts of towns and villages. They formerly lived at Penagondi and Hindupur in Madras and were driven to Dhárwár by the famine of 1876. The names in common use among men are Hanama, Bhima, and Ráma, and among women Durgava and Sangava. They have no surnames. They speak Telugu and an impure and indistinct Kánarese. They are wandering beggars and have no fixed home. Whenever they go to a village they put up in the house of a Mádigár or Máng for a week or two and then go to another village. They say that the Mádigárs are their parents and that they have every right to live on them. They have no cattle except one or two asses to carry their goods which include one or two blankets, a few earthen pots, one or two vessels, and a wooden ladle to turn the food while cooking. They are great eaters, using the flesh of sheep, fowls, dead bullocks, cows, buffaloes, and pigs. Their daily food is Indian millet bread, pulse, vegetables, and flesh, and their special holiday dishes are rice and sweet cakes. They are excessively fond of intoxicating drinks. The men wear short breeches, a waistband, a shouldercloth, a black or red turban, and shoes; and the women a robe and bodice. They are goodnatured, idle, and dirty. Their chief calling is begging especially from Mádigárs. Every Mádigár family feeds them and gives them $\frac{3}{6}d$. to $\frac{3}{4}d$. $(\frac{1}{4}-\frac{1}{2}a$.) in cash. They occasionally make a few coppers by practising rope-dancing, but they will not dance unless a goldsmith, a carpenter, or a blacksmith is present. Their food and clothing costs them nothing as they live by begging. Their house goods are worth about 4s. (Rs. 2). A birth costs about 6d. (4 as.) and a boy's marriage about £3 (Rs. 30) including £1 12s. (Rs. 16) given to the girl's parents. Their family god is Venkataramana of Tirupati, who is represented as a man with four hands, the upper right hand holding the chakra or discus and the upper left the shankha

or conch. Their family deity is Durgava the goddess of cholera. They worship no other Brahmanic gods, show no respect to Brahmans, and do not call them to conduct their ceremonies. They act as their own priests. They have no spiritual teacher and never make pilgrimages. As soon as a child is born, to keep off sickness its sides are branded with a red-hot needle in the form of a cross. the child's navel cord is cut, and the child and mother are bathed. On the third day a ceremony called irala is performed when a fowl is killed and its flesh eaten with other food, and on the fifth day the mother is ready to travel. When a marriage is settled, a day before the marriage the images of Durgava and Venkataramana are worshipped and a dinner called devaratra is given to members of the caste. On the wedding day the bride and bridegroom are rubbed with turmeric, bathed in hot water, and made to sit on a blanket spread on a raised seat. A long piece of thread is tied round five earthen pots and round the right wrists of the bride and bridegroom, grains of red rice are thrown over the pair, a marriage-dinner called dharinta is given to friends and relations, and the ceremony is over. When a woman comes of age she is made to sit by hereself for four days. On the fifth day she is bathed, and is made to touch either a bábhul tree or a rui Calotropis gigantea bush and is pure. This is repeated after every monthly sickness. Birth and death cause no impurity. The dead are buried. On the fifth day after a death a fowl is killed in honour of the dead and its flesh is eaten by members of the deceased's family. This fowl dinner is their only funeral rite. Child and widow marriage and polygamy are practised and polyandry is unknown. When a woman commits adultery her husband and caste people meet together, abuse her, lay a stone on her head, and tell her that she may go wherever she chooses. At the same time they allow women who have committed adultery to marry again in the caste. Social disputes are settled by men of the caste and any one disobeying their decisions is put out of caste. They do not send their boys to school. They take to new pursuits, but are a falling class.

Sata'nis, also called Chátális, Kadris, Samagis, and Suragis¹ are a small community of lower class Hindus who mark their brows with a narrow yellow upright line between two broad yellow lines. In Massur they are the priests of Holayás and are believed to be the followers of Chaitanya,² and probably they take their name either from Chaitanya or Satánana properly Sanátana one of Chaitanya's disciples. They neither marry nor eat with other castes. They eat from no one but a Bráhman. Their chief god is Venkataramana. They ask Bráhmans to perform their marriage and other ceremonies. They are tall, dark, and strongly made, and especially the women are clean and neat. They live on alms and do no work. They burn the dead. In Dhárwár it is very unlucky to meet a Satáni. Any one starting on business who meets a Satáni goes home, bows before his guardian, sits for a time, and makes a fresh start.

Chapter III.

Population.

Beggars.

Másálars

Satánis.

¹ Rice's Mysore, I. 344.

² Chaitanya was a Vaishnav religious reformer who flourished in Bengal about the beginning of the sixteenth century.

Chapter III.
Population.
Beggars.
Vággayás.

Va'ggaya's, devotees of the god Mailar, numbering about 700, are found chiefly in Ránebennur. Members of any caste including Bráhmans can become Vággayás. In social matters each Vággaya follows the rules of his own caste. The Dhárwár Vággayás differ from the Vághias of Jejuri in Poona in almost no respect except that in Dhárwár there is no class of female devotees corresponding to the Jejuri Murlis. When a man in pursuance of a vow wishes to become a Vággaya he goes and tells his wish to the pujári or chief worshipper of the god Mailar at Gudguddapur in Rånebennur. The pujári invests him with the dress of a Vággaya. takes him before the god Mailar, and gives him bhandar or turmeric From that day the devotee is called a Vággaya, barks at people like a dog, and begs for alms. The Vággaya can be known by his dress. He wears a blanket or kámbal, a loincloth or languti, and a headscarf or rumál. He ties one or two bells and pieces of tiger and bear skins round his waist, and hangs from one of his shoulders a deerskin bag to hold bhandar or turmeric powder. They give the powder to the people they meet and in return ask for money. They wear cowrie-shell necklaces and hold in their hands a brass or wooden bowl to receive alms. Brahmans who in fulfilment of a vow become Vággayás dress like other Vággayás but do not bark in public, and when the term of their vow is over they doff the Vággaya's dress and go home. Vággaya women wear the ordinary lower class Hindu robe and bodice. Both men and women are dirty and untidy. Most of them speak impure Kánarese and live in flat-roofed houses with walls of sun-burnt brick and mud. Their houses are dirty and ill-cared for. They are honest, goodnatured, and hospitable, but dirty and idle. Their main calling is to bark like dogs at all who come on pilgrimage to the shrine of the god Mailar and to beg for alms. They sometimes go begging all over the district. Their condition is declining as people are much less open-handed than they used to be in giving them alms. Their food charges are small, as they live on what they get by Their birth, marriage, coming of age, pregnancy, and death charges vary according to the caste to which each Vaggaya family belongs. The family god of the Vággayás is Mailar whose chief shrine is at Gudguddápur near Ránebennur. Both Bráhman and low class Vággayás respect Bráhmans, and call them to conduct their religious rites, and the Lingáyat Vággayás call Lingáyat priests. In rites and customs each Vaggava follows the rules of his Except Bráhman Vággayás all have some special Vággaya ceremonies. On the bright tenth of Ashvin or October-November a great festival with thousands of pilgrims is held in honour of the god Mailar at Gudguddapur. On these occasions the Vággayás calling themselves Kudariavarus or horsemen come to the temple trotting, jumping, and running like horses with large whips in their hands. Each gives himself several smart cuts with his whip at each cut calling Malhari's name and through the power of his name feeling no pain. On the same day some of the Vággayás take a long iron chain, fasten one end to a post in the temple, and the other end round their own neck, and giving a violent jerk snap the chain, by the might of Malhari. In Gudguddapur

five families of Holaya Vággayás have a round bar of solid iron about four feet long and one-third of an inch thick. One end of the bar is beaten flat till it is about an inch broad and is made very sharp. A member of the officiating family, for the families take the duty in turn, forces the sharp point of the bar into one of his calves and draws the bar through the hole. He next forces into the wound a round wooden peg about nine inches long and three quarters of an inch thick and draws it through to the other side. He binds the wound with a little bhandar or turmeric powder, and pierces his left palm near the wrist with an iron needle about a tenth of aninch thick and a foot long. The point of the needle is passed about two inches through the back of the hand. To the upper end of the needle a cross bar is fastened, and in the cross bar five upright bars are set. Each of the uprights is wrapped in a piece of cloth dipped in oil, and lighted, and the Vággaya standing at the entrance of Malhári's temple waves the five lights round the god. When the waving is over he falls before the god, pulls the needle from his left hand, and says that, through the might of Malhari, he feels no pain. These ceremonies are performed three times a year, on the bright tenth of Ashrin or October-November, on the dark ninth of the same month or about a fortnight later, and on the February-March or Magh fullmoon. On the dark ninth of Ashvin or October-November the god is taken to a spot at some distance from the temple, on a brass or wooden horse, with lighted torches, and drums and horns. Thousands follow the god throwing at him plantains, flowers, and dates, and Vággayás surround him barking at the top of their voice. On all the three festivals hundreds of women, especially of the lower classes, go to the temple to fulfil their yows. They bring a chanchi or manyroomed wallet with betelnuts, leaves, cloves, cardamoms, lime, and catechn and tell the pujári or chief worshipper that they have vowed to offer the bag and its contents to the god and that they wish to fulfill their vow. The ministrant demands from each a fee of 1s. (S as.), and, after receiving the fee, takes each of them one after the other into the idol's room and seats her on Malhari's cot. The woman offers the bag and its contents to Malhari, falls before him, and comes out. As this vow is a breach of the Hindu rule that a woman must give betel to no one but her husband strict women think it disgraceful and never make it. Vággayás seldom send their children to school, they take to no new pursuits, and on the whole are a falling class.

Depressed Classes according to the 1881 census included seven castes with a strength of 43,601 or 5.59 per cent of the Hindu population. The details are:

Dhárwar Depressed Classes, 1881.

	CLASS.		Males.	Females	Total	CLASS.	Males.	Females	Total.
Bhangis Dhors Holayás Aotgárs		• •	43 114 5561 589	41 162 6138 573	84 276 11,699 1162	Mådigårs or Mångs Mochigårs Samagars or Châmbhars Total	13480 118 1279 21,179	14133 110 1266 22,422	27,612 223 2545 43,601

Chapter III.
Population.
BEGGARS.

Vágyayás.

DEPRESSED CLASSES, Chapter III.
Population.

Depressed Classes. Bhangis.

Dhors.

Bhangis, or Scavengers, are returned as numbering about eighty-four and as found in Dhárwár, Bankápur, Hubli, and Gadag. They do not form a separate caste, and are either Musalmáns or low caste Hindus. They are tall swarthy and lean. They dress like Holayás, and, with regard to religion and customs, follow the rules of the caste to which they belong, that is the Hindus follow the practices of low caste Hindus and the Musalmáns of low caste Musalmáns.

Dhors, or Tanners, are returned as numbering about 270, and as found all over the district. They speak impure Kanarese. The names in common use among men are Deváppa, Lakshmáppa, and Sidáppa; and among women Basava, Chinava, and Nágava. They have no surnames. Their family god is Sankleshvar whose chief shrine is in the Nizám's country between Sholápur and Kalyán. They have three divisions, Dhors who tan skins and sew leather bags, Hindustáni Dhors who make horses grain-bags, reins, and all other leather work for horses and bullocks, and Budaligar Dhors who make budalis or dubbers that is leather vessels for oil and clarified butter. The members of these subdivisions neither eat together nor intermarry. They are dark strong and muscular and are like the local Holayas or Mhars. Their expression is unpleasing, the eyes are large, the nose high, the lips thin, and the cheeks gaunt. They live in small tiled or flat-roofed houses with walls of sun-burnt brick and mud. Their houses are very dirty and ill-cared for. daily food is Indian millet bread and vegetables, and on holidays they eat sweet cakes, flesh, and rice. The tanning Dhors eat flesh by stealth though they profess not. The harness and leather-jar Dhors eat flesh of all sorts except swine, which they avoid because it is said they were once Musalmans. They use intoxicating drinks. The men dress in a loin and shouldercloth, a headscarf, and shoes; and the women in a robe and bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women ear finger and nose rings, wristlets, and armlets. Their main calling is tanning leather and making leather bags. They work from morning till evening except two hours at noon for meals and rest, and are helped by their women in their work. A family of five spends about 16s. (Rs. 8) a month on food. A house costs about £10 (Rs. 100) to build and their house goods are worth about £1 10s. (Rs. 15). A birth costs about 10s. (Rs. 5), a marriage about £10 (Rs. 100), a girl's coming of age about 10s. (Rs. 5), and a death about £1 (Rs. 10). They are religious, respect Lingayat priests, and call them to conduct their religious ceremonies. Their family god is Basaveshvar, and they also worship the ling but do not wear it like other Lingayats. They keep the leading Hindu holidays especially Holi in April and Diráli in October-November. Their birth marriage and death ceremonies differ little from those of other Lingáyats. Girls are married either before or after they come of age. Widow marriage, divorce, and polygamy are practised, and polyandry is unknown. They are not bound together as a body. They do not send their children to school and on the whole are a falling class.

Holaya's, or Mhars, also called Jambus, numbering about 11,700,

are found all over the district. They have no memory of any former settlement and are probably one of the earliest classes in the district. They say that the first Holaya was named Jambu. that time men were wretched and unsafe, living on an earth that swayed on the face of the waters. Jambu made its foundations sure by burying his son alive. In reward for this sacrifice the earth was called Jambudvipa or Jambu's land. The Holayás hold that they were the first owners of the land and that they were ousted by the higher castes. Holayas generally live in the outskirts of Their home speech is Kanarese. The names towns and villages. in common use among men are Hanma, Ninga, Rudra, and Yella; and among women Basava, Hanmava, Durgava, and Udchava. Their family goddesses are Dayamava, Durgava, Udchava, and Yellava. They have two divisions Holayás and Potrájas. They are strong, dark, and dirty. They live in dirty ill-cared for flatroofed houses with walls of sun-burnt brick and mud. Their daily food is Indian millet bread, pulse, and chillies. They carry off dead cows, buffaloes, and bullocks from the villagers' cattle shed, eat their flesh, and return the skins to the owners who sell them to Mádigárs. They are excessively fond of liquor. The men wear a loin and shouldercloth, a jacket, and a blanket, and the women a robe and bodice without passing the skirt of the robe back between the feet. The men wear ear and finger rings, and the women finger rings, armlets, bracelets, and toe-rings. Those of their women who are Basavis or Lingáyat temple-women unlike married women wear rings on their great toes. They are hardworking, hospitable and orderly, but so dirty that Holaya is a common Dharwar term for a sloven. Their main calling is carrying dead animals, making sandals, and labouring, especially at harvest time. A family of five spends about 16s. (Rs. 8) a month on food. A house costs about £3 (Rs. 30) to build. A birth costs about 2s. (Re. 1), a marriage about £3 (Rs. 30), a girl's coming of age about 4s. (Rs. 2), and a death about 10s. (Rs. 5). Most of them neither worship Bráhmanic gods nor call Bráhmans to conduct their marriages. They keep the Hindu holidays of Holihunvi and Ugádi in March-April, Nágpanchami in July-August, Dasara in October-November, and Diváli in November. They make pilgrimages to the shrine of Yellamma in Belgaum. Their spiritual teacher or guru is a man of their own caste named Balbasappa who lives in Bellári. They are great believers in sorcery, witchcraft, and soothsaying. When a child is born its navel-cord is cut and buried in the front yard of the house. A stone is laid over it and the mother and child are bathed upon the stone. On the fifth day Indian millet is cooked into thick gruel, a small stone is kept in the lying-in room, and round the stone five lumps of Indian millet gruel are set on a piece of cloth which has been dipped in turmeric powder and water. The five lumps of porridge and a little coarse sugar are served in five dishes, and five women whose first husbands are alive are asked to eat the food. On the ninth day five sorts of grain, Indian millet, togari Cajanus indicus, hesru Phaseolus mungo, wheat, and madki Phaseolus aconotifolius are boiled together and seasoned in a little oil, and five women whose first husbands are alive are called and fed

Chapter III. Population.

Depressed Classes. Holayás. Chapter III.

Population.

Depressed
Classes.

Holayás.

with Indian millet gruel and coarse sugar. The women lay the child in a cradle and sing. On the twenty-ninth day the child is taken to the temple of their goddess Udchava and is laid before the idol. The pujári or ministrant cuts a betel leaf in the shape of a pair of scissors, and with them goes through the form of cutting the child's hair whether it is a boy or a girl. They ask the ministrant to find from the goddess what name should be given to the child. The ministrant consults the goddess and sits quiet for a while. He then suddenly utters a name and that name is given to the child. Flowers, turmeric, and redpowder are laid before the goddess and all go home. day or on some future day the hair on the child's head is cut and no further ceremony is performed till marriage. When a marriage is settled, the bride is given a dowry of £2 (Rs. 20) and sugar and betel are handed among her friends and relations. On the wedding day the bride's party go to the bridegroom's. If the bride is of ago she goes walking; if she is not of age she is taken on a bullock. they draw near the boundary of the bridegroom's village his party go and meet them with two plates, one with lighted lamps and the other with burning incense. Both plates are waved round the bride and her party. The bride's party also wave lamps and incense round the bridegroom's party and they come together to the bridegroom's. The bride and bridegroom are seated in the marriage shed on a blanket, a Chelvádi or Lingáyat emblem-bearer repeats marriage-verses, throws red rice on the bride and bridegroom, and ties the lucky thread round the bride's neck. A feast is given to friends and relations and the ceremony is over. When a girl comes of age she is made to sit by herself for three days and is fed on boiled rice mixed with cocoakernel scraping and coarse sugar. On the fourth day she is taken to a bábhul tree and made to touch it with her right hand. - She then comes home, bathes, and is purified. When a married person dies the body is carried sitting in a strong cloth to the burial ground and placed in the grave. When it is seated in the grave the Chelvadi or Lingayat emblem-bearer washes its face, rubs it with white ashes, puts a small piece of gold worth $1\frac{1}{2}d$. (1 a.) into its mouth, and fills the pit with earth. The body of a Basavi or female devotee is buried with the same rites as the body of a married woman. The unmarried dead are taken to the grave in a lying not in a sitting posture and buried without washing the face, applying white ashes, or putting a piece of gold in the mouth. After a birth or a death the family are impure for eleven days. When a Holaya has one or more sons, besides daughters, he gives his daughters in marriage to proper bridegrooms. When he has no sons he makes one of his daughters a Basavi and keeps her in his house to look after To make a Holaya girl a Basavi, on a lucky day the girl is taken to the temple of the goddess Udchava with flowers, cocoanuts, and betelnuts and leaves. The pujári or ministrant of the goddess worships the idol, ties a lucky thread of gold and glass beads round the girl's neck, rubs her brow with white cowdung ashes, and tells her that she has been made a Basavi and from that day is free to act the courtezan. From that day she maintains her parents and attends on the idol on great days and drives off the flies from the idol with a fan. After the death of her parents she inherits their property, and her daughters are given in marriage into good families. The Helayas are bound together as a body. Their social disputes are settled by their headman, the Chelvádi, and some leading men of the caste, and any one who disobeys their decision is driven out. Caste authority is steady among them. They do not send their children to school, take to no new pursuits, and are a steady class.

Potrájás or Buffalo Kings, are a class of Holayas. The story of the origin of their name is that their ancestor, in the disguise of a Bráhman, became the husband of Dayamava an incarnation of the great goddess Lakshmi. They lived together for several years and had children. At Dayamava's request the Holaya brought his mother to their house. As they were eating some of Dayamava's sweetmeats the mother said to the son, How like this is to a roasted buffalo tongue. Dayamava finding how she had been deceived and degraded, burnt her house, slew her children, and pursuing her husband who had taken the form of a buffalo killed him. The descendants of the husband are called Potrájás that is Buffalo Kings. They are a small body and are found in only a few villages. On Dayamava's fairs which last for eight days the Potrájás are sent for. On one of the eight days, several male buffaloes representing the Holaya who married Dayamava and a number of sheep representing his children are slaughtered before the deity. The officiating Potrája tears open the throat of a lamb with his teeth, and drinks its blood. On the last day of the fair, in a state of stark nakedness, he carries cooked rice on his head all round the village, throwing away a little. and sloughtering a sheep at each of its corners. On his return he receives a large share of the slaughtered buffaloes and sheep. In other respects Potrajás do not differ from Holayas.

Kotega'rs are returned as numbering about 1162, and as found in Dhárwár, Bankápur, Hángal, Karajgi, and Ránebennur. They generally live in the outskirts of towns or villages. They speak impure Kánarese. The names in common use among men are Chanjiyáppa, Hanmáppa, and Ninga; and among women Nili and Santangi. They have no surnames and no divisions. They are like Holayas, dark strong and muscular. They live in small dirty and all-cared for straw huts. Their daily food is Indian millet bread, Indian millet gruel, and a few of the poorest vegetables, and even these they get by begging. They eat all animal food and drink all intoxicating liquors. The men wear a loin and shouldercloth, a headscarf, and a blanket. The women wear a robe without passing the skirt between the legs. They are idle dirty and quarrelsome. Their main calling is begging, and they occasionally work for hire. As a caste they rank with Holayas and Madigars. As they live by begging their food costs them almost nothing. They have no spare dress. A birth costs them about $1\frac{1}{2}d$. (1 a.), a marriage about £2 (Rs. 20), and a girl's coming of age, a pregnancy, and a death nothing. They have no family gods and no priests. They do not respect Bráhmans, Lingáyats, or other priests, and do not callChapter III.

Population.

Depressed
Classes,

Potrájás.

Kotegárs.

¹ A detailed account of these village rites is given in Appendix A.

Chapter III.
Population.

Depressed
Classes.

Kotegárs.

them to conduct their marriages. They act as their own priests during their ceremonies. They have no spiritual teacher and no holidays. They believe in sorcery, witchcraft, and soothsaying. When afflicted with any disease or misfortune they go to a Lingávat priest in the village of Kutnasanahalli in Hángal and ask his advice. He gives them an enchanted lemon to eat and some ashes to rub over their body, and the Kotegárs believe that cating the lemon and rubbing the ashes remove their sickness and other misfortunes. In their marriages the bride and bridegroom are seated on a blanket spread on a raised seat. The caste people meet and call in a loud voice Dhari yeritu may that is The marriage has taken place. A few grains of yellow rice are thrown over the bride and bridegroom, a caste dinner is given, and the ccremony is over. The dead are buried and no funeral ceremonies are observed. They are bound together as a body, and their social disputes are settled by men of their caste. Caste authority is said to be growing weaker. They do not send their children to school, take to no new pursuits, and on the whole are a falling class.

Mádigárs.

Ma'diga'rs or Ma'ngs are returned as numbering about 27,500 and as found all over the district. They do all the leather work required for field purposes, and, in return, are allowed to take away all cattle that may die in husbandmen's houses and receive gifts of grain during harvest time. They generally live on the outskirts of villages and towns. Their home speech is Kánarese. The names is common use among men are Durgáppa, Fakiráppa, Hanmappa, and Yella; and among women Dayamava, Durgava, Lingava, and Yellava. They have no surnames, and are known by the names of the towns and villages in which they They have two divisions Mádigárs and Asádarus. They are strong, dark, and ugly. They live in dirty ill-cared for flat-roofed houses with walls of mud and sun-burnt brick. They are great eaters but bad cooks. They eat the flesh even of dead cattle, and are excessively fond of intoxicating drinks. The men dress in a loin and shouldercloth, a coat, a headscarf, and a blanket; and the women in a robe and a bodice without passing the skirt of the robe between their feet. They use local hand-woven cloth. The men wear ear and finger rings and waistchains, and the women car and nose rings and silver armlets. They are hardworking, but dirty, dishonest, quarrelsome, and ill-behaved. Their main calling is working in leather. They work from morning till evening except two hours for meals and a midday rest. The articles they make are always in good demand, but their intemperance and the large sums they spend on marriage and other ceremonies keep most of A family of five spends about 12s. (Rs. 6) a them in debt. month on food. A house costs them about £2 10s. (Rs. 25) to build, and the value of their house goods is about £1 (Rs. 10). Λ marriage costs them about £6 (Rs. 60), and a death about 6s. (Rs. 3). They are religious. Their family gods are Mailar and Hanmant, and their family goddesses are Dayamava, Durgava, and Their chief hoildays are Holihunvi and Ugadi in March-April, Nagpanchami in August-September, Dasara in October-November, and Diváli in November. They have no guru or

They profess not to believe in sorcery, spiritual teacher. witchcraft, or soothsaying. On the fifth day after a birth, a feast is given to friends and relations, and on the seventh day the child is named and cradled. No other ceremony is performed till marriage. When a marriage is settled they ask the village astrologer to find out a lucky day, and give him a small present for his trouble. On the lucky day the bride and bridegroom are seated on a low wooden stool, a thread is passed five times round them, they are rubbed with oil and turmeric and are bathed. The ends of their robes are tied together, they are seated on rice spread on a raised seat, a piece of cloth is held between them, and grains of red rice are thrown over them. A large dish filled with food and sweet eatables is brought, and the bride and bridegroom and five other women whose first husbands are alive are made to sit near the dish and eat together out of it. The bride and bridegroom are taken on horseback to the temple of their family goddess, where they worship the goddess and return home. Next day a feast is given to men of the caste and the ceremony is over. The dead are either burnt or buried, and on the fourth day after death a sheep is killed, its flesh is offered to the spirit of the dead, and a feast is given to men of the caste. Social disputes are settled by a majority of caste people, and any one who disobeys the decision is driven out. They do not send their children to school, take to no new pursuits, and are a steady class.

As inacts are a class of Mádigárs who are set apart to dance before and abuse the goddess Dayamava during her fair. When they dance, both men and women wear long, curiously worked, and dirty gowns. The women dance and the men hang large drums round their necks, beat them and make a horrible noise. One of them called Ranigia is supposed to represent the brother of the Holaya who married Dayamava under false pretences and was killed by her. This man stands before the idol, beats his head and chest and shows all signs of grief, and curses and loads the goddess with the vilest abuse. A very few families of this class live scattered over different villages. They are called to the different fairs of Dayamava and Durgava, and are paid for their labour. They eat but do not marry with other Mádigárs.

Mochiga'rs, or Shoemakers, are returned as numbering about 220 and as found in Dhárwár and Gadag. They make new shoes for Bráhmans, Lingáyats, and Musalmáns. They do not make sandals, or sit by the road-side and mend shoes, which they say is the work of a Samágár the Kánarese term corresponding to the Maráthi Chámbhár. They do not make ropes or other leather articles used in field work. The names in common use among men are Gangáppa, Gireppa, Nimbána, Sankáppa, and Yelláppa; and among women Ningava, Nilava, Nágava, Takava, and Yelláva. They have neither surnames, divisions, nor family stocks. A Mochigár may be known by his dirty clothes and oily face. The women are still more dirty and ugly. In size, shape, and strength Mochigárs are like Mádigárs or Samagárs. They are black-skinned and their expression is dreamy. They speak an incorrect and indistinct

Chapter III.
Population.
Depressed
Classes.
Mádigars.

Asadarus.

Mochigárs.

Chapter III.
Population.
DEPRESSED
CLASSES,
Mochigárs.

Kánarese. They are dirty in their habits, idle, and quarrelsome. Most live in dirty, untidy, flat-roofed houses. They keep cows sheep buffaloes and other domestic animals. They are great eaters but not good cooks. Besides grain they eat animal food especially on holidays. They eat the flesh of hare, deer, and sheep which have been killed by the Musalman Mulla. They never eat beef, pork, or the flesh of animals which have died a natural death. They are extremely fond of intoxicating drinks. The men wear a loin and shouldercloth, a jacket, and a headscarf; and the women a robe and bodice. Their holiday dress does not differ from their every-day dress either in form or material, and they have no store of clothes either for daily use or for special occasions. The men wear a lock of hair on the crown of their head. The women either tie the hair in knots or wear it in braids. The men wear brass ear and finger rings and silver waistchains. The women wear silver armlets, waistbands, and earrings, and a gold nose-pin called mugti. Their main calling is to sew new shoes and weave coarse cloth. Their women help in their work. Their craft is flourishing as both their shoes and their cloth are in great demand. In spite of this they are in debt. Their caste position is low, though they hold themselves higher than Holayas, Samagars, and Mádigárs, and do not eat from their hands. They eat from the hands of Bráhmans, Lingáyats, Maráthás, Jains, and other high classes but not from any low class Hindus, Musalmans, or Christians. Almost all classes hold aloof from Mochigárs. Except at harvest time when they take to field work the Mochigárs work at shoe-making and weaving. They keep the regular Hindu A family of five spends 14s. to 16s. (Rs. 7-8) a month on food and £1 10s. (Rs. 15) a year on dress. A birth costs about 8s. (Rs. 4), a marriage about £10 (Rs. 100), a girl's coming of age about 4s. (Rs. 2), a pregnancy about 12s. (Rs. 6), and a death about 8s. (Rs. 4). Their chief house god is Basavana. They respect Bráhmans and call them to their marriages, but have no family priests. They make pilgrimages to the shrines of Máhámálesha near Bádámi in South Bijapur and of Gonepa at Homigi on the frontier of the Madras Their spiritual teacher is a Lingáyat priest, to whom Presidency. they show great respect when he visits their villages. The teacher in return blesses them and prays for their welfare. They believe in sorcery, witchcraft, and soothsaying. Their special reremonies are putting a new-born child into the cradle, marriage, a girl's coming of age, pregnancy, and death. On the thirteenth day after a birth a few friends are called and the child is laid in the cradle and named, and friends and relations are feasted. The impurity caused by a birth or a death lasts thirteen days. Bráhmans are called to their marriages, repeat verses, and throw red rice on the bride and bridegroom, and in return are paid 2s. to 10s. (Rs. 1-5). The other ceremonies of rubbing the bride and bridegroom with turmeric, tying on the marriage coronet or bashing and the chaplet of flowers, and giving feasts are the same as among other low classes. When a girl comes of age she is made to sit by herself for four days. On the fourth day she is anointed and bathed and on the same day or

on some future day she is sent to live with her husband. They bury their dead and give the usual funeral feasts to friends and relations. Child and widow marriage and polygamy are practised. and polyandry is unknown. They divorce their wives for adultery and divorced women remarry. The Mochigars have their own barbers, as ordinary barbers will not shave them. They are bound together by a strong caste feeling, minor disputes are settled by caste people, and more serious questions are referred to the Lingávat teacher Sidayanavaru who lives at Sirsangi near Rámdurg. If his decision is not obeyed the teacher puts the offender out of caste by issuing an order to the caste people to hold aloof from him. If the teacher is paid a small sum as a fine he drops cowdung ashes and holy water into the offender's mouth and allows him to come back. Caste authority is strong and steady among them. They do not send their children to school, and take to no new pursuits; still they are a rising class.

Samaga'rs or Cha'mbha'rs, are returned as numbering about 2500 and as found scattered all over the district. They generally live on the outskirts of towns and villages. The names in common use among men are Devana, Dhankara, Dyámana, and Fakiráppa; and among women Bálava, Nágava, Ránava, Shankarava, and Their only surnames are place names. The names of their gods are Hanumán, Virabhadra, and Basavána. They have neither divisions nor family stocks. They speak impure Kánarese. Samagárs are dirty, ugly, and like Holayas and Mádigárs. They are quarrelsome, drunken, and untruthful. Their main calling is to make shoes and sandals and to mend old shoes. They tan the skin of sheep, but not of cows or of buffaloes. They earn about 6d. (4 as.) a day. Their craft is steady. They are perhaps the lowest of local Hindus still they do not eat from the hands of Jingars. barbers, Holayas, or Kotegars. Their busy seasons are Holihunvi in March-April, Nágpanchami in August-September, and Dasara in October-November. During the rainy season they have little to do. They keep the leading Hindu holidays A family of five spend about 16s. (Rs. 8) a month on food and £1 (Rs. 10) a year on clothes. A house costs about £5 (Rs. 50) to build and 1s. (8 as.) a month to rent. A birth costs about 4s. (Rs. 2), a girl's marriage about £2 (Rs. 20), and a boy's £2 8s. (Rs. 24), on account of the girl's dowry, a girl's coming of age, and a pregnancy about 6s. (Rs. 3) each, and a death about 8s. (Rs. 4). They are religious and respect both Bráhmans and Lingáyats. They call Bráhmans to conduct their marriages, and Lingávats to conduct their funerals. They worship both Bráhman and Lingáyat gods and keep the leading Hindu holidays. They make pilgrimages to the shrine of Yellamma, who is represented as a woman sitting on a raised seat with weapons in her hands. They have few ceremonies except at marriages and deaths. Child and widow marriage, polygamy, and divorce are allowed, but not polyandry. They are bound together by a strong caste feeling. Social disputes are settled by men of the caste. They do not send their boys or girls to school, take to no new pursuits, and are a steady class.

Chapter III.

Population

Depressed
Classes.

Mochigárs.

Samagárs.

Chapter III.
Population.
Musalmáns.

According to the 1881 census Dhárwár Musalma'ns numbered 100,600 or 11.39 per cent of the population. They include thirty-four classes of whom nine intermarry and are separate in little more than name and twenty-five are separate marrying among themselves only. The nine classes who intermarry belong to two groups, four general classes Syeds, Shaikhs, Moghals, and Patháns, and five local classes Attárs perfumers, Bedars servants, Bangarhárás bracelet-makers, Kaláigars tinsmiths, and Manyárs dealers in hardware. Of the twenty-five separate communities who marry among themselves, seven are of outside and eighteen are of local origin. The seven of outside origin are Bohorás and Mehmans from Gujarát, Mukeris and Soudágars from Maisur, and Labbeys from the Malabár coast all traders, Gáo Kasábs beef butchers from Maisur, and Kákars labourers and pony-keepers from Afghanistán. Of the eighteen separate communities of local origin, two, Bágbáus fruiterers and Támbolis betel leaf sellers, are tradesmen; two, Kanjars and Pendhárás, are dealers in animals and labourers; seven, Gaundis stone-masons and bricklayers, Lád Kasábs mutton butchers, Momins weavers, Patvegars silk tassel-twisters, Pinjárás cotton cleaners, Rangrez dyers, and Saikalgars armourers, are craftsmen; five, Bhatyárás cooks, Dhobis washermen, Hajáms barbers, Halálkhors scavengers, and Pakhális watermen, are servants; and two, Kasbans dancing girls and prostitutes, and Táschis kettle-drummers, are musicians.

Of the four general classes, Syeds, Shaikhs, Moghals, and Patháns, the Moghals are a very small body. Each of the other three includes large numbers found in all parts of the district. They are chiefly local Hindus, the descendants of converts, who, on embracing Islám, took the title of the Syed, Shaikh, or Pathán, under whom they were converted. At the same time almost all claim, and probably most of them claim with right, some strain of foreign or Upper Indian blood. So far as they can be traced the foreign elements seem to be the same as those noted in the Statistica. Account of Belgaum, Arab traders and merchants who sought employment at the courts of Hindu rulers; Turks and other Upper Indians who conquered the Deccan at the close of the thirteenth century; Abyssinian, Arab, Persian, Afghan and Turk settlers during the supremacy of the Bahmani 1347-1490, Bijápur 1489-1686, and Moghal 1686-1723 rulers, and finally, and, to a larger extent than in Belgaum, a foreign element from the court of Haidar Ali and Tipu of Maisur 1760-1800. As in Belgaum and other parts of the Bombay-Karnátak the conversions from Hinduism are almost all ascribed either to Aurangzeb (1686-1707), or to Haidar and Tipu of Maisur (1760-1800). The well known zeal of these rulers for the spread of Islám seems in many instances to have gained for them a credit which belongs to early Arab missionaries if not to the Bahmanis (1347-1490) or to the Bijápur

From materials supplied by Mr. Syed Daud, Bombay Municipality.

kings (1489-1686). Except a few villagers and craftsmen who talk Kanarese at home, the home speech of the members of the four general classes is Hindustáni, with a large mixture of Kánarese and Maráthi. Of the special communities the Mehmans and Bohorás from Gujarát speak Cutchi and Gujaráti, and the Labbeys of the Malabár coast Malayalam. The members of the main body of Musalmans, and to some extent of the separate communities of foreign origin. have more marked features than the local Hindus. The men are larger-boned and sharper-featured, fairer, and with lighter eyes; the women show fewer traces of foreign blood and in many cases can hardly be known from Hindus. Musalmans of all classes take two meals a day, breakfasting about ten in the morning on millet or wheat bread pulse and vegetables, and some of the rich on mutton: and supping about eight in the evening on rice, millet bread, and pulse or vegetables. Some rich townspeople and most village husbandmen take three meals, the rich taking a breakfast at seven of wheat bread, eggs, milk, and tea; a midday dinner of rice or wheat bread and mutton with vegetables; and a supper at eight at night of rice or bread and pulse or mutton-curry. Husbandmen take a cold breakfast about seven, a midday meal in the fields, and a supper on reaching home in the evening. All of the meals are of millet bread and pulse with a good allowance of chillies and tamarind. Among the rich the chief dish at public dinners is biryani a dish of rice and mutton prepared with clarified butter and saffron, and jirda a sweet dish of rice, sugar, almonds, clarified butter, and saffron, and ráita a dish of curds, mustard, and salt. These dinners cost £3 to £5 (Rs. 30 - 50) for every hundred guests. Among the poor public dinners consist of puláo a dish of rice and clarified butter, and dálcha a curry of pulse and mutton, and cost £2 to £2 10s. (Rs. 20 - 25) for every hundred guests. The richer families eat mutton daily and most manage to get either mutton or beef on special occasions and on the Ramzán and Bakar Id festivals. All like mutton better than beef, and many local communities will on no account touch beef. Buffalo meat is eschewed by all. Fowls and eggs though not eaten daily are used by the rich once or twice a month; and by the poor on special occasions whenever they can afford them. Fish though scarce is used by almost all Musalmans without objection. The staple food of all classes is grain and pulse. Among the rich and well-to-do, perhaps about twenty per cent of the whole, the grain in ordinary use is rice, wheat, millet, and pulse; and among the poor millet and pulse. The monthly food charges of a rich Musalmán family of five vary from £2 to £4 (Rs. 20-40), of a middle class family from £1 to £1 10s. (Rs. 10-15), and of a poor family from 8s. to 14s. (Rs. 4-7). Water is the usual drink, but some rich and well-to-do families, since the establishment of British rule, have introduced the use of tea and coffee. In spite of the religious rule against its use intoxicating liquor is largely drunk. On account of their cost imported wines and spirits are little used; the two chief drinks are local, tadi or sindi the fermented juice of the date, and either mahura Bassia latifolia, or date spirits. Most craftsmen and many

Chapter III.
Population.
Musalmáns.

Chapter III.

Population.

Musalmáns.

members of the main body of Musalmans are much given to the uso of liquor. Of other stimulants and narcotics tobacco is smoked by almost all, snuff is used by some of the old and by the trading classes. and opium is occasionally used by some craftsmen, servants, and religious mendicants who also smoke gánja or hemp. The dress of the main body of Musalmans of Dharwar, Hubli, and Savanur is much better and more strictly Musalman than the dress of the Musalmans of other parts of the district. It includes a delicate white cotton turban wound in correct Musalmán fashion, a long white coat, a long shirt, a waistcoat, and a pair of loose trousers. Some of the Masháyaks or Pirzádás that is Saints' sons, and Syeds dress in a long Arab tháya for out-of-door use, and an overcoat either of silk, broadcloth, or fine muslin. Their women generally dress in the Hindu robe and bodice covering the back and fastened in a knot in front with short tight sleeves ending above the elbow. Some women of high families occasionally dress in tight trousers and cover the upper part of the body with a scarf or odni. All other communities of Musalmáns dress in Hindu style. The men wear in-doors a headscarf, a shirt, and tight trousers, or a waistcloth. Out-of-doors on all occasions if rich, and on festive occasions or holidays if middle class, they dress in a Marátha turban, a coat, and a pair of shoes. The whole of their every-day dress is made of cotton, but, for festive or ceremonial occasions, almost all have a silk turban and a silk-bordered waistcloth and a silk handkerchief. The value of a rich man's wardrobe may be estimated at £6 to £8 (Rs. 60-80). and his yearly expenditure on clothes at £2 to £3 (Rs. 20-30). In the case of a middle class or of a poor man the wardrobe is worth £2 to £5 (Rs. 20 - 50), and the yearly expenditure on clothes amounts to £1 to £1 10s. (Rs. 10-15). Once or twice a vear. either on the Ramzán or Bakar Id festivals, Syeds generally colour their turbans and headscarves green, and others dye their turban's red, crimson, or yellow. All women wear in-doors the full Marátha robe or sári in the same way as Hindu women, except that they wear it without tucking the skirt back between the feet. They also wear a tight-fitting short-sleeved bodice or choli, covering the back and the ends knotted in front under the bosom. The exceptions to this style of dress are the Bohora and Soudágar women, who wear a gown or petticoat called lahenga of chintz or silk falling to the ankle and gathered in plaits round the waist. the upper part of the body being dressed in a scarf or odni two and a half to four yards long. Except Bohora women, who put on a large silk or chintz cloak that shrouds the whole face and figure, they have no special out-door dress, but go out wrapt in a white cotton sheet with the face uncovered. Many women of the four general classes, perhaps thirty or forty per cent of the whole, keep the zanána or seclusion rules; the rest appear in public in the same dress which they wear in-doors. Except on festive or ceremonial occasions almost all dress in cotton, save a few Mehman and Bohora women who always wear silk trousers or petticoats and scarves. The festive or ceremonial dress consists of one or two sets of silk or half-silk half-cotton, or embroidered robes and bodices, which

Chapter III.
Population.
Musalmans.

are given by the husband at marriage and generally last during the whole of the woman's life. A rich woman's ceremonial dress is worth £10 to £30 (Rs. 100-300), and a middle class or poor woman's £5 to £8 (Rs. 50-80). The yearly cost of dress to a rich woman is £1 to £1 10s. (Rs. 10-15), and to a middle class or poor woman 10s. to £1 (Rs. 5-10). Except in better class families for a year or two after marriage when they wear embroidered cloth slippers, Musalman women never wear shoes. The Musalmán men seldom wear ornaments. The chief exceptions are some of the lower classes such as Kasábs butchers, Bágbáns fruiterers and Tambolis betel leaf sellers, who, when they can afford it, are fond of wearing a large gold ring in the right ear and a silver chain or toda fifty to a hundred tolás in weight on the right foot. Almost all Musalman women begin married life with a good store of ornaments. Their parents give them at least one nose ring, a set of gold earrings and silver finger rings, and their husbands invest in ornaments for the bride as much money as the dowry which is generally £12 14s. (Rs. 127). At least among the poorer classes a woman seldom keeps her full stock of jewels. Most of them generally disappear by degrees in meeting special expenses and in helping the family through times of scarcity of food or of employment. Roughly a rich woman's ornaments vary in value from £30 to £100 (Rs. 300-1000), and a middle class or poor woman's from £2 to £20 (Rs. 20-200).

Among Musalmáns some are Jágirdárs or land proprietors and some are traders, and a good many are craftsmen. The bulk are In villages the soldiers, constables, messengers, and labourers. greater number are husbandmen and the rest are craftsmen. Among the regular classes, especially among town traders, soldiers, constables, and messengers, the women add nothing to the family income. many of the special communities and among husbandmen, weavers, and some other craftsmen and petty shopkcepers, the women's earnings are little less than the men's earning. Except traders, weavers, and some other classes of craftsmen, the bulk of the townsmen are idle and fond of drink and good living. The Pendhárás and Kakars are generally hot-tempered and dishonest, but the rest of the townsmen are mild, hospitable, and honest. The villagers especially the husbandmen are hardworking and thrifty. A few proprietors, the traders, and some weavers and husbandmen are prosperous, but as a class the Musalmans are badly off. suffered severely in the 1876-77 famine not only from the very high prices of produce, but because the demand for the articles they supplied ceased. Many families had to sell the bulk of their property and others incurred debt which they have not yet been able to pay. A few Dhárwár, Hubli, and Sávanur Musalmán houses, chiefly belonging to proprietors traders and weavers, have stone and cement walls one or two storeys high and with tiled roofs surrounding a court-yard. Some of these houses, especially those belonging to Bohorás, Mehmans, and a few landlords, have several rooms 'furnished in European style, and have a good store of Chinaware and of brass and copper vessels. The bulk of the town Musalman uses are one storey high and have tiled roofs. Many of them e a front or back enclosure surrounded by a stone wall four or

• Chapter III.

Population.

MUSALMÁNS.

five feet high. Some of the better class houses have walls of cutstone and cement and a framework of good timber. most the walls are of rough stone and clay smeared with a wash of cowdung, and timber is scantily used except for the roofs. In most cases the furniture is scanty. Tables chairs and other European articles are found only in some of the rich houses in Dhárwár and Sávanur. In most houses the furniture includes only a few low stools, a cot or two, some quilts or blankets, mats, and cooking and drinking vessels of copper and brass which are much admired as house ornaments. A town house of the better class costs £200 to £500 (Rs. 2000 - 5000) to build, and 10s. to 16s. (Rs. 5-8) a month to rent; a house of the middle class costs £10 to £30 (Rs. 100-300) to build, and 1s. to 3s. (Rs. ½-1½) a month to rent. Barbers, washermen, watermen, and sweepers work for several families and are paid by the year. Each of the families, for their share of his services, pays a waterman 10s. to 16s. (Rs. 5-8), a barber 4s. to 8s. (Rs. 2-4), a washerman 10s. to £1 (Rs. 5-10), and a sweeper 2s to 8s. (Rs. 1-4). Besides their cash wages these servant classes receive from their employers occasional gifts of old clothes and grain, and food on religious festivals, and on marriage and other ceremonies. Town Musalmans except a few landlords seldom keep house servants; and few houses are neat or clean except those of Bohorás, Mehmans, and some landlords. Village houses differ little from the poorer class of town houses. They have generally three or four rooms with a court-yard either behind or in front, in which, or in the front room which is always the biggest, are tied bullocks, cows, and buffaloes. The middle room or rooms are for sleeping, and the back room for cooking. These houses have little furniture, a few mats, a cot or two with quilts and country blankets, a few brass and copper vessels, and a large supply of earthenware dishes. A village house costs £5 to £20 (Rs. 50 - 200) to build. are almost never let on rent. The furniture in a well-to-do husbandman's house varies in value from £5 to £10 (Rs. 50-100) Like Hindus many of the lower craftsmen and husbandmen are fond of brass vessels, but most Musalmáns use copper. In every-day cooking, to save the copper vessels, women generally use earthenware dishes, as, during the 1876-77 famine, most families were forced to pawn or to sell their metal vessels. Their religion binds almost all branches of Musalmáns into one community. They worship at the same mosques, keep the same holidays, perform the same ceremonies, and respect and employ the same kázi. The only exceptions are the Lád Kasábs or mutton butchers, the Bágbáns or fruiterers, the Pinjárás or cotton cleaners, the Pendhárás or labourers and servants, and the Dhobis or washermen who have such strong Hindu leanings that they do not associate with other Musalmans, almost never go to mosque, eschew beef, keep Hindu holidays, and openly worship and offer vows to Hindu gods. Of the regular Musalmans about thirty per cent teach their children to read the Kurán, all of them are careful to circumcise their boys, to perform the bismilláh that is in Allah's name or initiation, and to have their marriage and funers ceremonies conducted by the kázi or his deputy the muly Though as a rule they do not attend the mosque for daily pray.

almost all are careful to be present at the special services on the Ramain and Bakar Id festivals, and are careful to give alms and pay the Kázi his dues. Their religious officers are the kázi or judge now the registrar, the khatib or preacher, the mulla or priest, and the maulvi or law doctor. In former times the kázi was civil and criminal judge in addition to his duties as marriage registrar: now he is a registrar of marriages. The office is always hereditary. The khatib or preacher stands next to the kázi. This office is either hereditary or elective. The khatib's sole duty is to lead the Ramzan and Bakar Id services either in the mosque or in the praying place or idgáh, of which most large towns have one built outside the city walls. The Dhárwár and Sávanur khatibs hold lands granted by Bijapur kings and Moghal emperors. They also get presents of clothes and shawls worth £1 to £3 (Rs. 10-30) for reading khutbás or sermons. The mulla or priest who is generally the náib or deputy kázi is generally chosen by the kázi from a poor and sometimes from a strange family, and appointed to certain villages. His duties are to keep the marriage register, and to kill goats sheep and fowls for the village Musalmans and Hindus. choosing a mulla the kázi generally looks to his honesty and trustiness, rather than to his learning or ability. Some mullás are so ignorant that they do not know even the correct form of Arabic words used in cutting an animal's throat. If the people complain the kázi asks the mulla to send him his knife during the He blesses the knife and anything it cuts for a year is considered pure. Some villagers grant the mulla a small plot of land in addition to their dues in corn or cash. As their income does not exceed 8s. to 10s. (Rs. 4-5) a month, and as Dhárwár and Belgaum Musalmans are extremely lax in the matter of liquordrinking, some mullás serve in liquor shops even in their own village. Maulvis or law doctors, of whom there are very few, hold a high position in the Musalman community, sometimes ranking above the kazi. They earn their living by teaching Musalman boys, and by giving their opinion or fatwah on points of Musalman law for which they are paid 2s. to 5s. (Rs. 1-21). In the absence of the preacher or khatib the maulvi sometimes acts for him and receives his fees. He also, if he is asked, preaches on receiving 4s. to 10s. (Rs. 2-5). Though learned and hardworking maulvis are generally badly off. They lead frugal and religious lives. Pirzádás or the sons of saints as spiritual guides hold a high position in the Musalmán community. They claim descent from saints who in olden times came from Arabia as missionaries. Most of these old saints worked and many still work miracles and answer, prayers. Their descendants share in the reverence which is paid to their ancestors. Many of the lower classes of Musalmans in the belief

Chapter III.

Population.
Musalmans.

I To make a lawful animal pure or habil the sacrificer should give the animal water to drink and pluck some hair, or if it is a bird some feathers, out of its throat. He should take a sharp knife, pass it across the animal's throat, saying, I kill by the truth, pass it a second time, saying, that Allah is great, and pass it a third time, saying, there is no God but Allah. The knife should be sharp enough to cut the throat clean; care must be taken that it is not sharp enough to cut off the head.

Chapter III.

Population.

MUBALMÁNS.

that it will cleanse them from their sins become disciples or murids of these pirzádás or saints' sons. When a man becomes his disciple the saint's son generally gives him a diploma containing the pedigree of his family from the original saint downwards. This diploma is sometimes laid in the disciple's coffin in the belief that the names of the saints save the dead from the torturings of the grave angels Munkir and Nakir. When a man adopts a pirzúda as his teacher he has to pay the teacher a fee varying from 4s. to £1 (Rs. 2-10) according to the disciple's means, and to give a banquet to at least twenty of the teacher's friends and relations at a cost of 10s. to £1 (Rs. 5-10). Rich disciples sometimes give a suit of clothes at a cost of £2 to £4 (Rs. 20-40). Every year or once every two or three years the pirs or spiritual guides make a journey to collect their dues from the murids or disciples. When a teacher comes to his village the disciple has to make him a gift or nazaránah varying from 2s. to 10s. (Rs. 1-5). He is also feasted so long as he remains at the disciple's village. Though proud of their position and marrying as much as possible among themselves, their fondness for pleasure and good living have reduced many saints' sons' families to comparative poverty. Still, in obedience to the saying that his high birth places a Syed's actions above criticism, Musalmans generally treat the pirzádás or saints' sons with great respect.

Like the Musalmans of the Deccan and other parts of the Bombay-Karnátak, Dhárwár Musalmáns, though they keep the Bakar Id feasts and fast from sunrise to sunset during the thirty days of Ramzán, hold the Muharram as their chief holy season. For ten days they worship and offer vows at the biers called Hassan's and Hussain's táziás or tábuts, and the holy hands or panjáhs with the same feelings as a Hindu worships his gods. All Hindus except Bráhmans join Musalmáns in this worship of Hassan's shrine. During the ten Muharram days Lingáyats, Páncháls, and most landholding and craft-practising Hindus, who generally hold aloof from them, eat Musalman food, offer vows to the shrines, become fakirs or Musalmán begging ministrants of the shrines, dress or paint themselves as tigers, monkeys and bears, and disguise themselves as women and dance or perform in front of the shrine. As the Hindus share in the Muharram bier worship, so many Musalmans especially the women of the lower classes share in Hindu festivals and worship the Hindu goddesses Yellamma and Satvái. The goddess Satvái or Mother Sixth, who sends or who keeps away child diseases, is worshipped by some Musalman women on the sixth day after a birth at what is known as the chhati or the sixth day ceremony. On that night, in the place where the child was born, the ground is smeared with cowdung, upon which seven wheat flour lamps are lighted and several copper dishes of cooked vegetables and the heart and liver of a sheep or goat and several kinds of fruits are arranged. child for a short time is laid on a mat to gaze at the lamp and the cooked dishes. Kinswomen and friends are called and spend the night in singing, and, in the early morning, the nurse takes away the dishes containing the cooked food which has been laid near the child Most of the women of the general classes have a for the night. sufficient reverence for the cow to make them abstain from the use

of beef. Many of the lower classes of men and women believe in witchcraft and ghosts.

In cases of sickness they generally apply to some Musalmán or Hindu sorcerer, who tells them that they are either under the influence of an evil spirit or are suffering from some charm which an enemy is working against them and that if they fail to take speedy measures to overcome the spell, the effect will be fatal. The sick person if poor gives 4s. to 8s. (Rs. 2-4) and if rich 10s. to £1 (Rs. 5-10) to pay for the sadka or offerings to be made to the Next day the exorcist comes to the house of the sick bringing the offerings, lemons, eggs, and a fowl or a goat, and some cocoanuts rice and pulse. He arranges these on the floor of the house, and for half an hour repeats charms and burns incense. He then carries away the offerings and generally eats them. When this exorcising, which is often accompanied by some drug, is successful, the patient generally makes the sorcerer a present. Some Musalmans on undertaking a journey during sickness, or if they wish to get tidings of an absent friend, consult maulvis or other learned Musalmans. The maulvi takes the Kurán and finds an answer in the first verse he happens In almost no Musalmán family is the day for a marriage or

The pilgrimage to Mecca, which a pious Musalmán is bound to make, is much neglected by Dhárwár Musalmáns, by the poor from want of money and by the rich from laziness. At the same time almost all are careful to attend the fairs held in the neighbourhood in honour of saints. The chief fairs which Dhárwár Musalmáns attend are those in honour of Khwája Bande Nawáz at Gulburga, of Ráje Bág-Sawár in Dhárwár, and of Pir Shamsodin or Mirán Shamna at Mira. These fairs last four or five days and are attended by upwards of ten thousand visitors, among whom there is almost always a large body of beggars.

for a naming fixed without consulting a law doctor or maulvi.

Fakirs or religious beggars belong to two main classes, básharás or law-followers and besharás or law-neglecters. The law-followers are also known as mukimsháhis or residents. They marry and live in one place on labour or on alms. The law-neglecters, who are also called sufis, have no wives and no homes. Among both the law-followers and the law-neglecters are several orders or giros of which those commonest in Dhárwár are the Bánvás, Chistis Kádriás, and Rafais. All of these belong to the order of law-followers, and own houses and lands most of which were granted by the Bijápur kings or the Moghal emperors. These orders of religious beggars are recruited partly from the sons of beggars and partly from outside. may not make his own son his disciple or bálka. He must get some member of the order to become his son's teacher or murshad. The begging orders are also recruited from children who have been the subject of a vow made by their parents either before their birth or during some sickness. Musalmans also who lose heart in the struggle of life or who fall into dissipated ways join one of the begging orders. When a child or a man is to be allowed to join one of the orders a member of the order becomes his spiritual guardian or murshad, and teaches him the list of the heads of the order which

Chapter III.
Population.

Musalmáns.

Chapter III.
Population.
Musalmáns.

passes back to Ali the prophet's son-in-law from whom all begging brotherhoods spring. New members are generally received into an order when several Fakirs are met at some of the leading local Each begging brotherhood of law followers has three office bearers; the order-head or sargiro, the beadle or nakib who carries a staff of office, and the treasurer or bhandari. The head of the order appoints the treasurer and the beadle who pay £2 to £5 (Rs. 20-50) for the honour, the amount being spent on a dinner given to the members of the community. Besides in admitting new disciples or bálkás, the members of the different begging orders tako advantage of the meeting of several Fakirs at local fairs to settle disputes that may have arisen among the members of a brotherhood. At the fair all the begging Musalmans who are present at the close of the day withdraw to some out of the way spot. The members of each order of beggars sit by themselves each with its head or sargiro. After all are seated the attendant or nakib of the headman in whose order the dispute has arisen rises holding his staff of office and asks blessings on the order to which he belongs. The head or sargiro of each of the order sits on the state cushion called masnad or gadi and presides over the meeting, the other members sitting around them. The complainant states his view of the case and the defendant gives his view. accounts are generally interrupted by questions from the members of the different orders. There are few rules and there is generally much wrangling and disputing, the heads of the orders seldom doing much to guide the debate. When the wrangle has gone on for a time, they stop to drink, smoke hemp, and eat opium, which is prepared separately for each order by its treasurer or bhandári. The wrangling is seldom over by daylight and sometimes lasts three or four nights. When a member is found guilty he is punished by being excommunicated from the order to which he belongs, and thenceforward no Fakir either gives him a pipe to smoke or water to drink, or asks him to give a smoke or a drink until the offender pays a fine, and gives a dinner party to all who were present at the time of his conviction.

The nine communities which form the main body of Musalmans who intermarry and differ little in look, dress, or customs, include besides the four general divisions of Syeds, Shaikhs, Moghals, and Patháns, the five classes of Attárs the perfumers, Bangarhárás braceletsellers, Bedars servants, Kaláigars tinners, and Manyárs or glassmakers.

Syeds.

Syeds, or Chosen, claim descent from Fatima and Ali, the daughter and son-in-law of the Prophet. Their forefathers are said to have come from North India and Arabia, and to have settled in the Deccan, chiefly under its early Musalman rulers. They speak Deccan Hindustani. The men are of middle height, well made, and fair or clive-skinned. They shave the head and wear the beard full. Townsmen dress in a turban or a headscarf of white or green cotton, a shirt, a waistcoat, a coat and a pair of loose trousers, and villagers in a turban, a waistcoat, and either tight trousers or a waistcloth. The women of the townsmen, who are generally of middle

height, delicate and fair, with full regular features, dress in the Hindu robe and bodice. They are neat and clean, do not appear in public, and add nothing to the family income. The wives of village Syeds dress like their town sisters only less neatly and cleanly. They are harderworking and thriftier, and some whose husbands are poor work in the fields and look after the cattle. The men take Syed or Mir before, or Shah that is king after their names, and the women take Bibi or lady before their's. In villages Syeds are husbandmen, and in towns the poor work as soldiers constables and messengers, and the rich are landlords and spiritual The villagers are hardworking thrifty and sober, and the townsmen though mild hospitable and honest are lazy and fond of drink and pleasure. They suffered severely during the 1876-77 famine; many were forced to part with almost their whole property. They generally marry among themselves. But a poor Syed has no objection to marry his daughter to a rich Shaikh, and the men take wives from any of the classes who form the main body of Musalmáns. In religion all are Sunnis of the Hanafi school, and are more or less strict in saying their prayers. Except a few poor villagers all teach their boys to read the Kurán in Arabic, and to read and write Maráthi and Kánarese. Of late many have begun to send their boys to English schools. None have yet risen to any high position through education.

Shaikhs, literally Elders, are found all over the district. The title Shaikh or elder belongs strictly to three branches of the Kuraish family, the Siddikis who claim descent from Abu Bakar Siddik, the Farrukis who claim descent from Omer Al Faruk, and the Abbásis who claim descent from Abbas one of the Prophet's uncles. word Shaikh being a general term of courtesy has come to include many local converts and foreigners. Men who are included in this class add Shaikh or Muhammad to their names, and women Bibi to their's. They speak Hindustáni, and in look do not differ from Syeds. Except some of the youths the men shave the head, and all wear the beard either short or full. They dress in a Marátha turban or a headscarf, a coat, a shirt, and a waistcloth or tight trousers. The women dress in the Hindu robe and bodice. Except in poor families the women do not appear in public, and add nothing to the family income. Though hardworking and thrifty, the townsmen, most of whom are soldiers servants constables and messengers, are not well-to-do, and have not recovered from the loss they suffered during the 1876-77 famine. The villagers who are husbandmen, and more hardworking than the townspeople, had to part with most of their property during the famine. They marry either among themselves, or, if rich and respectable, among the Syeds or with any of the general classes of Musalmans. They are Sunnis of the Hanafi school. They are religious, many of them being careful to say their prayers and to teach their boys to read the Kurán. They send their boys to learn Maráthi or Kánarese, and some have lately begun to teach their children English. One or two have gained posts as English clerks.

Chapter III.
Population.
Musalmáns.
Syeds.

Shaikhs.

Chapter III.
Population.
Musalmáns.
Moghals.

Moghals are found in small numbers at Dhárwár and some of the larger Musalmán centres. They claim descent from the Moghals, who, during the seventeenth century, came with the Moghal conquerers of the Deccan (1686-1723). Their home speech is Deccan-Hindustáni. The men are either tall or of middle height, with fair skins and regular features. They shave the head, wear the beard full, and dress in a headscarf, a shouldercloth, a long coat, a shirt, a waistcoat, and a pair of loose trousers. The women, like the men, are either tall or of middle height, delicate, and fair with full regular features. Village or poor townswomen dress in a Hindu robe and bodice, and if rich in the ordinary Musalmán petticoat two to five yards of chintz or silk, a scarf to cover the upper part of the body, and a bodice covering the back and fastened in a knot under the bosom. Though neat and clean in their habits they neither add to the family income nor appear in public. The men add Mirza to their names and the women Bibi or lady. Town Moghals are servants and messengers and village Moghals are husbandmen. Though hardworking and thrifty they are not well-to-do. In religion they are Sunnis of the Hanafi school, and are said to be religious and careful to say their prayers. They teach their boys to read the Kurán in Arabic. They marry with any of the general classes. They send their boys to school to learn Maráthi or Kánarese. Some have lately begun to send their boys to English schools, and one of them is a clerk in the police superintendent's office.

Patháns.

Patha'ns, or Victors, claim an Afghan origin. The men add Khán or chief and the women Bibi or lady to their names. Their home speech is Deccan-Hindustáni. The men are either tall or of middle height, strong, and dark or olive-skinned. They shave the head, wear the beard full, and dress in a Marátha turban, a coat, a shirt, a tight-fitting jacket, and a pair of tight trousers or a waistcloth. The women who are like the men in face, dress in the Hindu robe and bodice, but, except the old or poor, do not appear in public. nor add to the family income. They are neat clean and well-behaved. The townsmen are servants messengers and constables, and the villagers are landholders. Though hardworking and thrifty some of them are excessively fond of liquor, and are deep in debt. suffered severely during the 1876-77 famine, many of them having had to sell even their houses. They marry with any of the general classes of Musalmans. In religion they are Sunnis of the Hanafi school, and some of them are said to be religious and careful to say their prayers. They teach their boys Maráthi and Kanárese, and, in a few recent cases, English, but so far education has not raised any of them to a high position.

Of the five classes who belong to the general body of Musalmáns:

Atta'rs, or Perfumers, are local converts from the Hindu class of the same name. They are found in small numbers in different parts of the district. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese with others. The men are tall or of middle height and dark or olive-skinned. They shave the head.

Attára.

wear the beard full, and dress in a Marátha turban or a headscarf, a tight jacket, and a pair of tight trousers or a waistcloth. women, who are like the men in face, wear the Hindu robe and bodice. They are neat and clean in their habits, do not add to the family income, and except the old do not appear in public. The men are neat, clean, hardworking, and thrifty, but, on account of the fallen state of their trade, are seldom well-to-do. During and after the 1876 famine many moved to other districts in search of work. They chiefly sell cosmetics, dentrifice, redpowder, incense, and hair-oil scented with rose and jessamin. During the Muharram they add to their stock cotton-thread garlands or sehilis of many colours, which both Hindus and Musalmans wear during the last five days of the holy season. Their trade is dull and they do not make more than 1s. to 2s. (Re. \frac{1}{2}-1) a day at ordinary times, or 2s. to 10s. (Rs. 1-5) during the five Muharram days. Though nominally a distinct body, their customs do not differ from those of ordinary Musalmans. They have no headman other than the kazi. They marry either among themselves or with any of the regular Musalmans and obey and respect the kázi. They are Sunnis of the Hanafi school and are not particular in saying their prayers. They try to give their boys some schooling. Besides as perfumers some earn their living as servants and messengers.

Bodars found in one or two families as messengers at Dhárwár are immigrants from Maisur. They are said to have been converted from the hill tribe of Baydarus or Bedars, by Haidar Ali Khán (1762-1782), from whom they have taken the title of Khán. Both Haidar and Tipu had great trust in their Baidar troops. They are believed to have come to Dhárwár with General Wellesley's army in 1803. Among themselves they speak Hindustani and with Hindus Kanarese. The men are tall, strong, well made, and either black or brown-skinned. The men shave the head, wear the beard full, and dress in a turban or a headscarf, a coat, a shirt, a tight jacket, and a pair of tight trousers. The women, who are like the men in face, dress in a chintz petticoat two to four yards long, and cover the upper part of the body with a scarf and a bodice covering the back, and the ends tied in a knot under the bosom. They do not appear in public nor add to the family income, but are neat and clean in their habits. The men are messengers and constables, and, though hardworking and thrifty, are badly off. They do not form a separate community, and do not differ in their manners or customs from ordinary Musalmans, and marry among any of the ordinary Musalman communities. They are Sunnis of the Hanafi school, and are religious and careful to say their prayers. They send their children to school and teach them Marathi and Kanarese. None have risen to any high position.

Bangarha'ra's, or Bangle-sellers, a branch of Manyars, are like them descended from local Kasar converts, who are said to have embraced Islam during the time of Aurangzeb (1686-1707). Chapter III.
Population.
Musalmans.
Attars.

Bedars.

Bangarhárás.

Chapter III.
Population.
MUSALMANS.
Bangarharas.

They are found in small numbers over almost the whole district. They do not differ from Manyars in look dress or speech. The women dress in the Hindu robe and bodice, appear in public, and help the men in their work. Both men and women are neat and tidy. They make wax bracelets and sell Chinese glass bangles which they buy from wholesale Váni dealers who bring them from Bombay. On a dozen bangles they make 11d. to 3d. (1-2 as.) and their average daily sales are about three dozen, leaving an average profit of 4½d. to 9d. (3-6 as.). They sell both to Hindus and Musalmans, sometimes in shops sometimes as peddlers at fairs or from house to house. When the men are away the women generally sit in the shops and sell. In manners and customs they do not differ from ordinary Musalmans, and marry either among themselves or with regular Musalmáns. They have no separate headman and in all matters obey the regular kázi. They are Sunnis of the Hanafi school, but are not religious or careful to say their prayers. send their boys to school to learn Maráthi or Kánarese. know English, and none have risen to any high position.

Kaláigars.

Kala'igars, or Tinners, local converts of mixed Hindu classes, are found in small numbers throughout the district. They speak Hindustání among themselves and Kánarese or Maráthi with others. men are tall or of middle height and dark or olive-skinned. shave the head, wear the beard full, and dress in a white cotton Marátha turban, a shirt, a tight-fitting jacket, and a pair of tight trousers or a waistcloth. The women who are of middle height, wheat or olive-skinned, and with full regular features dress in a Hindu robe and bodice. Except the old none appear in public or add to the family income. The men when at work are dirty, but as a class they are neat and clean. The men tin the copper and brass vessels which are used by Hindus, Musalmans, and Christians. charge 1s. to 2s. (Re. $\frac{1}{2}$ -1) for a dozen dishes according to size. Though hardworking thrifty and sober, they are poor, as after the 1876 famine, to save the cost of tinning, many even well-to-do families cooked in earthen vessels. They form a separate community settling social disputes by holding caste meetings under a headman who is chosen from the most respectable families. With the approval of the majority of the castemen the headmen has power to fine any one who breaks their social rules. Their names and customs do not differ from those of ordinary Musalmans and they marry either among themselves or with regular Musalmans. They respect and obey the kázi and employ him to conduct their marriage and funeral ceremonies. They are Sunnis of the Hanafi school, and are seldom religious or careful to say their prayers. They try to give their boys some schooling. Besides by tinning some Kaláigars earn their living as servants and messengers. None have risen to any high position.

Manyars.

Manya'rs, or Glass Bangle-makers, are the descendants of local Hindu Kásárs, who are said to have been converted during the reign of Aurangzib. They are found in small numbers in some of the larger towns. Among themselves they speak Deccan-Hindustáni and correct Kánarese or Maráthi with others. The men

are of middle height and dark or brown-skinned. They shave the head, wear the beard full, and dress in a Marátha turban, a shirt, a tight jacket, and a waistcloth. The women who are like the men in face dress in the Hindu robe and bodice, appear in public, and help the men in their work. Both men and women are neat and clean in their ways. Chinese competition has forced the Manyars to give up their old craft of glass and wax bangle-making. They have become petty shopkeepers and dealers in hardware and miscellane-They sell iron pots and dishes, which they buy from ous articles. wandering Ghisádis and sell at a high profit. They buy cotton and coir ropes from Kanjars whom they pay in grain or in cash. Besides ironware they sell mirrors, sewing thread, pins, locks, and English match boxes. Some have shops and others go as peddlers with a pack to weekly markets and through neighbouring villages. They are hardworking, thrifty, and sober, and some are well-to-do and able to save. Though they form a branch of the Bangarhárás or bangle-sellers, they are a distinct class, settling their disputes among themselves by holding caste meetings with a headman of their own, chosen from the richest families, and empowered to fine any one who breaks their rules. They marry either among themselves or with any of the ordinary classes of Musalmans. They are Sunnis of the Hanafi school but are seldom religious or careful to say their prayers. They are careful to give some education to their boys, but none have risen to any high position.

Of the twenty-five separate communities the seven of outside origin include five of traders Bohorás, Labbeys, Mehmans, Mukeris, and Saudágars, one of craftsmen Gáo-Kasábs or beef butchers, and one of servants or labourers Kákars or grass-cutters.

Bohora's, probably from the Gujarát vohoravu to trade, immigrants from Gujarát, are found in small numbers in Dhárwár city. They seem to be of part Hindu part Arab and Persian origin. In religion they belong to the Ismaili branch of Shias and follow the Mulláh Sáhib, their high priest who lives at Surat. They are believed to have come to Dhárwár from Bombay and the Nizám's country about sixty years ago. Among themselves they speak Gujaráti, and with others Maráthi or Hindustáni. They are tall or of middle height, delicate, and light brown in colour. The men shave the head and wear the beard full. They dress in-doors in a skull cap and out of doors in a tightly wound white turban, a long coat falling to the knee, a shirt, a tight-fitting jacket, and a pair of loose trousers. Their women, who like the men are either tall or of middle size, are delicate, either wheat or brown in colour, and regular featured. They do not appear in public. They wear a headscarf or odna, a backless bodice or angia, and a gown or petticoat called lahenga, of three or four yards of chintz or silk. On going out they add a long cloak called burkha which covers the whole body from head to foot, leaving a gauze opening for the eyes. They do not add to the family income, but are clean, quiet, and thrifty. Bohorás deal in English hardware, in piecegoods, and in groceries. Some have agents in Bombay, Poona, and Belgaum, who supply them with all the articles in which they deal. They sell to Europeans, Musalmans, and Hindus. Chapter III.
Population.
Musalmans.
Manyars.

Bohorás.

Chapter III.
Population.
Musalmans,
Bohords,

and are hardworking, thrifty, and sober. As a class they are well-to-do and have a good name for fair dealing. They form a separate community, marry only among themselves, and have their disputes settled by the deputy of the Surat Mullah Sahib whose head-quarters are at Haidarabad. They are Ismáili Shiás of the Dáudi sect. They are careful to say their prayers either in their own houses or gardens or at the house of the richest man among them who sets apart one of his rooms as a chapel. They have no mosques of their own and do not attend the Sunni mosques. They treat the deputy Mullah with much respect, and are regular in paying their contributions to the Mullah Sahib at Surat. The chief points of difference between their beliefs and practices and those of regular Musalmáns are that they pay special devotion to Ali and his sons Hassan and Hussain, and to their high priest the Mullah Sabib of Surat; that they attach special importance to circumcision; that they reject the three Kaliphs, Abu Bakar Sidik, Umar, and Usman; that at death a prayer for pity on the soul and body of the dead is laid in the dead man's hand; and that they on no account either eat or drink from Hindus. They teach their children to read the Kurán and enough Maráthi or Gujaráti to keep accounts. None learn English. They follow no calling but trade, and on the whole are a rising class.

Labbeys.

Labbeys, or immigrants from the Malabar coast, though not permanent settlers are found in small numbers in some of the large towns. They are descended from the Persian¹ Arab² and Abyssinian settlers in whose hands the foreign trade of Western India was centered for several centuries before the establishment of Portuguese supremacy (A.D. 1510). Among themselves they speak Arvi or Malayalam and Hindustani with others. The men are tall strong and well made, and dark olive-skinned. They shave the head, wear long thin beards, and dress in a skull cap or loose chintz headscarf, a long shirt falling almost to the knees, a coat or a waistcoat, and a chintz waistcloth or lungi falling to the ankle. Their habits are neat and clean. They do not bring their women to Dharwar, and seldom stay more than a year in the district. They gather a stock of skins and leather

¹ Of the first Arab settlement the Labbey books give the following account: In A.D. 816 (H. 200) Malik bin Divan an Arab soldier of fortune with a large number of followers started from Arabia to visit Adam's tomb in Ceylon. His ships were wrecked on the Malabar coast and he was forced to land. Cheraman Perumal the chief of Malabar took a liking to the Arabs and kept them at his court. Malik told him of the Prophet Muhammad and how he had halved the moon. The king asked when the moon was halved, consulted the Brahman astrologers, and, finding that Malik's date was correct, became a Musalman, divided his kingdom among his relations, and started for Mecca. He died on his way back. Ever after Arabs were treated with honour on the Malabar coast and settled in great numbers. See Buchanan's Mysore, II. 51-70 and Jamiul Tavarik.

² According to Wilks' History of Southern India (I. 242) the first Persian settlers came in the early part of the eighth century as refugees from the tyranny of Hajjaj bin Yusuf, governor of Irák. Some landed on the Konkan and were called Naváits; others landed east of Cape Comorin and were called Labbeys. The Labbeys claim a common origin with the Naváits and attribute their black complexion to intermarriage with native women. The Naváits affirm that the Labbeys are the descendants of their domestic slaves. Col. Wilks was of opinion that in face and shape the Labbeys had a strong resemblance to the natives of Abyssinia. Compare Rice's Mysore and Coorg, I. 353.

from the local butchers and send them preserved in salt to Bombay or Madras tanneries. They are hardworking, thrifty, and generally well-to-do. They form a separate community and never marry any local Musalmán women. They are Sunnis of the Shafai school and are said to be religious and careful to say their prayers. On the whole they are a rising class.

Mehmans, properly Momins or Believers, immigrants from Cutch and Gujarát are found in small numbers in Dhárwár city. They are the descendants of Gujarát and Cutch Hindu Káchiás and Lohánás who were converted to Islám by Pir Yusaf-ud-din an Arab missionary in 1422. They are said to have come with the British troops from Poona to Dhárwár soon after the beginning of British rule in 1818. They speak Cutchi among themselves and Hindustáni with others. The men are strong well-made and fair. They shave the head, wear the beard full and long, and dress in a fine cotton or silk headscarf, a coat, a long shirt falling to the knee, a waistcoat, and loose trousers. The women are tall or of middle height with fair skins, arched eyebrows, large eyes, straight nose, and full rounded limbs. They dress in a long shirt falling almost to the ankle, a headscarf, and a pair of loose trousers rather tight at the ankles. Except when old they wear a backless bodice with short and tight sleeves. The whole of their dress is almost always of silk. They are neat and clean in their dress, are careful not to appear in public, and except by skilful housekeeping add nothing to the family income. The men deal in English hardware and piecegoods. They are hardworking thrifty sober and well-to-do, and have a good name for fair dealing. They marry among themselves only and form a separate community, but without any special organization and with no separate headman. They respect the regular kazi and call him to conduct their marriage and funeral ceremonies. Except that daughters have no share in ancestral property, their rules and customs do not differ from those of ordinary Musalmans. They are Sunnis of the Hanafi school and are said to be religious and careful to say their prayers. They send their boys to school to learn Maráthi, and they teach them Gujaráti at home but none know English. They take to no calling but trade, and on the whole are a rising class.

Mukeris, or Deniers, are found about 200 strong in Dhárwár city. They are said to be the descendants of Lamáni or Banjári Hindus who were converted to Islám by Tipu of Maisur. They are believed to have come from Maisur in 1803 as suttlers to General Wellesley's force. Among themselves they speak Hindustáni, and Maráthi or Kánarese with others. The men are tall or of middle height, strong, and dark or olive-skinned. They shave the head and wear the beard full. They dress in a turban or a headscarf, a coat,

Chapter III.
Population.
Musalmáns.

Mehmans.

Mukeris.

¹ Of the origin of the name Mukeri this story is told. A member of Tipu's court laid a complaint before the king that a man of rice brought from a Lamani held thirty instead of forty sers. The rice was weighed before the Sultan and was found to be short. The Lamani was called and weighing the grain showed that it was forty sers. He did this by some sleight of hand and afterwards confessed. That people might be on their guard against them, Tipu ordered that Lamani Musalmans should henceforward be called Mukeris or deniers.

Chapter III.
Population.
Musalmans.
Mukeris.

a shirt, a tight-fitting jacket, and tight trousers. The women, who are like the men in face, dress in the Hindu robe and bodice, and, except the old, neither appear in public nor add to the family income. Both men and women are neat and clean in their ways. Mukeris are grain-sellers and grocers. Though hardworking they are fond of liquor, and are thrifty and well-to-do. Their name is a bye-word for cheating. They marry among themselves only, form a separate community, and settle their disputes at class meetings headed by a chaudhari or headman who belongs to one of the richest families. With the approval of the majority of the castemen the headman can fine any one who breaks their rules. They respect the kazi and ask him to conduct their marriage and funeral services. They are Sunnis of the Hanafi school, but are not religious or careful to say their prayers. They send their boys to school, and teach them Maráthi and Kánarese but not English. They follow no pursuit except trade.

Saudagars.

Sauda'gars, or Honourable Traders, are said to represent the ancient Arab and Persian merchants who traded with Western India (800-1500). They are immigrants from Maisur and Madras, and are believed to have come to Dharwar since the beginning of British rule. They speak Hindustáni among themselves and Maráthi or Kánarese with others. Their appearance seems to show a strong strain of foreign blood. The men are generally tall and well made, wheat or brown coloured, with large eyes and straight nose. They shave the head, wear full beards, and dress in a silk or fine cotton headscarf, a long white cotton coat, a shirt falling to the knee, a pair of loose trousers, or in-doors a chintz waistcloth or lungi. The women are, like the men, tall, delicate, and fair, with handsome features. They dress in a gown or petticoat of four or five yards of chintz gathered in plaits round the waist and falling to the ankles, a tight bodice with short tight sleeves covering the back and the ends fastened in a knot under the bosom, and a headscarf of two to four yards of chintz. They are very careful not to appear in publicand are excellent housewives. Both men and women are neat, clean, mild, hospitable, and sober. Saudágars deal in piecegoods and were formerly well-to-do. They suffered severely during the 1876-77 famine. Though hardworking and thrifty some of them were forced to give up trade and take to husbandry or service. They are Sunnis of the Hanafi school and are said to be very religious and careful to say their prayers. They teach their children to read the Kurán in Arabic and send them to school to learn Maráthi or Kánarese. They marry among themselves only and form a separate community but have no special organization and no headman. respect the regular kázi and in their manners and customs do not differ from ordinary Musalmans, None have risen to any high position, and on the whole they are falling in number and condition.

Kákars.

Ka'kars, or immigrants from Afghanistán, are found in small numbers in Dhárwár and Hubli. Their forefathers are said to have come from Afghanistán with Ahmadsháh Duráni or Abdali about 1747. After Ahmadsháh's defeat in North Hindustán, they remained in India leading the life of outlaws, and 'after ramb-

ling through the North-West Provinces, Gujarát, and other districts found their way to Haidar Ali of Maisur. They are said to have come to Dhárwár in 1803 as camp followers to General Wellesley's army. Their home-speech is a mixture of rough Hindustáni, Málvi, Gujaráti, and Maráthi. The men are tall strong well-made and dark. They shave the head, wear beards, and dress in a Hindu turban, a shirt, a tight-fitting jacket, and a waistcloth. women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and add to the family income. Both men and women are dirty and untidy in their habits. The men are servants, messengers, and horsekeepers earning 10s. to 20s. (Rs. 5-10) a month, and the women make a living by selling headloads of grass and fuel. Though hardworking they are generally fond of drink and are badly off. They marry among themselves only and have a well organized community settling their disputes at class meetings under a headman or jamádár who belongs to one of the richest families, and, with the concurrence of the majority, has power to fine any one breaking their class The fine fund is spent in caste dinner and drinking parties. They respect the kázi, and in manners and customs differ little from the regular Musalmans. They are Sunnis of the Hanafi school and are seldom religious or careful to say their prayers. They do not send their boys to school, and none of them has risen to any high position.

Ga'o Kasa'bs, or Beef Butchers, found in small numbers in Dhárwár city are said to have come to Dhárwár with General Wellesley's army in 1803. They are found in most military cantonments in the Deccan and are often attached to certain regiments and move with them from one place to another. Some claim descent from Afghans and others from Arabs, but the face and figure of many seem to point to a part Abyssinian origin. Their home speech is a rough Hindustáni. The men are tall, strong, well-made, and dark. They either shave the head or wear the hair falling below the ear and a full beard. They dress in a turban or headscarf, a shirt, a jacket, and a pair of tight trousers. The women, who are like the men in face, dress in the Hindu robe and bodice, appear in public, help the men in selling beef, and, though hardworking and thrifty, are proverbially shameless and quarrelsome. Both men and women are dirty and slovenly in their dress and habits. They sell both cow and buffalo beef, but buffalo beef is disliked and is seldom used. Their customers are Christians, Musalmans, and low caste Hindus. The chief consumers are low caste Hindus as few Musalmans eat beef. First class beef is sold to Europeans at 3d, the pound (8 pounds the rupee) and second class beef to Musalmans and others at 11d. the pound (16 pounds the rupee). Though hardworking and thrifty they are excessively fond of drink, and are badly off. They marry among themselves only and form a separate community settling social disputes at class meetings under a headman or patil, who, if the majority of the caste approve, has power to fine any one who breaks their rules. Their manners and customs do not differ from those of ordinary Musalmans; and they call the kazi to conduct their marriage and

Chapter III.
Population.
Musal.máns.
Kákars.

Gáo Kasábs.

Chapter III.

Population.

Musalmáns.

funeral ceremonies. They are Sunnis of the Hanafi school and are not religious or careful to say their prayers. They give their boys no schooling and take to no new pursuits.

Of the eighteen separate communities mainly of local Hindu descent, two, Bágbáns fruiterers and Támbolis betel leaf sellers are traders; seven, Gaundis masons, Lád Kasábs butchers, Momins weavers, Patvegars tassel makers, Pinjárás cotton cleaners, Rangrez dyers, and Saikalgars armourers are craftsmen; seven, Bhatyárás cooks, Dhobis washermen, Hajáms barbers, Halálkhors scavengers, Kanjars poulterers, Pakhális watermen, and Pendhárás grass cutters are servants and labourers; and two, Kasbans dancing girls, and Táschis drummers are players and musicians.

Bágbáns.

Ba'gba'ns or Ba'gva'ns, Gardeners and Fruiterers, represent local Kunbis or Mális who are said to have been converted during the time of Aurangzib (A.D. 1686-1707). They are found in large numbers over almost the whole district. Among themselves they speak Deccan Hindustáni and with others Maráthi or Kánarese. They are tall or of middle height, well-made, and dark or oliveskinned. The men shave the head wear beards either short or full, and dress almost like Hindus in a Marátha turban, a tightfitting jacket, and a waistcloth. The women, who like the men are either tall or middle sized, wheat or olive skinned, and with regular features, wear the Hindu robe and bodice, appear in public, and help the men by selling fruit and vegetables. men and women are rather dirty and untidy. The men go among garden villages buying potatoes, brinjals, onions, and green vegetables, and plantains, guavas, and pomegranates. They sell at a shop and also from door to door. Though hardworking, thrifty and sober, they are generally poor and in debt. They do not earn more than 1s. (8 as.) a day. They marry among themselves only, and are a separate body with a well organized community and a headman or chaudhari chosen from the richest families. With the approval of majority of the members the headman has power to fine any person who breaks their rules. Unlike regular Musalmans they privately worship and pay vows to Hindu gods and keep Hindu festivals. They respect the kázi and ask him to conduct their marriage and funeral Though in name Sunnis of the Hanafi school they are seldom religious or careful to say their prayers. They do not send their children to school or take to new pursuits.

Támbolis.

Ta'mbolis, or Betel-leaf Sellers, descendants of local Kunbi converts are found in considerable numbers in almost all towns and villages. Their forefathers are said to have been converted during the reign of Aurangzib. They speak Deccan Hindustáni among themselves and Maráthi or Kánarese with others. The men are tall or of middle height and brown skinned. They shave the head, wear the beard full or short, and dress in a large Marátha turban, a shirt, a tight-fitting jacket, and a waistcloth. The women who are of middle height, fair, and with regular features, dress in the Hindu robe and bodice, appear in public, and help the men in their work. Both men and women are neat and clean in their habits. They buy betel leaf from the growers either in neighbouring villages or from outsiders. A few rich wholesale dealers keep two

or three bullocks to bring their supplies from a distance, and distribute them among poor retail sellers. They have shops which in their absence are under the charge of their wives. They are hardworking, thrifty and sober. A few are well-to-do and able to save; but the bulk are poor. Their work is constant but they do not earn more than 6d. to 8d. (4-6 as.) a day. They marry among themselves only, and have a well organized community settling social disputes at class meetings under a headman or chaudhari chosen from the richest families, who, with the approval of the majority, has power to fine any one breaking the rules. differ from ordinary Musalmans in privately worshipping and paying yows to Hindu gods, keeping Hindu festivals, and eschewing beef. They are Sunnis of the Hanafi school in name, but, except a few, they are not religious or careful to say their prayers. They respect the kázi and ask him to conduct their marriage and funeral services. A few try to give their boys some schooling, but none have risen to any high position.

Gaundis, or Bricklayers, found in small numbers over almost the whole district, are said to represent local Hindu Gaundis who were converted during the reign of Aurangzib. They speak Deccan Hindustáni among themselves and Maráthi or Kánarese with others. The men are tall or of middle height, thin, and dark. They shave the head, wear short or full beards, and dress in a Marátha turban, a tight-fitting jacket, and a waistcloth. The women, who are like the men in face, dress in the Hindu robe and bodice, appear in public, and add nothing to the family income. Neither men nor women are neat or tidy in their habits. They earn their living as bricklayers. They suffered greatly during the 1876-77 famine as all house-building was at a stand. Many left the district. Of late railways and other public works have given them constant and well paid employment. They marry among themselves only and form a separate community, but have no organized union and no headman. They respect the kázi. They differ from regular Musalmáns chiefly by offering vows to Hindu gods, keeping Hindu festivals, and eschewing beef. They are Sunnis of the Hanafi school in name, but are not religious or careful to say their prayers. They do not send their boys to school. In the time of depression that followed the 1876-77 famine some took employment as servants and messengers.

La'd Kasa'bs, or Mutton Butchers, are found in considerable numbers in almost all the larger towns. They are said to represent Hindu Lad Kasa'bs who were converted by Tipu of Maisur (1784-1799). Among themselves they speak Deccan Hindustani and with others Marathi or Kanarese. The men are tall or of middle height, and dark or clive skinned. They shave the head and either shave the beard or wear it short, and dress in a Hindu turban, a tight-fitting jacket, and a waistcloth. Some wear a large gold earring in the right ear. The women, who are tall or of middle height and fair with regular features, dress in the Hindu robe and bodice, appear in public, and help the men by selling mutton. In their persons and dress both men and women are dirty and untidy. They live as

Chapter III.
Population.
MUSALMANS.
Tambolis

Haundis

Lád Kasáls.

Chapter III.
Population.
Musalmáns.
Lúd Kasábs.

mutton butchers and kill both sheep and goats. They buy the animals at £2 to £3 (Rs. 20-30) the dozen chiefly from Dhangars. They do not keep the animals for more than a week, killing them in the yards behind their houses, and sell the mutton at 3d. to $4\frac{1}{4}d$. (2-3 as.) the pound. They are hardworking, thrifty, and sober, and some are well-to-do and able to save. They marry among themselves only, and are a separate community with a well organized society under an elective headman called pátil. Social disputes are settled according to the opinion of the majority of the men, and, with their approval, the headman fines any member who breaks the rules. They have a strong Hindu feeling and eschew beef, worship and offer vows to Hindu gods, and keep Hindu festivals. Except that they employ the regular kázi to conduct their marriage and funeral services, they are Musalmans in little more than name. None of them know the Kurán or ever attend the mosque, and they do not eat with other Musalmans. They do not send their boys to school or take to any calling except mutton selling.

Momins.

Momins, or Weavers, are found in large numbers almost all over the district, especially in Hubli where they are more than three thousand. They are said to represent Hindu Koshtis or Sális who were converted by Hasham Pir Gujaráti, the religious teacher of the Bijápur king Ibráhim Adil Sháh II. about the close of the sixteenth century. They still look upon the saint with special reverence and pay great respect to his descendants. The men are tall or of middle height and brown skinned. They shave the head wear the beard full, and dress in a Hindu turban, a coat, a shirt, a waistcoat, and either tight trousers or a waistcloth. The women who are of middle height, delicate, fair, and with regular features, wear the Hindu robe and bodice, appear in public, and are such useful workers that the men generally marry more than one wife. Neither men nor women are neat or tidy in their habits. They weave cotton, buying English or Bombay mill-yarn from Hindu Váni dealers and working it into robes, a chintz for bodices called khans, a striped cloth called susi used in trousers, and silk-bordered waistcloths. Some of the rich and well-to-do weave their own yarn and sell the cloth in the market, or to wholesale merchants by whom it is sent to Bombay and Poona. The bulk of them are labourers, and work for 6d. to 1s. (4-8 as.) a day. hardworking and thrifty, most of them even the women are fond of fermented date-palm juice, and except a few who are well-to-do and able to save, the bulk are poorly clad and badly off. They marry among themselves only and form a well organized society, settling their social disputes at class meetings under a head or chaudhari chosen from the richest families, who, with the approval of the majority of the men, has power to fine any one breaking their rules. They respect the kázi and do not differ in manners and customs from ordinary Musalmans. They are Sunnis of the Hanafi school, and some are religious and careful to say their They do not give their boys any schooling. Momins are servants and messengers.

Patvegars, or Tassel twisters, are found in small numbers in almost all of the larger towns. They represent Hindus of different

Patvegars.

classes who are said to have been converted by Aurangzib. men are tall or of middle height, strong, and dark or olive-skinned. They shave the head, wear the beard full, and dress in a Hindu turban, a shirt, a tight jacket, and a waistcloth. The women. who are either tall or middle-sized thin and brown, wear the Hindu robe and bodice, and appear in public, but add nothing to the family income. As a rule both men and women are clean in their habits and tidy in their dress. They live by twisting silk tassels. They buy silk from Hindu merchants in small quantities and make the silk cords or chains with tassels called kardotás which are worn round the waist both by Hindus and Musalmans. They also sell false hair and deck gold and pearl ornaments with silk. They earn about 1s. (8 as.) a day. They have shops and also go about the town where they live and through the neighbouring villages in search of work. They are hardworking thrifty and sober, and some of them are well-to-do and save. They marry among themselves only and form a separate community, but have no social organization and no headman except the regular kázi. They differ from ordinary Musalmans in offering vows to Hindu gods, keeping Hindu festivals, and eschewing beef. They are Sunnis of the Hanafi school but are not religious or careful to say their prayers. They do not send their boys to school or take to any fresh employment.

Pinja'ra's, or Cotton Cleaners and Carders, are found in small numbers in some of the larger towns. They are said to represent Hindu Pinjárás who were converted by Aurangzib. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese with others. The men are of middle height and dark. shave the head, wear the beard either short or full, and dress in a Hindu turban, a tight-fitting jacket, and a waistcloth. The women are like the men in face. They dress in the Hindu robe and bodice, appear in public, and help their husbands in carding cotton. Neither men nor women are clean or tidy in their habits. They card cotton, cleaning it to stuff mattresses, quilts, and pillows, and are paid 6d. to 2s. (Re. \frac{1}{4} - 1) a day, but are often idle for days at a time. The women work at home and the men move about in search of work. The decline of hand-spinning ruined their craft. Though hardworking thrifty and sober, from want of work they are always poorly clad and badly off. They marry among themselves only and form a separate and well organized society. They settle social disputes by class meetings under a headman or a pátil, who, with the consent of the majority of the members, has power to fine any one breaking their rules. They respect the kazi and employ him to conduct their marriage and funeral services. They differ from ordinary Musalmáns by worshipping and offering vows to Hindu gods, and eschewing beef. They are Sunnis of the Hanafi school, but are not religious or careful to say their prayers. They do not send their children to school. Some have given up cotton carding and earn their living as husbandmen and servants.

Rangrez, or Dyers, are found in small numbers in some of the larger towns. They are said to represent Hindus of different castes,

Chapter III.
Population.
Musalmáns.
Patvegars.

Pinjaras,

Rangrez.

Chapter JII.
Population.
Musalmáns.
Rangrez.

who were converted during the time of Aurangzib. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese The men are tall or of middle height and dark or with others. olive-skinned. They shave the head, wear the beard either short or full, and dress in a Hindu turban, a waistcoat, and a waistcloth. The women, who are of middle height thin and brown, wear the Hindu robe and bodice, appear in public, and help the men in their Both men and women are neat and clean in their habits. They earn their living as dyers. They are hardworking thrifty and sober, and some of them are well-to-do and able to save. They dye turbans yarn and silk for weavers, and have constant work. When busy they earn 4s. to 6s. (Rs. 2-3) a day, but from this have to meet heavy dye-expenses. In the Musalmán marriago season from October to December, and during January and February the chief Hindu marriage season, and before all great Hindu and Musalmán holidays they are specially busy. Though fairly off, they do not rank among the highest tradesmen. They marry among themselves only, but have no special social organization and no headman, except the regular Musalman kázi. Their manners and customs do not differ from those of ordinary Musalmáns. Sunnis of the Hanafi school, and some are said to be religious and careful to say their prayers. They do not send their children to school or take to new pursuits. On the whole they are a rising class.

Saikalgars.

Saikalgars, or Knife-grinders, are found in small numbers in some of the larger towns. They are said to represent Chisádi Hindus converted during the time of Aurangzib. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese with others. The men are tall or of middle height, thin, and dark. They either shave or keep the head hair, wear the beard short or full, and dress in a turban, a tight-fitting jacket, and a waistcloth. The women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and help the men in their work. As a class both men and women are dirty and untidy in their habits and They sharpen and sometimes mend knives, swords, and razors. They sharpen tools on a small wheel of kuran or sandstone turned by their women or boys with the help of a leather strap. Their day's earnings vary from 3d. to 6d. (2-4 as.), but they are often without work. Though hardworking and thrifty they are not sober, and are poorly clad and scrimped for food. Many have left the district in search of work. They marry among themselves only and form a separate and organized society with a headman chosen from the most respected members, who, if the majority approve, has power to fine any one breaking the class rules. They do not eat with regular Musalmáns, but employ the kázi to conduct their marriage and funeral services. They eschew beef, offer vows to Hindu gods, and keep Hindu festivals. They are Sunnis of the Hanafi school in little more than name, and seldom go to the mosque. They do not send their children to school or take to new pursuits.

Seven local classes come under Service and Labour.

Bhatya'ra's, or Cooks, are found in small numbers in Dharwar town. They are believed to represent local converts of mixed Hindu

They speak Deccan-Hindustáni among themselves and Márathi or Kánarcse with others. The men are of middle height They shave the head, wear the beard full, and dress in a Hindu turban or a headscarf, a shirt, a tight-fitting jacket, and a pair of tight trousers or a waistcloth. The women who are of middle height thin and brown, wear the Hindu robe and bodice, appear in public, and help the men in cooking. Both men and women are dirty and untidy in their habits. They keep cook-shops. take engagements for feasts and dinner parties, and serve as house cooks in rich families. Some have English bakeries, and supply the European population with bread, biscuits, and pastry. Those who keep English bakeries are well-to-do; the rest though hardworking and thrifty, from their fondness for date-palm liquor, are poorly clad and much in debt. Their daily earnings from cookshops are never more than 1s. (8 as.), for a dinner party they get 1s. to 2s. (Re. $\frac{1}{2}$ -1) a day, and as house cooks 6s. to 12s. (Rs. 3-6) a month with food. They marry among themselves only and form a separate community, but have no special organization and headman, except the regular Musalmán kázi, whom they respect and call to conduct their services. Their manners and customs do not differ from those of ordinary Musalmáns. They are Sunnis of the Hanafi school, and are seldom religious or careful to say their prayers. They do not send their children to school; and on the whole are a

falling class. Dhobis, or Washermen, are found in small numbers in some of the larger towns. They are said to represent local Hindu Dhobis converted by Tipu of Maisur (1784-1799). They speak Hindustáni among themselves and Maráthi or Kanárese with others. The men are tall or of middle size, dark, and thin. They shave the head, wear the beard either short or full, and dress in a Hindu turban, a waistcoat, and a waistcloth. The women, who are like the men in face, dress in the Hindu robe and bodice, appear in public, and help the men in washing clothes. Both men and women are clean, but not tidy in their dress. They wash clothes both for Europeans and natives; European masters, who require the Dhobi's entire time, pay them £1 to £2 (Rs. 10 - 20) a month according to the size of the family; Native masters, who generally share the Dhobi's services with five or six other families, pay 2s. to 4s. (Rs. 1-2) a month or 10s. to £1 10s. (Rs. 5-15) a year, with gifts in corn and money on holidays and great occasions. Though hardworking and thrifty, as a class they are excessively fond of liquor and are seldom well-to-do or able to save. They marry among themselves only and form a separate and organized society. They settle social disputes at caste meetings under a headman or chaudhari chosen from the oldest members, who, with the approval of the majority, can fine any one breaking caste rule. They call the regular kázi to conduct their marriage and funeral services. They differ from ordinary Musalmans in eschewing beef, worshipping and offering yows to Hindu gods, and keeping Hindu festivals. Under no circumstances do they eat with the regular Musalmans. They are Sunnis in name, but care little for the Musalman faith. They do not send their children to school and take to no new pursuits.

Chapter III.
PopulationMusalmáns.
Bhatyárás.

Dhobis.

Chapter III.
Population.
Musalmáns.
Hajáms.

Haja'ms, or Barbers, are found in small numbers in some of the larger towns. They are said to represent local Hindu Hajáms and to have been converted by Tipu of Maisur. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese with others. The men are tall or of middle height and dark or olive-skinned. They shave the head, wear the beard full or short, and dress in a Hindu turban, a shirt, and a waistcloth. The women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and add nothing to the family income. Both men and women are dirty and untidy. Barbers earn their living either by shaving chance customers or as house servants. In towns they get $1\frac{1}{2}d$. (1.a.) for shaving a man's head, and in families with three or four male members they are paid 1s. to 2s. (Re. \frac{1}{2}-1) a month or 6s. to 12s. (Rs. 3-6) a year, with occasional presents in money and corn. Village barbers are paid entirely in grain. The quantity varies from 200 to 400 pounds (5-10 mans) worth £1 to £1 10s. (Rs. 10-15) in addition to occasional gifts on ceremonies and Though hardworking and thrifty they are not sober, and festivals. are generally poorly clad and scrimped for food. They marry among themselves only, form a separate community, but have no special organization and no headman to settle their disputes except the regular kázi whom they follow in every respect. They are Sunnis of the Hanafi school, but are not religious or careful to say their prayers. They do not send their boys to school and on the whole are a falling class.

Halálkhors.

HalaIkhors, or Scavengers, are found in small numbers in the town of Dhárwár. They are said to represent Hindu Bhangis converted by Tipu of Maisur. According to another account their former home was in Sholapur. They speak either Hindustani or Kanarese. The men are of middle height and dark. They shave either the whole head or half of the head, wear the beard full or short, and dress in a skullcap or turban, a waistcoat, and a waistcloth. The women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and help the men. Neither men nor women are tidy or clean. They work as scavengers and nightsoil men, and are paid 6s, to 10s. (Rs. 3-5) a month. The women work as hard and earn as much as the men. Though hardworking and well paid they are excessively fond of drink, are always in rags, and never save. They form a separate community and have a well organized society. They settle social disputes at class meetings under a mehtar or headman chosen from the oldest members. If the majority approve the headman may fine any one who breaks caste rules. The money raised by fines is spent in drinking and dinner parties. Sunnis of the Hanafi school, but are Musalmans in name only. Except that they are circumcised and are married and buried by the kázi, they know almost nothing of the faith. They do not send their children to school, and none have risen to any high position.

Kanjars.

Kanjars, or Poulterers, are found in small numbers throughout the district. They are said to represent Hindu Kanjars converted by Haidar Ali of Maisur. They speak Deccan-Hindustáni among themselves and Maráthi or Kánarese with others.

The men are tall or of middle height thin and dark. They shave the head, wear the beard full, and dress in a Hindu turban, a waistcoat, and a waistcloth. The women, who are like the men in face. dress in the Hindu robe and bodice, appear in public, and add to the family income. Both men and women are dirty and untidy in their habits, and do not bear a good name for honesty. The men work as servants and labourers, and both men and women gather fuel, rear hens, sell eggs, and twist hemp ropes. They make 12s. £1 4s. (Rs. 6-12) a month. Though hardworking they are excessively fond of liquor and are always poor and in rags. They marry among themselves and form an organized society with a headman of their own, who, with the concurrence of the majority, can fine any one who breaks their caste rules. They differ from other Musalmans in worshipping and offering vows to Hindu gods and keeping Hindu festivals. They are Sunnis of the Hanafi school in little more than name, and are neither religious nor careful to say their prayers. Except in their marriage and funeral ceremonies. they do not employ or obey the kázi. They do not send their boys to school, and none of them has risen to any high position.

Pakha'lis, or Watermen, are found in small numbers in Dhárwár They are said to represent local Hindu Pakhális who were converted by Haidar Ali of Maisur. They speak Deccan-Hindustáni among themselves and Kánarese with others. The men are of middle height and dark-skinned. They shave either half or the whole of the head, and wear the beard short or shave it. Some put a large gold ear-ring in the right ear, and dress in a Marátha turban, a waistcoat, and a waistcloth, or a pair of tight and short trousers. The women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and help the men in carrying water. Both men and women are rather neat and clean in their habits. They carry water in leather bags on bullock back. They are chiefly employed by Europeans and by the Dhárwár municipality. They have their own bullocks and work for several families getting 10s. to £1 (Rs.5-10) a month from each. They supply Musalmans and others at daily wages varying from $4\frac{1}{2}d$. to 1s. (3-8 as.) from several families. Their average monthly income from one bullock varies from £1 10s. to £2 (Rs. 15-20). Though hardworking they are excessively fond of drink and are generally in They marry among themselves only, and form an organized society with a headman chosen from the oldest and richest members of their caste, who, with the approval of the majority, has power to fine any one who breaks their caste rules; the fine fund is spent in dinner and drinking parties. They have a strong Hindu feeling, keeping Hindu festivals, worshipping Hindu gods, and eschewing beef. They obey the kázi and employ him to conduct their marriage and funeral services. They are Sunnis of the Hanafi school, but are not religious or careful to say their prayers. They do not send their boys to school or take to new pursuits.

Pendha'ra's, perhaps originally grass cutters from pendha a sheaf, are found in small numbers in Dharwar and Hubli. They are believed to represent local converts of mixed Hindu classes, who

Chapter III.
Population.
MUSAI MÁNS.
Kanjars.

Pakhális.

Pendhárás.

Chapter III.
Population.
Musalmáns.
Pendhárás.

are said to have voluntarily embraced Islam towards the close of the eighteenth century.1 They are said to have come to Dhárwár from Maisur as camp followers to Munro's troops in 1817. They speak a rough Hindustáni with a mixture of Maráthi and Málvi. The men are tall strong well-made and dark. They shave the head, wear the beard full, and dress in a Hindu turban, a tight-fitting jacket, and a waistcloth. The women, who are like the men in face, wear the Hindu robe and bodice, appear in public, and add to the family income. With a few exceptions both men and women are dirty and untidy. The men carn a living as servants messengers and pony-keepers, making 12s. to £1 (Rs. 6-10) a month. The women gather and bring to market headloads of fuel and grass making 3d. to 6d. (2-4as.) a day. Though hardworking, they are much given to drink and to the use of intoxicating drugs. Except one or two rich and well-to-do families, all are poorly chall and badly off. They marry among themselves only and they form a well organized body. They settle social disputes at caste meeting a under a headman called mukádam or jamádár, chosen from their oldest and richest families, who, if the majority approves, can punish any one breaking caste rules. They differ from ordinary Musalmans in eschewing beef, in keeping Hindu festivals, and in worshipping Hindu gods. They are Sunnis of the Hanafi school, and some of late have begun to make a little progress in their faith, reading the Kurán and attending the mosque. the exertion of an Arabic and Persian scholar of their own community many have begun to teach their boys the Kurán and Urdu, and also send them to Government schools to learn Kánarese and Maráthi. None have risen to any high position.

The two classes of Musicians or Players are the Kasbans or dancing girls and the Táschis or kettle-drummers.

Kasbans.

Kasbans or Naikans, Dancing Girls and Courtezans, are found in small numbers in Dhárwár, Hubli, and Sávanur. They are said to represent loose women of mixed Hindu classes who became Musalmáns on leaving or on being turned out of their caste. They speak Hindustáni, Maráthi, or Kánarese. In-doors or when they go to sing they wear the Hindu robe and bodice. When they dance some rich and skilful performers put on a gown called peshwáz of muslin or gauze dyed red blue or orange, and trimmed with tinsel lace, with a short waist, long straight sleeves, and skirts that reach a little below the knee, a shawl or sela covering the head hanging down the shoulders and wrapped round the body, and a pair of tight satin trousers. All wear Deccan slippers. Their usual ornaments are a necklace, pendants or earrings, bangles, and loose bell anklets known as kadús.

¹ In 1799 on the fall of Tipu several of his chieftains formed a focus or dhurra for the idle and profligate of every persuasion, for needy adventurers, disbanded soldiers, and all fugitives. They marched about ravaging Northern India, Málwa, and the Deccan. By 1814 they had risen to such power that they had gathered about twenty-seven thousand men under several leaders, who, from the support they received from Sindia and Holkar, were known as Sindia Shahi and Holkar Shahi. Their power was crushed by the Marquis of Hastings in 1817. See Pindhari and Maratha Wars, p. 25.

Though slovenly during the early part of the day, towards evening they wash and deck themselves with ornaments and rich clothes and sit on the threshold waiting visitors. They earn their living by dancing, singing, and prostitution. Of late years, according to the general belief because of the looser morals of private women, the dancing girls have not prospered. Many are in debt and many go to sleep without knowing where to-morrow's breakfast is to come from. As a class they are crafty and faithless, fond of pleasure and much They are Sunnis in little given to intoxication and intrigue. more than name. They have little knowledge of their religion, and except that their boys are circumcised and that they themselves are buried with Musalmán rites, they have nothing to do with the kázi. Their girls are brought up to dance and sing. Their sons do not play for them and their sons' wives do not dance or sing. Most adopt young girls from poor parents paying their parents either a lump sum or a yearly allowance. They form a separate community with a head náikan who holds a high place among them. They eschew beef and worship and offer vows to Hindu gods. Some of their boys are taught Maráthi and Kánarese, but none have risen to any high position.

Ta'schis, or Kettle-drummers, are found in small numbers in some of the larger towns. They are said to represent Hindu Táschis converted by Aurangzib. They speak Hindustáni among themselves and Maráthi or Kánarese with others. The men are of middle height and dark. They shave the head, wear the beard short or full, and dress in a Marátha turban, a tight-fitting jacket, and a waistcloth. The women who are like the men in face, wear the Hindu robe and bodice, and appear in public, but add nothing to the family income. They are clean in their habits and neat in their dress. They beat kettle drums during marriage and other ceremonies both for Hindus and Musalmans, and are busy except during the rains. For a four days' marriage, besides two meals a day, they are paid 6d. to 1s. (4-8 as.) a day in cash. During the eight busy months their wages average £3 to £6 (Rs. 30 - 60). Though hardworking thrifty and sober, they are badly off and take to new pursuits. They marry among themselves only and form a separate and organized community, settling social disputes at class meetings under a headman chosen from the oldest members, who, if the majority approve, is empowered to fine any one breaking their class rules. differ from ordinary Musalmans by eschewing beef and keeping Hindu festivals. At the same time they obey the kázi and call him to conduct their ceremonies. They are Sunnis of the Hanafi school, but are seldom religious or careful to say their prayers. They do not send their boys to school. Besides as kettle-drummers some earn their living as husbandmen, servants, and messengers. None have risen to any high position.

Christians, numbering about 2356 or 0.26 per cent of the district population, include three main divisions, Europeans, Eurasians, and Natives. Of these Europeans numbered 79 (42 males and 37 females), Eurasians 73 (33 males and 40 females), and Native Christians 2204 (1126 males and 1078 females). Native Christians are divided into two classes, Protestants and Roman Catholics.

Chapter III.
Population.
Musalmans.
Kasbans.

Táschis.

CHRISTIANS.

Chapter III.

Population.

CHRISTIANS.

Native Protestant Christians are found chiefly in Dhárwár. Gadag, and Hubli. They are converts made by missionaries belonging to the Basel Evangelical Mission which began work in 1839. Before their conversion most Protestant Native Christians belonged to the Lingáyat, Kurubar, Deváng, Sáli, Badige, Agasalaru, and Holaya or Mhár castes. They have no divisions and they eat together and intermarry. They are short, dark, and muscular. The home tongue of some is Kánarese, of some Tamil, and of a few Tulu. They live in one-storeyed houses with flat or tile roofs. Their daily food is rice or Indian millet bread, pulse, vegetables, and animal food, and their holiday dishes are sweet cakes made of wheat flour, pulse, and sugar. The men dress either in a waistcloth or trousers, a short or long coat, and a headscarf; and the women in a robe and bodice without passing the skirt of the robe back between the feet. Some of them are husbandmen, some artisans, some missionaries and catechists, and some weavers and dyers. A family of five spends 12s. to £1 10s. (Rs. 6-15) a month on food. Their ritual is a mixture of the rites of the Reformed Church of Switzerland and of the Lutheran Church of Wurthenburg. Sunday is kept as a day of rest and religious exercise. holidays are Christmas, Good Friday, Easter Sunday, Ascension Day, and Pentecost. On Sundays and on close holidays they attend church in the morning and evening when service is held in Kánarese. Every year they celebrate the anniversaries of the establishment of the local and district missions. Their only religious ceremonies are baptism and confirmation. Baptism is performed both on infants and on adult converts; sacrament of confirmation is administered only when a person is well-grounded in the knowledge of the scriptures. On the occasion of the baptism of their children especially of their first-born, those who can afford it, feast their friends and relations. Girls are married after thirteen and boys after sixteen. Three months before a wedding the parties give notice to the pastor of their intention to marry. On the day fixed for the wedding the bride and bridegroom, decently dressed and accompanied by friends and relations, go to the church where they are married by the pastor. On their return from the church the whole Protestant community of the village or one or two members from each house are feasted, and the bride and bridegroom are presented with clothes or ornaments by their friends and relations. Cases of misconduct are enquired into and punished by the pastors on the evidence of the members of the congregation. They send their boys and girls to schools kept by the missionaries, where reading, writing, arithmetic, geography, and history are taught. They appear to be a rising class.

Native Catholic Christians may be divided into three classes: Konkani or Goa Christians, Kánarese or local converts, and Tamil or Madrási Christians. The home tongue of the Goa Christians is Konkani, of the Madrási Tamil, and of the local converts Kánarese. The Madrásis and Konkanis eat together but do not intermarry, while the Kánarese or local converts neither eat nor marry with the Konkanis or the Madrásis. With a few exceptions the Konkanis are fair and middle-sized with well-cut features, the local converts

are short and dark, and the Madrásis are still darker and shorter. The Konkanis and Madrásis live in one-storeyed tile-roofed houses with walls of brick and mud, and the Kanarese live in one-storeved houses with flat roofs. Their daily food is rice, pulse, Indian millet, bread, and flesh. All drink liquor and eat pork and beef, except the Kánarese Christians who object to eating beef. The Konkani men dress in a pair of trousers, a short coat, boots, and a hat, Madrási men in a waistcloth, a long coat, a headscarf, and shoes, and Kanarese men, like Dharwar Kurubars and Kumbhars: the women of all three classes dress in a short-sleeved bodice and robe. which is worn hanging like a petticoat. As a class the Catholic Christians are industrious, hospitable, and thrifty. The Konkanis are either Government servants, labourers, or domestic servants; the Madrásis are mostly domestic servants; and the Kánarese earthen pot-makers, blanket weavers, husbandmen, and unskilled labourers. All observe the rites and holidays of the Roman Church. Children are baptised as soon as possible after the seventh day after birth. If the child is healthy it is taken to the church, if it is weaker it is baptised at home. Girls are married after twelve and Proposals for marriage come from the boys after sixteen. boy's side. At the time of betrothal close relations and friends are feasted, and among Kánarese Christians the bride's father receives a sum of money from the bridegroom's. When the day fixed for the marriage draws near, booths are raised at the houses both of the bride and of the bridegroom. During the marriage ceremony country music is played in the booth and the bride and bridegroom are rubbed with turmeric paste, and friends and relations send presents of clothes and provisions. Among the Kanarese Christians when a girl comes of age she is scated apart for a while, then bathed, and presented with new robes. No such ceremony is observed among Konkani and Madrási Christians. When a person is on the point of death the priest administers to him the sacrament of extreme unction or anointing. After death the body is bathed and dressed in holiday clothes in the case of Konkanis and Madrásis, and is covered with a shroud in the case of Kanarese Christians. It is laid either in a coffin or in a bier and carried in procession to the church. From the church after prayers the body is carried to the burying ground and is there buried. Kánarese Christians give a feast to their caste people on the third day after death; Konkani and Madrási Christians do not hold a third day feast. Cases of grave misconduct or scandal are enquired into and punished by the priest with the help of the adult castemen, the punishment being fine, kneeling in the church during the service on Sundays, and excommunication. So long as a person is excommunicated he is not allowed to enter the church or to mix with the community. Of the three classes Konkanis alone send their children to school.

Pa'rsis, numbering thirty-one, are found in Dhárwár, Hángal, and Hubli. They are chiefly traders, contractors, and shopkeepers. Their dress customs and religious rites do not differ from those of the l'ársis in Thána and Bombay.

Chapter III.

Population.

Christians.

PARSIS.

CHAPTER IV.

AGRICULTURE.

Chapter IV.
Agriculture.

According to the 1881 census, agriculture supports about 600,000 people or sixty-eight per cent of the population. The details are:

Dhárwár Ag	rricultural F	Population.	1881.
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AGE.	Males.	Females.	Total.
Under Fifteen Over Fifteen	117,227 187,850	111,979 192,088	229,20 6 379,938
Total .	805,077	304,067	609,144

HUSBANDMEN.

Dhárwár husbandmen are Lingáyats, Maráthás, Musalmáns. Bráhmans, Kurubars, Lavánás or Lambánis, and Mhárs. the Lingayats are by far the richest and most important. The headmen of villages are usually Lingáyats, and the Lingáyats form the bulk of the cultivators of Dhárwár, as Marátha Kunbis form the bulk of the cultivators of Khandesh, Nasik, and the North Deccan. The Lingayat husbandman differs both in body and mind from the Marátha husbandman of the North Deccan. He is a South Indian with a smaller northern strain even than the Marátha. stronger and blacker, a harderworker, with more forethought and with a strong turn for trade speculation. He is well disposed, intelligent, and enterprising, and is shrewder than a casual observer would imagine. As a body Dhárwár Lingávat husbandmen are better off than north Deccan Kunbis, and very much freer from delit. They have passed through many changes within the last hundred To them, which it was not to the north Deccan Kunbi who had his share of the spoil, Marátha rule was an unmixed evil. For many years after the introduction of British peace and order the curse of rack-renting handed down by the Maráthás kept the husbandman deep in poverty. With the introduction of the revenue survey and the opening of roads between 1840 and 1850 their state improved. Between 1862 and 1871 came the great rise in value of all field produce, especially of American or saw-ginned Dhárwár cotton, which alone, according to Mr. Walton, in those ten years enriched the district by about £8,150,000 (Rs. 8,15,00,000). Between 1862 and 1865, no less than £4,700,000 (Rs. 4,70,00,000) or a yearly average of £1,175,000 (Rs. 1,17,50,000) were amassed by the growers and dealers in Dhárwar American cotton.2 Dealers

¹ Bom. Gov. Sel. CXLVIII, 96-97. ² Walton's Dharwar Cotton, 73.

Chapter IV. Agriculture. HUSBANDMEN.

backed by Bombay speculators paid as much as £10 (Rs. 100) the acre for planted cotton fields. The flood of wealth turned the people's heads. They did not know what to do with their money. At village festivals, numbers of landholders appeared with carts the naves of whose wheels were rounded with bands of silver.1 1871 many have impaired those gains by unwise cotton speculation, by extravagance, and by mismanagement. At the same time the price of cotton has fallen; years of scarcity and famine have wasted the district; and revised settlements have greatly added to the land tax. Still in spite of their loss and suffering from the 1876 famine the mass of the husbandmen of the cotton plains are (1884) well-to-do. Many Lingáyat husbandmen have large holdings. the north Deccan the business of tilling the soil and of trading in its produce as a rule are distinct; in Dhárwár the two are to a large extent united. Not only does the landholder often take his produce to distant Kárwár or Kumta, he either brings back goods for the sake of the hire, or himself invests in such coast produce as finds a a ready inland sale. Many Lingayat landholders are moneylenders and cotton ginners, and many among them hoard stores of grain, which they sell at a high profit in times of scarcity. They generally keep a small staff of permanent farm servants to plough and look after their cattle, and at times temporary labour is largely employed for weeding and reaping.

Colonies of Maráthás are mixed with Lingáyats in many parts of the district, and scattered Marátha families also occur in a large proportion of villages. The Maráthás seem less well off than the Lingayats and have less the knack of making money by moneylending, grain dealing, and cotton trading. protection to creditors given by the civil courts is said to be the cause of the indebtedness of the poorer husbandmen, but indebtedness is less general than among north Deccan husbandmen. Musalmán husbandmen, of whom there are many, as a rule, have small holdings, and are not prosperous. Bráhman husbandmen are few, though a good many Bráhman pleaders and retired Government servants invest their savings in buying the occupancy right of fields. These Brahman landholders do not till with their own hands. either let the land or have an agent to manage its tillage. the land is let the tenant pays the over-holder sometimes in money and sometimes in grain. If, as is the rule when the overholder is an absentee, the rent is paid in money, it amounts to two or three times the Government assessment. When the rent is paid in kind the tenant does not pay the Government assessment unless he is bound to pay it by a previous contract. As a rule the landlord recovers from the tenant one-third to one-half of the whole produce. Kurubars or Shepherds and the Bedars or Hunters and watchmen, form a considerable section of the husbandmen. husbandmen they are careless and stupid, content with small results, and seldom rich or prosperous. A few of the wild pack-bullock and

Chapter IV.
Agriculture.

Soil.

wood-cutting Lavánás or Lambánis, hold land in the west of the district, and here and there a few Holáis or Mhárs cultivate.1

For tillage purposes the district is divided into the malladu or malnad that is the damp west and the beilu shime or dry east. The malladu is the tract on the border of the Kanara forests in the west and southwest of the district. It is subject to frequent and heavy rain. It is most favourable to the growth of rice and sugarcane, which, to succeed at all, must have abundant moisture. In these western lands the usual dry-crops of the open eastern plain are seldom grown. The only dry-crops are the coarse hill grains, rági Eleusine corocana, súve Panicum miliare, navani Panicum italicum, and jola Sorghum vulgare. Of these rági and sáve are grown in comparatively small quantities, and navani and jola are sown only in two or three fields in a village and often not at all. In the beilu shime or dry eastern plain rice is seldom or never grown and sugarcane is grown only as a garden crop. The soil is best suited for dry-crops especially for cotton, gram, and wheat. Along the eastern fringe of the wet west lands, through the whole length of the district, from north-west to south-east including the towns of Dhárwár Hubli Bankápur and Kod, runs a belt of country which as regards soil climate and vegetation unites the characteristics of the moist hilly west lands and the dry eastern plains. In this transition region the soil is generally a reddish alluvial clayslate crossed here and there in an easterly direction by narrow belts of black cotton ground. This black soil is of superior richness probably owing to the mixture of particles of red soil, which, without changing the appearance and character of the black soil, lessen its clayeyness and increase its power of taking in water. Towards the east of this belt the rainfall is too scanty and uncertain for the growth of rice. So, also, towards the south-west the climate becomes too moist for dry-crops, and rági and other poor grains take the place of millet. parts of this transition tract, dry and wet crops are often sown in the same field, so that, if the season proves too dry for rice, a crop of millet may save the landholder from complete loss. In Kod and Hángal in the south of this tract a number of large lakes water much rice and garden land. In some villages, on the eastern border of this tract, tobacco grows freely; in others the cultivation of chillies is carried on with great success. In the malladu or rainland, wherever the underlying laterite does not rise to the surface, the soil is good. The best soil called kagadali is a red mould formed of a fine iron-bearing gravel mixed with quartz pebbles and clay slate. Where the chlorite schists and clay slates predominate the soil is a light coloured loam of great depth called jeddi mannu. When untilled for many years the red soils often assume a most deceiving appearance. The surface soil is washed away and either a coating of loose gravel and quartz stones, or a thin layer of hardened clay is left into which water hardly passes and on which even grass hardly grows. The soil close under the surface, if long undisturbed, becomes hard and dense and seems almost proof against water. But after the merest surface scratching, the rain is able to

¹ Chiefly from materials supplied by Mr. F. L. Charles, C.S.

remain on the surface and soften the under soil, which can be deeply ploughed with the greatest ease, and, with a little manure. is extremely fertile. The light soil or jeddi mannu is the true rice The earthy matter of this rice soil, as in west Bankapur, is chiefly decayed clay slate. By the action of water, tillage, and weather, it becomes a stiff, compact, light-coloured clay, so retentive of moisture, that in most of the lower lands water is found throughout the year a few feet below the surface. The soil on the Lighest and most open lands has little depth, and, even with manure and care, yields only one poor crop of rice in the year. Between the highest and the lowest situations, the soils are fairly deep, and, in seasons of abundant or even of average rainfall, generally hold moisture enough to yield a crop of pulse after the main rice harvest is over. The soil in the valleys or low lands is of superior richness. It is black or a rich dark brown and may almost be classed under the head of alluvium. This soil yields luxuriant after-crops, and its abundant moisture makes it specially suited for sugarcane. The best rice land is in several respects more valuable than the black cotton soil. The best rice land has much moisture, while the cotton land has no means of irrigation; the best rice land only occasionally wants manure, the cotton land wants manure every third year; the rice land seldom wants the labour and cost of ploughing, the cotton land must be ploughed every year. black soil sometimes yields a second crop, the best rice soil always yields a second crop and this with less labour than the black soil. To prepare the black soil for a second crop it has to be ploughed, broken by the kunti or heavy hoe, levelled with the ballesal kunti or light hoe, sown with the seed drill or kurgi, and once more levelled with the light hoe. In the best rice land the field is simply ploughed once, is closely sown by the hand, and to cover the seed the korudu or leveller is run over the surface.

By far the greater part of the open country is black ground or yeri bhumi. Its qualities are admirably suited to the dry climate of the tableland. Its great power of holding moisture enables its crops to bear unharmed seasons of drought which would prove fatal to any crop on the red soil. In these black soils nature to a great extent does what in other soils is left to the plough. In the hot weather, as the soil shrinks, it becomes fissured with cracks, two or three inches wide and about eighteen inches deep which divide the surface into blocks two to three feet square. The first heavy rainfall washes the surface soil into these cracks, and fills them removing the surface soil and exposing a fresh under-layer. sometimes in fields intended for cotton, instead of the plough the people use the heavy hoe or kunti drawn by two or four bullocks. This loosens the surface three or four inches deep and uproots what weeds there are though weeds are few in cleanly kept fields. Rain loosens the soil to a considerable depth and this scarping is enough in ordinary years. Once in six, seven, or eight years the plough is used to uproot deep-seated heavy weeds and to disturb the subsoil. When it gets covered with matted grass and bábhul scrub the surface becomes cut in deep water runs and pitted with holes and cracks. It is also covered with minute lime nodules which as they show

Chapter IV.
Agriculture.

Soil.

Chapter IV.
Agriculture.

Soil.

through the grass make the soil look white and glary. The chief black-soil crops are cotton, wheat, gram, oilseeds, and the later varieties of Indian millet. Except a few gardens at Annigeri in Navalgund, and some other villages with patches of brown soil no watered land occurs over the whole black plain. To the general black soil character of the eastern plain the Kappatgudd hills form an exception. There the soil is stony red alluvial called kennela or musari somewhat like the reddish soils of the hills near Dharwar and Hubli. Similar soil occurs among the granite ranges and rocks to the south-west of the Kappatgudd range towards the Varda river. In the east of Ranebennur is much stony and unarable soil called kallunela or dare in which angular nodules of stone lie so close packed that the plough can hardly enter.

ARABLE AREA.

Of an area of 4612 square miles or 2,953,037 acres, 2,858,678 acres or 96.80 per cent have been surveyed in detail. Of these 169,738 acres or 5.93 per cent are the lands of alienated villages. According to the revenue survey, the rest contains, 2,271,057 acres or 79.44 per cent of arable land; 42,882 acres or 1.50 per cent of unarable; 47,168 acres or 1.65 per cent of grass or kuran; 176,606 acres or 6.17 per cent of forest; and 151,227 acres or 5.29 per cent of village sites roads and river beds. Of the 2,271,057 acres of arable land in Government villages 621,294 or 27.36 per cent are alienated. In 1882-83 of the arable area of 1,652,216 acres in Government villages, 1,503,011 acres or 90.97 per cent were held for tillage. Of this 6963 or 0.46 per cent were garden land; 86,873 acres or 5.77 per cent were rice land; and 1,409,175 acres or 93.75 per cent were dry-crop land.

Holdings.

In 1882-83 the total number of holdings was 77,478 with an average area of about twenty-eight acres. Of the whole number 7675 were holdings of not more than five acres; 11,937 were of six to ten acres; 22,575 of eleven to twenty acres; 26,976 of twenty-one to fifty acres; 6145 of fifty-one to one-hundred acres; 1674 of 101 to 200 acres; 294 of 201 to 300 acres; 94 of 301 to 400 acres and 108 above 400 acres. The details are:

Dhárwár Holdings, 1882-83.

Sub-Division.	Up to 5 Acres.	6 to 10 Acres.	11 to 20 Acres.	21 to 50 Acres	51 to 100 Acres.	200	201 to 300 Acres.	400			Rental.	Area.
											£	Acres
Dhárwar	778	1335	2710	2194		67	14	7	8	7511	27,790	170,693
Hubli	432	667	1649	2186	557	153	27	5	8	5684	25,822	180,625
Navalgund	546	1101	2764	4023	989	308	61	22	31	9845	88,306	846,250
Gadag	339	961	2782	4290	1148	350	63	23	25	9981	25,860	335,411
Bankapur ,	741	10:6	1692	1936	426	127	26	7	6	5997	19,996	176,149
Ránebennur	336	684	1624	2237	480	108	6	4	١	5479	16,270	151,957
Hángal	1340	1361	1697	1339	248	76	12	2		6075	18,549	113,587
Karajgi	430	809	1971	2627	608	145	29	7	9	6630	19.599	200,640
Kalghatgi	962	1467	1519	1080	184	52	4	2	3	5273	12,731	91,600
Kod	1445	1869	2623	2568	343	56	8	١	1	8913		169,194
Ron	326	647	1544	2496	769	232	44	15	17	6090		220,800
Total	7675	11,937	22,575	26,976	6145	1674	294	94	108	77,478	229,720	2,156,888

STOCK.

In 1882-83 the farm stock included 40,872 carts, 89,323 ploughs, 258,510 bullocks, 151,379 cows, 40,523 he-buffaloes, 83,452 she-buffaloes, 5478 horses including mares and foals, 6819 asses, and 231,125 sheep and goats. The details are:

Dhárwar Farm Stock, 1882-83.

	CARTS.		Рьосена.				BUYYALOES.		!	1	1
Sub-Division.	Rid- ing	Carry- ing	Two Bul- lock.	Four Bul- lock	Oxes.	Cows.	Не.	She.	Horses	SHEEP AND GOATS.	Ass es.
Dharwar	177	4814	8547	1126	23,982	15,482	5598	11,126	904	16,277	509
Hubh	162	4396	5144	336	17,563	8065	2248			13.988	1313
Navaigund	37	3948	2:43	419		6:462	17.29	7393	500	26,005	1047
Galaz	91	4470	79)6	1419	38,533	13,289	283	9530	519	48,616	797
Bankapar .	11	4020	8.22	712	23,272	15,218	4747	8597	564	12,956	354
kambennur.	15	3111	7043	2141	23 646	12 419	2010	9459	419	31,-19	1905
Hangal	8	3075	8791	158		18,954	5840			99.6	150
Kamagi .	21	8718	7420	1720		14,216	2761			29,145	3-9
ka ghatgi	59	3444	7832	2		17,747	6230			4725	251
kod	11	8595	12,636	17910		23,224	51%			18 007	239
Ron .	5	2574	37 34	635	16,141	6512	1438	6082	239	20,851	4.55
Total	607	40,265	78,758	10,535	258,510	151,379	40,523	33,452	5478	231,125	6819

Chapter IV.
Agriculture.
Stock

One pair of oxen can till six to eight acres of rice land, ten to fifteen acres of ordinary dry-crop land, and thirty to forty acres of black soil. Thirty-two acres of black soil and eight acres of common soil or fifteen acres of common soil and five acres of garden land would enable a husbandmen to live like an ordinary retail dealer. In good years a man with a holding of this size might save; but as a good year does not come oftener than once in five years, the owner of so small a holding would find it difficult to save much.

The Poona-Harihar road, which runs north-west and south-east,

divides the district into two belts, the hilly and woody west rich in water both for drinking and for tillage, and the open waterless east. Parts of Navalgund and Kon, in the eastern plain, which are

A PLOUGH.

crossed by the Bennihalla, are particularly badly off for water. The small streams dry early in the hot season, and what water is found by digging in their beds is too brackish for drinking. The well water is also apt to grow brackish. So short is the supply that from March to May the people of each caste form themselves into a water club, and every two or three days fetch water in bullock or buffalo carts from a distance of two or three miles. The dryness of these parts is not of recent date. Under the Peshwás (1756-1817), officers who fell into disgrace were often sent to govern this waterless or nirial land. Irrigation is chiefly from ponds and reservoirs, in some cases with the help of canals. The pond system of irrigation is common in Madras and Maisur, but is rare in the Bombay Presidency. Three conditions favour the multiplying of ponds and reservoirs in west and south-west Dhárwár: the abundance of suitable sites, the certain and long continued local rainfall, and the absence of under-ground water. The stream beds

and valleys among the low ranges of metamorphic schist supply numerous sites suitable for storage lakes. In the western subdivisions of Hangal, Kod, Kalghatgi, and Bankapur seldom more than four and often not more than two months in the year pass without rain. The absence of under-ground springs seems to be due to the uprightness or highly inclined position of the clay slate and associated rocks which if flatter might have formed water-

bearing strata. Except below ponds wells are rare.

IRRIGATION.

Chapter IV.
Agriculture.
IRRIGATION.

Reservoirs.

Most of the ponds and reservoirs are old works. It is not known when and by whom they were made. But most are believed to date from the Vijayanagar or Anegundi kings (1335-1570) who were famous for their success in water works. Almost all traditions of local prosperity centre in the first half of the sixteenth century. the reign of the great Krishna Raya (1508-1542) who was famous for the number and magnitude of his public works. During his reign the great lake near Shiggaon five miles north of Bankapur and other fine reservoirs are said to have been built. The most remarkable work, which is said to have been planned and carried out by a minister named Damak Mudh, was the damming in no less than seven places of the half mile broad Tungbhadra. Across this great river dams or bandárás formed of gigantic blocks of stone, often many tons in weight, were thrown. From five of these huge works canals, led along both sides of the river, water many miles of garden which are now the richest parts of Belári on the south bank and of the Nizám's country on the north bank of the Tungbhadra.² In 1881-82 there were 2979 ponds and reservoirs or one pond for every 1.52 square miles. Of these 1021 were in Kod, 841 in Hángal, 399 in Kalghatgi, 329 in Bankápur, 129 in Dhárwár, 105 in Hubli, ninety-nine in Karajgi, twenty-four in Navalgund, twenty in Gadag, and twelve in Ránebennur. These together water 93,730 acres of land paying a total assessment of £29,625 (Rs. 2,96,250). Of the whole area 87,246 acres were rice lands with a total assessment of £25,054 (Rs. 2,50,540), 5275 acres were garden lands with a total assessment of £4437 (Rs. 44,370). and 1209 acres with a total assessment of £134 (Rs. 1340) assessed at dry crop rates are now watered. The average assessment on each pond is about £10 (Rs. 100) and the area watered from ponds is 7.06 per cent of the whole tillage. The average area watered by each pond is thirty-one acres. Some ponds water the lands of only one or two holders, others water fifty to eight hundred acres often in several villages. These reservoirs as a rule are formed by a low and often irregular dam. They often depend for part of their water on the escape from higher lakes. Often, also, the natural catchment area is increased by catch-water drains or by supply channels from streams. As a rule the waste-water escapes are simple channels cut in the hard soil or gravel. They are generally at the end of a long arm of the pond to avoid breaching the main dam. The outlet sluices, of which the larger reservoirs have generally one or two, are made under and through the dam. These outlets are often masonry works with horizontal holes, stopped with wooden plugs, and surmounted by elaborately carved guide stones for the pole of the plug. Sometimes, especially in the smaller reservoirs, the water is let out by a simple cut through the dam, the opening being roughly filled with earth, stones, and brushwood. The larger lakes are almost always faced in front with walls of dry rubble stone. Below each reservoir

² Bom, Gov, Sel. CLV. 74.

¹ Probably as in other dynasties, Krishna Ráya the greatest of the line has in tradition the credit of the works made by all the members of the family.

the land is laid out in terraces, and the distribution of water is managed entirely by the people, disputes being settled in ordinary cases by the leading members of the village and in grave cases by the officers of the irrigation department. Most of these reservoirs dry soon after the rains are over, the water being drawn off for rice and other early crops during the breaks in the rains. This practice is necessary to make good the difference between the usual local fall of about thirty inches and the sixty inches which without the help of irrigation rice requires. The watering power of a reservoir depends on its position as well as on its size. In the west where the rainfall is heavy the amount of water which can be drained off a lake and used in watering is much greater than in the dry east.

Some of the ponds though their supply of water does not last throughout the year, are used for watering garden crops. In this case the people have to trust either to the water in wells sunk below the dam, or to the rain-storms of March and April to help the crops through the time when the reservoir is dry. The chief garden crops under these ponds are betel and cocoa-palms, plantains, betel vines, and sometimes sugarcane. The evil of the pond system is that the ponds slowly but gradually have their storage capacity lessened by the deposit of silt. Formerly the landholders, who used the water of the lake, made yearly contributions in money or in labour to remove the silt. This practice has long ceased. Government are now often asked to be at the expense of removing silt deposit, but the clearing of silt is a very costly and unproductive mode of increasing storage. The effect of years of silting can generally be counteracted by slightly raising the whole water surface by adding to the height of the crest of the dam. The only advisable silt clearance is what is required to raise the crest of the dam or to keep the dam in repair. As regards the repairs of these lakes the principle adopted by Government has been to leave the ordinary repairs to the people who profit by the work. When for the proper maintenance of the works large repairs, raising the dam crest, widening the waste weir, or repairing outlets, have become necessary, Government step in and do the work. In such cases a contribution from the villagers used generally to be levied. Since 1880-81 Government have decided to undertake all such repairs at their own cost. Petty repairs to catch-water drains and to water-channels are still left to the people. Repairs and improvements to masonry works are always undertaken Government. In the case of improvements either a contribution is asked from the villagers or an agreement is taken from them to pay such extra rates or irrigate such extra land as may be required to make the proposed improvements pay. During the ten years ending 1881-82 the total amount spent on repairs was £11,421 (Rs. 1,14,210).

Of the 2979 ponds and reservoirs the chief are at Háveri in Karajgi, at Nagnur in Bankápur, and at Dambal in Gadag.

The Haveri lake, about seven miles south of Karajgi is one of the largest and most important reservoirs in the district. It has a catchment area of sixty-nine square miles in which are many other ponds and reservoirs. It rarely fails to overflow every year, and

Chapter IV
Agriculture
IBRIGATION.
Reservoirs

Haveri.

Chapter IV.
Agriculture.
IRRIGATION.
Reservoirs.
Nagnur.

when full its area is 647 acres. The work is provided with two waste weirs of a total length of 350 feet. In 1881-82 the lake watered 515 acres assessed at £509 (Rs. 5090).

The Nagnur lake in Bankapur has an earthen dam whose water face is protected by a massive dry-stone wall. The dam is 3400 feet long, and has a greatest height of twenty-four feet. The top width is twelve to twenty feet, carrying a cart-road from Shiggaon to the villages on the east. At the north end is a waste channel for the escape of flood waters, and there is a masonry outlet sluice through the dam at each end. The lake is so shallow that on an average the water lasts only for six months after the rains cease, and the lake water has to be supplemented from the wells in the gardens below. These gardens are old established betel and cocoa-palm plantations, and are valuable properties yielding handsome profits to the owners as well as a considerable revenue to Government.

Dambal.

The Dambal lake is fifty-five miles east of Dharwar in the Gadag sub-division where the rainfall is light and facilities for storing water are few: It is said to be about 300 years old. It was made by an earthen dam 4000 feet long and about twenty-five feet in greatest height whose water face is guarded by a massive dry-stone retaining wall. It has a masonry waste weir at each end, 335 feet long and two masonry outlets for the discharge of water for irrigation. The lake was originally a very fine work, but, at the beginning of the present century, it had greatly silted, and so much of the bed was overgrown with a thick bábhul forest that for some time its water had been comparatively useless. A recent survey has fixed the area of water surface at 300 acres and the capacity at 143 millions of cubic feet. The catchment area measured forty-six square miles, and, with an average rainfall of twenty inches, the supply of water would be greatly in excess of the storage. The lake usually ran dry in December and wells had to be dug and worked for four or five months every year at great cost. The periodical failure of the lake's supply resulted in much of the land lying fallow for half the year, after the six months' crops were reaped, and a great deal was sown with ordinary dry crops. The lake was repaired by Government in 1824 and 1849, and in 1860 minor repairs were carried out. It was further repaired during the famine of 1876-77 and 1877-78. The 1876 and 1877 improvements included the raising of the water surface six feet, thereby increasing the lake's storage capacity from 143 to 108 millions of cubic feet; the making of a new waste weir 300 feet long with its crest twelve feet below the new top of the dam on which extreme floods are calculated to rise 8.6 feet; the extension and improvement of the outlets; the construction of a distribution channel 11 miles long commanding 1790 acres; and the clearing of the babhul forest in the lake bed. These great improvements were completed by the end of 1878.

Madag.

Besides these lakes a fourth called Madag lies in Maisur limits about two miles south of the Kod town of Masur. The boundary between Kod and Maisur runs along the top of the old dam so that the lake is in Maisur, while the lands which it waters are in Kod. Like other irrigation works in the south and west of the district, the Madag

lake is believed to date from the time of the Vijayanagar kings (1335-1570). The maker of the lake intended to close the gap in the hills through which the Kumudvati feeder of the Tungbhadra flows into Kod, and by this means to form a lake on the south side of the range of hills which divide the Másur valley from Maisur. This was accomplished by throwing up an earthen embankment, now about 800 feet thick at the base and 100 feet high, faced towards the lake with huge stone blocks descending in regular steps from the crest of the embankment to the water's Two similar embankments were also thrown across other gaps in the hills to the right and left of the Kumudvati valley to prevent the pent-up waters escaping by them, and a channel was cut along the hills for the overflow of the lake when it had risen to the intended height. When full this lake must have been ten to fifteen miles long and must have supplied water for the irrigation of a very large area. The neighbouring hills still bear traces of vast cuttings for material and of the roads by which it was brought to the site. A moderate sized fort on the hill commanding the lake is said to have been built for the protection of the work people. Each of the three embankments was provided with sluices built of huge slabs of hewn stones for the irrigation of the plain below, and two of these remain as perfect as when they were built. These sluices were built on the same principle as other old Hindu local sluices, a rectangular masonry channel through the dam closed with a perforated stone fitted with a wooden stopper. But, as the sluices had to be in proportion to the size of the lake, instead of the small stone pillars which in ordinary works carried the platform over the stopper, the supports were formed of single stones weighing about twenty tons each. To the upper sluice a tradition of human sacrifico attaches. As it was the crowning point of this great work the Vijayanagar king and his court met to see the great single stone pillars raised to their places. For days the workmen's efforts were vain. At last it was known that the Place Spirit was angry, and, unless a maiden was offered to her, would not allow the pillar to be raised. Lakshmi the daughter of the chief Vadar or ponddigger offered herself, and was buried alive under the site of the pillar. The spirit was pleased, and the pillar was raised and set in its place without mishap. In honour of Lakshmi the sluice became

Chapter IV.
Agriculture.
IRRIGATION.
Reservoirs.
Madag.

¹ Bom. Gov. Sel. CLX. 87.

a temple.2

² Lieut. Colonel Playfair, R. E., Superintending Engineer for Irrigation, 27th October 1879. According to a second legend the pátil of Másur, whose family lived at Pura Parkeri in the Maisur division of Shimoga had a beautiful daughter Kenchava whom the Vijayanagar king wished to marry. As her father was of a higher caste than the king the girl refused the king's offer and fled. Afterwards her parents wished to marry Kenchava to the pátil of Isur in the Shikarpur sub-division of Maisur. They set out to celebrate the marriage, but on passing a temple now covered by the waters of the Madag lake, Kenchava entered the temple and devoted herself to the god. When the lake was made, Kenchava refused to leave her god, and, when the first floods of the rainy season came, the temple was hidden under the lake and the girl was drowned. It was a season of severe floods and a watchman was set to watch the dam. Kenchava entered into this watchman and told him to go and tell the patil that unless he offered her a woman nine months with child she would burst the lake.

Chapter IV.
Agriculture.
IRRIGATION.
Reservoirs.
Maday.

The lake was finished and filled. But in some heavy flood it burst not through the carefully closed valley but by the most westerly of the three embankments. Through this outlet a vast body of water forced its way in a deep groove with a fall of nearly 100 feet, wearing a chasm with nearly perpendicular sides as if cut with a As the pressure of the water grew lighter and the strata to knife. be cut became harder, the wearing ceased, and a certain quantity of water remained in the bed of the lake. The surplus now passes in a pretty little waterfall over the point where the cutting ceased. After this disaster no steps were taken to make use of the water which the broken lake still held. The builders abandoned the undertaking, and, till recent times, the unfinished channels and the dam remained overgrown with forest. It was sometimes visited to see the single stone of the main sluice which remained one of the wonders of the country. After the country passed to the English two difficulties prevented any use being made of the water stored in the broken lake. When the breach occurred, the lowest of the old native sluices, which offered the only channel for drawing water through the enormously thick dam, was left too high above the surface of the water to be of any value. Any attempt to dam the outlet chasm, and so raise the level of the lake sufficiently to use the old sluices, was prevented not only by its great expense, but by the opposition of the Maisur villagers, whose lands lay on the margin of the lake, and would be swamped by any rise in its level. Owing to these difficulties nothing was done until, in 1858-59, Lieutenant-Colonel Playfair, R. E., then executive engineer, thought that if a culvert could be laid below the old sluice the lake could be successfully tapped. This was done under Colonel Playfair's immediate supervision. For this the old native sluice had first to be cleared as it was filled with dirt. Clearing was begun on both sides, not without the opposition of the Maisur people who at first drove the workmen off, and objected to anything being done on their side. When the two parties of workmen came within 100 feet of each other progress was stopped as the stones that supported the roof were found to have fallen in. The sluice appears to have been originally laid on the rocky surface of the valley, roofed with enormous stones, and the dam

The watchman said he could not leave his post. Kenchava promised that if he went she would not break the big dam but that if he was long in coming back she would burst through one of the hills. The watchman went and gave the headman Kenchava's message. But the headman paid no heed to his message, punished him for leaving his post, and offered Kenchava no sacrifice. Enraged with his insolence Kenchava broke through the hill and the embankment as well. Poor people used to go to the lake and beg Kenchava to lend them nose and earrings to use at a wedding and found what they wanted at the water side. One man forgot to return the ornaments and Kenchava no longer provides them. In 1870, a fisherman's tackle got entangled in the roof of the under-water temple. Diving down to free his tackle the fisherman entered the temple and saw a golden image of Kenchava. She warned him to tell no one she was alive, and told him that on the day he let out her secret he would burst a blood-vessel and die. He asked her how he could get out of the temple; she gave him a push and he was on the surface. He kept his secret for two years, told it, burst a blood vessel, and died. In seasons of drought, the heads of the temples in Shikarpur come to this lake with a round piece of gold and a nose-ring. They lay food on a small raft and pushing it into the lake pray Kenchava to send rain. Dr. Burgess' List of Archæological Kemains, 17-18.

built over it. The weight of the one hundred feet of earth had been too great for the sluice-roof. In the part where the sluice-roof had fallen the further clearing became a matter of great danger. The only plan appeared to be to gently dig over the broken stones and trust to find sounder ones beyond, and thus again to get a roof over the heads of the workmen. This attempt was successful. Only a few of the covering stones had fallen in; and the earth above them was sufficiently consolidated by time to allow of a passage being dug through it. The two parties at length joined, and the old subterranean gallery was opened through its whole length of 800 feet. The digging of the culvert below the floor of the old sluice was then begun, the old work acting as a ventilator as well as a roof till the new tunnel was arched. All went well till towards the centre where a mass of extremely hard rock gave much trouble.

As a part of Colonel Playfair's scheme two canals were to be dug, leading off 334 feet above the original bed of the river. Six miles of the whole length of the 161 miles of the left bank canal, and eight miles of the whole length of the 151 miles of the right bank canal have been dug. The left bank canal is carried along the rear slope of the main embankment until it reaches the new river channel which it crosses by a large aqueduct. In 1882-83 four miles of the right bank canal were planted with about 7200 trees mostly babhuls, mangoes, and nims. The total area watered was 482 acres and the crops watered were mostly sugarcane, rice, garlic, and onions. The water rates vary from 16s. (Rs. 8) an acre for twelve months' crops to 2s. (Re. 1) an acre for rainy-season crops. The lake might easily be made to hold a great deal more water. Even by boarding the waste weir the storage might be greatly increased. What prevents the carrying out of fresh works is that every foot which the surface of the lake is raised swamps a large area of rich land. In 1872 an attempt was made to induce the Maisur villagers to accept compensation and let the land be flooded; but the attempt failed. The matter is still under consideration, and it is hoped that some arrangement may shortly be made. At present as the canals are small, with only a slight fall, it is not possible to draw off the lower portion of the water above the sluice sill level, and the upper portion is lost by evaporation. As the total depth of the lake above the sill of the canal sluices is only 4.50 feet little water is available for late and hot weather crops. The ordinary rainfall is enough for the common early crops which are grown to a great extent in the neighbourhood.

The only important system of canal irrigation is on the south bank of the Dharma, the Varda's chief feeder, which rises in the Sahyadri hills about twenty miles south-west of Hangal. The work is about three hundred years old, but most of the masonry is stones taken from Jain or Chalukyan temples. The head works of the main canal are at the village of Shringeri about five miles south-west of Hangal. A solid masonry weir thrown across the stream raises the water a few feet, and two canals are led off one on each bank. The left bank canal which is called the Kamanhalli canal is about three miles long. It feeds four reservoirs and waters a small area of land on its way. The right bank canal, which is known as

Chapter IV
Agriculture.
IRRIGATION.
Reservoirs.
Madag.

Canals.

Chapter IV.
Agriculture.
IRRIGATION.
Canals.

the main Dharma canal, is seventeen miles long, passing through the villages of Sevhalli, Gejihalli, and Gavrápur. Near its head it sometimes carries over 400 cubic feet the second. At Gavrápur it crosses a road under a masonry bridge and continues through the land of Sirmapur and fills the two large reservoirs of Dholeshvar At Surleshvar, seven miles from Shringeri. and Surleshvar. the canal divides into two branches, one flowing east to A'dur and the other flowing south to A'lur. Each of these two main branches throws out a number of smaller channels which command a considerable tract of country between the Dharma and the Varda. The Dharma is also dammed by a masonry weir at a point about thirteen miles below Shringeri and a canal known as the Naregal canal is taken off at the right bank. This supplies three ponds at Naregal besides watering the land under its immediate command. The Dharma has a catchment area of sixty square miles at the site of the main canal headworks which is densely covered with forest. This forest land adds greatly to the value of the Dharma as it gives off the rainfall in manageable quantities and over lengthened periods. The Naregal canal intercepts the drainage from a great deal of the land watered by the main Dharma canal as well as the supply afforded by the catchment area of the river between the two head works. The Dharma flows only during the six wet months. To make use of its water during the dry months, a number of ponds were built by the original projectors of the scheme. These ponds are below the canals, and are filled by the surplus water of the river during the rains. Storage is thus obtained during the hot months and irrigation is perennial. In 1881-82 these canals supplied ninety-two ponds of which thirty-nine were fed from the main canal, fifty from the branch canals, and three from the Naregal canal. The largest of these ponds are at Dholeshvar, Surleshvar, Arleshvar, A'dur, Havanji, Balambid, A'lur, and Naregal. In 1881-82 the area watered by the canal and the ponds dependent on the canal was 8660 acres. Of these 8660 acres 208 were watered by the Kamanhalli or left bank canal, 7399 by the main and branch Dharma canals, and 1053 by the Naregal canal. Of the 8660 acres 8127 were rice land and 533 were garden land. The gardens under the Naregal reservoir very rich, yielding the finest betelnuts in the neighbourhood. revenue realized was £3542 (Rs. 35,420). The principles of the original project are sound, but mistakes of detail interfere with the success of the scheme. The fall of the canal bed is unduly slight and is irregular. Nowhere is the fall more than one foot in a mile and in many parts it is much less than a foot. The course of the canal is very roughly laid out. Sharp turns and corners are common, and there are long needless bends, unless indeed owners refused to let the canal pass through their lands. From Shringeri to Surleshvar not a work was made to carry the local drainage across the canal. In consequence silt deposits are unusually heavy, and nearly the whole of the water which reaches Surleshvar is carried through the A'lur branch which has a rapid fall. Only in heavy floods, perhaps for a few days twice a year, does the water find its way down the A'dur branch. Formerly all

villagers interested in the canal busied themselves once a year in a general and thorough silt clearing. This custom has gradually fallen into disuse. Where the system is so large and complex the principle of leaving the distribution of the water entirely to the people is open to grave objection. The villages on the higher reaches of the canal take an undue share of the water to the serious injury of those lower down. For some time inquiries have been made how far the whole work can be placed on a sounder footing, and a regular and just system of water distribution be introduced. The attention of the irrigation department has for some time been given to the improvement of the Dharma canal. A survey has been made of the main canal, and it is proposed to carry out works for its improvement and to bring it under proper control. The chief works would be regulating the fall by clearing obstructions, straightening the course in places, providing masonry escapes, and making the width more uniform. It is proposed to fix a regulator at the head-works, to provide proper outlets, and to introduce more system into the management of the canal.

Besides the Dharma canals there are two minor works of the same character; one for using the water of a stream running from the Nidsingi reservoir south to the Dharma at Kuntanhoshalli, and the other for using the water flowing through the valley south of Konankeri, and, by means of a channel made to connect numerous ponds, eventually to carry on the surplus water to the large Belgal reservoir. As regards the first or Nidsingi work, the stream passing near Bassapur was diverted to the Kurgudri reservoir by an embankment and deep cutting south of Bassapur. The original stream passes south and joins the Dharma at Kuntanhoshalli. Between the villages of Kurgudri and Satinhalli an ancient masonry weir across this stream feeds a small channel on the right bank, which waters the lands of Kuntanhoshalli. A mile below this weir stood an old dam from which the Savasgi lands were watered. This old dam was breached and ruined about forty years ago and the Sávasgi lands lost this supply of water. To provide a remedy it was found more economical to rearrange the Kuntanhoshalli weir work so as to take off an irrigation channel from that weir on the left bank to the Savasgi lands, than to reconstruct the Savasgi weir itself. The work is now completed. The supply of water to the Kuntanhoshalli lands has also been improved by the new works. The Belgal Kálva as the channel is called which carries off the surplus water which gathered in a large valley south of Konankeri, connects a number of ponds from which, as each pond gets filled, the surplus water flows into the next, until it ends in the Belgal reservoir. This channel, which is about nine miles long, passes through the lands of Hankanhalli, Bamanhalli, Nellibid, Yelvatti, Talkerikop, and Gundur, and finishes at the Belgal reservoir. In many places are masonry outlets, whence rice lands lying between and not under the lakes are also watered. These outlets are said to have been an after-thought. The villagers of Belgal, who are the last to benefit by this channel, complain that in consequence of these outlets the water is taken for so many fields that the reservoirs do not fill as they used to, and the Belgal

Chapter IV.
Agriculture.
IRRIGATION.
Canala

DISTRICTS.

Chapter IV.
Agriculture.

WELLS.

reservoir has lost a large supply of water. This channel was repaired and the new outlets made some years ago at the expense of the villagers.

According to the Collector's return for 1882-83 of 12,002 wells 3099 were step wells and 8903 were stepless wells. The average depth of a well varies from fifteen feet in Kod to a hundred and twenty feet in Navalgund. The cost of building a step well varies from £30 to £200 (Rs. 300-2000) and of building a stepless well from £7 10s. to £30 (Rs. 75-300). The following table shows the number of wells, their average depth, and the cost of building them:

	1	WE	LLS.		Cost.					
Sub-Division.	With	Steps.		hout	With	Steps.	Without Steps.			
	Num- ber.	Aver- age depth.	Vum- ber.	Aver- age depth.	Low- est.	High- est.	Low- est.	High est.		
		Feet.		Feet.	£	£	£	£		
Dhár wár Hubli	210	25	1361	70	50	150	10	20		
Manalamad	1 6	63 120	1194 311	80 120	50 80	200 200	15 20	25 30		
Gadag	1 400	40	824	40	50	100	10	20		
Bankapur	1 450	25	663	60	50	100	10	20		
Démahammu	503	40	140	50	50	100	10	20		
Hángal		80	1339	80	40	80	10	20		
Karajgi		36	573	42	60	100	10	20		
Kalghatgi	74	44	285	69	50	100	10	20		
Kod Ron	. 660 63	15 41	1679 £34	15 50	30 50	70 100	71 10	15 20		

Dhárwár Wells, 1882-83.

Navalgund and Ron which are badly placed for pond storage are also ill-suited for wells. The people are put to much inconvenience, not only because drinking water is scarce, but because it is bad, being charged with salt and lime. The supply of water in wells depends on reservoirs lying on a higher level from which the water soaks into the wells below. The wells in garden lands are nothing more than ponds of all sizes and shapes, and as they are not regularly built or surrounded with a parapet wall, the rains sweep much mud and filth into them, and unless they are regularly cleared they become choked and useless in a few years. These wells begin to be used about March, when, either from a scanty rainfall or from other causes, the pond supply begins to fail. When the water in the wells is on a level with or near the surface, two men scoop up the water by swinging a basket or guda through it. When the water is five or six feet below the surface the leather bag or mot is worked. many of these wells are shallow and have no spring they dry as soon as the ponds.

MANURE.

The use of manure is generally understood. Except alluvial lands, all fields are more or less manured according to their wants. The garden lands are fully manured especially those growing the richer crops, which are manured with great care and with as much liberality as the husbandman can afford. Rice lands are freely manured and even the dry crops get a fair share. Waste lands, when brought under tillage, are not manured for the first year or two. In such cases the first crop sown is almost always Indian millet followed by

a green or oilseed crop. If it seems to want it the land is manured before the third crop is grown. Black and good brown soils are manured once in three, four, or five years. They are naturally rich. and their vigour is renewed by the upper soil being always washed into cracks and the subsoil coming up for tillage. Red and poor brown soils are manured every second year and in some cases, if the husbandmen can afford it, every year. Sugarcane, rice, Indian millet, chillies, and rági want manure every year; sáve Panicum miliare, castor-oil, and uddu Phaseolus mungo want manure once in · three years. On account of the labour and cost of carting the manure, fields more than a mile from the village are not manured oftener than once in three or four years. There are four methods of enriching the soil, the chief of which is mixed manure. This consists of cattle droppings, ashes, stubble, the shells of betelnuts, urine, and every form of rubbish which can be gathered. All this is stored in a pit near or in the husbandman's yard. The manure in the pit is occasionally covered by a thin layer of earth or house sweepings by which the volatile properties are kept from passing into the air. Some time before sowing, the manure is carted to the fields, piled in small heaps, spread on the field, and ploughed into the soil. In sowing Indian millet and other grains the poorer husbandmen mix the manure with the seed. As each husbandman has his manure pit, manure is not sold. An acre of garden land wants ten cartloads of manure of the nominal value of 5s. (Rs. 2½), and an acre of rice or dry-crop land wants four cartloads nominally worth 2s. (Re. 1). The second way of manuring is by having the stubble, the cotton leaves, and the weeds eaten by sheep or goats. animals are known to leave their droppings on the ground the moment their rest is disturbed. The husbandmen contract with the shepherd that the sheep or goats shall not be allowed to rest more than an hour or two in one place, but be moved from time to time in the field. The urine and droppings are thus evenly spread over the whole field. When the finer-grained crops such as save Panicum miliare, and yellu Sesamum indicum are about to be sown the stubble is gathered in heaps and burnt on the field. The fourth way of enriching the soil is by green manuring. Black sesamum or guryellu is sown in late May or early June and is allowed to grow for three months when it flowers. It is then ploughed in and destroyed by the heavy hoe or kunti. This is considered sufficient manure for two years. In some places pond silt is spread on the fields, but silt is not so enriching as the other manures.

A two years' change of crop is held to be relief enough to the soil. In black soils cotton and Indian millet, as a rule, are sown alternately. In red soils Indian millet is followed by Italian millet, rági, sáve, chillies, or castor-oil, that is the change is from grain to green crops or from grain to oil-seeds. Oil-seeds are often used as a relief to the usual change of grain and green crops. The same crop is seldom sown in the same land for two successive years. The chief exception to this rule is that grain may be sown in the same field for several years without a change if care is taken that a late crop succeeds an early crop. Thus the early millet may be succeeded

Chapter IV.
Agriculture.
MANURE.

CHANGE.

Chapter IV.
Agriculture.
CHANGE.

by the late navani Panicum italicum or wheat. Green and oil crop may also be grown for several years in succession if the crop is changed, thus gram and safflower may come after cotton or black sesamum. As these are all late crops the soil has the benefit of a whole year during which it rests through the hot season and the early rains to receive which it is turned more or less deeply. With an average supply of rain good black soil yields a second crop. In the plain to get a second crop the early crop must be white sesamum. This is reaped in the end of August, when the soil is thoroughly ploughed or otherwise turned, and wheat or gram with an occasional row of safflower, linseed, or castor-oil are sown. After these the next crop is generally one of the early millets for which the soil is manured. There are therefore three modes of changing the crop: A change of grain with green crops or oil plants, a change of oil plants with green crops, and a change of early with late crops.

FIELD Tools.

Dhárwár field tools are like those used in the neighbouring districts of Belgaum and Bijápur. A detailed description is given in the Belgaum Statistical Account. The chief field tools are the heavy plough or negali (K.), the light plough or ranti (K.), the large hoe or kunti (K.), the leveller or korudu (K.), the seed drill or kurgi (K.), the grubber or yadi kunti (K.), and the pickaxe or báigudli (K.). Both the heavy or negali (K.) plough and the light or ranti (K.) plough consist of a thick log of wood shaped by the village carpenter, with its lower end curving forward at an obtuse angle from the main block. The share, which is an iron blade, one and a half feet long by three to four inches broad and four to twelve pounds in weight, is let into a socket and fixed by a movable iron ring to the wooden point beyond which it juts about six inches. The handle is fixed to the block by a thick rope passed along the beam and tied to the yoke, so that the strain of draught braces the different parts of the plough. The negali is a large, heavy, deepcutting plough, and is worked by two to six pairs of bullocks. Besides the ploughman, who is seldom able to keep the plough in anything like a straight line, it requires one to two men to drive the team. It costs £1 4s. to £1 12s. (Rs. 12-16) and as a rule is owned only by wealthy landholders who often lend it to their poorer neighbours. Except when the land is in very bad order the negali is never used. It is very effective in loosening stiff land and in uprooting weeds. The ranti (K.) or light plough is of exactly the same make as the heavy plough. The only piece of iron about it is a narrow bar about nine inches long which serves the purpose of It is worked by one pair of bullocks and costs about 4s. The ploughman manages it by himself as the reins of the bullocks come to the handle of the plough. In red and black soils the small plough is used before sowing to turn the soil; but, except cotton fields, good black soil often yields for several years without wanting even the small plough. The large hoe or kunti (K.) is a rude tool. The chief part is a stout slightly crescent-shaped blade of iron about three feet long and four to five inches broad, fastened in stout timbers with its cutting edge turned forward. The timbers are secured slopingly in a heavy beam of wood five feet long and one foot broad. The beam is joined to the yoke by two lighter pieces of wood and

from the upper surface of the beam rises the handle to which one end of a rope is tied and the rope is wound once round the lighter timbers in the middle, and is taken to the yoke and tied there. The large hoe costs about 10s. (Rs. 5) and is worked by four bullocks. To add weight a couple of boys generally sit on the beam, on each side of the handle, and are ready to clear stones stubble and other rubbish that may choke the hoe. Except in rice lands, in all lands where a plough is used before sowing, the large hoe or kunti follows the plough, breaks the larger clods, gathers the roots of weeds and of the last crop, and thoroughly loosens the In rich black soil, where for several years no ploughing is required before sowing, the large hoe is used to turn the soil. As land stiff and full of weeds requires the negali or heavy plough, so weedy stiff land requires a larger deep-cutting hoe called mági kunti (K.). A third small light hoe called ballesal kunti, is, in all soils, used after the kunti to level the surface and to cover seed sown by the seeddrill or kurgi. Besides the different hoes, a log called the korudo or leveller is used for breaking clods and smoothing the surface. The leveller is the log of a tree trunk split down the middle, scooped out and smoothed outside, and with two wooden pieces driven through it, on which the drag ropes and yoke are tied. When at work the driver stands on the leveller to give it weight. The seed-drill or kurgi is of two kinds, one for sowing grain and the other for sowing cotton. It consists of wooden beam with three to four wooden bills standing out at equal distances and armed with small iron tongues to make drills. To each of these bills is fixed a bamboo tube whose upper end is joined to a hole in the bottom of a wooden cup which has as many diverging holes as there are tubes. It costs about 4s. (Rs. 2) and is worked by a pair of bullocks yoked in the same manner as in the light plough or the light hoe. The driver fills the cup with seed. In some villages the seed-drill has only three bills, which are When mixed grains are to be wider apart than the four bills. sown in one of the drills the driver plugs the cup hole for that drill and the seed is sown by a man who walks behind, and, from a clothful tied at his waist, drops seeds through a hollow bamboo called bukku which is tied to the seed-drill. The cotton seed drill is made on the same plan as the grain-sowing kurgi. It has only two bills eighteen inches apart and has no cups with holes. It is worked by a pair of bullocks yoked in the same way as in the grain drill. At the back of the beam of the seed-drill are tied by ropes two hollow bamboos or bukkus, which are kept in furrows drilled by the iron tongues of the bills, by two sowers, who from a clothful of seed at their waist drop the seed through them. The grubber or yadi kunti is used to clear grass and weeds between the rows of young crops. It also earths up the soil at the roots of young cotton plants. It consists of a beam two and a quarter feet long by six inches broad with two stays like the harrow. In the lower end of each stay a blade of iron is fixed horizontally to the beam. Two beams are generally worked by one pair of bullocks; and sometimes one pair of bullocks works three and in rare cases even four beams. Each beam is joined to the yoke by two stout bamboos, each fixed to the beam over each stay, and is guided by one man. It costs

Chapter IV.
Agriculture.
FIELD TOOLS,

Chapter IV.

Agriculture.

FIELD TOOLS.

2s. 6d. (Rs. $1\frac{1}{4}$). The pickaxe or baigudli has one end pointed and the other end bladed into a sharp adze. It is most effective in cutting and uprooting grass and other weeds after the land has been ploughed. It costs about $10\frac{1}{2}d$. (7 as.). Besides these field tools there are a weeding hook or kurchegi worth about 9d. (6 as.), an axe or kudli worth 2s. (Re. 1), a sickle or kudgolu worth about 2s. (Re. 1), a saw-sickle also called kudgolu worth 1s. to 2s. (Re. \frac{1}{2}-1), and a spade or sulki worth about 2s. (Re. 1). Two carts are used for field purposes. The crop cart for bringing home field produce or carrying produce to market is about twelve feet long and three to four feet broad. The floor is made of two strong bars joined by four or more cross pieces at equal intervals. The wheels are of solid timber each of two or three pieces joined together and surrounded by a heavy iron tire two inches thick and nearly two inches broad. The wheels gradually thicken from the rim to the The axle tree, which is an iron cylinder, being considerably below the height of the bullocks, the floor is raised by a tongue resting on the axle. By this means, if the load is well balanced on the cart, the bullocks have comparatively little of the weight, and the draught, being on a level with their shoulders, is easier. From the axle run two poles to the ends of which the yoke is tied. With outriggers on both sides, the cart can carry a very great weight. It is rudely shaped and heavy; even when empty it is a hard pull for one pair of bullocks; when loaded it requires four to six yoke of oxen. It costs £4 to £16 (Rs. 40-160). The manure cart differs from the crop-cart in having high sides made of tur stalks or bamboo matting. By removing the sides the manure cart is sometimes used for other purposes. They are drawn by two to three pairs of bullocks.

TILLAGE.

Except a few black soil fields owned by traders and moneylenders which are covered with grass and bushes, because they are let to men who have neither the means nor the heart to work them. tillage is carried on with care and labour. Except when they are thickly covered with hariali (M.), nat (K.), or karige (K.) grass, Cynodon dactylon, or, when the intended crop is cotton, black soils do not require a yearly ploughing. Ploughing instead of improving harms Indian millet, for if the fall of rain is heavy the black soil runs together and becomes too wet for the proper growth of the young plants. This does not happen when the surface is simply loosened by the large hoe or kunti. Red soils require more tillage. The field should be ploughed twice, once lengthwise and once crosswise. When moist, red soils become light, friable, and easily worked. Two bullocks only are required to draw the plough, and the labour and expense are not much more than in hoeing black soil. Besides ploughing it is always necessary to use the large hoe once or twice to all kinds of soils before sowing, and, in the early stages of their growth, both Indian millet and cotton must be frequently hoed and cleaned. Cotton requires particular care. If grass and weeds are not constantly rooted out the young plants are stunted and the outturn is small.

Dhárwár shares both in the south-west and in the north-east or Madras rains in a greater degree than any other district in the

SEASONS.

Presidency. The south-west rains are most felt in the hilly and woody west, the north-east rains in the open east and north, and both about equally in the two southern sub-divisions of Kod and Ránebennur. The prevailing tillage in the west is wet chiefly of early or mungari crops; in the east the tillage is dry chiefly of late or hingári crops. In Kod and part of Ránebennur, which share in both rains and have both dry and wet tillage, entire failure of crops from drought is unknown. though it often happens that the rainfall favours one kind of tillage more than another. No rainfall can well be too heavy for rice when once it is well above ground; while too much rain harms dry-crop tillage. On the other hand the rainfall which is most suitable for dry-crop tillage is not all that can be desired for rice. The husbandman's year of 365 days is divided into twentyseven lunar asterisms or star-chambers. These are Ashvini of fourteen days from the 11th to the 24th of April; Bharni of fourteen days from the 25th of April to the 8th of May; Kritika of fifteen days from the 9th of May to the 22nd of May; Rohini of thirteen days from the 23rd of May to the fourth of June; Mrigshirshe of fifteen days from the 5th to the 19th of June; A'rdi of fourteen days from the 20th of June to the 3rd of July; Punarrasu of fourteen days from the 4th to the 17th of July; Pushya of fourteen days from the 18th to the 31st of July; A'shlesha of fourteen days from the 1st to the 14th of August; Maghe of thirteen days from the 15th to the 27th of August; Hubbe of fourteen days from the 28th of August to the 10th of September; Uttara of fourteen days from the 11th to the 24th of September; Histic of thirteen days from the 25th of September to the 7th of October; Chette of fourteen days from the 8th to the 21st of October; Srati of thirteen days from the 22nd of October to the 3rd of November; Vishákhe of thirteen days from the 4th to the 16th of November; A'nurádhi of thirteen days from the 17th to the 29th of November; Jeshtha of thirteen days from the 30th of November to the 12th of December: Mul of fourteen days from the 13th to the 26th of December; Purcáshádha of thirteen days from the 27th of December to the 8th of January; Uttráshádha of thirteen days from the 9th to the 21st of January; Shravana of thirteen days from the 22nd of January to the 3rd of February; Dhanishte of thirteen days from the 4th to the 16th of February; Shutatare of thirteen days from the 17th of February to the first of March; Purvábhádre of fourteen days from the 2nd to the 15th of March; Uttribbilite of twelve days from the 16th to the 27th of March; and Recati of thirteen days from the 28th of March to the 10th of April. Seven of these between Kratika and A'shlesha, that is between the 9th of May and the 14th of August, form the early or munquiri season; six between Maghe and Scati, that is between the 15th of August and the 3rd of November, form the late or hingári season; eleven between Hastu and Shravana, that is between the 25th of September and the 3rd of February, form the harvesting season; and seven between Uttarásháda and Revati that is between the 9th of January and the 10th of April form the cotton-picking season.

The normal Dhárwár rainfall may be divided into three periods. The first lasts from the middle of April to the end of the first week

Chapter IV.
Agriculture.
SEASONS.

Chapter IV.
Agriculture.
SEASONS.

Every ten or fifteen days in these six weeks should have a heavy easterly thunderstorm with half an inch to two inches of These falls are wanted for the western rice lands that the rice may be sown before the end of May. East of Hubli these showers have no special use as the black soil grows no rice, and no crops are sown before the end of June or the beginning of July. The next period is the south-west monsoon, which lasts from the middle of June till the middle or end of September. The monsoon should begin with about a week of heavy showers lasting some hours every day to soak all land intended for early jvári or rági. After a week's rain should come a nearly fair week that field work may be pressed on. The first sowings of jvári should take place in early July. The whole of July should be wet, with few entirely dry days. August is generally a dry month, with as a rule not more than two to three inches of rain. These August showers moisten the surface of the eastern plain and prepare it for the sowing of late or white jvári and cotton. The date of sowing white millet and cotton varies with the rainfall from the middle of August to the middle or even the end of September. Wheat mixed with linseed or safflower is sown still later. September should be moderately wet with many fine days. The harvest depends on October more than on any other month. October is also the month of most uncertain rainfall. If no rain falls in October, as was the case in 1876, the cotton, the late jvári, and the wheat are entirely lost. If unusually heavy rain falls in October, as fell in October 1877, the early jvári ears sprout. The whole of the October rainfall is from the east. It is not steady rain, but comes in sudden and heavy downpours which last an hour or two. The whole October rainfall should be about six inches, half an inch to two inches falling in one heavy plump every few days. This gives all the moisture which the cotton, wheat, and later jvári require. After October the less rain that falls the better both for harvesting the early jvári crop and for the health of the growing cotton wheat and other late December and January seldom pass without a few days often of heavy rain. In the east heavy December and January rain mildews the wheat; in the west heavy December and January rain does little harm as the rice and early jvári are harvested in November and early December.1

· CROPS.

In 1881-82 of 1,507,942 acres the whole area held for tillage, 184,776 acres or 12.25 per cent were fallow or under grass. Of the remaining 1,323,166 acres, 1661 were twice cropped. Of the 1,324,827 acres under tillage, grain crops occupied 756,034 acres or 57.06 per cent of which 389,411 were under Indian millet jola (K.) or jvári (M.) Sorghum vulgare, 174,827 under wheat godhi (K.) or ghau (M.) Triticum æstivum, 85,117 under rice bhatta (K.) or bhát (M.) Oryza sativa, 47,830 under navani (K.) or káng (M.) Panicum italicum, 28,859 under rági (K.) or náchni (M.) Eleusine corocana, 17,911 under sáve (K.) or vari (M.) Panicum miliare, 4099 under spiked millet sejje (K.) or bájri (M.) Penicillaria spicata, one under

¹ Mr. F. L. Charles, C.S., in the Famine Commission Report, 14-15.

maize mekke jola (K.) or makai (M.) Zea mays, and 7977 under other grains of which details are not given. Pulses occupied 101,197 acres or 7.63 per cent, of which 33,035 were under gram kadli (K.) or hardhara (M.) Cicer arietinum, 25,575 under togari or tuvari (K.) or tur (M) Cajanus indicus, 24,200 under hurli (h.) or kulthi (M.) Dolichos biflorus, 14,760 under hesaru (K.) or mug (M.) Phaseolus radiatus, 426 under uddu (K.) or udid (M.) Phaseolus mungo, and 3201 under other pulses. Oilseeds occupied 70,426 acres or 5:31 per cent, of which 14,734 were under linseed agashi (K.) or javas (M.) Linum usitatissimum, 3694 under sesamum yellu (K.) or til (M.) Sesamum indicum, 41 under Indian mustard súsive (K.) or rái (M.) Sinapis dichotoma, and 48,957 under other oilseeds. Fibres occupied 359,210 acres or 27.11 per cent, of which 357,701 were under cotton halti or arale (K.) or kápus (M.) Gossypium herbaceum, 1222 under Bombay hemp sanbu (K.) or tág (M.) Crotalaria juncea, and 287 under Indian hemp pundi (K.) or ambadi (M.) Hibiscus cannabinus. Miscellaneous crops occupied 37,960 acres or 2.86 per cent, of which 28,748 were under chillies menasinakai (K.) or mirchi (M) Capsicum frutescens, 3742 under sugarcane kabbu (K.) or us (M.) Saccharum officinarum, 1251 under tobacco hage soppu (K.) or tambáku (M.) Nicotiana tabacum, seven under ginger shunti (K.) alla (M.) Zinziber officinale, and the remaining 4212 under various vegetables and fruits.

The following are the details of some of the most important crops: Indian Millet, jola (K.) jvári (M.) Sorghum vulgare, with in 1881-82, 389,411 acres or 29.39 per cent of the tillage area, is the most widely grown crop in the district, the grain forming the husbandman's chief food and the straw supplying the best cattle fodder. In good black soil free from weeds for Indian millet the land is treated in the same way as for cotton. Red soils must be manured and ploughed before the leveller or korudu is used. fewer than eighteen varieties of Indian millet are grown in Dhárwár. Of these two bili jola (K.) and kari-goni jola (K.), the finest of the whole are late or hingári crops. The remaining sixteen are mungari or early varieties. Of the sixteen early varieties six, murtinjola, dhodojola, utal-phulgara, chejkara, kagi-jola and nandihál are sown as regular crops, never as occasional rows among other crops; a seventh variety bhagvant phulgara is sown both as a single crop and in rows among another crop. All of these seven mature in three to four months. The seven other varieties patansáli. gavri kulu or kulmudumugu, lasvanpadu, phulgara, jelkonjola jogi-jedi-jola, ken-jola, and kodmukanjola are, except kodmukanjola, sometimes sown as regular crops but usually as occasional rows in fields of navani Panicum italicum or rági Eleusine corocana. Jelkanjola does so well as an occasional row crop that it has the special name of ukkudi jola, ukkudi meaning an occasional row. When sown with late crops all of these seven are intended only to supply cattle with green fodder. The two remaining varieties halmukan-jola and ulkanjola are mixed with some of the above varieties before they are sown. These two may be eaten roasted; they are never made into bread. The early or mungari kinds are sown in July and August, and are reaped from October to

Chapter IV.
Agriculture.
CROPS.

Indian Millet.

Chapter VI.
Agriculture.
Crops.

December. Along with the early Indian millet generally in every fourth row or drill, are sown cajan pea hurli or Dolichos biflorus and mataki or Phaseolus aconitifolius which thrive with the same preparation of soil as the millets. The late or hingári Indian millets are sown in October, and reaped in February and March. With them are sown occasional rows of safflower gram and linseeed. Unless the ground is well manured Indian millet is not sown in the same field for two successive years; the second crop is either cotton, wheat, gram, or safflower.

Ráyi,

RA'GI (K.) or náchni (M.) Eleusine corocana, with 28,859 acres or 217 cent of the tillage area, is grown both in red and black soils, but generally in the red soils of the hilly west. Of two kinds of rági both are sown in June after the first burst of the south-west monsoon, and reaped one kind in October and the other in December. ing red soil for ragi the ground is ploughed with the large plough and is afterwards broken and levelled. Manure, at the rate of one or two cart-loads an acre, is laid in heaps at equal distances, and the seed is thoroughly mixed in the manure. Furrows are cut with the small plough, the sower following the plough with a basket full of mixed manure and seed which he drops in the furrow, his basket being kept full by a man who walks to and from the heap. When the sowing is over the leveller or korudu breaks the clods and covers the seed, the light hoe or ballesal kunti is passed over the surface, and is once more followed by the leveller. Along with rágia little mustard and the variety of Indian millet known as ukkadi-jola are sometimes sown. At intervals a row of cajan pea is drilled in. five years ago (1848) when wood-ash or kumri tillage prevailed, rági and sáve were planted in forest clearings. In these clearings no manure but the ashes of cut underwood were used. The same clearing only yielded a crop two years in succession when the ground was left fallow till the underwood had grown high enough to be again burnt.

Sare.

SA'VE (K.) or vari (M.) Panicum miliare with 17,911 acres or 1.35 per cent of the tillage area, is grown in the same way as rági. Of two varieties, one, muligi sáve is sown in June after the first burst of the south-west monsoon, and reaped in September; the other is sown from the 1st to the 15th of September and reaped in late December. Muligi sáve or early panic is seldom grown in the western forest villages, because, as it ripens before any other grain it has to bear the whole attacks of the wild hogs which infest those parts, and it is not valuable enough to make it worth watching.

Wheat.

Wheat godhi (K.) or ghau (M.) Triticum æstivum, with in 1881-82 174,829 acres or 15·19 per cent of the tillage area, is grown chiefly in Navalgund, Gadag, Hubli, Ron, and Dhárwár. It does not thrive well in Bankápur. The three chief varieties of wheat are the red or támbda, the local or jvári apparently meaning Karnátak, and the deshi also local apparently meaning Deccan. Of these the red is the finest and is much like English wheat. Wheat is the last sown of the cold weather crops. It is not sown till the October rains are over, and there is no chance of more rain. Wheat is generally grown in good soft black soil which has been thoroughly broken by the large plough followed by

the heavy hoe or kunti and the light hoe or ballesal kunti. Twenty-four to forty pounds of seed an acre are sown through the seed drill and the soil is again worked with the light hoe. After this it wants no weeding or other care. Wheat is grown every third year, and is followed by Indian millet. In some places wheat alternates with sugarcane and gram and occasionally safflower is raised between the rows of wheat two to six feet apart. Safflower does not ripen till a month after the wheat and does not interfere with its growth. wheat crop takes three to three and a half months to ripen. Towards the end of December it should have one good shower. When the seedlings are about a month old they are apt to suffer from rain or dew, and from a disease called bhandar which is caused by westerly winds. Southerly winds are also unwholesome. Excessively cold breezes bring on a disease called ittangi (K.) which makes the wheat plants turn reddish and bear poor or no ears. The acre outturn is said to vary from 60 to 300 pounds and to average about 200 pounds. The average wholesale rupee price of wheat is about thirty pounds. Wheat is not the staple food of the people of the district. It is used only by the rich and the well-to-do. In the south of the district a little wheat is brought from Kumta in North Kánara. Of the local wheat some is sent to Belgaum. At present (1884) the cost of carriage to Belári; the nearest railway station, is about £2 8s. (Rs. 24) the ton.

RICE bhatta (K.) or bhát (M.) Oryza sativa, with 85,117 acres or 6.42 per cent of the tillage area, is grown almost wholly in the woody west which is locally called malladu or hill land. Rice wants much and constant moisture. When it depends on rainfall alone rice is always uncertain, but this element of chance rather fascinates the people. Most rice land is independent of simple rainfall for its watersupply. The lowlying lands are watered from ponds and much is also watered by drainage from neighbouring high grounds guided by water-courses or kalvás. Failing pond water irrigation is supplied from wells or more commonly from holes fed by underground scakage from ponds. The rice soil is red towards the extreme west, and further east it is a light coloured clayey mould. This clayey soil, by the action of water, tillage, and weather, becomes stiff, compact, and very retentive of moisture. This kind of rice soil is poor, middling, or good according to its situation. In high and exposed sites it is poor and shallow, even with care and manure able to bear only one crop of poor rice; in middle situations neither very high nor very low it is middling, of some depth, and where there is moisture enough, yields two crops, one of rice and the other of pulse; in low lands or valleys it is of superior richness, of a rich dark brown, and yields excellent after-crops. Regular rice fields are divided into level compartments a few feet to fifteen or twenty yards broad and varying in length according to the landholder's pleasure or the position of the ground. The slope of the ground or hill side is generally carried into a series of terraces each one or two feet higher than the one immediately below it, and the front of each is guarded or raised by a foot high embankment forming part of the descending step. The effect of a hill or rising ground terraced in rice plots is extremely pleasing. The three kinds of rice-land require almost the same labour. After harvest the poor soil seldom holds Chapter VI. Agriculture.

CROPS.
Wheat.

Rice.

Chapter IV.
Agriculture.

CROPS.

moisture enough to allow of its being ploughed; middle class soil even when not moist enough to yield an after-crop, is always damp enough to be ploughed, and the ploughing is a gain as it makes the land more ready to receive the occasional dry-season showers. The upturned grass and stubble roots die and rot, and the stiff clods At the end of March manure is laid crumble in the heat and air. In early April the clods are broken by the leveller or in heaps. korudu, or, if still very hard, by labourers with clubs. In fields which have not been ploughed after harvest nothing, except the laying of manure, can be done till the first rains of late April or May, when the field is ploughed and the clods are broken by the mallet. The manure is then scattered broadcast from a basket, the surface is turned by the heavy hoe or kunti and the leveller or korudu follows. Nothing further is done till rain enough falls to admit of sowing for which a small seed-drill or kurgi is generally used. acre of rice land on an average wants three to five loads of manure. If more is laid on, and the rains are abundant the crop will gain greatly; but with light rain in highly manured land the crop will grow too freely and will probably dry without coming to ear. From the 25th of May to the end of June, as soon as the village astrologer has fixed the lucky day, the seed drill is decked with green leaves, the husbandman bows before it, and sowing begins. The drill is closely followed by the balle-sal-kunti or light hoe to cover the seed, and the korudu follows to level the surface. In about eight days the seed sprouts, and in eight days more weeding begins with the yadi kunti or grubber and is repeated generally once in ten or twelve days. In two months the seed drill is used for weeding, as the crop is too high and the fields are too full of water for the grubber. The weeds are always left to rot where they grew, and this constant supply of vegetable matter is one chief cause of the peculiar richness of the soil. The surrounding ridges are repaired, the earth cut from the front is heaped on the ridges, the beds are filled with water, and the leveller is passed over the crop. This gives the soil a smooth and beaten surface into which the water does not readily sink, but remains in pools.

The rice harvest begins about the 15th of November in the drier land, but many hollows where water lies deep are seldom ready for reaping before the end of December. An unusually dry or wet season may hasten or delay the harvest a fortnight either way. When rice is reaped it is left to dry on the field. It is then tied in sheaves, built ears outwards in a stock, and left to season for a month. A pole is fixed in the field, and the ground for a few yards round the pole is beaten hard and cowdunged to prevent cracks. The floor is cleaned and swept, and the loosened sheaves are scattered over it, and six or eight muzzled bullocks packed side by side in a line are slowly driven over the sheaves round the pole. This goes on till all the grain has been trodden from the straw. The straw is then removed, and fresh sheaves are laid and trodden. Winnowing follows thrashing. Rice is winnowed by filling with grain a flat basket which is raised at arm's length and slowly emptied into the air with a slight and regular shake. The winnowing wind blows aside the dust and the leaves, and the clean heavy grain falls on the ground. When a heap has been collected the grain is carried to the village, the outer husk is removed by a wooden hand-mill or tolulikalu (K.) and as before is a second time winnowed. When the operations are over, the rice is stored in a large round basket or wattle-and-daub safe, raised a little from the ground on beams laid across large stones, and roofed with thatch. Every husbandman's house has one grain basket in which rice and almost all other grains are stored. The only grains which are generally stored in pits are Indian millet, wheat, gram, and cajan pea. Nine chief kinds of rice are grown in Dharwar. Of these two, ambemori and konksali sanbhatta are of good quality, three bedarsáli, samsáli, and hakkalsáli are of medium quality, and four dodigan a large grained variety, hempgan or red, kerekgan or black, and gensáli are of poor quality. All are sown at the same time, and are reaped one after the other at short intervals. In a fair proportion of rice fields sugarcane is grown once every third year. Where the soil has good natural moisture sugarcane is grown without watering, and, where the water supply is plentiful, with as much watering as may be necessary. The only cane which is grown without any irrigation, except a single flooding of the land when it is planted, is the small grass cane which is locally known as hol-kabbu. The cane which does not succeed without occasional watering during the dry season is the large or garden cane locally known as gabras dali. Green crops of mug, pávta, matki, and gram are also grown after rice in hollows which hold their damp till late in the year. Except in red and light coloured soils, a second crop of cane is seldom grown without watering.

Tobaccol háge soppu (K.) or tambáku (M.) Nicotiana tabacum, with 1251 acres or 0.09 per cent of the tillage area is found chiefly in Ranebennur, Dhárwár, and Ron. Tobacco is seldom grown near the western forests, as the red gravelly soil does not suit it. It is chiefly raised in the east light-black soil. Rich alluvial soil is preferred, though, when watered, a mixture of red and black soil is found very suitable. The site of the tobacco field should be near the village as there it is more easily manured and guarded. Much less tobacco is grown than might be grown. Lingáyats, at least Lingáyats who have children, dislike growing tobacco, for they have to cut the young shoots and this sin is apt to bring sickness on the family. In June the seed is sown carefully in prepared beds. If the season is early, the seedlings are ready for planting in August; if the season is late they are ready in September. The field must be richly dressed with mixed pit manure. The leaves are ready for cutting in December or January. As a rule the whole plants are cut, stem as well as leaves. In most cases a poor second growth comes from the root and this second crop is allowed to flower and its seed is saved. The average acre yield varies from about three hundred pounds in Dhárwár, to two hundred pounds in Ron. At four pounds the rupee this leaves

Chapter IV.
Agriculture.
Crops.

Rice.

Tobacco.

¹ From Mr. E. P. Robertson's letter 3261 of 20th September 1873 to the Revenue Commissioner S. D.

Chapter IV.
Agriculture.
CROPS.
Tobacco.

the husbandman a net acre profit of £4 to £6 (Rs. 40-60). The quality of the tobacco is not good; much of the home market is supplied from tobacco brought for sale from the banks of the Krishna. Tobacco is cured in three slightly varying ways. The stems, when cut are split, and for four to seven days are left in the field to dry. If there is dew they are left alone, if there is no dew they are sprinkled with water, or, in some cases, with a decoction of kavass hallu grass, catechu, and coarse sugar or jágri. The stems are buried four or five days, taken up during the cool of the day, dried, sorted, and tied for final disposal. The same plan is adopted if the leaves are plucked from the stem. In some places after the plants are cut they are left in the field for eight days, tied in bundles of twenty to twenty-eight, and carried home. They are piled in heaps with the leaves inward, and covered with matting to keep of wind and rain. After about a fortnight the mats are taken away, the tobacco is aired for a day, and heaped as before. This process is repeated four times when the tobacco is considered cured, and is sorted and tied into bundles. According to the third process after the leaves have been cut they are exposed to dew for ten or fifteen days, and if there is no dew the leaves are watered. then fairly dried and buried with two layers of leaves and one layer of earth. After three days they are taken in the cool of the day and spread outside of the house. Two days later they are tied into bundles which are turned every eight days. At the end of a month the tobacco is cured. If tobacco is cut before it is ripe or if it has been over-fermented in curing it is apt to be attacked by insects. In 1872 Mr. E. P. Robertson, then Collector of Dhárwár, tried to introduce both Havana and Shiráz tobacco. The seed of these two exotics was sown in eightyseven villages of which twenty-two belonged to Ron, thirteen to Gadag, twelve to Ránebennur, eleven to Karajgi and Sávanur, eight to Hubli, six to Kod, and four to Dhárwár. In some of the villages in which the seed was planted the crops withered from want of rain, but in many the crops came to maturity. In every case the husbandmen were pleased with the tobacco. Compared with the local tobacco it had much larger leaves, the crop was twenty-five per cent heavier, it was of a stronger and better flavour, and it fetched a higher price. Mr. Robertson doubted (1873) if the foreign tobacco could ever be well enough cured for the English market.

Sugarcane.

Sugarcane kabbu (K). or us (M.) Saccharum officinarum, with 3742 acres or 0.28 per cent of the tillage area, is chiefly grown in the damp west or malládu and occasionally in gardens in the dry east. Except that when it is grown in a field it is planted in a field from which rice has been reaped, the garden and field tillage of sugarcane are much the same. The chief point is that the land must be damp enough. In December before the cane is planted the ground is prepared by breaking and levelling the rice-field ridges. After a week the small plough or ranti, with two or more pairs of bullocks, is drawn three or four times across the ground. The clods are broken by the korudu or leveller, and in January the heavy hoe or kunti and the light hoe or ballesal kunti are used to powder and level the surface. Manure is laid in heaps,

and, towards the end of January, the large plough cuts the surface into furrows about eighteen inches apart. In February, and in some places in March, the cane cuttings are laid in the furrow and covered with manure. Sugarcane wants more manure than any other crop; in fact cane can hardly have too much manure. Six to nine cart-loads are generally given to the acre. After the cuttings are covered with manure the small plough or ranti is run along the side of the furrows and fills them with earth. The field is then once well watered and wants nothing more till the rains. Eight or ten days after the planting, when the surface is dry, the korudu is used to level it and break the clods. The small plough is again used to heap the earth on the cane and is again followed by the korudu. After a few days the surface is loosened by the smaller hoe or ballesal kunti to help out the young sprouts and destroy the weeds. Nothing further is done till the first showers fall, when the crop is a few inches above the surface and the field is weeded by the grubber or yadi kunti. Now, if not earlier, it is hedged, and weeded as often as wanted, at first with the yadi kunti and later with the kurgi or drill machine. The earth is heaped about the roots, and the crop is ready for cutting in light porous soils in eleven months and in stiff soils in thirteen or fourteen months. Of eight varieties of sugarcane the chief are hal kabbu, rámrasdali, gabrasdali, and kara kabbu. The hal kabhu or grass cane, though the smallest variety, is considered the finest. It is white and thin, about the thickness of a good sized millet stalk. It is sown in rice fields and is considered a hardy plant. It is very largely grown because it has several advantages over the other varieties. It wants less water than the large white and red kinds. After it has once fairly taken root, little watering is required, the rain alone proving nearly enough. Though the larger cane gives much more juice it has much less saccharine matter in proportion than the small cane, and requires far more boiling to make gur or coarse sugar. The gur made from the small cane is also considered of superior quality. The gur of the small cane is light and granulated, while that of the large cane is heavy wiry and of a somewhat darker colour. On account of its hard bamboo-like texture the small cane is much less subject to the attacks of jackals and wild cats than the large cane. To sow an acre of hal kabbu requires 2500 to 3000 cuttings at three cuttings a cane. The ramrasdali cane is streaked white and red and is sown in rice fields as well as in gardens. It grows to a fair height and thickness, and an acre yields about ten loads of inferior jagri, from which no sugar is made. The gabrasdali is grown in small quantities in garden lands for local use, and wants care and water once a fortnight. The skin of this cane is remarkably thin, the knots are far apart, and it is very juicy. It is much like the Mauritius cane. For an acre of gabrasdali or rámrasdali 5000 cuttings at five cuttings a cane are required. The karra kabbu is the common red The other four minor varieties are the Mauritius or morishyáda-kalbu, dodiya, byatalldodiya, and bile kubbu. Mauritius cane yields juice superior to that of the common cane,

Chapter IV.
Agriculture.

CROPS.
Sugarcane

Chapter IV.
Agriculture.

CROPS. Sugarcane. but, as it wants more water, and is more liable to be gnawed and eaten by jackals and porcupines its growth is limited. Sugarcane takes more out of the ground than any other crop. sugarcane is followed by rice and in gardens by pot herbs. Unless the ground is richly manured, vegetables do not yield much during the first season after sugarcane. It is not till the second or third year that sugarcane can be again grown with advantage. In a fair season, on a rough estimate, an acre of sugarcane will bring a net return of £1 12s. (Rs.16). Jágri or coarse sugar is made in a press of two upright solid wooden cylinders, on one of which is cut an endless male screw and on the other an endless female screw. These are set in pivots cut in a strong plank which is fixed at one edge of the bottom of a pit. The male screw cylinder is about a foot higher than the female, and into its head a horizontal bar is let to which are yoked two or more pairs of bullocks who keep the machine constantly moving. The cylinders are fed with pieces of cane about a foot long. Hal kabbu canes are passed once and rámrasdali canes are passed twice through the cylinders. The pressed from the cane runs into a trough, which forms the base of the machine, and from the trough passes into a broadmouthed earthen pot which is buried in the ground. When enough is gathered, it is carried to the boiler, a large flat iron vessel costing £1 12s. to £4 (Rs.16-40). The boiler is set on a brisk fire and is fed by the dried cane rinds. The boiling juice is constantly stirred, and the thick scum that rises to the surface is carefully removed till it becomes like syrup, when it is poured, if required for coarse sugar or jágri into holes dug in the ground and after cooling is cut into cakes or dug out whole. If it is wanted for fine sugar, the syrup, after it is taken from the oven, is briskly thrown up the sides of the iron vessel by two or three men with long flat wooden ladles till it cools, and is finally broken into powder by oblong or oval-shaped single or double handled wooden blocks.

Chillies.

CHILLIES, menasinakai (K.) or mirchi (M.) Capsicum frutescens, with 28,748 acres or 2.16 per cent of the tillage area, is grown chiefly in the country between the woody west and the open east. The climate and the rich or marikat soil of Kod are particularly suited to the growth The chilly is sown in May or early June in a small of chillies. carefully prepared plot, often the backyard of the husbandman's house, and is well watered. In July, when of some little height, the plants are moved to the field, and are there set in rows two feet apart, which are laid out with the utmost regularity and precision. After the field has been planted, manure is applied by the hand to the root of each plant, and, at intervals of eight to ten days, the small two-bullock plough is carefully passed between the rows of plants, first lengthwise and afterwards across, by which the field is kept free of weeds, and, to keep the roots cool the earth is heaped round each plant. This earth-heaping is repeated for about three months until the branches of neighbouring plants begin to touch and the fruit appears. In December and January the crop is picked by the hand, generally in two pickings of which the first is

by far the largest. A good crop is said to yield about 400 pounds (16 mans) the acre which occasionally sells at about a penny a pound (Re.1 a man), a price which pays the husbandman excellently. The price is subject to very sudden changes. The chilly is used as a seasoning and though only very small quantities are required, a certain amount must be had at any cost. Thus in seasons of short crops the price rules very high, and, when the crops are large, the chilly becomes a glut and the price falls so low that short years sometimes pay better than full years. When grown as a garden crop the chilly is frequently mixed with the early watered bellulli or garlic and ullegaddi or onion.

Cotton, hatti (K.) or kápus (M) Gossypium herbaceum, averaging 335,900 acres or about twenty-seven per cent of the tillage area, is the most important crop of the Dhárwar black soil plain. Little cotton is grown either in the hilly and woody west or in the patches of stony and hilly ground in the eastern plain. Three kinds of cotton are grown in Dhárwár: Gossypium arboreum devkápus (K.) (M.) that is God's Cotton, used in making sacred threads and temple lampwicks; Gossypium indicum jvári-hatti (K.) that is country cotton; and Gossypium barbadense viláyati-hatti that is American cotton. Of these three kinds Gossypium arboreum, a perennal bush eight to twelve feet high is grown occasionally all over the district, in gardens, beside wells and streams, and near temples. It is much like the Brazilian or Peruvian cotton plant, and, though this is unlikely, it is often said to be an American exotic. Gossypium indicum, jvári-hatti, generally known in the Bombay market as Kumta cotton, is largely planted all over the black-soil plain. Gossypium barbadense viláyati-hatti that is American cotton. commonly called Sawginned Dhárwár, which was introduced into the district by Government in 1842, has thriven well and has come to occupy about a quarter of the district cotton area. Among the cotton producing districts of the Bombay Karnátak, Dhárwár stands first, and both its American and its local cotton are highly esteemed. All evidence goes to show that with fair treatment in preparing them for market, the two varieties grown in Dharwar will rank among the best cottons of India.

The upland plain of Dhárwár enjoys the unusual advantage of two rainy seasons, the south-west between June and October and the north-east or Madras between October and December. The north-east rains give the country a fresh supply of moisture in October and often again in November, and in a small degree still later on. This moisture with the cool November nights has had a large share in successfully acclimatizing New Orleans cotton. In the Dhárwár cotton plains the yearly rainfall ranges from twenty-five to thirty inches. During the cotton-growing months,

1 This account of Dharwar cotton is prepared from a pamphlet written by Mr.

Chapter IV.
Agriculture.

CROPS.
Chilites.

COTTON

Climate.

W. Walton, late Cotton Inspector of the Southern Marátha Country.

The area in the text is the average for the five years ending 1882-83. In 1881-82 the sub-divisional areas were, Gadag 79,537 acres, Navalguid 67,866, Ron 67,105, Hubh 44,865, Karajgi 30,497, Ranebennur 22,777, Bankapur 22,464, Dharwar 13,069, Hangal 5668, Kod 3100, and Kalghatgi 753 acres. In 1881-82 the cotton area in Government and alienated villages was 534,000 acres; see below p. 302.

Chapter IV.
Agriculture.
Cotton.

Soil.

that is from September to February, the returns for the five years ending 1882 show a greatest heat of 97° in February and a least heat of 58° in December. For cotton to thrive the soil should be loose and open enough to allow the air and sun to pass below the surface, and still more to let excessive and untimely rain drain from the roots. These qualities the crumbling gaping soil of Dharwar The Dhárwár husbandmen describe. has in an unusual degree.1 their cotton lands as of two kinds: huluk-yeri which is a mixture of black and red soil and yeri a pure black soil. Both local and American cotton are planted in both these soils, but huluk-yeri or black and red is generally considered best for New Orleans cotton, and yeri or pure black for local cotton. The black and red is considered the richer of the two, but, in a bad season, blight and other diseases show themselves sooner and to a greater extent in black and red than in pure black. The great merit of these two soils is the surprising length of time during which the under-soil keeps moist. It is this under-ground dampness that enables the cotton plant, especially the American plant, to mature as late as March and April. When the surface of the field is baked and gaping with the heat the cotton bushes are still green because their tap roots are down in the cool moist under-soil. Cotton is seldom grown in red soil; the outturn is too small to pay at ordinary prices.

Watering.

Watering has often been suggested for Dharwar cotton. Channing, one of the American planters brought by Government in 1842, recommended the damming of different parts of the Malprabha for the purpose of storing water to water the cotton fields. In 1865 the river was examined by the Collector and by Sir Bartle Frere, then Governor of Bombay, when on tour. The matter was referred to the irrigation department, but the costliness of the scheme prevented its being undertaken. Another scheme was to draw a supply of water from the Varda river; but the Varda scheme also proved impossible. Though both of these schemes were given up, the question whether watering the black soil cotton fields does good or does harm to the crop is still unsettled. The weight of experiments is against watering cotton in black soils. In 1858, experiments made on the Dharwar border showed that, even with the help of water, cotton could not be profitably grown in red soils, and that in black soil watering positively injured the crop. Dr. Forbes-Royle, the superintendent of the Dharwar ginning factory (1855), was of opinion that watering would be of use only in case of the failure of rain. Mr. W. Shearer, the superintendent of cotton experiments (1867-75), when want of rain threatened to destroy his crop, endeavoured to save it by watering. The only result was an improvement in the look of the plants. The watered plants yielded no more cotton than the unwatered plants, and the staple of the watered plants was exceptionally weak. So far

¹ An analysis of the best cotton soil showed in 4500 grains, 3324 grains of very fine soil, 936 grains of impalpable powder, and 240 grains of coarse pebbles like jasper, with pieces like burnt tiles strongly retentive of moisture. The impalpable portion consisted of 18 000 grains of water, 0 450 of organic matter, 0 083 of chloride of sodium, 0 007 of sulphate of lime, 0 027 of phosphate of lime, 0 0450 of carbonate of lime, 0 013 of carbonate of magnesia, 15 200 of peroxide of iron, 16 500 of allumina, 0 085 of potash, 48 000 of silica combined and free as sand, and 1 185 loss; total 100 000.

as Mr. Shearer's experience went, the only effect of watering either American or local cotton was to develop the plant at the expense of The late Colonel Meadows Taylor, C.S.I., made the fibre. experiments in watering Dhárwár-American cotton, and the result was a failure. The leaves were curled, the bolls soft, and the fibre He agreed with Mr. Inversity, then Collector of Broach, that watering cotton in deep black soil would prove injurious both to the quality and to the quantity of the fibre. The black or regur soil, in which cotton is almost always grown, is very deep and moistureholding. Though the surface seems dry, and no doubt is dry as far as the plough or hoe has disturbed it, yet, after an ordinary rainfall, the under-soil always keeps moist, not only beyond the time at which cotton ripens, but even during the whole of the hot The roots of the cotton plant strike very deep. The tap root passes at least two feet below the surface, generally three to four feet, sometimes as much as eight feet. Even the side shoots pass down when they find the surface soil begin to dry. A certain dryness in the soil is apparently needed to bring the fibre to perfection and to cause the bolls to open. Colonel Taylor thought that in deep black soil the ordinary rainfall was enough for the plant. 'Its whole growth, and for the most part its buds and flowers and green bolls were produced while the subsoil was wet. As the soil dried the stem of the cotton plant stiffened, the bolls hardened and ripened, and the cotton burst forth. If the ground was kept damp, there would be a danger that the plant would throw out fresh shoots and fail to ripen the bolls.

Cotton takes much out of the soil. Unless he is tempted by high prices, the Dharwar landholder does not grow cotton oftener than once in three years. Still as it commands a sure and profitable market, cotton is often sown every second year, and in some of the richest soils it is grown season after season. Where it is planted season after season the crop is poor and the soil is much weakened. The area under local or Kumta cotton varies year after year with the labour market, that is with the quantity of labour forthcoming for cleaning. Thus, if labour is scarce and dear and the farmers find they have a large balance of unginned native cotton in stock, they will not sow that year as much as they would have sown if their stock had been sold and labour was cheap and plentiful. The area under cotton is also affected by the balance of grain and bread stuffs in hand, and also by the rainfall. If the rain is heavy in the early part of the season, there is a large sowing of millet and other wet crops; if the rain holds off until August or September, there is a large area under cotton, but, if the August rain also holds off and there is but little rain till October, wheat and gram take the place of cotton. Cotton fields are manured some time before the cotton is sown. The husbandmen say that if manure is put in along with or immediately before the cotton seed and the rainfall is scanty, the manure does ot mix with the soil, and injures the cotton plant especially the Imerican plant. The manure used is pulverised village refuse and bbish, and occasionally oil plant or some other quick growing op is raised and ploughed in. The soil is generally manured every cond or third year.

Chapter IV.

Cotton.
Watering.

Change.

Manure.

Chapter IV.
Agriculture.
Cotton.

Tillage.

Many of the better class of husbandmen take great care in preparing their cotton land. It is cleared of all the stumps of the previous crop by the heavy hoe or kunti. Wherever it is overgrown with the karige (K.) or hariáli (M.) Cynodon daetylon grass, the land is ploughed with the heavy plough. Even repeated workings of the heavy plough do not always succeed in uprooting the entangled and deep rooted hariáli. Field labourers are engaged who turn out with pickaxes or kudlis (K.) and dig the land often two feet deep. This is very slow and hard work, but the result repays the severe labour and the expense. After ploughing, or deep digging, the heavy hoe or kunti is again used to thoroughly loosen the soil. When the soil is thus broken and smoothed it is considered ready for the seed. The Dhárwár husbandmen take the greatest care not to sow cotton at any time which will bring the plant to maturity at a season when heavy falls of rain may be expected. As a rule cotton sowing begins in the latter part of August. By this time the land has been thoroughly soaked, and is so far drained that the surface is comparatively dry. A fairly dry surface with much moisture below is the state in which land should be for sowing either American or Soil in this state helps the seed to sprout and draws the tap roots deep enough to support and bring the plant to perfection, when the hot weather and the trying east winds set in. sowing it New Orleans seed is rubbed by the hand on the ground in a mixture of cowdung and water; for their woolliness keeps the seeds from running freely through the seed drill. The seed is sown with the aid of the kurqi or seed drill which has iron teeth eighteen inches apart, to each of which a hollow bamboo tube called yellishedi (K.) is fastened. Bullocks are yoked to the seed drill, and, as they work, the iron teeth plough two drills, and in these drills the cotton seed is dropped through the bamboo tubes. The seed drill is immediately followed by the hoe which closes the drills. Frequent hot sunny days after sowing promote sprouting and about three months more remain during which from time to time rain may be looked for. seed leaves begin to show in six to twelve days. In about a month, when the plants are three or four inches high, the farmer takes his grubber or yadikunti, and works it between the cotton plants, doing two rows at a time. The grubber roots up all young weeds and grass. At the same time it turns the surface soil, keeps it from souring, and heaps the soil at the roots of the young plants. This heaping of the soil is repeated several times, the oftener the better, until the plants grow too high to work the grubber. The more hardworking and careful husbandmen supplement the grubber with hand labour. For this men, women, and children are employed on 3d. to 6d. (2-4 as) a day, weeding at surprising speed with a kurchegi or miniature sickle. By the beginning of October, a strong, dry, cutting east wind sets in. The east wind lasts till about the middle of November, when the strain is eased by occasional moist southerly and westerly breezes and timely heavy thunderstorms After this the dry east wind again sets in and blows steadily till January. The American cotton plant usually flowers i December, often ten days to a fortnight in advance of the local plan Its cotton bolls mature in February and March. A good America

crop usually yields five pickings, with a week between each; a poor crop not more than three pickings with a fortnight between each. All of the picking, and, in the case of the local cotton, almost all of the ginning, is done by women and children, the men's share in

the labour ceasing when the plants are full-grown.

Crossing has very often been tried in Dhárwár with a view to improve the different varieties. Attempts have especially been made to cross the local plant either with New Orleans, Sea Island, or Egyptian, so as to keep the hardiness and strength of the local plant, and gain the silkiness, length, and large outturn of these foreign varieties. So far back as 1859 the Bombay Chamber of Commerce explained the decline in the quality of Dhárwár American cotton to natural crossing, the result of mixed sowing of the local and foreign Such a result Dr. Wight (1842-1850), a botanist and a practical cotton planter in Koimbator, thought impossible. 1872, Mr. Shearer stated that in his experience the cotton of plants grown from seed that had been looked on as crossed, on coming to maturity, showed no marked improvement on those of the parent The only difference was in appearance. Plants obtained by crossing local and Egyptian grew well, but their bolls did not ripen. A cross of Egyptian or Sea Island with American seemed always to run out and the plants dwindled after the second year. If they ever produced bolls the staple was weak. Mr. Shearer tried to cross the different local varieties. The look of the plant often changed, still he could not say whether they were crosses or sports. Mr. Shearer traced the apparent changes, which often deceive an unprofessional eye, to difference in season, situation, and tillage.

Dharwar cotton is hable to two diseases, benithgi rog (K.) and haraghi rog (K.). Benithgi rog is brought on by continued hard cutting easterly wind; it turns the leaves red and blights them; the flowers and pods fall off without maturing and the plant slowly dies. Karaghi rog is brought on by cutting easterly winds with heavy morning dews and fogs; it disappears if a westerly wind sets in before the

disease has gained too strong a hold.

According to the season the acre yield of clean cotton ranges from fifty to 120 pounds, the yield of American cotton being greater than that of country cotton. According to the 1882-83 cotton report, during the five years ending 1882-83, the acre yield was estimated at fifty pounds of American cotton and forty-two pounds of local cotton. The cost of growing cotton is difficult to determine. Much depends on the grower the number of cattle he owns, the area of land he holds, the number of persons in his house, and many other conditions which more or less affect his actual cash outlay in growing cotton. Roughly the acre cost of growing American and local cotton is 11s. $4\frac{1}{2}d$. (Rs. $5\frac{1}{16}$). As the value of the American crop may be set down at £1 10s. (Rs. 15) and the value of the local crop at £1 1s. 9d. (Rs. $12\frac{3}{8}$) the American leaves a net profit of $18s.7\frac{1}{4}d$. (Rs. 9_{16}^{5}) and the local of 13s. $4\frac{1}{2}d$. (Rs. $6\frac{11}{16}$). To the net profit on the country cotton a small amount may be added, as in many cases he husbandman's family themselves clean the cotton.

In 1819, a year after Dhárwár passed to the British, the bamercial resident in the ceded districts, recommended that

Chapter IV.
Agriculture.

Corron.

Crossing.

Drawnscs.

Outturn.

Improvements.

Chapter IV.
Agriculture.
Cotton.
Improvements.

50,000 to 100,000 pounds of Brazilian cotton seed and some quantity of New Orleans and Sea Island cotton seeds should be procured and distributed in Dhárwár. To tempt the husbandmen to try these foreign cottons it was proposed to offer a reward of £1710s. (50 pagodas) in cash or in the shape of a gold medal and chain on the first delivery of five hundred pounds of clean white cotton free from seed dirt and leaf, that is at the rate of about 17s. 6d. (2½ pagodas) for each man of twenty-five pounds. proposal was approved by the Madras Government, but it does not seem to have been carried out. In 1824 it was noticed that much land fit for growing cotton lay waste. The cost of clearing rich land was so great that a lease or kaul of nine or ten years of light rent was not inducement enough to tempt the people to undergo the expense. In 1829 under orders from the Court of Directors, to improve local cotton and introduce fine foreign varieties, experiments were begun in Dhárwár under Dr. Lush, who, in addition to his ordinary duties as superintendent of the botanical gardens at Dápuri in Poona, was entrusted with cotton experiments in Khandesh and Dharwar. Dr. Lush reached Dharwar too late in the year to sow cotton. He bought some fields of growing plants, and proposed to clean cotton in a way which could increase its value without adding much to its cost. He also proposed to distribute the seeds of the best Gujarát, New Orleans, and other annual cottons, which would ripen in the course of the season, so as to produce new varieties of the staple. The cotton bought and cleaned by Dr. Lush was favourably noticed in England and was valued at $5\frac{1}{2}d$. to $5\frac{3}{4}d$. (3\frac{3}{6} - 3\frac{5}{6} as.) the pound, when Indian cottons were selling at Liverpool at 3d. to 6d. (2-4 as.) the pound. In the next season Dr. Lush chose land for a small cotton farm at Sigihalli in the Khanapur sub-division of Belgaum. The land was so situated that, if necessary, it could be watered by a stream. Partly owing to a bad season, but chiefly owing to the damaged state in which the foreign seed was received, the experiment failed; the entire crop sent to England amounted only to four bales. Of these four bales two, of a kind not recorded, were valued at 71d. to 81d. $(5-5\frac{3}{4})$ as.) the pound, one of American upland seed at 8d. to 81d. (51-51 as.) the pound, and one of Dharwar New Orleans at 8d. $(5\frac{1}{3}$ as.) the pound. At this time the average price of Indian cotton in England was $4\frac{1}{4}d$. $(2\frac{5}{6}$ as.) the pound. In spite of these high prices all four packages turned out unfit for spinning. Small quantities would still command the high prices named for candle-wicks and jewellers' purposes. The cotton was cleaned by a foot roller so ineffectively that the work had to supplemented by a number of hand-pickers behind the foot rollers, who had to pass the whole of the ginned cotton through their hands and remove from it the broken seeds and dirt that had passed the roller. £6 (Rs. 60) were spent in cleaning 784 pounds of cotton. The landholders were unwilling to go on trying foreign seed. The yield was less and the quality was poorer than that of the local cotton. About this time (1829) a quantity of Broach cotton cleaned by the foot roller sold for 5\frac{3}{4}d. to 6d. (3\frac{3}{4}-4 as.) the pound.

Between 1829 and 1832 the results of the sowings of American cotton seed at Navalgund, Dhárwár, and Morab were various. seed was liable to fall off in quality, they withered, and got to look like the seeds of poor black-seeded cotton. In proportion to the seed distributed Dr. Lush received very little cotton. Some American seed sown as perennial and tried at the Sigihalli farm failed. Broach and Jambusar seed was tried at Navalgund, but the pods were attacked by field bugs, and the produce was poorer than that of the local cotton. About 1830 a small trade in Dhárwár cotton sprang up with China, and the Canton merchants highly approved of the consignments that were sent to them. In 1831 at the Sigihalli farm, five pounds of Pernambuco seed at first promised well, but the plants were afterwards blighted. November 1832 the plants were recovering, but up to that time there had been no outturn. Some Bourbon seed was tried with Pernambuco, but it did not come up. Some seed of a whiteseeded perennial from the Dápuri garden was thought likely to turn out a fine silky cotton, and was prepared by the saw-gin. In 1832 some Egyptian was tried, and in November, Dr. Lush, notwithstanding a dry season, thought it more promising than the other varieties. During 1833 the results continued most discouraging. The Pernambuco was a complete failure in black soils and the American green-seeded varieties, that is Georgian Uplands and New Orleans, were found to degenerate rapidly and to yield thin unsatisfactory crops. In 1834 Dr. Lush thought Pernambuco might succeed in fairly moist red soil. Pure black soil was death to this seed. In 1835 experiments at the Sigihalli farm convinced him that Pernambuco would never answer in Dharwar. He thought Egyptian might succeed as an annual, as it bore a good crop the first year, and the proportion of its wool to seed was double that of the local cotton. In 1836 the Collector, Mr. Baber, while giving his opinion on the Sigihalli farm, said that though the experiments had gone on for five years, not a single landholder close to the farm had in the slightest degree changed his mode of cotton tillage, of gathering the crop, or of preparing it for market. About this time Dr. Lush showed that a new ginning machine was required, as the foot roller was not suited to foreign cotton, and as the American gin was a failure. In 1836 the Dhárwár experiments were closed. They were considered to have failed after a fair trial. Still Mr. Mercer the American planter, when looking over a collection of experimental cottons at the India Office in London in 1840, picked out samples of Dr. Lush's white-seeded perennial which he said were quite equal to good New Orleans.

In 1838 several commercial bodies in Great Britain urged measures for improving Indian cotton. In consequence of this agitation, Captain Bayles of the Madras Army was sent to America to engage the services of trained men to teach the people of India how to grow and prepare cotton. Ten American planters were engaged and started for India in 1840 with a large quantity of the best cotton seed, some American tools, cotton gins, and presses. Of the ten planters three came to Bombay. In 1841 the Collector, Mr. A. N. Shaw, to whose steady and persevering

Chapter IV.
Agriculture.

COTTON.
Improvements.

Chapter IV.
Agriculture.
Cotton.
Improvements.

efforts much of the success of the attempt to acclimatize American cotton in Dhárwár is due, planted, on the local system, some ten acres in Hubli with some of the Mexican seed sent by the Court of Directors. Mr. Shaw believed that of all Western Indian climates the Dhárwár climate was most like the climate of the United States cotton-growing districts. Shaw was right, and his cotton, though the seed was old and though the plants were grown under many disadvantages, was declared by the local landholders and merchants better than their own, and was valued by the Bombay Chamber of Commerce at £1 to £1 10s. (Rs. 10-15) the khandi, that is twelve to eighteen per cent. higher than the best Broach, then the standard staple at Bombay. Mr. Shaw's fields gave ninety pounds of clean cotton the acre, while the neighbouring fields sown with local cotton returned only forty-five pounds the acre. Mr. Mercer one of the American planters, who reached Dhárwár about this time, was so satisfied with Mr. Shaw's fields, that his doubts of American cotton becoming a valuable Indian product disappeared. In spite of his success Mr. Shaw thought that no rapid spread of American cotton was possible, unless a simple portable gin was introduced. At this time most of the landholders were deep in debt and worked without spirit. The ordinary way of gathering the cotton crop was to let it fall on the ground and lie on the ground till the cotton bushes ceased bearing. Then the people went out and gathered it all in one gathering. They mixed the fresh and the old, making no attempt to separate the clean from the dirty. About the same time (1841-42) Mr. Hadow, then assistant collector, grew some Bourbon seed cotton on the native plan in the black soil of Gadag. The return was thirty-one pounds of clean cotton the acre. Bourbon is a perennial and seldom yields more than thirty The sample cleaned by the foot pounds during the first season. roller was especially praised by the Chamber of Commerce for its beautiful cleanness. In 1843 Mr. Mercer, with his assistants Messrs. Hawley and Channing, began an experimental cotton farm at Kusvugal five miles north-east of Hubli. The system was that followed by the Dhárwár husbandmen. The only change was that seed was sown at intervals from early June, while the local husbandmen never sow till late in August. year 545 acres were under foreign cotton. Of these 183 were planted by Mr. Mercer with six different varieties, eighty acres with New Orleans, sixty-three with Broach, sixteen with Koimbator from acclimatized New Orleans seed, eleven with Abyssinian, ten with Bourbon, and three with Sea Island. The result at first was discouraging, mainly owing to the effects of the constant high winds of the early months of the south-west rains. By September appearances greatly improved and Mr. Mercer described the prospect as truly promising. This was the case not only with the experimental farm but also with the fields of the local farmers. In spite of damage caused by heavy rain early in October, which also told on other cotton fields, Mr. Mercer considered his outturn better than any he had seen in India. The acre yield of clean cotton was fifty-four and a half pounds of New Orleans, thirty-two pounds of Broach, fifty-four

pounds of Koimbator, and eight pounds of Abyssinian. Bourbon and Sea Island gave no return. The Kusvugal husbandmen's returns were at the rate of forty-eight and a half pounds the acre on their fields of foreign cotton, leaving them six pounds behind their American rivals. From these results Mr. Shaw hoped by 1845 to see Dhárwár cotton hold a high place among Bombay cottons. To meet the ginning difficulty twenty-four ginning wheels or charkás and five saw-gins, cleaning 300 to 350 pounds of cotton in a day, were procured, and several gin-houses were opened. In Mr. Shaw's opinion, and this opinion experience has proved correct, New Orleans cotton yields a larger acre outturn than local cotton. New Orleans is also more easily gathered free of dirt than the local cotton. Its covering leaves or calyx are tougher and thicker, and less apt to break and mix with the fibre than the local covering leaves. The local cotton is also more apt to be damaged by falling on the ground. Further the proportion of wool is larger in New Orleans than in the In a hundred pounds of New Orleans thirty-three pounds are wool, sixty-six pounds seed, and one pound waste; in a hundred pounds of local cotton twenty-four pounds are wool, seventy-five pounds are seed, and one pound is waste. Except that they were ill-ginned, parcels of the 1843 experimental cotton were favourably noticed by the Bombay Chamber. Mr. Hadow's experiment with Bourbon at Gadag did not pay its cost in the first and second years (1842-43). In the second year (1843) it was under the care of Mr. Hellier, a German, to whom it had been made over by Mr. Hadow. In Mr. Shaw's opinion the result showed that no further experiments should be made with Bourbon. It would never be a success and all experiments with it would only interfere with the efforts to spread the cultivation of New Orleans. Mercer agreed with Mr. Shaw, and added that the outturn of Bourbon was less than that of the local cotton. Shortly after this Mr. Shaw went to England. He was succeeded by Mr. Goldsmid, who, as well as Mr. Mansfield the first assistant collector, took much interest in the cotton experiments.

In 1844-45, 2749 acres were under American cotton. A second experimental farm of 168 acres, of which 146 were under New Orleans and twenty-two under Broach, was started near Gadag under Mr. Hawley, while Mr. Mercer continued his experiments at Kusvugal. Mr. Hawley met with remarkable success. Orleans gave an acre return of 941 pounds of clean cotton and his Broach of 1231 pounds. Some of the fields would have done credit to the banks of the Mississippi. Mr. Mercer's plants were attacked by field bugs and caterpillars and yielded poorly. The acre return of clean cotton on 150 acres of New Orleans ranged from eighty-one and a half to fourteen and a half pounds. The return on sixteen acres of Broach gave an average of sixty-three pounds, ten acres of Bourbon gave an average of twenty-two pounds, and eleven acres of Abyssinian an average of ten and a half pounds. In this season both Mr. Mercer and Mr. Hawley tried manure. In 1845 the experimental farms were closed on the ground that it was no longer necessary to supply the people with American seed. Twelve saw gins were at work, seven private and five Government, but to meet the people's wants at least twenty more were required. In 1845-46 the rains Corton.

Improvements.

Cotton.

Improvements.

were disappointing, and instead of 17,000 acres only 11,176 acres were planted with American cotton. In this season the planters were allowed to raise cotton for Government by contract with the landholders. Mr. Mercer paid 4s. (Rs. 2) for tillage, 2s. (Re. 1) an acre for land rent, and, after paying all other expenses, 7s. (Rs. 31) the acre for carrying the cotton to the ginning house. Mr. Mercer calculated that, at an acre yield of sixty-three pounds of clean cotton, the crop would cost the husbandman $1\frac{1}{2}d$. (1 a.) the pound. After giving credit for the value of the seed it was found that the crop represented an outlay to the grower of very little over a penny a The whole produce of the district was calculated at 1200 to 1500 bales of American cotton. The growth of American cotton was left entirely to the people. But Government were the only buyers and there were no saw-gins to gin it. The want of saw-gins was the great drawback to the spread of American cotton, as the people would not grow American cotton unless they were sure that they could clean it and sell it. In June of the same year (1845-46) Mr. T. W. Channing, one of the American planters at Kusvugal, brought to the notice of Government that the American saw-gins were not suited to the acclimatized varieties, and that better and cheaper saw-gins might be made in India. He thought that by making them on the spot the price of a saw-gin might be lowered from £35 to £19 16s. (Rs. 350-198). A gin made under Mr. Mercer's directions cost only £14 14s. (Rs.147). At a trial made by Captain, the late Sir George Wingate, then superintendent of the revenue survey, the local gin beat the American saw-gin by twenty-five per cent. Mr. Mercer asked for a good European Instead of this, and this was probably a better mechanic. arrangement, the Court of Directors sent out 500 saws the only part of the gin which could not be easily made in Dhárwár. It is in great measure to the arrangements which were then made for cleaning the cotton that Dhárwár owes its special success in the growth of saw-ginned Dhárwár.

In 1846-47, for the first time, local dealers bought American cotton on their own account, and at rates twenty per cent over local cotton. Mr. Hawley soon after resigned and was succeeded by Mr. Blount, also an American, who had come from Khandesh. Mr. Mercer left at the end of 1846. About the same time the tests made by Lancashire spinners on Government shipments of Dhárwár New Orleans showed a loss of twenty-one pounds on 332 pounds of Dhárwár New Orleans before carding, compared with a loss of 38‡ pounds on an equal quantity of common Surats. After carding the losses on similar quantities were sixteen pounds of Dhárwár New Orleans and 28% pounds of Surats. When spun fifty pounds of ordinary American New Orleans showed a loss of 17 per cent and an outturn of 411 pounds of yarn, while the same quantity of Dhárwár New Orleans turned out 424 pounds of yarn with a loss of fifteen per cent. yarn of Dhárwár New Orleans was pronounced equal to yarn made from ordinary American New Orleans. In May 1846 Mr. Mansfield, then acting Collector, recommended Government to cease holding out special inducements for the growth of American cotton. The people were willing to sow it to any extent, provided Government guaranteed them a sale. After another year, if the merchants did not step in

and help in creating a demand, he did not see why Government should foster the production of an article which had no fixed market value. In a second letter about the end of the year, Mr. Mansfield urged that the uncertainty of the price of Dhárwár New Orleans cotton in Bombay was the doubtful point in the experiment. Until something was done to ensure a demand for the cotton, the burden of buying the entire crop would continue to fall on Government. He thought that part of the Dhárwár American crop should be offered for sale in Bombay. Government approved of selling some of the cotton in Bombay, but were unable to offer it for sale as the Court of Directors found that the opinion had lately spread in England that the recent shipments of good cotton were pet packages from cotton grown as a garden crop. Court were therefore anxious to have as much cotton as possible to show that the better class of cotton could be grown in sufficient quantities for trade purposes. One bale was left in Bombay for the inspection of morchants. Towards the close of the year Mr. Townsend, the Revenue Commissioner, represented the results of the Dhárwár cotton experiments as encouraging. The weak point was the want of a suitable provision for ginning. Government agreed with Mr. Townsend that Mr. Mercer's efforts to establish American cotton had been to a great extent successful. In 1847-48 20,500 acres were under New Orleans cotton. At first an outturn of over 700 tons (2000 khandis) was expected; later on it was found that the unfavourableness of the season would reduce the outturn by one-third. Twenty-nine saw-gins were at work in the district and many more were wanted. About this time the American planters, brought by Captain Bayles, expressed the opinion that New Orleans cotton would succeed only in districts which like Dhárwár shared in the two monsoons. Early in 1848 Mr. Goldfinch, The first assistant collector, discovered that in many villages the rsuasion of the village authorities to get the landholders to w American cotton had differed little from compulsion. Mr. Bell. he Collector, satisfied himself that Mr. Goldfinch was correct. bersuasion was stopped and the area of American cotton fell from 20,500 to 3350 acres. The people had grown American cotton because they had been ordered to grow it. Still in parts of the district they would grow New Orleans from choice, if only they could be sure of a market and had less trouble in getting it ginned. In this year (1848-49) the New Orleans crop was excellent, upwards of ninety pounds of clean cotton an acre, and it yielded such admirable seed that the character of the cotton was permanently improved.

In 1849-50 over 15,500 acres or five times as much as in the year before were under New Orleans. The increase was due to a better understanding with the people and better ginning arrangements. 1849-50 was one of the best New Orleans seasons. It was a bumper crop, and very much more of it than in any former season was ginned in the husbandmen's gins, which had risen from five to sixty-two. Still, either because there were still not enough gins or because the gins were badly worked, the ginned cotton was unsatisfactory. The unsatisfactory state of the Dhárwár cotton was not confined to the American cotton. The local cotton was at

Chapter IV.
Agriculture.
Corron.
Improvements.

Chapter IV.
Agriculture.
Corron.
Improvements.

this time the dirtiest and the most fraudulently packed cotton that came to Bombay. Up to 1849, apart from what the sales of the cotton realised, Government had spent £20,000 (Rs. 2,00,000) on cotton experiments in Dhárwár. In 1850-51 over 31,000 acres were under New Orleans, Shiggaon, now Bankapur, showing nearly 13,000 acres or an increase of 200 per cent over the previous season. In the Liverpool market this cotton fetched 31d. the pound. 1851-52 over 42,600 acres were under New Orleans, of which 17,000 acres were in Bankápur and 700 acres in estate or jágir lands. this year Government gave up buying cotton. By this time Dhárwár New Orleans had gained so high a name in England, that the agents of Manchester firms in Bombay were ordered to make large purchases, and, in 1851, Dhárwár New Orleans was sold in Dhárwár at 3d. a pound (Rs. 100 a khandi). In 1852-53 a difficulty regarding the repair of the saw-gins reduced the acreage to a little over 28,000 acres, exclusive of nearly 8800 in estate or jágir lands. Great exertions were made at the Dharwar ginning factory to meet the want of gins, and they were so far successful that in the next year 184 gins were in use, and the area rose to 41,403 acres, of which nearly 10,000 were in estate lands. This success was the more satisfactory that in this year Government had withdrawn from ginning as well as from buying. In 1853-54, 41,403 acres were under New Orleans and 252,006 acres under local cotton. In 1854-55 upwards of 63,000 acres in Government lands and more than 18,250 in estate land were planted with New Orleans. During these years the area under local cotton varied from about 223,000 acres in 1850-51 to 210,260 acres in 1854-55. During the same years the price for a khandi of 784 pounds of New Orleans varied from £7 10s. to £9 10s. (Rs. 75-95), and of local Dhárwár from £6 to £8 (Rs. 60-80), that is an average of £1 10s. (Rs. 15) or 18\frac{3}{2} to 25 per cent in favour of New Orleans. Compared with what he had seen between 1843 and 1850, in 1854 Captain, now General, Anderson noticed a market improvement and extension in cultivation. The fields were ke, carefully cleaned and manuring had become so common, that in some parts crops were grown to be ploughed in as manure. Bankápur cotton growers owned to occasionally getting 500 pounds of seed cotton to the acre, and 300 to 390 pounds was not unusual. During the thirteen years ending 1853-54 the mean price of a bundle or nug of 300 pounds of clean cotton was £1 198.3d. (Rs. 198) in Navalgund and £2 10s. (Rs. 25) in fifteen other cotton centres. At the same time the Government rental had been reduced to an acre average of 9\frac{3}{4}. In 1855-56 defective ginning arrangements reduced the area of New Orleans cotton to 50,803 in British and 15,711 acres in estate lands. In the same year 202,843 acres were under local cotton. In 1856-57, 108,207 acres were under American and 196,931 under local cotton.

In 1857-58 the area under New Orleans was 130,880 acres and the area under local cotton 252,850 acres. In this year several experiments were made with Egyptian cotton seed. The Collector found the plants grow remarkably well. They were much larger and finer bushes than the New Orleans, but the pods rarely matured and were very liable to be destroyed by insects.

An experiment made with watered Egyptian failed. Messrs. Brice & Company, who since 1854 had opened a trade agency at Dhárwár also made experiments with Egyptian and failed. They inclined to attribute their want of success to the exceptional lateness of the rains, which did not set in till the middle of October and then lasted for a month. At the beginning of March the plants were full of pods and promised a rich crop; but the dry winds of March and April were too severe a trial, and the pods fell without yielding cotton. The Collector did not agree with Messrs. Brice & Company that the failure had been due to untimely rainfall. In his opinion Egyptian cotton was not suited to the district. The weather described by Messrs. Brice & Company had done little harm, either to the New Orleans or to the local crop. The details of Messrs. Brice & Company's experiments show that one at Gadag failed entirely; the plants came up and then died away. At Bankapur the experiment promised well to the end of February; but by the middle of April 6800 plants gave only twenty-six pounds of seed cotton on first and second pickings. They yielded no more cotton, and animals were allowed to graze on the plants. At Hubli 8124 plants gave 106 pounds of seed cetton, which, on being ginned, gave thirty-two pounds of wool, seventy-one pounds of seed, and three pounds of waste. These experiments with Egyptian seed were on a fairly large scale as they covered 169½ acres including sowings in five sub-divisions and 51 acres in Savanur. The result was a mean acre return of about twelve pounds of clean cotton. But as the cotton was valuable, its estimated price reduced the computed loss on the experiment to about 10 d. (7 as.) an acre. Up to May 1857 cotton improvements in Dharwar had cost Government £42,463 12s. (Rs. 4,24,636). Some of this large outlay was recovered in the sale of consignments of Government cotton in England. In 1858-59 the cotton area showed an increase of 4000 acres in Government lands, and from some unexplained cause a decrease of 10,000 in jágir lands. The whole area under New Orleans was 124,752 acres. compared with 214,993 acres under local cotton. The experiments to introduce Egyptian cotton were continued; 261 acres were planted in seven sub-divisions. The result was again unsuccessful, the mean acre yield of ginned cotton being barely fifteen pounds and the net acre loss on tillage nearly 1s. 9d. (14 as.). As in the previous year, the plants grew vigorously and bore quantities of bolls; but most of the bolls never ripened. The assistant collector. who managed much of the experiment, stated that he had not seen one single instance of success with Egyptian cotton. Samples of the small Egyptian outturn together with samples of ordinary Dhárwár New Orleans were sent to the Bombay Chamber of Commerce. The Egyptian was valued at 1s. the pound and the New Orleans at 6d. In 1859 the Dhárwár cotton growers were very flourishing, mainly owing to the handsome profits which American cotton yielded. In 1859-60 increased ginning facilities raised the area under New Orleans by fifty per cent, the total area being 191,282 acres. At the same time the area under local cotton was 230,665 acres. In this year fifty-six gins were issued from the Dhárwár ginning factory. A third experiment with Egyptian ended much like the former

Chapter IV.
Agriculture.
Corron.
Improvements.

DISTRICTS.

Chapter IV. Agriculture.

COTTON. Improvements.

attempts, and the Collector, Mr. Goldfinch, considered the variety unsuited to the soil. An English merchant, Mr. Brook, made fairly large experiments with Egyptian and Egyptian Sea Island. Mr. Brook was of opinion that these cottons would succeed if they were sown much earlier than the local cotton. This theory was tested. The result showed that Mr. Brook was to a certain extent correct. Where good seed was used, the plants throve amazingly, and so far as size and appearance went, beat all other varieties. They went too much to wood and leaf, but still seemed likely to yield largely. matured much sooner than the other cotton. The crop was ripe early in October, when a heavy burst of rain almost yearly The rain fell and the cotton was spoiled. What was picked was weak in staple. This and their own experience so disappointed the landholders, that they refused to try any more Egyptian at their own risk. In 1860 the practice of mixing local and New Orleans brought New Orleans into disrepute, and it lost much of its value. The Bombay Chamber of Commerce thought the falling off was due to crossing. Further inquiry showed that this was a mistake. Dr. Forbes' conclusions were more correct. He thought the decline was due to wilful adulteration. and to the cultivation of local and American in the same field. Both kinds were picked and ginned together, and as the local cotton was cut to pieces in the saw gins, the thorough mixture injured the whole. So greatly did the New Orleans suffer that during the ten years ending 1860 its value had fallen from seveneighths of a penny above to a quarter of a penny a pound below That this fall in value was not due to a deterioration in the New Orleans seed was proved by growing two packages, one from fresh New Orleans seed and one from ten years old, that is ten times cropped, New Orleans. The Bombay Chamber valued the fresh seed cotton at $6\frac{1}{2}d$, and the old seed cotton at $6\frac{1}{2}d$. a pound. The only difference was that the staple of the old cotton was slightly weaker. In 1860-61, 191,026 acres were under American and 234,452 acres were under local cotton. Fifty-five new gins were issued, and gins were still in great demand. In 1861-62 New Orleans rose to 214,310 and local cotton fell to 200,491 acres, and forty-two more gins were sold, making a total of 884 working gins. In 1861 besides proving that the decline in the value of New Orleans. was solely due to mixing, Dr. Forbes, with the help of the district officers, succeeded in getting the people to root local plants out of New Orleans fields. The result was a marked advance in the value of the 1861 New Orleans. In 1862 the mixing was again as bad as or worse than ever. In 1862 Dr. Forbes with Mr. Heywood a leading Manchester merchant, went to see a gin-house. On entering the courtyard, which was enclosed by a high wall, they saw on one side a large heap of trashy local cotton, and near it another heap of about the same bulk of fair American seed cotton. The space in front of the gin-house was covered with a mixture of the two heaps spread in the sun to dry, and on this mixture the gins were at work. Dr. Forbes found that the husbandmen blamed the ginners for the mixed cultivation. ginners, they said, returned them mixed seed, and this they had to sow.

The ginners said the fault was with the husbandmen who gave them mixed seed cotton to gin. The charge was generally brought home to the ginners. Dr. Forbes found that in the Hubli sawgins the American and local cottons were being mixed. Mr. Everitt, an English merchant at Dhárwar, found mixed ginning spreading so rapidly that he had to close his Dhárwár business. Dr. Forbes wrote that the American was now more than half local, and that too of the worst description. Mr. Gordon, the Collector, said that he and his assistants were powerless to prevent the mixing, and that it must do great mischief to the cotton trade. Mr. Hart, the Revenue Commissioner, agreed with Mr. Gordon that this mixing should be stopped and that passing an Act was the only way to stop it. Dr. Forbes was satisfied that fear of the law was the only way of stopping the mixing. The owners of gin factories were rapidly growing rich. He had orders for 591 gins worth £17,800 (Rs. 1.78,000) from people who a few years before could not buy a few gins worth £3 or £4 (Rs. 30-40). As Dr. Forbes' opinion was upheld by almost all the officers who were consulted, Government appointed a Commission to inquire into cotton adulteration.1 Three members of the Commission, Messrs. Forbes Scott and Hannay, came to the Bombay Karnátak to inquire into the state of the Dharwar cotton trade. They found that, during the season in which the inquiries were made, little or no local or American cotton had been shipped clean or unmixed. Besides the mixing of different varieties of cotton the dealers admitted that heir cotton was mixed with seeds and other rubbish, and that it ompared badly with the exports of former years. Many of the lal dealers were anxious that the trade should be regulated by law d placed under inspection. In their report the Commissioners ated that the evils of the Dharwar cotton trade were beyond usual remedies, and affected not only local but general interests. Nothing but the energetic action of Government could check so widespread an evil. Existing laws were insufficient, a fresh Act was required. With their report they submitted the draft of a Cotton Frauds Bill, which had been prepared by Mr. Scott one of the Commissioners, and which had been altered and completed in accordance with the opinion of the Commissioners. This measure, with some amendments, was brought before the Legislative Council early in 1863. passed in April 1863, and became law in July of the same year as the Bombay Cotton Frauds Act IX. of 1863. The first cotton inspector appointed for Dhárwár was Captain, now Colonel, R. Hassard, of the Bombay Staff Corps, who had already received charge of the Dhárwár factory from Dr. Forbes, on his appointment as Cotton Commissioner. Captain Hassard's duties of superintendent at a chief and two branch ginning factories left him little time for inspection. The American war had begun and the great rise in the value of cotton enabled even mixed and adulterated cotton to find a market. In 1862-63, exclusive of the cotton area in estate villages,

Chapter IV.
Agriculture:
Corron.
Improvements.

¹ The members of the Commission were Mesars. G. Inversity, M. H. Scott, R. Hannay, R. McIlwraith, G. F. Forbes, and C. Forjett. Three of the members were nominated by the Bombay Chamber of Commerce.

Chapter IV.
Agriculture.
Cotton.
Improvements.

363,174 acres were under American cotton, and 207,063 acres under local cotton, and in 1863-64, 323, 535 acres were under American and 203,626 acres under local cotton. The local price of Dhárwár New Orleans rose from £14 (Rs. 140) the khandi in 1860 to £38 (Rs. 380) in 1863, and to £46 10s. (Rs. 465) in 1864, and every available. patch was planted with cotton. In 1864-65 a bad season reduced the American cotton area to 280,230 acres and the local cotton area to 185,374 acres. Growers and dealers tried to supplement their deficient crop by mixing and false packing, and, as most of the inspector's time was again devoted to the factories, the people began to think that the Frauds Act was not to be enforced. The offices of superintendent of the factory and of inspector were separated, Early in 1865 Mr. G. Blackwell was appointed inspector. began a vigorous inquiry, and though several of the prosecutions failed from want of proof of fraudulent intent, the dread of conviction greatly reduced the amount of adulteration. Efforts were also made to induce the landholders to give up mixing the two varieties of seed in the same field, and to pay more attention to the choice of good large seed. In 1865-66, there was a further fall in the area, to 160,046 acres under local and 261,943 acres under American cotton. This fall was probably due to the scarcity of fodder and grain caused by the failure of rain in 1864-65. In 1865-66 the rainfall was again far from favourable, and the outturn of most crops was poor. The inspector found it very difficult to prove the mixing at the gins fraudulent under the provisions of the Act. In this year large supplies of fresh seed were distributed, and did much to improve the quality of the New Orleans cotton.

In 1866-67 the area under American rose to 304.688 acres: under local cotton to 161,750 acres. Under the influence of cotton inspectors, frauds and dirt-mixings were greatly checke... Still, in the opinion of Mr. Bulkley the inspector-in-chief of cotton, the working of the Act had brought to light a flaw in the provisions regarding fraudulent mixing. To be fraudulent, mixing must take place in cotton either offered for sale or offered for pressing. There were no presses in Dhárwár and the cotton was sold not in Dharwar but in Bombay. So the inspector might see in a ginning yard a heap of local, a heap of American, and a third heap of seed to be added as a make-weight and yet fail to secure a conviction. One effect of the cotton famine in Lancashire caused by the American war was to give fresh importance to the question of improving the supply of Indian cotton. It was felt that no considerable results could be looked for unless specially trained men were employed and set apart for the special duty of improving In 1866-67 Mr. W. Shearer was sent out by the Secretary of State to undertake the charge of cotton experiments. In 1867-63 the area under American cotton fell to 300,399 acres and the area under local cotton rose to 181,485 acres. Mr. Shearer began his experiments on twelve acres of land near Dhárwár which were leased for five years. He carefully planted two kinds of local cotton, and the result promised fairly well. But he was ordered to Gujarát before the crop was picked and the cotton was sold before his return and no record kept. Mr. Blackwell the inspector found a great deal of false packing. He tried to persuade merchants to aid him in bringing the offenders to punishment, but failed, as the merchants though willing were afraid to offend the dealers. In 1868-69 the area under American cotton rose to 317,310 acres and under local cotton to 194,586 acres. Though both crops suffered from blight the outturn was fair. With the revival of American supplies the price of cotton fell. To make good the loss in price, the dealers weighted the cotton by adding dust and other refuse. These fraudulent mixers were fairly safe as with a little care they could destroy the cotton without breaking the letter of the law. Of several prosecutions, all of which were aggravated cases clearly within the spirit of the law, only one was successful. Mr. Shearer's farm of twelve acres near Dhárwár was given up and a larger farm of thirty acres was started at Kusvugal near Hubli. In 1868 two more cotton experiment superintendents, Messrs. Milne and Strachan, came from England and were placed for some time under Mr. Shearer. Shearer's experiments included sowings of Dhárwár American and local, and of Broach, Tinnevelli, Tanjor, and Koimbator.

the local Dhárwár none of these yielded a good outturn. In 1869-70 the area under American rose to 425,099 and of local to 222,116 acres. This great increase in American was mainly due to increased facilities for repairing the cleaning machinery. sowing was late on account of heavy early rains, and the crop was much hurt by blight when the plants were nearly mature. About fifty tons of the best acclimatized seed were distributed in Karajgi, Navalgund, Ránebennur, and Ron, and about a ton of fresh Ameri-The send was distributed by Mr. Shearer. The acclimatized seed has willingly sown, but the people were afraid to risk the fresh merican. Fresh American seed sown by Mr. Shearer throve well. I'wo fraud cases were tried; but both failed. Mr. Shearer worked whis year on a much larger scale than before. He had farms of 198 acres in Bankapur, Kusyugal, and Navalgund; and planted several varieties of cotton. The result was disappointing mainly owing to the badness of the season. In these experiments the late sown plants throve better than those sown earlier. The object in dividing the experiments was to secure a fair average of soil and climate. In addition to this Mr. Shearer set apart a small piece of land close to his house at Kusvugal, as a nursery to study the habits of the different cotton plants, and to test the theories of crossing. In 1870-71 the area under American fell to 335,297 and under local to 195,301 acres. Up to the time of picking, the season was fair, then heavy rain fell and damaged the ripe crop. Frauds were rife, but there was no successful prosecution; and great complaints were made of the state of the saw-gins. Mr. Shearer continued his experiments in the same sub-divisions, but on fresh land. The land was ploughed with English ploughs and was afterwards stirred with an English grubber. He used both patent and native manure, but failed to discover any difference in the yield of notton crops on manured land, and on unmanured land. These experiments were more successful than any of his former ones; the largest acre yield of clean cotton was 129 pounds. The people were Chapter IV.
Agriculture.
Corron.
Improvements.

Chapter IV.
Agriculture.
Cotton.
Improvements.

so much pleased with the result of the sowing that they applied for In 1871-72 the area under American cotton fell to 315,387 acres and the area under local cotton rose to 203,191. Mr. Shearer's experiments were limited to 110 acres, eighty at Kusvugal and thirty at Navalgund. Between excessive rain and cutting winds the season was unfavourable. At Kusvugal the selected seed American cotton was sown in three fields. was begun on the first and completed on the tenth of September. The crop was not large, the acre outturn of clean cotton averaging sixty-one pounds. At Navalgund two fields of fourteen and ten acres planted with local cotton yielded an acre outturn of sixty-two and twenty-one pounds of clean cotton, the remaining six acres were planted with acclimatized Broach which returned an acre yield of fifty-seven pounds of clean cotton. At Kusvugal Mr. Shearer did the greater part of his work with English tools, with the view of making native farmers acquainted with their use. The English tools did their work better than the native tools; and Mr. Shearer always offered the people such tools as he could spare. During his whole stay he was only thrice asked for their use. The native tools were effective when the under-soil was moist from rain, and it was only with moist under-soil that the cultivator worked. In 1872-73 the area under American cotton fell to 195,809 acres, and the area under local cotton rose to 318,448. Fraud, both in ginning and in packing was rife; of fourteen prosecutions eight were successful. Mr. Robertson the Collector thought that the Cotton Frauds Act was weak and that the Dharwar trade required a much more stringent law. During 1872-73 a difficulty regarding continuing Mr. Shearer's pay out of the Cotton Improvement Funds stopped his experiments ar } seriously interfered with his arrangements. In this year th question was raised whether it was worth while trying to kee [up the supply of American cotton. Would it not be as well to have the whole area under the local cotton? Many of the native dealers were of opinion that the local cotton could never be as valuable as the American cotton; one reason why so much local cotton was grown was that its seeds were a valuable cattle food. The cotton inspector contended that if the whole cotton area was given to local; cotton there would be serious difficulty in getting it ginned. The markets for the two crops were distinct, and this division by reducing supplies tended to keep up the value of both. Finally the American was a more valuable crop than the local crop. The yield was larger, the price was higher, and the proportion of clean cotton to gross outturn was greater. Mr. Robertson endorsed this opinion: he thought the importance of the American variety could not be overrated.

In 1873-74 the area under American rose to 215,325 acres and the area under local fell to 268,169. The outturn was fair. Mr. Shearer gathered about 16,000 pounds of selected American seed which the Collector Mr. Robertson distributed in Gadag, Hubli, Navalgund, and Ron. It was arranged that similar distributions should be made every year. The system followed was to gather good seed, from the best tracts and distribute it in the parts of the district where the Dhárwár-American had deteriorated. The plan was

excellent except that it was on too small a scale. Fraud was very troublesome and of twelve prosecutions only five succeeded. All the European merchants of the district joined with the inspector in pleading for an Act with stronger provisions, and in this they had the support of the Collector Mr. Robertson. In 1873 in the Government farm which was started near the villages of Lakmanhali and Navalur about five miles south of Dhárwár, the land was divided into seven plots and planted with American and local cotton. In the first season the acre yield of the American cotton varied from sixteen to seventy-five pounds of clean cotton, and of the local cotton from seventy to 154 pounds. In 1874-75 the area under American rose to 234,341 acres and the area under local cotton fell to 221,343 acres. Fraud was very rife, but by the exertions of the inspector Mr. Walton of thirty-six prosecutions, thirty-two were successful. Some of this season's cotton was ginned in the steam gins which had been lately started by the Kárwár company at Hubli. In this year (1874) Government appointed a Commission to inquire into the necessity for continuing the special law to suppress cotton frauds. The majority of the Commission, after collecting a large amount of evidence, were of opinion that though it was not advisable to annul the Act it was advisable to place it in abeyance for a time. When the matter was referred to the Secretary of State the Bombay Government were directed to prepare a fresh Act with the object of remedying the defects of the existing measure. Heavy and unseasonable rain made 1874-75 an unsuccessful cotton season at the Government farm. The acre yield of local Dhárwár and Broach was only forty-five pounds of clean cotton. The fresh American seed sprouted well, but soon after died. 'cclimatized American promised well but suffered from blight; the here outturn was fifty-seven pounds of clean cotton. To test the theory of the crossing of the two varieties one plot was sown with a hixture of local and American seed. The plot promised well, but bout two-thirds of the bolls were spoiled by blight. A plot of New Orleans sown at the end of August yielded only thirty-five ounds of clean cotton the acre. Government were disappointed with the results; such repeated failures year after year must end in

In 1875-76 the area under American rose to 336,235 and under local cotton to 232,630 acres. A steam-ginning factory was opened at Gadag and much cotton was ginned in steam-gins. In consequence of the last year's successful prosecutions there was a considerable improvement in both varieties of Dhárwár cotton, though some badly adulterated cotton, ginned and packed in the Nizám's country, injured the name of Dhárwár cotton. Of fifty-eight prosecutions fifty-three were successful, but of the convictions two were afterwards reversed on appeal to the High Court in Bombay. The cotton experiments on the Government farm were

he closing of the farm.

Chapter IV.
Agriculture.
Cotton.
Improvements.

¹ The members of the 1874 Commission were the Honourable A. Rogers, President, and the Honourable Messrs. E. W. Ravenscroft and Náráyan Vásudev, and Messrs. H. P. LeMesurier and E. M. Fogo, members.

Chapter IV.
Agriculture.
Corron.
Improvements.

fairly successful. Owing to the failure of the usual October and November rain the cotton crop was nowhere good and this failure of rain was accompanied by so blighting an east wind that Mr. Shearer thought it must be poisonous. The acre yield of clean American cotton in well prepared good black soil was thirtyfour pounds. The acre outturn of clean local cotton in equally good soil was only twenty pounds. One plot of ground was sown with American cotton with sunflowers scattered here and there. The cotton plants grew well till November and were then caught by blight. The superintendent tried every means, including watering, to save the crop; with all his efforts he only succeeded in keeping the leaves a little greener than those of the plants in the neighbouring fields. Another three-acre plot was divided between selected American seed and freshly imported American seed. The land was well manured with slaughter-house refuse and poudrette in separate parts, but with no variety in result. The crop was attacked by blight and the acre outturn was nincteen pounds of clean cotton. A quantity of dissolved Peruvian guano, costing in Bombay £17 10s. (Rs. 175) a ton, was freely applied to cotton, but apparently without any improving effect. The guano was applied at the rate of three hundredweights the acre on a field of local cotton. So long as rain lasted the guanoed patch grew When the dry weather set in this difference specially freely. disappeared, and the outturn proved no larger than that of the neighbouring fields. The saw-gins were falling into disrepair and their state was unsatisfactory.

In the famine year of 1876-77 the area under American cotton feli to 44,024 and under local cotton to 99,830 acres or little more than one-fourth of the average area of the five previous years. . The larg . number of convictions in the previous year was followed by a great improvement in the state of the cotton. The dealers never remembered such clean cotton. At the Navalur farm Mr. Shear sowed American fresh and acclimatized, and selected Broach. addition to the experiments at the Government farm Messrs Robertson Brothers & Co. planted about fifteen acres with Hinganghat Their aim was to try seed in three fields of about five acres each. Hinganghat seed both for early and for late sowing. The first field had no manure and was sown about the 15th of August; the second field had twenty carts of common village manure and was sown about the 20th August; and the third field had thirty carts of common village manure and was sown about the 25th of August. Robertson & Co. arranged with the landholders to make good whatever the outturn of the Hinganghat fields fell short of the out! turn of neighbouring fields of local or of American-Dhárwár. At the same time any return over that of neighbouring fields was to go to the landholder. The complete failure of the late rains made these So complete was the failure of the cotton arrangements useless. crop that Messrs. Chrystal & Co. in Gadag did not press a single bale. Of four prosecutions two were successful. The crop was very small and what came to market was clean. In 1877-78 the area under American rose to 128,277 acres and the area under local cotton to 277,300 acres. There was no local case of mixing or false

packing, but much seriously adulterated and falsely packed cotton came from the Nizam's country and was sold on the coast under the name of Dhárwár saw-ginned cotton. Messrs. Robertson & Co. continued their experiments in Hinganghát. The seed was sown in July and in November the plants with flowers and some with bolls promised well. Heavy rains in December spoiled the crop reducing the outturn of nineteen acres to three bales of clean cotton. One of the chief objects of Messrs. Robertson & Co.'s experiments was to introduce an early cotton into Dhárwár. The result was disappointing. The plants sown in July did not ripen earlier than the plants sown in September. It seemed as if the plants were unable to ripen so long as the ground remained damp and the weather continued cloudy. Mr. Campbell, the manager of the Kárwár Cotton Company, made an experiment with Egyptian Bunnia cotton. Mr. Campbell divided his field into two parts: one which he worked in the same way as the people grew American cotton, and the other part which he watered. The seed was sown on the first of September, the first watering was given on the 17th of November, and watering was continued at intervals until the beginning of May. Mr. Campbell found no difference between the watered plants and the unwatered plants. The number of watered bolls was small, and the staple was good. But the colour was so bad that it looked as if it had been stained by damp. Five hundred pounds of fresh American sced were received from Government for distribution. In 1878-79 the area under American cotton rose to 246,210 acres and under local cotton fell to 233,280 acres. Of eight cotton fraud prosecutions six were successful. As in former years the passing as Dhárwár American of cotton adulterated in neighbouring states was a kerious evil. In September 1879 the Government of India recommended that all special legislation for the suppression of cotton frauds should cease. The Secretary of State did not agree with the view held by the Government of India. In 1879-80 there was marked fall in American and rise in local cotton. The American area fell to 141,726-acres and the local area rose to £31,465 acres. On the 4th of March 1880, the Secretary of State sanctioned the proposals that had been made in 1879 by the Government of India, and desired the Bombay Government to do away with the special cotton fraud prevention establishment. According to Mr. Walton, the opinion of the local European agents and native merchants was opposed to the giving up of Government efforts to check fraud. According to Mr. P. Chrystal, a Bombay merchant who is well acquainted with the Belgaum and Dhárwár cotton trade, the Bombay dealers and merchants in American Dhárwár and Kumta cotton think (1883) that the Cotton Frauds Act failed to stop adulteration in the Bombay Karnátak. Mr. Chrystal thinks that since the Act has been stopped, there has been no noticeable increase in adulteration. The American Dhárwár has declined in staple and lost its silkiness, but this he thinks is due not to more mixing but to deterioration in the American seed. In 1880-81 the area under American cotton fell to 77,121, and the area under local cotton rose to 439,251. In 1881-82 the area under American cotton rose to 138,790, and the area under local cotton fell to 395,396 acres.

Chapter IV.
Agriculture.
Cotton.
Improvements.

Chapter IV.
Agriculture.
Corron.

In 1882-83, the area under American cotton further rose to 145,397, and the area under local cotton fell to 375,070 acres.

The following table gives the areas under American and local cotton during the forty-one years ending 1882-83:

Dhárwar Cotton Area, 1842-1883.1

YEAR.	American.	Local.	Total	YEAR.		American.	Local.	Total.
	Acres.	Acres.	Acres.			Acres,	Acres.	Acres.
1842-43	27	184,237	184,264	1863-64		323,585	208,646	527,161
1040 44	545	178,411	178,956	1864-65		280,230	185,374	485,604
1844-45	2749	182,437	185,186	1865-66	•••	261,948	160,046	421,9%
	11,176	164,591	175,767	1866-67		304,688	161.750	466.43
5040 48	22,331	167,592	189,833	1667-68		800,899	181,485	481.88
1015 10	20,502	179,229	199,731	1868-69		317,310	194,556	511,89
1040 40	3351	201,578	204,929	1869-70		425,099	222,116	647,218
1849-50	15,573	225,685	241,258	1870-71		835,297	195,304	530,60
1850-51	31,668	223,315	254,988	1871-72		815,387	203,191	518,57
1851-52	42,647	221,676	264,323	1872-73		195,809	318,448	514,25
1852-53	28,010	251,114	279,424	1873-74		215,325	268,169	483,49
40eb E4	41,403	252,006	293,409	1874-75		284,341	221,348	455,6H
1854-55	63,298	210,260	273,559	1875-76		336,235	232,630	568,86
TOPE EA	66,514	202,843	269,357	1876-77		44,024	99,830	148,864
1856-57	108,207	196,931	305,138	1877-78	!	128,277	277,300	416,67
1857-68	130,880	252,850	383,730	1878-79		246,210	233,280	479,44
1858-59	124,752	214,993	339,745	1879-80		141,726	331,465	473,10
1050 00	191,281	230,665	421,946	1880-81		77,121	439,251	518.37
1860-61	191,028	234,452	425,478	1881-82		138,790	895,396	534.1M
1861-62 .	214,310	200,491	414,801	1882-83		145,397	275,070	520,40
1862-63	. 363,174	207,063	670,237	1	- 1		· 1	

GARDENS.

GARDENS are found chiefly in Bankápur, Hángal, Karajgi, Kod. and Ranebennur where irrigation is abundant and easy. The best gardens are below the large reservoirs. They are fenced with guava, lime, and other fruit trees, and contain sugarcane, cocoa and betel palms, and betel vine. During the greater part of most years the gardens draw a plentiful supply of water from the reservoir. The supply is also helped by the soaking of water, through the pond bottom into the gardens. To help this soaking holes are dug a few feet deep, and, if the reservoir fails, the water is scooped out of the holes by shallow baskets called gudás which are swung through the well and carry a basket full of water to a level high enough to let it run into all the small channels. Minor garden crops and watered dry crops as well as rice are often grown in the gardens as change crops after sugarcane or after the betel vine is removed, to give the soil fresh vigour. Some gardens with a poor water-supply grow only minor crops. Except in parts of Kod the better garden crops are grown with much care and labour. In the slovenly gardens of Kod, in one corner betel vines are mixed with a plantation of young betel palms. Between the rows of betel vines and perhaps in other parts of the garden are a few plantain trees, and, scattered about with little regard to regular planting are thirty to sixty cocoa palms. The rest of the garden is altogether untilled, or is perhaps sown with crops which would grow nearly as well in a field as in a garden, but which have the merit of hardiness and of requiring little care. The chief garden crops are the betel vine, plantain, betel palm, cocoa palm, and mulberry.

¹ The figures are for the district of Dhárwár including alienated lands in Government villages and native state lands mixed with Government lands.

The Betel Vine elebulle (K.) or pán (M.) Piper betel, a perennial, is the chief garden produce. It is planted by cuttings. As it is a creeper, long thin quick-growing trees generally nagis, halivals, and chargachis are set close beside it for the vine to train on. The vine wants manure three or four times during the year, and, to succeed well, must be watered every eighth day and still oftener during the first year. The vine begins to bear leaves in the third year and yields a crop every third month. An acre of land contains upwards of two thousand plants. Leaves are gathered for four, five, six, and sometimes seven years when the vines die and are dug up, the leaves of the trees on which they have been trained affording vegetable manure to young plantains and their wood being used for fuel. After a crop of betel vine the garden is deeply dug all over. According to some accounts it lies fallow for a whole year and is then planted with sugarcane; after the sugarcane it enjoys another year of fallow, when the betel vine is again planted or instead of it plantains. According to others sugarcane is planted immediately after the ground has been cleared of the betel vine and has been well dug, ploughed, and levelled; then one year of fallow succeeds the cane, and the fallow is followed by plantains or betel vine, or, before these, by a crop of chillies or a dry-crop. Most of the betel leaves are used in the district, the rest are sent to Belgaum. Except to men of means the betel vine is not a paying crop as the heavy expense of two years of planting, manuring and watering has to be met before there is any return.

Plantains bálegidu (K.) or kel (M.) Musa sapientum yield only one crop. The trees are then cut down, but new shoots spring from the roots which are transplanted and set in a small pit with manure earth and dry leaves and well watered every eighth day. They are planted in lines four to five feet apart, bear fruit in the second year, and are hen cut down. In some cases plantains are followed by a year's est and the year's rest by betel-vine.

Detel Palms' adkigidu (K.) or supári (M.) Areca catechu are cenerally scattered among the betel vines. When planted by themelves, an acre of land holds over six hundred palms. The palm ppears above ground six months after the nut has been planted. If cared for and freely watered, at first twice and afterwards once a month, the betel palm bears fruit in eight years; otherwise it does not begin to bear for ten or even twelve years. It continues to bear yearly for fifty to seventy-five years. The nuts are taken from the tree between October and December.

Cocoa Palms tenguigidu (K.) náriel (M.) Cocos nucifera bear when ten to twenty years old. If manured and watered, at first twice and afterwards once a month, they generally bear in their twelfth year and continue bearing nearly a hundred years.

The Mulberry hila (K.) tut (M.) Morus indica is found in many native gardens grown sometimes as a hedge plant and sometimes for their small and pleasant fruit. They seem to have been introduced

Chapter IV. Agriculture.

GARDENS.
Betel Vine,

Plantains.

Betel Palms.

Cocoa Palms.

Mulberry.

¹ Fuller details are given in the Kanara Statistical Account, Bombay Gazetteer, XV. Part II. 7-9.

Chapter IV.
Agriculture.
GARDENS.
Mulberry.

some sixty years ago when the first attempt was made to grow silk.1 In 1823 Mr. Baber the Collector introduced worms from Maisur into the Bombay Karnátak, first at the Dhárwár jail, and afterwards among a few Musalmans near Dharwar, Hubli, and other towns. These persons were granted seven years' leases and were given advances of cash. The attempt to grow silk was so far successful that in 1827 a package of Dhárwár silk was sent to England. ship which carried it was wrecked and the sample damaged. Court of Directors reported that had the parcel been in a sound state the raw silk would have been sold at the rate of twelve shillings a pound. In 1833 Dr. Lush, who at that time was in charge of the Dharwar cotton experiments, reported that the people among whom the worms were distributed had each one or two acres of land under the mulberry. The outturn was a few mans of silk for local use which in the Hubli market sold at 14s. to 16s. the pound (Rs. 3½-4 the ser). In 1842 about four hundred pounds of a very inferior silk was made. In 1843 at Dhárwár there were 200 mulberry trees and 25,000 bushes, besides 10,820 bushes in the jail garden. About 272 pounds of silk worth £50 (Rs. 500) were made by the people and 144 pounds worth £36 (Rs. 360) were made by the prisoners. In 1848 after inquiry the attempts to grow the mulberry with a view of establishing a silk industry were stopped. In 1865 silk experiments were revived at Dhárwár by Dr. Mackenzie the jail superintendent. In the sixteen months ending September 1869 the jail produced nearly eleven pounds of raw silk worth about 16s. (Rs. 8) a pound. A comparison of the results of the last six with the first ten months of the period showed marked improvement in the weight of the cocoons and an advance from 6.7 to 8.7 in the proportion of silk to total weight. Dr. Mackenzie thought the improvement was due to the greater attention which had been paid to the food of the worms, to regularity in feeding them, to the airiness and brightness of their rooms, and to the efforts made to prevent the temperature varyin more than from 85° to 90°. The worms were fed on mulberr bushes cut down at the beginning of each monsoon and not allowe to grow more than three or four feet high. The worm bred ha not been identified. From Dr. Mackenzie's description it seem: to have been one of the Bengal multivoltines; its total course is given at 55½ days. In 1872 besides the jail experiment there was a small mulberry plantation which turned out a fair supply of cocoons. During 1873-74 the mulberry plants throve well without watering, and though not a drop of rain fell from the 8th of Novemi ber 1873 to the beginning of April 1874, the bushes continued with. out watering fresh and healthy and threw out a constant supply of leaves enough to feed a considerable number of silk worms. In 1873 samples of raw silk, the result of Dr. Mackenzie's trial, were sent to experts in Glasgow, London, and France. Their opinions and suggest tions were closely alike. The thread was bright in colour and had good nerve; it had been much spoiled by bad reeling. The

¹ Silk in India by Mr. J. Geoghegan, Under Secretary to the Government of India (1872), 27-41.

highest value of the sample was 12s. (Rs. 6) the pound; had it been properly reeled it would have been worth £1 4s. to £1 5s. (Rs. 12-12) the pound. The experts considered that the sample showed that Bombay was in a better position for growing silk than Calcutta. In April 1874, Dr. Mackenzie, while noticing these favourable opinions, wrote to the Bombay Government that successful silk growing in Dhárwár would depend entirely on European supervision, and that he found on inquiry that, even at the highest rates fixed by the European experts, there would always be a demand in the Bombay Presidency, in Bangalur, and elsewhere for such silk without the trouble and expense of sending the produce to Europe. The Bombay Government considered that the climate and soil of Dhárwár were well suited for silk growing and that Dr. Mackenzie's experiments gave a fair hope of success. They directed him to continue his operations with jail labour and to plant a plot outside the jail with mulberry, and granted him £50 (Rs. 500) for sundry expenses connected with the trial. In 1876 experiments were made to rear the tasar silk-worm, but owing to the small amount of silk cocoons obtained no important result was noted. Cotton has for the most part driven out silk, and, in Mr. Robertson's opinion, water is too far below the surface for irrigated mulberry tillage to pay.

In May 1873 Mr. E. P. Robertson, C.S., then Collector of Dharwer, asked the sanction of Government to start an experimental form near the villages of Navalur and Lakhmanhalli about five niles south of Dhárwár. The farm was to be started on about s venty-seven acres and to be gradually extended to two hundred acres. Government gave their sanction and Mr. Shearer who since 1866 had conducted the cotton experiments in Dhárwár was appointed its superintendent. The land was obtained with some difficulty, and late in the season Mr. Shearer began work in 291 acres of land divided into seven plots. The land was broken with a plough and grubber that had been sent out by the late Marquis of Tweeddale through the Secretary of State. This machine was based on the wheel and lever principle. It had been planned by and made under the supervision of the late Marquis of Tweeddale v hen Governor of Madras (1842-1848). It was worked with one or two Vairs of bullocks and though as light to work for the same depth as the country plough it had several advantages. When once set on a straight furrow it needed no holding. It turned out a furrow each time while the country plough merely displaces the soil on each side and generally leaves a ridge altogether unploughed; it could be used in soil moderately dry and could be regulated to depth and breadth to suit the bullock's strength, while the country plough cannot be worked in a too moist and heavy soil. The English plough fell into disuse because its repair required more skilled labour than the ordinary field tools. During the season the farm was increased to 103 acres. The cotton crop was a success, the acre yield varying from sixteen to seventy-five pounds of clean American, and from seventy to 154 pounds of clean local cotton. Want of rain

Chapter IV.
Agriculture
GARDENS
Mulberry.

Experimental Farm.

¹ Memorandum on Silk in India by L. Liotard, Department of Revenue and Agriculture, Government of India, 1883,

Chapter IV.
Agriculture.
Experimental
FARM.

was the main cause of some of the smallest yields of American cotton. Besides cotton, a fine crop of sugarcane was obtained where the native growers had repeatedly failed, and successful attempts mere made to get a market oil from sunflower. The total cost during 1874-75 amounted to £165 (Rs. 1650) and the receipts to £80 (Rs. 800), or a working loss of £85 (Rs. 850). In 1875-76 the area of the farm was raised to 109 acres all acquired at a cost of £760 (Rs. 7600) and the number of plots was raised from seven These nine plots were sown with food-grains, greens, cotton, safflower, and sunflower. The rains set in as usual and the crops promised well till August when the weather became unusually dry: Occasional showers helped the crops till October when cut ting winds joined with the drought destroyed all hope of a good yield. Still some crops did fairly, but the failure of the cotton and to great extent of the wheat and gram reduced the outturn to 1;s (Rs. 8) the acre. Peruvian guano was applied to half an acre so vii with potatoes and the result was a yield of nearly one ton which realized £5 16s. (Rs. 58). The total working charges including assessment were £179 (Rs. 1790) and the total net loss was £85 (Rs. 850). In 1876-77, the famine year, the wheat crop, which is generally sown after the first burst of the north-east monsoon in October, was viry hurriedly put in, as it was feared that, by delay, the scanty supply of moisture in the ground might be lost. In the neighbourhood of Navalur the seed came up well, but the easterly winds dried up the half-moistened soil. The wheat straw grew stunted and weak, an! the grain was very light, some fields barely yielding as much as the seed sown. Cotton sowing began about the middle of August but The sowings of American cotton in the crop was never promising. three fields kept remarkably free from blight but they were weak and stunted. The yield from two of the fields was extremely light; in fact the cotton crop of the village was almost a failure. The income amounted to £150 8s. (Rs. 1504). In consequence of these repeated failures the farm was closed from the 1st of October 1877.

FAMINES.

1396.

1423.

1424.

1424. 1471.

Blights are rare and never so widespread as to affect the general harvest. Cotton occasionally suffers from mildew, and the grain crops are often damaged by insects, rats, and locusts. The earliest recorded failure of rain in the whole country south of the Narbada is the great Durga Devi famine, which began in 1396 and is said to have lasted nearly twelve years. This famine was caused by the total want of seasonable rain. Almost no revenue was recovered and a large proportion of the people died. In 1423 no rain fell and there was a grievous famine throughout the Deccan and the Karnátak; multitudes of cattle died from want of water. Ahmad Shah Bahmani (1419-1431) increased the pay of his troops and opened public stores of grain for the use of the poor. In 1424 there was again a failure of rain and the country was much disturbed.2 The years 1471 and 1473 are described as seasons of exceptional distress. No rain fell and no crops were sown for two years. Many died and many left the country. In the third year, when rain at last fell, scarcely,

¹ Grant Duff's Maráthás, 26,

any one was left to till the land. In 1790 the march of the Marathas under Parashurám Bháu through Dhárwár to Maisur was accompanied by such devastation, that on its return from Maisur the victorious army almost perished from want of food. In 1791-92 there was a terrible famine, the result of a series of bad years heightened by the depredations caused by the Maráthás under Parashurám Bháu. distress seems to have been great in Hubli, Dambal, and Kalghatgi, where the people were reduced to feeding on leaves and berries, and women and children were sold. In Dambal the rains failed for twelve years and for three years there was no tillage. From the number of unburied dead the famine is remembered as Dogi Bira or the Skull Famine. The distressed were said to have been relieved by the rich. Beyond seizing some stores of grain at Hubli the Peshwa's government seem to have done nothing. Dambal grain was sold at two and a half pounds the rupee.2 In 1791 between the 23rd of April and the 6th of May, the rupee price of rice was six pounds (3 pakka shers) at Kárur, Ránebennur, Motibennur, Háveri, Sháhánur, Kailkunda, Hubli, and Dhárwár; of gram six pounds (3 pakka shers) at Kárur, Motibennur, Hubli, and Dhárwár, and eight pounds (4 pakka shers) at Háveri, Sháhánur and Kailkunda; and of Indian millet eight pounds (4 pakka shers) at Kárur, Ránebennur, Motibennur, Háveri, Hubli and Dhárwár, and ten pounds (5 pakka shers) at Shahanur and Kailkunda. The 1802-3 famine was not so much due to the irregularity of the season as to the ravages of war. The season was a fair one and the harvest would have been good but for the disturbed state of the country which prevented much land being sown and for the ruin caused by Pendhári ravages The famine lasted for a year and the distress was deepened by large numbers of starving people pouring into the district from Pandharpur and Bijápur. On their way through Bijápur people could find neither food nor water. Their state on reaching Dhárwár was deplorable, and, without either shelter or food, they laid themselves down and died in numbers among the bushes which then grew round the fort. From the numbers of destitute who came into the district and from the widespread distress, this famine is remembered as Buán Bára or the Terrible-Famine. Thousands of dead strewed the roads. Probably from the number of unburied bones, but, according to the local story because in their agony the dying beat their heads together, this, like the 1791-92 famine, was called Dogi Bára or the Skull Famine. Grain is said to have sold at 17½ to 21 pounds (5-6 sers) the rupee. In Hubli the rich headed by Chintámanráo Patvardhan helped the poor. Peshwa's government seem to have afforded no relief. Between 1801 and 1832 two partial famines are recorded, in 1814 and in 1824. The 1814 famine is known as the Bisaghi Bára or Drought Famine. said to have been deepened by the disturbed state of the country, and apparently was serious only in Dambal. It lasted two months during which grain sold at twenty-four pounds (7 shers) the rupee. In 1824

Chapter IV Agriculture. Famines. 1791.

1802-3.

1814.

Briggs' Ferishta, II. 494. Col. Etheridge's Past Fammes, 105.

³ Moor's Narrative of Captain Little's Detachment, 232.

Colonel Etheridge's Past Famines, 106-107.

Chapter IV. Agriculture. FAMINES. 1852. another short two months famine is recorded, when grain sold at forty-two pounds (12 shers) the rupee. It is attributed to failure of rain and seems to have extended to Belgaum. In 1832 local failure of rain and the immigration of destitute people from the country north of the Krishna caused great scarcity all over the district. The price of grain varied from 24½ pounds (7 shers) in Hubli to 31½ pounds (9 shers) in Dambal, and in Dambal some of the poorest were reduced to eating grass. The rich in Hubli, headed by Appáráo Lokhande, subscribed for the relief of the poor, and Government remitted the grain tolls. Mr. Elliot, the Collector, issued an order forbidding forestalling and regrating, and requiring the dealers to bring their grain into the market. Ponds and other useful works were begun to provide labour for the poor.

1866.

In 1866 the district was again visited by famine, the result of a succession of bad seasons. Though the rains set in late a fair harvest was looked for until August, when rain held off and grain became both dear and scarce. People who had stores of grain were unwilling to part with them. The distress was most severe in Navalgund, Ron, and Dambal. In Dambal the distress was not the result of one year's bad harvest, but of a continual failure of crops for some three or four years. Many were reduced to beggary and still more left their homes in search of food, many with the object of returning when better times came, and a few with the object of never returning. On the other hand, there was a large influx of people from Belgaum, Bijápur, and At the end of September heavy and continued rain saved the crops. To afford relief to the sufferers works not requiring skilled labour were begun in the Dhárwar, Navalgund, Ron, and Gadag sub-divisions. A special famine-works grant of £4000 (Rs. 40,000) was made by Government from local funds, and £350 (Rs. 3500) from Imperial funds. A special grant of £5000 (Rs. 50,000) was also given for the improvement of the high road from Tegur by Dhárwár to Harihar, and an advance of £1600 (Rs. 16,000) was promised to the Dhárwár municipality to improve a large reservoir in the suburbs of the town. Considerable numbers of the poor thus found employment for several months, until the harvest was gathered, which the timely late rains of September and October saved. The old and infirm, who could not work, were fed by private charity at Dhárwár, Hubli, Navalgund, Nargund, Annigeri, Basápur, Bhadrapur, Gadag, Dambal, Karajgi, Háveri, Devihosur, and Ron. By December distress had disappeared. The harvest, especially the grain harvest, was the best reaped for several seasons. At Dharwar the rupee price of Indian millet fell from twenty-one in September to seventy-three pounds in December (6-21 shers); of millet from eighteen to sixty-eight pounds (51 - 191 shers); and of poor rice from twenty-one to thirty-nine pounds (6 - 111 shers).

1876-77.

The scanty and still more the ill-timed rainfall of 1876, 13.81 inches compared with an average of 26.39, led to failure of crops and distress

Colonel Etheridge's Past Famines, 105-116.

amounting to famine over about two-thirds of the district.¹ The north and east suffered the most. In addition to the failure of the early crops, September and October (1876) passed with only a few showers, and very little of the late crops were sown. With high grain prices, Indian millet at 16½ instead of forty-three pounds, and with little demand for field work, numbers of the poorer classes fell into distress. The need for Government help began early in September, when relief works were opened and paid for out of local funds. In the hot months of 1877 (March to June), with rising prices, the distress grew keener and more widespread. The failure of rain in July and August caused great anxiety and suffering, which were removed by the timely and copious rainfall of September and October. The condition of the people rapidly improved, and by the end of October distress had disappeared. At the close of November the demand for special Government help had ceased.

The following details show, month by month, the state of the district and the measures taken to relieve the destitute. In September 1876 as the rain still held off, except in the west and in lands which could be watered, the early crops perished. Grain prices rose, jvári being sold at Ron, about the middle of the month, at thirty-two pounds the rupee. Water was growing scarce and fodder was difficult to procure. Owing to the want of rain the fields could not be prepared for the cold-weather crops, and, early in the month, the demand for work became general, and many of the poorer classes left the district. To give employment to the destitute, the digging of the Navalgund lake, and the making of the Dambal-Hesrur road, were started. About the close of the month, a fall of rain, 2.9 inches in Dhárwár, 2·14 in Navalgund, 2·5 in Kod, and 1·5 in Karajgi, did much good to what scanty early crops were standing. Elsewhere, though the fall was lighter, the people were encouraged to sow late crops, and drinking water became available in many places where it was urgently wanted. In spite of this relief, the demand for employment continued general. October passed with only a few showers. In Ron and Dhárwár, where the fall was good, late crops were sown, but the early crops everywhere grew worse, and cotton, where it was sown, was fast perishing. Jvári prices rose to about thirty pounds the rupee, and in Dhárwár, Karajgi, and Gadag many dealers refused to sell. Besides the want of grain, there was in some places great scarcity of drinking water and fodder. Local fund works gave employment to many of the destitute, and others, especially in Ránebennur and Gadag, were supported by the well-to-do. On the 17th, Government placed a sum of £2500 (Rs. 25,000) at the Collector's disposal for charitable relief. In November little rain fell, and there was no improvement in the crops. People took their cattle and left in large numbers for the Kánara forests. There was great suffering especially in Ron where many villages were deserted. Fodder and water were scarce, and, especially in the north, large numbers of cattle died. In spite of grain imports from

Chapter IV.
Agriculture.
Famines.
1876-77.

¹ The estimate was in area 3000 square miles of a total of 4564, and in population 630,000 out of 988,037.

Chapter IV. Agriculture. Famines. 1876-77. Sholapur, jvári rose from thirty to 131 pounds. And, though the harvesting of the early crops in the western sub-divisions gave a good deal of employment, the daily number on relief works rose from 4000 to 21,361. Of 10,005, the average daily number for the month, 8210 were able-bodied, expected to do a full day's work and superintended by ordinary public works officers, and 1795 were aged or feeble expected to do two-thirds of a day's work and superintended by mámlatdárs and assistant collectors.1 December passed without rain and with no change in crop prospects. Harvest work in the west was nearly over, and, though some were coming back disabled by the climate, people and cattle continued to move in large numbers to the west of the district and to the Kánara forests. Fodder rose in price and in Navalgund was very scarce. Grain was imported in large quantities, the chief difficulty being the cost of carriage, cart rates between Kárwár and Dhárwár having risen from 14s. (Rs. 7) to £1 2s. (Rs. 11). The rupee price of jvári fell from fifteen pounds at the beginning of the month to nineteen pounds about the close. Late in the month cholera broke out in four of the western sub-divisions. The numbers of the destitute considerably increased, on public works from 8210 to 19,432, against a fall on civil works from 1796 to 1011.

1877.

In January there was no rain and no change in crop prospects. Many were returning unable to stand the climate, but the migration of people and cattle to the Kanara forests and to the western sub-divisions still went on. The importation of grain continued, jvári keeping fairly steady at eighteen pounds the rupee. In Ron, Gadag, and Navalgund fodder was scarce and people were *ivári* keeping bringing it from the Nizam's country. In the north the people suffered most from want of water. Cart rates from Kárwár to Dhárwár, after rising early in the month to £1 7s. (Rs. 13½), foll about the end to £1 (Rs. 10), and, to help the traffic, wells were dug along some of the grain trade routes. The numbers on relief works rose, on public works from 19,432 to 30,396, against a fall on civil works from 1011 to 792. There were 184 persons on charitable relief. February passed without rain and with no change in crop prospects. There was much movement among the people. Upwards of 20,000 passed west, while many, some of them belonging to Bijápur, came back from Kánara and Belári. In spite of large grain importations, jvári rose from 18½ to 17½ pounds the rupee. Fodder was extremely scarce. In parts of Gadag cattle were fed on nimb tree leaves, and large quantities of rice straw were brought from Kánara. Cholera continued prevalent. numbers on public works fell from 30,396 to 26,973, against a rise on civil works from 792 to 1481; on charitable relief they rose from 184 to 257. The fall on public works and the rise on civil works was because the people left the public works owing to cholera, and,

¹ The rates of wages originally fixed for the workers were, for a man 3d. (2 as.) a day, for a woman $2\frac{1}{4}d$. ($1\frac{1}{2}$ as.), and for a boy or girl $1\frac{1}{2}d$. (1 a.) About the middle of November a sliding scale was introduced, which provided that, when prices rose over sixteen pounds the rupee, the money rate should vary with the price of grain, and that a man should always receive the price of one pound of grain in addition to one anna.

losing condition from want of food, had to be taken into relief kitchens and on to civil works. On the 14th, to help the grain traffic. grass was brought to Gadag at Government expense. In March no rain fell. Many immigrants from Bijapur and elsewhere left the district, and emigrants to the Kanara forests came back with their cattle. About the end of the month cart rates between Kárwár and Dhárwár rose to £1 6s. (Rs. 13). This greatly crippled the grain trade and the rupee price of jvári rose from 181 to 161 pounds. Cholera was prevalent and increasing. The numbers of the destitute rose, on public works from 26,973 to 29,712, on civil works from 1481 to 2385, and on charitable relief from 257 to 767. During the latter part of April there was an average rainfall over the district of 2.01 inches. People continued to move about in large numbers. Some of them were strangers from Belári, Bijápur, and Bángalur; others were Dhárwár people on their way back from the Kánara forests. Ploughing was everywhere in progress. In some parts of Dhárwár, Karajgi, and Ránebennur, baragu Panicum miliaceum, navani Panicum italicum, save Panicum miliare, and other fast-growing crops were sown. For a time the cart rates from Kánara to Dhárwár fell to £1 4s. (Rs. 12). Soon after, as the Dhárwár bullocks were engaged in field work, carriage was difficult to get, and cart-hire from Dhárwár to Kárwár rose to £1 12s. (Rs. 16), and further checked the import of grain. The rupee price of jvári rose from sixteen pounds at the beginning to fifteen pounds about the close of the Cholera, though very severe in Kalghatgi, was decreas-The immigrants found employment in large numbers on the relief works. Relief houses, where the infirm poor were fed twice a day, were opened over the greater part of the district. The numbers on relief rose, on public works from 29,712 to 38,999, on civil works from 2385 to 3003, and on charitable relief from 767 to 1989. On the 24th, a further sum of £1000 (Rs. 10,000) was placed at the Collector's disposal for charitable relief. In May a good deal of rain fell. Except in the east and north, sowing operations went on rapidly. In the west the baragu and other quickgrowing crops, which had been sown in April, were in good condition. In Dhárwar, Kalghatgi, Bankapur, and Hangal, rice, and at Mundargi in Gadag bájri and jvári were being sown. People from Bijápur and the eastern sub-divisions were moving west, tempted by the cheaper rate of grain and the better supply of water; others were coming into the south of the district from Belari and Maisur. the red soil districts green grass had sprung up. But in the black soils fodder was still rising in price, and no fodder but leaves and very old straw was available. Cart-rates from Kárwár to Dhárwár rose to £2 (Rs. 20), and grain importations were very small. rupee price of jvári rose from fifteen to fourteen pounds. The people supplemented their supply of grain by tamarind seeds and various edible herbs, which were largely sold in the markets. Cholera continued prevalent, but was decreasing. The numbers on relief rose, on public works from 38,999 to 50,598, and on charitable relief from 1989 to 3088. On civil works there was a fall from 3003 to 2371.

In June there was an average fall of about 5.11 inches of rain. Large numbers returned to their homes in Bijápur, Belgaum.

Chapter IV.
Agriculture.
Famines.
1876-77.

Chapter IV. Agriculture. FAMINES. 1876-77.

Sátára, Belári, Maisur, and the Nizám's country. The sowing of the early crops was general except in some parts of Ron and Navalgund, where but little rain had fallen. The harvesting of the quick-growing crops was begun in Bankápur, Karajgi, Ranebennur. At Mundargi and in the western sub-divisions, the poor were earning a little by bringing green grass to market. Cart-rates from Kárwár to Dhárwár, after rising in the beginning of the month to £4 (Rs. 40), fell, about the close, to £3 4s. (Rs. 32). So high were the rates that importation was almost at a stand. Jvári prices rese from 12½ to 10½ pounds the rupee. The numbers on relief rose, on public works from 50,598 to 53,851, on civil works from 2371 to 3489, and on charitable relief from 3088 to 3300. July passed with only a few showers, chiefly in the west. The early crops were everywhere withering and sowing operations kept back. In Hubb. Bankápur, Ránebennur, Karajgi, and Kod the quick-growing crops were harvested. People again began to move from the east west wards. Cart-rates from Karwar to Dharwar rose at the beginning of the month to £4 16s. (Rs. 48), the high rates seriously interfering with grain importation. Later on men were employed to draw carts at the rate of 10s. (Rs. 5) for each bag of grain brought from the coast. This competition was most useful, and cart-rates fell to £3 4x. $(Rs. 32).^2$ Still jvári prices rose from ten pounds at the beginning of the month to 8½ pounds at the close. The numbers on relief fell considerably, on public works from 53,851 to 21,532, on civil works from 3469 to 2581, and on charitable relief from 3300 to 1487. This fall was probably due partly to the people's unwillingness to camp out during the rain, the huts provided being hardly ever watertight, and partly to the hope of regular field work. In August there was a considerable (2.88 inches) but ill-distributed fall of rain. In the beginning of the month the supply was very scanty, and, especially in Ranebennur and Kod in the south, the crops were perishing. The people kept moving to the west, and strangers continued to flock into the district. The importation of grain by human labour was continued, and the cart-rates from Kárwár to Dhárwár fell to £2 8s. (Rs. 24). Jvári prices rose from 91 pounds the rupee in the beginning of the month to 81 pounds about the close. In the last days of the month more or less rain fell in every sub-division, and, except in the south, the early crops revived. the eastern sub-divisions and in Ron the sowing of the late crops was begun. The numbers on public works slightly rose from 21,532 to 21,743, against a small fall on civil works from 2581 to 2355. On charitable relief the numbers rose from 1487 to 1982. In September an average of 7.79 inches of rain fell. The prospects of the early crops improved, but in Hangal and Kalghatgi more rain was required for the rice. The sowing of the late crops and cotton was in progress, and the crops already sown were in good condition. In some places the harvesting of the early crops was Early in the month people moved towards the western subdivisions, some passing to Kánara; but the movement soon ceased and before long they began to return. About the middle of the

¹ The rates from Dharwar to Karwar at these two periods were Rs. 20 and Rs. 16

The rates from Dharwar to Karwar at these two periods were Rs. 20 and Rs. 12.

month, encouraged by the good prospects, grain-holders opened their grain-pits, and local jvári began to find its way into the markets. Its competition so considerably checked grain importations, that, though cart-rates from Kárwár to Dhárwár fell about the end of the month to £1 12s. (Rs. 16), there was almost no grain traffic. Jvári prices fell from nine pounds at the beginning to thirteen pounds about the close of the month. The numbers on public works rose from 21,743 to 29,290, on civil works from 2355 to 3567, and on charitable relief from 1982 to 3366. October was a month of heavy rain, with an average fall of 10.05 inches. rice crops, which had to some extent been damaged by drought, completely recovered. The sowing of the late crops went on, but in the north it was kept back by almost constant rain. In some of the moist western lands the excessive wet mildewed the early jvári and prevented it ripening, but on the whole the crops were in excellent condition. Early rági, save, navani, baragu and other small grain crops had been harvested and could be had in the markets at rates varying from eighteen pounds the rupee at Dhárwár to thirty-two pounds in Kod. The early crops were ripe, and people began moving west for harvest work. The condition of the people considerably improved. Food and employment were abundant, distress had disappeared, and there was almost no demand for relief. Although cart-rates from Kárwár to Dhárwár fell to £1 12s. (Rs. 16), on account of the competition of the local grain, there was no importation. About the close of the month jvári prices fell from 13) to twenty pounds the rupee. The numbers on relief fell, on public works from 29,290 to 14,879, on civil works from 3567 to 2522, and on charitable relief from 3366 to 3109. In November little rain fell. The sowing of the late crops was finished in most parts, but in places the crops were injured by insects. Over almost the whole of the district the early harvest was reaped, the reapers receiving from eleven to twelve pounds of unhusked grain a day. Prices fell from 25½ pounds in the beginning to thirty pounds the rupee about the close of the month. Employment and food were abundant, but labour was rather scarce. The numbers on relief fell, on public works from 3611 to fifty-seven, on civil works from 1623 to 108, and on charitable relief from 3109 to 1076. At the end of the month all relief works were closed. The late jvári was destroyed in parts of four sub-divisions by locusts, but the crops on the whole were good. Though Government continued to offer charitable relief, the number wanting help fell from 1076 in the beginning to 122 on the 22nd of the month.

The following statement of Indian millet price and of numbers receiving relief shows that during the two last months of 1876 and the first three months of 1877 grain kept pretty steady at seventeen pounds the rupee or more than two and half times the ordinary rate; that its price rose rapidly in April, May, June, and July, till it reached 81 pounds in August; and that it then quickly fell to 281 in November. As early as January the numbers on relief works reached 31,188. By lowering wages and enforcing task and distance tests, in February the total was reduced to 28,454. From this it tesadily advanced till in June it reached 57,320. It then declined

Chapter IV.
Agriculture.
FAMINES.
1876-77.

DISTRICTS.

Chapter IV. Agriculture. FAMINES. 1876-77. to 24,098 in August, rose in September to 32,857, and again rapidly fell to 2065 in November, when the works were closed. The numbers on charitable relief rose steadily from 184 in January to 3300 in June. They then fell to 1982 in August, and, after rising to 3366 in September, fell in November to 1076, and in December to 122:

Dhárwár Famine, 1876-77.

Month.		AVE	RAGE DAI	Average Ruper			
		Re	lief Work			PRICES.	RAINFALL
	:	Civil Agency.	Public Works.	Total	Charity	Jvári.	
1876.	_					Pounds.	Inches
November December	•	1795 1011	8210 19,432	10,005 20,443		163 173	·
1877.			•			1	
January .		792	30,396	31.188	184	181	
February		1481	26,973	28,454	257	174	
March		2 385	29,712	32,097	767	171	
April .	••	3003	38,999	42.002	1989	151	2.01
May	••	2371	50,598	52,969	3088	14	2 21
June		3469	53,851	57,320	3 300	114	5 11
July .	٠	2581	21,532	24,113	1487	181	.51
August	•	2355	21,743	24,098	1982	81	2 88
September	٠	3567	29,290	32,857	3366	12	7 79
October	••	2522	14,879	17,401	3109	183	10 05
November	••	731	1334	2065	1076	281	14
December	• •			1 .	122	<u> </u>	•
Total		28,063	346,949	375,012	20,727		30 70
Average		2159	25,919	28,078	1723		1
Total Cost			Rs	12,67,961	73,709		
]		1,841,670			

Special Measures,

The only special relief measure was helping the hand-loom weavers. In May 1877 Government sanctioned a sum of £150 (Rs. 1500) for their relief. Through their own moneylenders, who voluntarily undertook to advance them yarn and wages, weekly orders were given to the weavers. The coarse cloth manufactured was bought through the moneylenders by Government at such rates as to cover the actual cost of yarn and wages paid in advance. The outturn was used to meet the demand for cloth in the different Government offices, and also in giving clothes to destitute persons on relief works. In September 1877 this special relief was stopped.

Census.

A special census taken on the 19th of May 1877, when famine pressure was general and severe, showed that of 45,711 workers, 41,583 on public and 4128 on civil works, 25,381 belonged to the sub-divisions where the works were carried on; 13,398 belonged to different sub-divisions of the same district; 4656 were from other districts; and 2276 were from neighbouring states. As regards occupation, 2521 were manufacturers or craftsmen, 12,588 were holders or sub-holders of land, and 30,602 were labourers.

Cost.

The total cost of the famine was estimated at £134,167 (Rs. 13,41,670), of which £126,796 2s. (Rs. 12,67,961) were spent on public and civil works, and £7370 18s. (Rs. 73,709) on charitable relief.

The rates of cart hire from Gadag to Kárwár varied from £1 4s. (Rs. 12) from November 1876 to February 1877 to £3 10s. (Rs. 35) from July to October 1877. In Navalgund and Ron the daily cart rates before the famine varied from 1s. 6d. to 1s. 9d. (12-14 as.). In Navalgund these rates continued till March 1877, after which from July to December, they rose as high as 4s. (Rs. 2). In Ron cart rates began to rise from the beginning of the famine (November 1876), until, towards the close of the famine, they were 2s. 6d. (Rs. 1½) or nearly double the ordinary rate. In Hubli the daily cart rates rose from 2s. 6d. in the beginning of the famine to 4s. between July and October (Rs. 1¼-2), after which they fell to 3s. 6d. (Rs. 1¾) from November to December 1877. In Ránebennur the ordinary daily cart rate was 2s. (Re. 1); except from January to March when they fell to 1s. 9d. (14 as.), the rates remained throughout as high as 3s. (Rs. 1¾).

Relief Houses.

Chapter IV.

Agriculture.

FAMINES.

1876-77.

Twenty-seven relief houses were opened for periods varying according to the local distress. Except the relief house at Dhárwár which was opened in April 1877 and closed in March 1880, no relief house was open for more than a year. The times during which they remained open were at Ránebennur from January to December, at Hubli from March to December, at Naregal from the 29th of April to the 2nd of June, at Hángal, Háveri, and Bankápur from April to December, at Annibhavi from the 17th to the 31st of May, at Sudikavjarji, Alur, Betigeri, Mugod, and Biádgi, and two at Kalkeri from May to June, at Lakundi and Misrikota from May to July, at Dambal from May to October, and in Kalghatgi from May to November; at Hubli during June, at Ron from June to November, and at Navalgund from June to December; at Gadag from July to December; at Nargund from August to December, and at Tadas and Annigeri from September to November. At these houses 471,815 persons were relieved at a cost of £6232 The relief houses were temporary sheds, private (Rs. 62,320). houses, monasteries, temples, and cotton-gin factories. At Naregal seven miles south of Bankapur a private relief house was kept open from the 3rd of June to the 15th of August 1877, and 1845 persons were relieved at a cost of £92 (Rs. 920).

In addition to their ordinary duties the assistant collectors and district deputy collectors were placed in famine charge of their sub-divisions. Hubli, Kalghatgi, and Bankápur were in charge of the first assistant, Ránebennur, Karajgi, Hángal, and Kod were in charge of the second assistant, and Ron and Gadag were in charge of the district deputy collector. From April to October Navalgund and Dhárwár were placed under a special officer, Mr. E. J. Ebden, C.S. Special relief officers were appointed at Gadag from March to October and at Bankápur from March to July. Under these officers there were mámlatdárs, clerks, and circle inspectors. Mr. Walton, the cotton inspector, was employed on civil relief works from April to November, and Mr. Young of the revenue survey from about July to October. No shops for selling grain to the poor were opened on Government account. A municipal shop was opened at Dhárwár for a few days, and at Navalgund a shop was opened between the

Relief Staff.

Chapter IV. Agriculture.

> FAMINES. 1876-77.

27th of October 1876 to the 20th of April 1877 out of a subscrip-

tion of £500 (Rs. 5000) raised by the well-to-do.

¹ Grain was brought from Bombay through the ports of Kárwár and Kumta in North Kanara and to a small extent through Belgaum from Vengurla in Ratnágiri. Some also came by rail to Belári and from Belári by cart. Almost the whole of the imported grain was jvári, brought by sea from Sind and by rail from Jabalpur. The Sind jvári was bought at the ports by dealers of all classes, the largest importers being the capitalists of Hubli and Gadag, who in ordinary seasons deal in cotton. The chief grain markets were Hubli, Gadag, Dhárwár, Háveri, Bankápur, and Ránebennur. The grain was paid for largely by gold and silver. The landholders' capital in the form of ornaments poured into the markets and the goldsmiths' melting pots were going day and night. The course of trade was from the Kánara coast east and north. South Bijápur was largely fed through Dhárwár. In the northern sub-divisions of Dhárwár, Navalgund and Ron, the grain-dealers made no attempt to force prices by keeping back their stocks. At Ranebennur they refused to sell about November 1876, and to some extent in Hubli, Gadag, Bankápur, and Kalghatgi early in 1877. Importations of foreign grain forced them to open their stores. The chief special difficulty in Dhárwár was the number of immigrants, who in the first stage of the famine (September-October 1876) flocked into the western forests on the Kánara frontier, and afterwards were constantly streaming back diseased and dying. Small-pox and fever killed them in numbers. In February 1877 a special officer sent to enquire into their number and condition, reported that there were probably about 20,000 in west Dhárwár and east Kánara. They came chiefly from Bijápur, but many could speak nothing but Maráthi, and some could speak only Telugu. This migration was probably in obedience to a tradition of former famines, that water and food, bamboo seed, wild yams, and other forest produce were to be had in the maládu or hilly west. When the charity of the frontier villages was exhausted and the immigrants found that disease and cold gathered as many victims as hunger, and also heard of relief works, they gradually came back to the relief centres which were opened along the western frontier specially to catch them. They were employed by thousands and fed into condition by hundreds, and, on the first rainfall in May, when they began to want to go home, arrangements were made to pass them home by having stores of food at halting places on the main routes. A very large number were regularly marched in gangs. After the heavy rain in June they passed through Dhárwár and Nargund to Bijápur in a continuous stream soaked with rain and caked with mud to their middles. Their only portable property was some of the Government relief-house saucers, earth-work baskets, and here and there a stolen pickaxe. Another difficulty was the failure of bullock power to draw the grain carts from the coast after the rain fell. This failure was due to the bullocks being wanted for field work, to the bullocks not being able to stand the wet on the Sahyádris, to their not being able to draw the carts through muram roads deep as a ploughed field, and to bullock power being cut off from the made roads by intervening tracts of black soil. After July men to a great extent took the place of bullocks, dragging carts where there were roads, and, where carts could not travel through the roadless black soil carrying the grain on their heads. There were also difficulties in getting people to go to the particular works to which they were drafted. In some cases they received allowances to go and deserted on the road. The northern subdivisions of Ron, Navalgund, and Dhárwár suffered from want of water and some help was given for deepening wells. Hutting for famine labourers was difficult to arrange; no grass could be had for thatching, and the bamboo mats or tattis which were used in the place of grass were not rain-proof.

Few people left the district, though thousands went from the east to the west and some passed over the frontier into North Kánara. There was some little migration into Belári and Maisur from the neighbouring villages drawn to Belári by the easy terms on which relief was given, and, in the later stage of the famine, to Maisur drawn by the nearness to their homes of some of the Maisur relief works and perhaps by more liberal treatment. Compared with 1872 the 1881 census shows a fall of 106,764 in population. The addition of the normal yearly increase of one per cent during the remaining seven years gives 175,000 as the loss of population caused by death and migration in 1876 and 1877. During the first six months of the distress the behaviour of the people was good. They were patient and reasonable, and showed many fine traits of kindly feeling. This lasted so long as families kept together. Towards the end of the hot weather (May 1877) early rain fell, the people were unsettled by the hope of field work and of a speedy end to their miseries, and those who had not submitted to the steady discipline of relief work but were living partly on alms grew demoralized. Families began to break, men left their wives and children, and the lazy used every device to get relief without giving work. The esculent vegetables that sprang up helped to stave off hunger from those who would not work. Private charity grew less and less, and at last when in July there were prospects of another year of famine it ceased. From these causes mendicancy, combined among the Lambanis with thieving and housebreaking, increased through May, June, July, and August. Especially in July and August swarms of people who would not work had lost all care for life or for decency and were unmanageable. Two men, unable to stand, brought to the Dhárwár relief house by the police, were given grain sacks to cover their nakedness and were fed for two days. The second night both evaded the watchmen and left. On the second day one was found dead and naked, the other was brought in on the third day dying. He said they had sold the bags for a copper or two, and wandered round picking up refuse. could not endure being made to live decently. This is one case out of hundreds. The people who starved at home were few compared with those who wandered. The stay-at-homes could always be found Chapter IV.
Agriculture.
FAMINES.
1876-77.

Emigration.

Chapter IV.
Agriculture.

FAMINES. 1876-77.

Rat Plague,

1879.

by inspection. The wanderers were cunning at keeping out of the way if they thought they would be put into relief houses. One Lambani girl climbed out of the Hubli relief-house over a high wall three times and was at last found dead.

The loss of farm stock during the famine to some extent hampered the carrying of grain and interfered with field work. The yearly village returns show a fall in the number of cattle from 669,408 in 1875-76 to 519,133 in 1879-80, that is a loss of 150,275 head. The outstanding balances on account of the current year were £33 (Rs. 330) for 1875-76, £7242 (Rs. 72,420) for 1876-77, £4259 (Rs. 42,590) for 1877-78 and £1490 (Rs. 14,900) for 1878-79.

In October 1878 swarms of rats appeared, chiefly in the black soil tracts, and devoured a great part of the cold-weather crops. The rats continued during most of 1879, and threatened to destroy the early crops which in places had to be sown more than once. At a cost of £9517 (Rs. 95,170) nine and a half millions of rats were killed and the harvest was saved.

¹ The increase in the district stock of cattle since 1876-77 is remarkable. The details are:

Dhdrwdr Stock*, 1876-77 and 1881-82.

	1876-77.	1881-82.	Increase over 1876-77.	Per cent.
Bullocks	176,013	252,222	76,209	43.3
Cows	89,014	147,133	58,119	65.8
Buffaloes	89,172	128,546	39,374	44.1
Sheep and Goats.	125,871	223,556	97,685	77.6
Carts	32,442	38,714	6272	19 3

CHAPTER V.

CAPITALL

Besides well-to-do husbandmen and professional men, according to the 1879 license tax returns, 21,046 persons occupied positions implying the possession of capital. Of 21,046 persons assessed on yearly incomes of £10 (Rs. 100) and more, 10,178 had from £10 to £15, 4624 from £15 to £25, 2470 from £25 to £35, 1097 from £35 to £50, 1136 from £50 to £75, 463 from £75 to £100, 364 from £100 to £125, 123 from £125 to £150, 170 from £150 to £200, 176 from £200 to £300, ninety-six from £300 to £400, forty-nine from £400 to £500, fifty-eight from £500 to £750, twenty-three from £750 to £1000, and nineteen over £1000.2

The mint established at Dhárwár in 1753 by Peshwa Báláji Bájiráo, whose site is still shown behind the old market or bazár, continued to coin gold huns worth about 8s. (Rs. 4) and silver rupees until the British took Dhárwár in 1817. Till 1836, about twenty years after the beginning of British rule, no less than eighteen gold huns or varáhás were current in Dhárwár. Their names in order of value were, gajpati valued at 9s. (Rs. 4½), báháduri and new ikkeri at 8s. 6d. (Rs. 4½), old ikkeri and sultúni at 8s. (Rs. 4), durgi, jumsheri, and magdi, at 7s. 6d. (Rs. 3¾), dhárvári, navalgundi, banvási, samsheri, ashvapati, and venkatpati, at 7s. (Rs. 3½), sútári, alamgiri, and kanteráyi, at 6s. 6d. (Rs. 3¼), and sávnuri at 6s. (Rs. 3). For twelve or thirteen years after the

Chapter V. Capital.

CURRENCY.

¹ From materials supplied by Mr. F. L. Charles, C.S., and Ráv Bahádur Tirmalráv Venkatesh

^{*}As yearly incomes under £50 have been exempted from the license-tax since 1879, the details given above are for 1879 instead of for 1882.

³ Hun is the Persian or Musalman corruption of the old Kanarese homu which means gold and hence a Hindu gold coin worth about 8s. (Rs. 4). The term Varáha or hoar-money, because it was stamped with the form of Vishnu as a boar, has been latterly applied to all Hindu gold coins.

ARAY Bahadur Tirmalray gives the following explanations of the names of the different huns. The bahaduri was named in honour of Haidar Ali of Maisur (1760-1782); the new ilkeri was coined by Haidar in 1763 after his capture of Bednur the capital of the Ikkeri kings; the old ikkeri was coined by the Bednur kings (1680-1763) whose former capital was Ikkeri, about forty miles north-west of Shimoga in Maisur; the sulidin hun was coined by Tipu (1782-1799). About the fiftcenth century the kings of the Deccan and Southern India had assumed the titles of narpati, ashvapati, and gappati. Narpati, the lord of men, was the title assumed by the Annegundi kings in whose army infantry predominated. As the image of Venkatranian of Tirupati in North Arkot, the titular deity of the Annegundi kings was in the form of a man they stamped his image on their coins and called them venkatpatis. Ashvapati, the lord of horses, is the name given to the Deccan kings in whose army cavalry predominated. The huns struck by the Deccan kings are said to have been called ashvapatis. Gappati, the lord of elephants, is the name given to the Maisur kings in whose army

Chapter V. Capital. CURRENCY.

beginning of British rule the value of the gold hun was fixed by Government at 7s. (Rs. $3\frac{1}{2}$), being 1s. (8 as.) less than the general market rate of 8s. (Rs. 4). Besides the huns, there were of gold mohars the Company's mohar valued at £1 10s. (Rs. 15) and the Akbari mohar valued at £1 12s. (Rs. 16), and also a rare Ram tenhi valued at £8 (Rs. 80), and Padma and Hanmant tenkis each valued at £1 16s. (Rs. 18).2 A full Rám tenki weighs about 10th of a pound (4 tolás) of gold; a half Rám tenki, also called a pratúp, about inth of a pound (2 tolás); and a quarter Rám tenki, also called dhama, about 10th of a pound (1 tola). Of small gold coins there were hanas or fallams equal to one-fourth of a varáh or 2s. (Re. 1).3

Of silver coins, till about 1840, besides the Company's ruper, thirteen rupees were current in Dhárwár. Of these for every 100, the Bombay and Surat rupees were cashed at 102 Company's rupees, the aurangabad and bagalkot at ninety-nine, the ankusi at ninetyseven, the poona at ninety-six, the shahapur at ninety-two, the kittur sháhápur at ninety-one, the dhárwár at ninety, the haidarabad at eighty-eight, the panáli in Kolhápur at sixty-five, the nilkanti at fifty-five, and the bhutpadi at twenty-seven.4

Till 1835-36, when the Company's copper pice were introduced, of copper coins the shahu paisa called duddu and its submultiple ruvi were current in Dhárwár. The sháhu paisás are said to have been coined at Sátára by king Sháhu, the grandson of Shiváji (1708-1750). Three ruvis were equal to one duddu; duddus were counted by takkás in Maráthi and by tenkis in Kánarese, each containing sixteen duddus. Three tenkis or forty-eight duddus, of which one was equal to \(\frac{1}{3} \) anna of the present currency, went to a Company's rupee. For about twenty years between the

every month made a profit of £50 (Rs. 500) over his salary by selling the huns at the

market rate of Ss. (Rs. 4).

3 The table used in calculating the hana and its submultiples was two kanes one arvisa, two arvisas one visa, two visas one chilbiali, two chilbialis one haga, two hagas one adda, and two addas one hana. The unit or last submultiple kani for hana is the same as that for varáh being equal to \$d. (\$\frac{1}{2}a.).

The table used in calculating the rupee and its submultiples was two quarter annas one half anna, two half annas one anna, two annas one chavli, two chavlis one pavli, two pavlis one adheli, and two adhelis one rupee. The unit or last submultiple one quarter anna is equal to §d.

elephants predominated. The huns struck by the Maisur kings are said to have been called gajpatis. Of other huns the samsheri, meaning a sword in Persian, is said to have been struck by a Musalman chieftain, the alamgiri by the emperor Aurangel. the kanterayi by an ancestor of the Maharaja of Maisur; and the banvasi, dharrars, navalgundi, satari and savanuri in the towns of those names. The table used in calculating huns and the submultiples of huns was two kanis one arriva, two arrivas calculating huns and the submittiples of huns was two kans one arrise, two arrives one visa, two visás one biali, two bialis one dugla, two duglás one chaula, two chaulás one dharna, two dharnás one pratáp, and two pratáps one full varah. The varáh was generally considered equal to 8s. (Rs. 4) and the unit or last submultiple kani equal to a 256th part of a raráh or §d. (\frac{1}{4}a.).

1 During this period the chief Collector of Dhárwár who was appointed from the Madras Civil Service and paid in huns or pagodas, received for his mouthly salary of £350 (Rs. 3500) 1000 huns at the Government rate of 7s. (Rs. 3\frac{1}{2}) the hun, he warm mouth made a profit of £50 (Rs. 500) over his salary by salary the huns at the

² Tenki, corrupted into Persian and Maráthi talka, means a coin in Kánarese. Thus the Ram tenki means a coin struck in honour of the god Ram, the Pudma tenki a coin struck in honour of Padmavati, the second wife of the god Venkatraman of Tirupati, and the Hanmant tenki a coin struck in honour of the god Hanmant, the devoted servant of Ram.

beginning of the British rule in 1817 and the introduction of the Company's copper coin in 1835-36, all Government accounts were kept in rupees, quarters, and res. One hundred res made one quarter, and four quarters one rupee. During this period the people kept their accounts in rupees, quarters, annas, and quarter annas, a quarter anna being considered equal to 61 res. After the introduction of the new copper coinage in 1835-36 all Government accounts were kept in rupees, annas, and pies. The bulk of the people still (1883) keep their accounts in rupees, quarters, annas, and quarter annas, a quarter anna being divided into three pies. At present (1883), except in a few private transactions where Dhárwár huns are used, the Imperial rupee which weighs 180 Troy grains, and the Imperial copper pice, which weighs 100 Troy grains, and their submultiples are the current coins of Dhárwár. The people calculate still in Dhárwár or Ikkeri huns, while all payments are made in the Imperial rupee at the market rate varying from 8s. to 8s. 6d. (Rs. 4-41) the hun. The kardis or shells which are used in Poona and Sátára as fractions of copper coins, are not current in Dhárwar and the other districts of the Bombay Karnatak.

For the ordinary numbers up to ten thousand, when he strikes a bargain he wishes to keep secret, the Dhárwár moneychanger nses the following terms as cipher numbers. In this moneychanger's language pakár means 6d. (‡ rupee), armatta 1s. (‡ rupee), uddán pakár 1s. 6d. (‡ rupee), yekkal matta 2s. (Re. 1), ávár 4s. (Rs. 2), ishvar netra 6s. (Rs. 3), phoka or ved 8s. (Rs. 4), bán 10s. (Rs. 5), selli 12s. (Rs. 6), pavitra 14s. (Rs. 7), tál 16s. (Rs. 8), naval 18s. (Rs. 9), avtár £1 (Rs. 10), ávár avtár £2 (Rs. 20), netra dasak £3 (Rs. 30), mandal £4 (Rs. 40), addu £5 (Rs. 50), sanvatsar £6 (Rs. 60), pavitra dasak £7 (Rs. 70), kodgi £8 (Rs. 80), naval dasak £9 (Rs. 90), shatak £10 (Rs. 100), ávár shatak £20 (Rs. 200), bána shatak £50 (Rs. 500), dhagár £100 (Rs. 1000), bána dhagár £500 (Rs. 5000), and avtár dhagár £1000 (Rs. 10,000).

Chapter V.
Capital.
CURRENCY.

¹⁰f these cipher numbers some are Kanarese and some are Sanskrit number names, others are symbolic or arbitrary. Taking them in the order given in the text pakir a quarter is the letter p in Sanskrit and so is taken to stand for pavis a quarter rupee; armatta a half rupee is the Kanarese ar half and matta rupee; udán pakar three-quarters of a rupee is the Kanarese uddán three and pakar taken to represent pavis one-quarter; yekkal matta one rupee is the Kanarese yekkal one and matta a rupee; avar two rupees is the Sanskrit avar the next or two; ishvar netra three rupees is symbolic, literally meaning in Sanskrit Shiv's eye of which there were three; phoka or ved four rupees, phoka is the Kanarese four, ved is symbolic as there are four veds; ban five rupees is the Sanskrit ban arrow symbolic of five because Kamdev, the Hindu Cupid, is panchbán or the five-arrowed; sells six rupees is the Kanarese selli six; pavitra seven rupees is the Sanskrit pavitra pure, as the number of the Rishis stands for seven; tal eight rupees is the Sanskrit aviar an incarnation of which there were ten; aviar ten rupees is the Sanskrit aviar an incarnation of which there were ten; aviar aviar twenty rupees is the Sanskrit dvar two and aviar incarnation; netra-dashak thirty rupees is the Sanskrit dvar two and aviar incarnation; netra-dashak thirty rupees is the Sanskrit dvar two and aviar incarnation; netra-dashak thirty rupees is the Sanskrit anvalsar a year and so sixty because years are in cycles of sixty; pavitra-dashak seventy rupees is as explained seven-tens; kodgi eighty rupees is the Kanarese kodgi eighty; naval dasak ninety rupees is as explained incernation inc

Chapter V.
Capital.
Bankers.

Except a few moneylenders and the Hubli branch of the Bombay Bank, there are few bankers in the district. Hubli is the only place where banking operations are carried on to any large extent. The bankers are moneylenders, chiefly Lingáyats, Jains, Bráhmans, and Komtis by caste. The ordinary banking business at Hubli consists of buying bills representing the value of cotton shipped from Kumta and Kárwár and of drafts for the payment of piece-goods and other imports from Bombay. Of late years there has been little change in the local system of banking. The banking business of Hubli suffered severely from the 1876 and 1877 famine, and since then the old practice of the bankers or savkars advancing money to landholders has almost ceased. The Branch of the Bank of Bombay at Hubli was opened in 1870.1 The effect of opening a branch of the Bank of Bombay in Hubli has been to cheapen money. The chief business of the bank is the buying of bills drawn on Bombay by the purchasers of Dhárwár cotton. Government too, by transfers to the Bank, is able to remove its surplus revenue to Bombay free of cost and occasionally at a small The Bank has few or no native depositors. The yearly dealings of the bank average £300,000 to £400,000 (Rs. 30,00,000) Rs. 40,00,000) with Europeans and £150,000 to £200,000 (Rs. 15,00,000 - Rs. 20,00,000) with Natives. To a small extent the bank advances money to European cotton-buyers. Most of the funds invested in the trade of Hubli belong to Bombay; the share of the Hubli traders is very small. The chief traders are eight to ten firms of Bombay Bhátiás and Gujarát Vánis.

BILLS.

No local firm deals regularly in exchange bills. Two or three Bráhman and Lingáyat merchants at Dhárwár, and about ten at Hubli, grant bills of £500 to £1000 (Rs. 5000-Rs. 10,000) on Bombay, Poona, Madras, Belári, Bangalor, Kumta, and Kárwár. Besides these local dealers in bills, the Bhátiás, who have come as traders from Bombay within the last ten years, are all able to cash bills up to £1000 At Gadag a well-known Gujar merchant, named (Rs. 10,000). Venkatidás, grants and cashes bills up to £1000 (Rs. 10,000). Besides at Dhárwár and Hubli, some rich local Bráhman and Lingáyat merchants, though they do not deal in bills, occasionally grant bills on Bombay and Kumta. During the cotton season, that is from November to March, dealers require funds for the purchase of cotton. They grant bills on Bombay and receive funds from local bankers at one or two and sometimes at three per cent discount, that is they grant bills for £10 (Rs. 100) and get only £9 18s. (Rs. 99), £9 16s. (Rs. 98), or £9 14s. (Rs. 97). During the rains, that is from May to October, little is done in cotton beyond making small cheap purchases which are held till October. Little money is required for the cotton trade, and to pay for the cloth, food, and miscellaneous imports, which go on to a small extent from Bombay, bills rise to par and sometimes to one per cent premium.

INSURANCE,

No kind of insurance business is carried on in any of the Dharwar trade centres.

¹ In the town of Dhárwár a branch of the Bank of Bombay was opened in 1863. It was closed in November 1878, business being diverted to its Hubli Branch.

The classes of townsmen who save are traders, large landholders. moneylenders, some pleaders, and the higher officials. Among the lower classes, shepherds, servants, and shoemakers are generally able to save in ordinary years. During the American War (1863-65). when large sums of money poured into the district, the purchase of land and of houses at very high prices led to many disputes. people were rich enough to rush into court, and the pleaders, of whom there was then a comparatively small number, made large Since then the famine of 1876 and 1877 and the dullness of trade which followed the famine reduced the number and still more the value of suits. At the same time the number of pleaders has increased. These causes have joined to lower the condition of the pleaders as a class. All still dress well and live expensively and some either from hereditary property or because they are specially successful are rich and lend money. Others find it hard to keep Of villagers, moneylenders, shopkeepers, and large out of debt.1 landholders save; but they spend most of their savings in marriage ceremonies and in caste dinners. Of the lower classes, shepherds. shoemakers, servants, and others save, but their savings are often lost by their practice of burying them in some place which they keep secret even from their nearest friends. Among the higher classes, especially among Bráhmans, the savings made in ordinary years are spent on marriage expenses. Within the last twenty years the amount of money spent on marriage feasts and shows has been greatly reduced. On the other hand the practice of the girl's father paying large sums to the bridegroom and of giving the bridegroom rich presents has been introduced and has brought many families to poverty. This practice does not prevail among Lingayats and they perhaps save more than any class in the district.

No investments in Government securities have ever been made by the people of Dhárwár. Not a single native has deposited money in the Hubli branch of the Bombay Bank. Of late a few traders and other classes have invested money in trading jointstock companies which were started at Dhárwár in 1876, and at Hubli in 1878, and in the Hubli mill started in 1883. In the Savings Bank the depositors are almost solely Government officials. No shopkeepers, weavers, carpenters, or any other class of the general people have yet deposited money in savings or other banks. During the thirteen years ending 1882 the Savings Bank deposits rose from £2391 in 1870 to £8187 in 1882. The details are £2391 in 1870, £4146 in 1871, £4706 in 1872, £6014 in 1873, £2277 in 1874, £2764 in 1875, £2265 in 1876, £2016 in 1877, £2115 in 1878, £4458 in 1879, £9204 in 1880, £6222 in 1881, and £8187 in 1882. The changes in the amounts deposited seem to be chiefly due to changes in the rules regarding the amount to be deposited and the interest granted. The increase in deposits from £2391 (Rs. 23,910) in 1870 to £6014 (Rs. 60,140) in 1873 seems connected with an Capital.
SAVINGS.

Investments.

¹ Of about fifty pleaders in the Dhárwár courts two or three make £30 to £40 (Rs. 300-400) a month; ten make £10 to £20 (Rs. 100-200); ten £5 to £10 (Rs. 50-100), and the rest hardly £3 (Rs. 30). Ráv Bahadur Tirmalráo.

Capital.

Investments.

order passed in 1871 raising the limit of deposits from £150 (Rs. 1500) to £300 (Rs. 3000); the fall from £6014 (Rs. 60,140) in 1873 to £2115 (Rs. 21,150) in 1878 seems due to an order passed in 1874 limiting deposits to £100 (Rs. 1000) and the amount to be deposited in any one year to £50 (Rs. 500); the large increase from £2115 (Rs. 21,150) in 1878 to £9204 (Rs. 92,040) in 1880 seems due to an order passed in 1879 raising the interest on deposits from 33 to 41 per cent a year and the limit of deposits to £500 (Rs. 5000); the fall to £6222 (Rs. 62,220) in 1881 seems due to an order issued in 1881 lowering the interest to 33 per cent and the limit of deposits to During the thirteen years ending 1882 the £300 (Rs. 3000). interest paid on Government securities increased from £33 (Rs. 330) in 1870 to £537 (Rs. 5370) in 1882; the highest amount of interest paid was £997 in 1877. The details are: £33 in 1870, £391 in 1871, £228 in 1872, £238 in 1873, £423 in 1874, £678 in 1875, £213 in 1876, £997 in 1877, £910 in 1878, £499 in 1879, £328 in 1880, £195 in 1881, and £537 in 1882.

All classes, whether townspeople or villagers, invest part of their savings in ornaments. Land is also a favourite investment. Before the 1876 famine land was difficult to get except at very high prices. The famine forced many husbandmen to sell their land and a considerable amount of land was bought by the rich. Since the famine several seasons of cheap grain, and, in some parts of the district the introduction of higher rates of assessment, have made land a less favourite investment than before. Still pleaders and shop-keepers continue to buy land paying for garden and rice lands ten to twenty times the yearly assessment and for dry-crop land five to ten times the assessment. Twelve per cent a year is considered a fair return for money invested in land.

In large towns, shopkeepers and a few rich Brahman and Lingayat families who combine moneylending and cotton-dealing with agriculture, invest money in building houses. The houses that are built as an investment are always small. In large houses the expense of repairs is heavy, and even at low rents tenants are difficult to find. The only large houses in the district which are let at a profitable rent, are the houses held by European tenants in Dharwar. These houses fetch rents varying from 5s. to £8 10s. (Rs. 2½-85) a month. In villages, from the difficulty of finding tenants, houses are almost never built as an investment.

No particular class of people invest money in buying expensive cattle. At Ránibennur, two or three rich Bráhman merchants every year buy hundreds of cattle in Maisur and sell them in Dhárwár. A few Lingáyats and Muhammadans at Hubli and Navalgund buy ten or twelve cattle every week in the villages round and offer them for sale on market-days at Hubli, Dhárwár, and Navalgund.

Muhammadans, except some traders husbandmen and labourers, do not invest much money. Lingáyats and Komtis employ their profits in developing their business; and Bráhmans in moneylending. Shepherds, shoemakers, and beggars generally bury their savings.

No class has a monopoly of usury. A man of any caste who has gathered some capital begins to lend small sums, increasing his

MONEYLENDING.

business as his capital grows. Of Dhárwár usurers few, except one or two Brahmans, live solely by lending money; most earn at least part of their living as traders, pleaders, or husbandmen. The chief moneylending classes are Brahmans, Lingayats, Komtis, and a few Musalmán traders. Of these, the Bráhmans to a certain extent keep to moneylending alone; the Lingáyats form the bulk of Dhárwár traders in almost all branches of business except in hides, fat, and European liquor; the Komtis are the Telingi grain-dealers and retail shopkeepers who, since the introduction of British rule, have settled in Dhárwár from Belari, Anantpur, and Kadapa in Madras. Of Gujarát and Márwár Vánis, who have a bad name as moneylenders, there are in all not more than twenty families, who are almost all found in the large towns of Dhárwár, Hubli, Gadag, and Sávanur. Except two or three who combine moneylending with trade, Gujarát and Márwár Vánis as a class deal solely in cotton, silk, yarn, European cloth, and sometimes in saffron, pearls, and gold and silver. To borrowers of name and credit moneylenders lend sums up to £500 (Rs. 5000) and, if the borrower owns land, they sometimes advance as much as £1000 (Rs. 10,000). In villages the headmen, richer husbandmen. and shopkeepers lend £2 to £5 (Rs. 20-50) to the poorer villagers at one to two per cent a month. Even among the poorest classes, a man with a few annas to spare is always anxious to lend to some neighbour. Among moneylenders the system of book-keeping is very lax. Many small moneylenders keep no books trusting to memory or to bonds. Even of the richer moneylenders many keep nothing beyond rough memoranda. Except among Márwár Vánis, the only books kept are a rough note-book and a ledger written from the entries in the note-book. Márwár Vánis keep both a ledger and a day-book. Compared with the Márwár Vánis of the Deccan the Dhárwar moneylenders act with mildness in recovering their debts. Moneylenders as a rule have some feeling for the debtor. When the debtor is known to be in distress the lender sometimes remits part of the debt and recovers the balance either by instalments or by personal service. Consequently in Dhárwár there never have been agrarian riots like those in the The creditors do not ordinarily make use of the civil courts for the recovery of debts. Only as a last resource do creditors resort to the courts, and even then the decrees are not always executed. When a decree is granted the judgment-creditor first tries to screw as much money as he can from the debtor. If the debtor refuses to pay, the lender insists that the debtor's property is placed under his control or that some other security is given for the payment of the debt. If the debtor furnishes the security the creditor is content to let the decree stand over, and does not obtain execution unless he finds that the debtor is bent on deceiving him by a private or a fictitious sale of his property. Creditors do not generally buy the debtor's immovable property, unless it is not likely to fetch a fair price. Encumbrances and the unwillingness of a debtor's fellowvillagers to buy his property at times enable the judgment-creditor to buy his debtor's property at a nominal price. Thus a good deal of

Capital

Moneylending

Chapter V.
Capital.
Moneylending.

land has come into the hands of moneylenders and pleaders, but as they leave the tillage to others, the change in the ownership does not come prominently to notice. As a rule, the debtor makes no complaints against his creditor. When he is dragged to court the debtor feels unjustly treated and charges the creditor with extorting excessive interest, appropriating the produce of the fields in payment of debts at rates cheaper than the market rates, or ignoring payment altogether. The creditor is also sometimes accused of bringing false claims and arranging with the subordinate court officials to keep the debtor ignorant that a suit has been brought against him. Such charges are rare and they are almost never proved.

INTEREST.

The imperial rupee is the standard in all moneylending trans ictions. Interest is charged either yearly or monthly. An additional charge is made for the extra or intercalary month, if, as is generally the case, interest runs by the month. Gujarát and Márwár Vánis and all professional moneylenders keep their accounts according to the Samvat year which begins in Kártik or October-November; grain-dealers and husbandmen keep their accounts according to the Shak year which begins in Chaitra or March-April. About the time when the Government assessment falls due, during the fair season when cotton and grain are largely sent to the coast and Bombay, during the marriage season which begins in November and ends in June, and at the time of the great festivals of Dasara and Diváli in September-October, and of Holi in February-March, there is a specially heavy demand for money, and the rates of interest are higher than during the rest of the year. For a person of good credit, either a trader or a substantial landholder, the yearly rate of interest varies on personal security from twelve to twenty-four per The rates of interest charged to artisans with pretty good credit do not differ from those charged to middling landholders. The rate on petty loans, secured by pledging ornaments or other movable property, varies from nine to twenty-four per cent. In petty agricultural advances on personal security or with a lien on crops, the rate varies from twelve to thirty-six per cent; and in large transactions, with a mortgage on movable or immovable property, from six to twenty-four per cent. Small sums lent to the needy by unprofessional moneylenders are charged interest at \(\frac{3}{4}d\). or \(\frac{3}{4}d\). anna) a month for each rupee lent, that is a yearly rate of 183 to 371 per cent.

BORROWERS.

To meet special family expenses almost all classes are occasionally forced to borrow. Of artisans, the large class of weavers of late years, owing to the fall in the profits of hand-loom weaving and to their inability or unwillingness to take to other employments, when trade has been slack, have been embarrassed and forced to borrow. They generally pay twelve to twenty-four per cent interest a year. Other artisans are believed to be fairly free from debt. Of husbandmen most Kánarese Lingáyats, Maráthás, Jains, and Musalmáns, who form the bulk of the tillers of the soil, borrow. The Bráhmans, Chetriyas,

¹ The Samuat era begins with B.C. 56 and the Shak cra with A.D. 78.

and Komtis, who, if they happen to hold land, do not themselves till it but let it to tenants, are well-to-do and seldom borrow. It may be roughly estimated that of husbandmen about ten per cent have good. twenty fair, thirty scanty, and forty little or no credit. Husbandmen of good credit on personal security are able to raise loans equal to about the value of two years' produce of the lands they till; those of fair credit raise loans equal to one year's produce, and those of scanty credit equal to half a year's produce. Husbandmen with no credit cannot raise loans without parting with property. To a husbandman with good credit the yearly rate of interest on personal security varies from twelve to twenty-four per cent; to a husbandman with fair or with scanty credit, on mortgage of land or other movable property, from eighteen to twenty-four per cent; and to a husbandman with no credit on mortgage of land never less than twenty-four per cent and some-The poorest husbandman who has neither fields nor times more. any other property, if urgently in need of money, can raise loans of £1 to £1 10s. (Rs. 10-15) at a yearly rate of twenty-four to seventytwo per cent according to circumstances. Of the money borrowed it may be roughly said that about twenty per cent is spent in paying the Government assessment, forty in meeting marriage and other special expenses, twenty in buying bullocks and other field stock, and twenty in buying grain for food and seed. During the rains and in years of short crops rich husbandmen and sometimes moneylenders advance grain to the poorer husbandmen either for food or for seed. At the time of advancing the grain the lender receives from the borrower a written acknowledgment, specifying the conditions on which the advance is made and the time within which it is to be repaid. The conditions on which grain is advanced differ much according to The most common condition is to pay at the circumstances. harvest one-fourth and sometimes one-half in addition to the quantity During the sowing season, moneylenders sometimes advance money to husbandmen on condition that during the harvest the advance shall be paid back in grain at the cheaper harvest price with an addition of 37 to 77 pounds (1 to 2 shers) of grain for each rupee advanced. Thus for £10 (Rs. 100) advanced in June when rice generally sells at about 27 pounds (7 shers) the rupee, the borrower is to pay the money advanced in kind at the rate of 43 to 46 pounds (11 to 12 shers) the rupee in November when rice generally sells at about 40 pounds (10 shers) the rupee. In such advances. for a period of six months between June and November, the moneylender makes a profit of one-tenth to one-fifth on the money advanced that is a yearly interest of twenty to forty per cent. Though the Dhárwár husbandmen are better off than the Ratnágiri husbandmen, and seldom have to leave their homes in search of employment, they are not now (1882) so well off as they were during the exceptional plenty of the American War (1863-1865). Much of the money they amassed during the American War was spent by the husbandmen in buying gold and silver ornaments and costly clothes, in giving caste dinners, and in celebrating marriage and other family events. At the close of the American War in 1865, the sudden fall in the price of cotton caused great loss to several of the richer husbandmen who had begun to deal in cotton.

Chapter V.
Capital.
Borrowers.

Capital.

Borrowers.

Again during the 1876-77 famine, especially in the east, the husbandmen suffered severely. During the first year of the famine, except the very poorest the Dharwar landholders did not suffer. Part of the local stocks of grain were sold at high prices and sent to neighbouring famine-stricken districts, and enough remained to carry them fairly through the first season of distress. By the beginning of the second year of the famine the local stocks of grain were almost exhausted, and the bulk of the people had to sell the greater part of their property to keep them in food. The only people who made profits were the grain-dealers and a few rich moneylenders who bought gold and silver ornaments, idols, old coins, copper and brass cooking vessels, and even saleable clothes, at very low prices and sold them back to the people from whom they bought them at their usual prices. Up to 1882 the rates of interest have continued higher than they were before the famine. In the years that followed the famine there was a marked decrease in the amount spent on wedding and other family ceremonies. Since the famine for a well-to-do husbandman the cost of a marriage is £20 to £50 (Rs. 200-500) instead of £100 to £200 (Rs. 1000-2000); for a middle class husbandman £10 to £20 (Rs.100-200) instead of £40 to £50 (Rs. 400-500); and for a poor husbandman £1 to £2 (Rs. 10-20) instead of £5 to £6 (Rs. 50-60). On the whole the borrowing classes are satisfied with the treatment they receive at the hands of their creditors. They feel that they could not get on without them.

LAND MORTGAGE.

Land is transferred in one of three ways, by the holder's failing to pay the Government assessment, under a decree of the civil court, and by voluntary sale or mortgage. Since the 1876 famine, especially in the east where the famine was most severe, much land has fallen out of tillage. Since the famine part of this land has been taken for tillage and most of it still lies waste. Partly under civil court decrees and partly by sale and mortgage much land has of late years passed from the husbandmen to their creditors. Husbandmen whose land is transferred to their creditors under a decree of the civil court, generally till the lands of other landholders as tenants and sometimes as labourers. At present (1882) lenders prefer to make advances on ornaments and other movable property rather than on land. When land is mortgaged it is usually made over to the mortgagee for a fixed period. During this period the land is generally tilled on tenancy either by the mortgager or by some other husbandman and sometimes by hired labour. The arrangements made vary as suits the convenience of the landholder and the tenant. The landlord sometimes agrees to pay the assessment, and the tenant tills the land at his own expense, paying the landlord either cash or grain equal to one-third or one-half of the Sometimes the produce is divided equally between the tenant and the landlord on condition either that the landlord pays the assessment and the tenant the cost of tillage, or that the landlord and the tenant each pays an equal share of the assessment and cost of tillage, or that the landlord pays the assessment and half the cost of tillage and the tenant the other half. Land is also tilled by tenants on wages, the landholder paying the cost of tillage and the assessment and taking the whole produce.

Labourers are better off than they were fifty years ago. The area under tillage is much greater, and from the improved condition of the landholders more of the field-work than formerly is done by hired labour. Compared with the rich years of the American War the labourers have the advantage of much cheaper grain. At the same time it is probable that the higher wages and the great freehandedness of that time of plenty more than made up for the extreme dearness of grain. The labourers suffered much and long during the 1876 and 1877 famine. But as they had no fresh grain stocks to buy, and no ornaments to redeem from pawn, they have not been so long hampered by the effects of the famine as the poorer class of landholders. Moneylenders do not advance large sums to labourers except when the labourer enters into a bond to work for the lender. If a labour mortgage bond is passed sums equal to one or two years' pay that is £6 to £10 (Rs. 60-100) are advanced. Labourers vary greatly in the use they make of their surplus earnings. spend their surplus on liquor; others spend it on opium. These are exceptions; most field and other labourers are temperate and many touch neither liquor nor opium, nor, except on holidays, is much spent on rich food. Among labourers perhaps the commonest use of savings is in buying ornaments and clothes. A few labourers lend small sums of money; others hoard. A labourer's wife supplies from a fourth to a half of the family income. Boys above fourteen are self-supporting, and boys and girls from eight to fourteen earn from 1½d. to 3d. (1-2 as.) a day. Children below eight earn nothing. There is no class of hereditary servants in Dhárwár. The demand for labour is specially strong during the harvest, for rice in November, for early jvári in December, for late jvári in January and February, and for cotton-picking till the end of May. The early part of the rains, June July and part of August, after the grain is sown and before weeding begins, is the labourer's slack During this period labourers have mostly to depend on house-building and other jobs.

Of the poorer husbandmen and labourers, Lingáyats, Maráthás, Shepherds, Musalmans, and low-class people sometimes pledge their labour for fixed periods to pay off their debts. The man who pledges his labour is employed in collecting debts, carrying letters and messages, weeding fields, building houses, making bricks, drawing water, cleaning his master's house, or tending his master's cattle. For a loan of £10 (Rs. 100) a debtor will agree to serve for about five years. He receives his food free and such necessary clothes as one headscarf, one waistcloth or dhotar, and one pair of shoes a year, the whole worth 8s. to 10s. (Rs. 4-5). If the servant supports himself, the period of service for a loan of £10 (Rs. 100) is reduced to about three years. The debtor is ordinarily bound to devote his whole time to his master's service, but, unless there is a special agreement to that effect, the master has no claim to the service of the bondsman's wife or children. The master is not bound to pay the bondsman's marriage, death, or other expenses. He cannot, against his will, transfer the debtor's services to any other person. Though bodily punishment is not recognized as an ordinary remedy for disobedience, it is occasionally practised,

Capital.

LABOUBERS.

Labour Mortgage. Capital.

LABOUR
MORTGAGE.

and no complaint is made unless the beating is unusually severe or cruel. When personal and family influences fail to induce the debtor to perform his part of the contract, masters occasionally apply to the civil courts to enforce the bond. If the debtor dies before his service is ended some member of his family is expected to work during the rest of the time. A service engagement is never hereditary. Young men under twenty called jitad álus (K.) or fee-men are generally employed by husbandmen for field labour. They have the same food as the husbandman, millet cakes, pulse, whey, onions, and hemp spinnach. At the close of the year they are given a pair of trousers, a waistcloth or dhotar, and wages at the rate of 2s. (Re. 1) a month and sometimes less. If the parents of these lads owe anything to the husbandman, the wages are deducted from the debt. Sometimes Lingáyat and Marátha husbandmen marry their daughters to poor lads of twelve to fourteen on condition that the sons-in-law work in their fields. cases these lads live and take their food in their father-in-law's house. When they grow to be men, if they wish it, they are generally allowed to take their wives and start houses of their own.

WAGES.

During the last forty years wages have greatly risen. In 1840, carpenters, blacksmiths, and masons were paid 6d. to 9d. (4-6 as.) a day; and a day labourer if a man was paid 3d. (2 as.), if a woman $1\frac{1}{6}d$. ($1\frac{1}{4}$ as.), and if a child $1\frac{1}{6}d$. ($\frac{3}{4}$ a.). Men servants were paid 0s. to 8s. (Rs. 3-4) amonth; women servants 2s. to 4s. (Rs. 1-2); and child servants 1s. to 1s. 6d. (8-12 as.). Bráhman cooks and water-carriers in addition to free meals, were paid 6s. to 8s. (Rs. 3-4) a month for men, and 2s. to 4s. (Rs.1-2) for women. In 1882, carpenters, blacksmiths, and masons were paid 1s. to 2s. (Re. $\frac{1}{4}$ -1) a day, men labourers $4\frac{1}{2}d$. to 6d. (3-4 as.), women labourers 3d. to $3\frac{3}{4}d$. $(2-2\frac{1}{2} as.)$, and child labourers $1\frac{1}{2}d$. to 3d. (1-2 as.); men servants were paid 14s. to 16s. (Rs. 7-8), women servants 6s. to 10s. (Rs. 3-5), and child servants 4s. to 6s. (Rs.2-3) a month. Bráhman cooks and water-carriers were paid £1 to £1 10s. (Rs. 10-15) a month for men, and 10s. to 12s. (Rs. 5-6) for women. When employed for a month or more, the wages of artisans and labourers are 2s. or 4s. (Rs.1-2) less than the above rates. If in addition they are fed, the wages are reduced about one-third. Town labourers are paid in cash, and field labourers, especially during harvest time, in grain. Labourers as a rule are paid daily, and sometimes for a long job weekly, but seldom at intervals of more than a week. marriages and other feast ceremonies, which last four to seven days, musicians and dancing-girls are paid either a daily wage of 4s. to 6s. (Rs.2-3) for musicians and £1 to £1 10s. (Rs.10+15) for dancing-girls, or in a lump sum for the whole period, the amount varying from £1 12s. to £2 (Rs.16-20) for musicians, and from £10 to £20 (Rs. 100-200) for dancing girls. The chief and best earthworkers in the district are Vaddars, who are of two branches, stone Vaddars and earth Vaddars. The stone Vaddars do nothing but quarry and cart stones; the earth Vaddars dig, embank, and do other earthwork required in improving the fields and in making wells, ponds, houses, roads, canals, and railways. Vaddars move from place to place in search of work, living in temporary huts walled

and roofed with grass. Each gang lives in a compact cluster of huts which they build outside the village near water and grazing. Every well-to-do Vaddar has a pair of cart buffaloes and a rude low cart on which he carries his house goods when he shifts camp. The stone Vaddars have more carts which they use in carting stones. The Vaddars are strong and dark and seem one of the earliest local tribes. They have no education and are very fond of drink. a class they are independent and difficult to handle. It is a mistake to pay them day wages without assigning them tasks. In the absence of a task they will do as little as they can. The best way of employing Vaddars on large works, where cash payments are to be made, is to fix rates for various loads and lifts. Once rates are fixed, there is little difficulty in getting the work done. When paid in this way Vaddars seldom try to scamp work, and, if paid once a fortnight, they are perfectly satisfied. They work in gangs, each gang having its foreman who negotiates the rates, measures the work, and shares the wages. Men women and children above twelve all work. The men dig and fill the baskets, and the women and children carry. On piece work Vaddars work from four to ten in the morning, rest for about four hours, and again work from two to five in the evening. The Vaddars' tools are kudalis or axes, pavdás or spades, and large wicker baskets. It is wonderful how easily a grown Vaddar woman can carry a large earth or murum basket up a high embankment, work which would be too much for an ordinary man. When employed on piece work, the Vaddars' daily earnings average $4\frac{1}{2}d$. to $7\frac{1}{2}d$. (3-5 as.) a head. The work done by each gang is measured separately, and the headman generally distributes the money equally among all the members of the gang including the women and the working children. Village Vaddars generally work by contract for grain. When a well is to be dug or a tal or bank is to be raised, the landholder calls in the nearest foreman Vaddar, shows the length and breadth of the work, and enters into a verbal contract with him to pay a fixed quantity of grain for the work. For work of this kind village Vaddars are generally employed. As a rule, every group of five or six villages has enough well-digging and banking to support a small Vaddar gang. Besides Vaddars a few Lamanis occasionally do earthwork. Stone Vaddars differ little from earth Vaddars, except that one works in earth and the other in stone. The stone Vaddars quarry the stone and carry it in their carts to the work. These carts, of which each stone Vaddar has two or three, carry four to six cubic feet of stone and are small and rough, the wheels being made of solid pieces of wood joined together. Stone Vaddars are specially clever in using the sledge hammer to break and square stones. They hardly ever blast with gunpowder. They heat the stone, and pour cold water over it, when the stone splits with a remarkably even fracture. In Dhárwár skilled labour is poor and rare. Except in the towns of Dhárwár Hubli and Gadag few carpenters or blacksmiths can do any work more difficult or delicate than making and mending rough field tools, and the number of skilled masons is still smaller. Apparently from the cheapness of food and the want of competition in Dharwar craftsmen seem to have neither energy nor

Capital.
Wages.

Capital.
WAGES.

wish to better their condition. A craftsman can make a living by working four or five days a week, and beyond his living he seems not to care. On the Marmagaon-Belári railway now (1884) under construction, the earthwork within Dhárwár limits is being chiefly done by Vaddars, and almost all the skilled labour comes from the Deccan. Most masons and blacksmiths come from Poona, Sátára, and Kolhápur, and most carpenters from Poona, Sávantvádi, and Goa. In 1883 a few Cutch masons came seeking work. On the railway masons and carpenters earn 1s. 6d. to 2s. (Re. \(\frac{3}{4}\text{-1}\)) a day, and blacksmiths with their bellows' boys 2s. to 3s (Re. 1-1\(\frac{1}{2}\)). Most overseers and foremen, who are difficult to get, belong to Poona and Sátára. Overseers earn £5 to £8 (Rs. 50-80) a month, foremen £3 to £5 (Rs. 30-50), and timekeepers £2 to £3 (Rs. 20-30).

Weights and Measures.

Dhárwár weights and measures are neither periodically inspected nor stamped by the police. There is much variety in different parts of the district. Though the tables and the names are the same throughout, they differ much in weight, shape, and size in different sub-divisions, even in different towns in the same sub-division. In 1845 a standard measure equal to 136 tolás' weight of pure water was introduced, and in 1849 the standard was changed to the Bengal sher equal to eighty tolás' weight of water. As the Bengal sher was so much smaller than the 136 tola measure introduced in 1845, a hoop was added to the 136 tola measure to make it equal to 160 tolás' weight of water or double the Bengal standard. This double sher became known as the Dhárwár sher. In 1852 when the Bengal sher equal to eighty tolás' weight of water was introduced into various districts, Government supplied the Collector of Dhárwar with a sher measure holding eighty tolás' weight of distilled water, with contents of 57.0392 cubic inches and with a height of 41721 inches, with a half sher measure holding forty tolás' weight, with contents of 28.5196 cubic inches, and with a height of 3.31114 inches, and with a quarter sher measure holding twenty tolás' weight, with contents of 14:2598 cubic inches and with a height of 2.6283 inches. The diameter of each measure was equal to its height. Before these measures were supplied by Government the standard had been introduced into the district in 1849, and two sets of measures had been made, one set holding 160 tolás' of water called the Dhárwár sher, and the other set holding eighty tolás' of water called the Bengal sher. These measures cannot have been made with any accuracy. Distilled water could not be got, the temperature at which it was to be weighed does not appear to have been prescribed, and the shape of the measures which is more important was not specified. The standard measure was determined by the weight of water it held, but in Dharwar in measuring grain a heaped measure is and always has been used. Two measures of different shape might hold equal quantities of water but different quantities of grain by heaped measure. In 1861 and 1862 it was brought to notice that the measures in use varied in capacity and that measures holding equal quantities of water did not hold equal quantities of heaped grain. It was also found to be impossible to test measures by weighing the water they held, because many of them were not water-tight. The chief reason why the measures

were not water-tight, was that in 1849 measures to hold 160 tolás had been made by adding a hoop to the top of the old 136 tolás' measures. An order was then issued that grain might be used in testing the measures but the weight of grain which the standard measure should contain has never been laid down. In 1865 to settle the grain compensation to be paid to sepoys when grain was dear, Mr. Reid directed that a measure which held eighty tolás' weight of shejji grain by exact and not by heaped measure should be adopted. This order was given for a special purpose, but it strengthened the supposition that the standard of measure was determined by the weight of grain and not by the weight of water. Between 1865 and 1883 little seems to have been done regarding measures, except that a set of brass measures was made in 1874 at the Dhárwár factory for the Collector's office. Up to 1883 the standard determined by the weight of water and introduced in 1849 has never been altered, but heaped measure instead of exact measure has always been used for grain. In 1882, in testing the standard measures at the various sub-division offices Mr. Middleton, the Collector, found that the measures were very roughly made and were not accurate. Some measures were not water-tight and many had not the same diameter throughout. The lifts were irregular in form, and different measurements of the same measure gave different results. As the shape was irregular, a measure which according to the dimensions given ought to hold more, sometimes in reality held less than another. Some sub-divisions had more than one set of standard measures. Some of the measures which were stamped E. I. C. 1847, must have been made before 1849 when the present standard was introduced, though it is still the custom to stamp the letters E. I. C. as the Government mark on measures brought to the Government offices to be tested. Of the evils which arise from having standard measures of different capacity, one is that at a criminal prosecution for using false measures the Hángal trader, who has got a Dhárwár sher measure tested at the Hángal sub-division office holding 137 tolás' weight of grain by heaped measure, runs the risk of being punished for using too small a measure, if he uses it in selling grain in the adjoining sub-division of Karajgi where the standard holds 1511 tolás' weight, while he may be punished for using too large a measure if he uses it in buying grain in the adjoining sub-division of Kod where the standard holds 124 tolás. Another evil is that the half sher is not equal to half of the full sher, nor is the quarter sher equal to a quarter of the full sher. As the diameter of the Dharwar sher measure and of the Dharwar half sher that is the Bengal sher measure is the same, the additional quantity obtained by the use of heaped measure is the same both for the sher and the half sher instead of being double for the sher. The half or Bengal and the quarter shers are only occasionally used and are inaccurate. Two halves are not equal to one whole, neither are four quarters. Though the standard measures kept in the various sub-division offices differ very greatly, the difference between the measures in actual use throughout the district is probably not so great, because measures are chiefly made at Hubli where they are tested before being distributed for sale.

Capital.
Weights and

MEASURES.

Chapter V.
Capital.
Weights and
Measures.

Weights are of two sorts, one for precious metals, drugs, and medicines; the other for grain and the cheaper metals copper, brass, iron, lead, and zinc. The weights for precious metals are round or square and are made of bellmetal. The table is eight gunjás one mása, twelve másás one tola, twenty-four tolis one sher, twelve shers one dhada, and four dhada's one man. Sómetimes another table is used, six gunjás one ánna, sixteen ánnás one tola, and twenty-four tolás one sher. The gunja or gulganji is the red black-tipped Abrus seed. The tola is equal to the Imperial rupee or 180 grains Troy; the man is equal to 2917; pounds avoirdupois. The weights in use for the cheaper metals and for grains are made of iron and are in the form of round thick plates. Their table of reckoning is nine taks one navtak, two navtaks one quarter, sher, two quarter shers one half sher, two half shers one sher, 11 shers one savásher, two saváshers one adichshers, two adichshers one panchsher, two panchshers one dhada, two dhadas one half man, two half mans one man, four mans one andgi, and two andgis one goni or heru. Of these weights the tak is nominal, weighing about a quarter of a rupee, the navták two rupees and a half, and the sher twenty rupees. Up to the sher, which as a rule is equal to twenty rupees, the scale of this table is the same for all articles. But the savásher, which ought to equal twenty-five rupees, and the weights that follow it differ much for various articles. The savásher is fixed equal to thirty-five rupees for copper, brass, and bellmetal; to 321 rupees for cotton, tobacco, clarified butter, and parched channa or gram; to 311 rupees for all articles of food sold by weight; to thirty rupees for iron and steel; and to twenty-five rupees for cotton-seed and oil-cake. Thus, keeping a fixed standard of twenty rupees weight for each sher, the man which is ordinarily equal to forty shers, actually contains for copper, brass, and bellmetal fifty-six shers or $28\frac{1}{16}$ pounds; for cotton, tobacco, clarified butter, and parched gram fifty-two shers or $26\frac{9}{16}$ pounds; for all articles of food sold by weight, fifty shers or 25% pounds; for iron and steel forty-eight shers or 245 pounds; and for cotton-seed and oilcake forty shers or 20½ pounds. In weighing lamp-oil, which is generally sold by brass copper or earthen measures corresponding to the scale of weight, the savásher, which is called the quarter mogha, weighs twenty-five rupees and the man contains forty shers of twenty rupees or 20½ pounds. The table of reckoning is two quarter moghás one half mogha, two half moghas one mogha, 'two moghas one quarter man, two quarter mans one half man, two half mans one man, and eight mans one naga. Among natives cotton is bought and sold by mans of fifty-two shers of twenty rupees each. Europeans cleaned cotton is sold in pounds. The table is seven pounds one dhada or quarter man, fourteen pounds one half, man, twenty-eight pounds one man, eight mans one naga, and twenty A pound being equal to nearly thirty-nine mans one khandi. rupees, this man of twenty-eight pounds contains 543 shere of twenty rupees each. In selling raw silk the sher is equal to twentyfive rupees for silk traders and to twenty-four rupees for other classes. In selling indigo the table in use is twenty tolás or rupees one sher, 13½ shers one dhada, and four dhadás one man or 27½

pounds. Milk and curds are sold by a measure containing eighty rapees weight. This measure is called the pakka or full sher as opposed to the kachcha or small sher which weighs twenty rupees.

The table used in measuring grain is two chhatáks one quarter sher, two quarter shers one half sher, two half shers one sher, two shers one padi, two padis one chitti, eight chittis one imna, sixteen chittis or two imnás one andgi, two andgis one goni or hecu, and twenty gonis or herus one khandi. As each grain has its own weight the general weight of the contents of these capacity measures cannot be stated.

Cotton goods, silk goods, European printed piecegoods, and longcloth are measured by the gaj or vár, both of which are the yard of three feet. Turbans, waistcloths or dhotars, women's robes or sádis, and country longcloths are measured by molas or cubits. vár, or yard is made of brass, iron, or wood. The gaj is divided into twenty-four tusus each equal to one and a half inches, and the vár into sixteen giras each equal to two and a quarter inches. No separate cubit measure is actually made and marked off with its sub-multiples. The table of cubit measure is twelve angulis one genu or span, two genus one mola or cubit, and four molás one már or fathom. anguli or finger's breadth is equal to three-fourths of an inch and the mola or cubit is equal to fifteen inches. The már is the distance from the tip of the middle finger of one hand to the tip of the middle finger of the other hand when both hands are stretched horizontally in a straight line. The table used in long measure is three javs one anguli, four angulis one mushti, three mushtis one genu, two genus one mola, four molás one dand or már, 2000 dands or márs one kos, and four kosás one yojan. The unit a jav of barley corn is equal to one-fourth of an inch. This measure varies much in different localities. A Dhárwár kos generally equals three English miles and it occasionally is as much as four.

Of former land measures tradition says that in the times of the Bahmani Musalmán kings of Kalburga (1343-1490), Vithalpant, one of their chief officers, surveyed the land and divided it into márs and assessed them in huns. These márs are called Vithalpanti márs, because, it is said, he caused the measurement to be made by certain multiples of his own már or arm's stretch. Each Vithalpanti már contained four kurgis, a kurgi being the area of land which the Kánarese kurgi or seed-drill can sow in a day. As the kurgi has been found to contain about eight acres, a Vithalpanti már is equal to about thirty-two acres. Some time during the sway of the Vijayanagar or Anegundi kings (1336-1570), apparently after the time of Vithalpant, a new survey was made and the lands divided into márs and assessed in Anegundi huns. These márs were called Ráya Rekhi márs or the Anegundi Rája's márs. The Vijayanagar már like the Bahmani már contained four kurgis. But as

Chapter V.

MEASURES.

¹ In the Karnátak the Anegundi or Vijayanagar kings alone were called Ráyás which is corrupted from the Sanskrit rájan a king. Rekhi means a line drawn, and sence anything settled. Ráya Rekhi márs means the már measure settled by the Rayás that is by the Anegundi kings.

Chapter V.
Capital.
Measures.

the Vijayanagar kurgi contains only four acres of land instead of eight, a Rái Rekhi már is equal to sixteen acres instead of thirtytwo acres. The Vijayanagar már was also called the hull or small már. Chigars, visas, pattis, and kanis, which were the parts of a már. have fallen into disuse. The bigha was introduced into the Bombay Karnátak by Peshwa Báláji Bájiráo when he took the country in 1753. The following is the bigha table. Four square angulis one mushti. three mushtis one vet, two vets one hát, 5% háts one káthi, twenty káthis one pánd, twenty pánds one bigha, and 120 bighás one cháur. The length and breadth of eight corns of wheat make one square anguli or a square of the length and breadth of a finger. About one and half and in some places one and three-quarters bighás make an acre of landin Dhárwár. Owing to the succession of opposing governments in the seventeenth, eighteenth, and nineteenth centuries the varieties in the size of the bigha gave hereditary district and village officers and other free landholders the opportunity of practising frauds on Government. The areas of the older land measures, if ever fixed. were also greatly altered in different villages and even in the same village; consequently the number of acres contained in a már or kurqi of land or in their sub-multiples the chigur, visa, patti, and kani, or the number of bighás in an acre, are not the same in all places. Both the már and bigha measurements continued in use for some time after the introduction of British rule. About 1824 the acre was introduced by the British Government. Since 1839-40, the present regular survey of lands and their division into acres, gunthás or fortieths of an acre, and annas or sixteenths of a guntha, and the assessment in Imperial rupees have come into general use. Even now the common Kanarese people do not exactly know how much land an acre or a bigha contains. When they are told what portion of a már or of a kurgi an acre forms, they readily understand. Konkanasths and others from the Deccan who have settled in Dhárwár, understand the bigha better than the már, kurgi, or acre. The following table of acre measurements is current in Dhárwár as well as in other parts of Bombay: 81 feet broad and 81 long that is 681 square feet make one ánna, sixteen ánnás one guntha, and forty gunthás one acre.

Building sites and other lands within towns or villages are measured by square yards. Leather coir and cotton or hemp ropes are measured by mars or fathoms and molas or cubits and not by gajs or vars that is yards. All Government building work is calculated by yards, feet, and inches, while private work is calculated by cubits each eighteen inches long. Of building materials stone and timber are sold by cubic measures. Fair solid stones for the edges of buildings are at present (1884) sold at 14s. to 18s. (Rs. 7-9) the hundred cubic feet. Large and rough cut ironstone or laterite is sold at 10s. (Rs. 5) the hundred cubic feet. Heaps of small stones are sold at £1 12s. (Rs. 16) the heap ten cubits long ten broad and one high forming nearly 460 cubic feet. Since much open space is unavoidably left between small stones when they are heaped together, in measuring heaps of small stones the length of a cubit is taken at twenty instead of at eighteen inches. Timber is sold at £2 to £3 (Rs. 20-30) for a beam twelve and half feet long, one foot broad, and one foot thick. Small bamboos called sibus are sold at 5s. to 6s.

(Rs. $2\frac{1}{3}$ -3) the hundred, and large bamboos called galas at 16s. to 18s. (Rs. 8-9) the hundred. Bricks and tiles are sold by tale. Burnt bricks twelve inches long, six broad, and three thick cost 16s. to £1 (Rs. 8-10) the thousand. Unburnt bricks of the same size cost between 4s. and 6s. (Rs. 2) the thousand. No excess number of bricks is given to cover wear and tear. There are three kinds of tiles. The best black tiles turned on the potter's wheel cost 14s. or 16s. (Rs. 7-8) the thousand; black tiles made by hand cost 5s. or 6s. (Rs. $2\frac{1}{2}$ -3) the thousand; and inferior red tiles cost 3s. or 4s. (Rs. $1\frac{1}{2}$ -2) the thousand. One tile in every hundred is allowed for wear and tear. Earth is sold at $1\frac{1}{2}d$. (1 a.) the basketful.

Mats are sold singly. Eor every hundred square feet of single woven matting the cost is 1s. 6d. (12 as.) and for double woven matting 4s. (Rs. 2). Of straw and fodder, millet stalks called kanki in Kanarese, are sold at so many bundles the rupee according to the size of the bundle. In buying millet stalks the length of the rope by which the bundle is to be measured, whether four and a half, five, or six cubits, is first fixed. Then as many stalks as the rope can enclose when drawn tight are considered one bundle. When the size of the bundle is settled, the number of bundles to the rupee is fixed. The usual price of millet stalks in a good season is four or five bundles the rupee. In bad seasons as much as 6s. or 8s. (Rs. 3-4) are paid for one bundle. Rice and rági straw is sold by the big or hali wagon-A hali cart is a big heavy wagon, borne on solid wooden wheels with heavy iron tires. It is used by husbandmen for field-work only and not in going from one village to another. The wagon is drawn by six or eight bullocks, and carries about 3200 pounds (80 mans) or twice as much as the two-bullock chhakdi or spoke-wheel cart which has been introduced since the beginning of British rule.

When crops are cut and thrashed and the grain is separated from the chaff in the field it is not usual for husbandmen to measure the grain in the field with any metal measure of capacity. They have baskets called *zhallis* large enough to hold one *heru* of 128 shers or 500 pounds of grain. With these baskets they measure the grain and roughly estimate the outturn. They then carry the grain to their houses and measure it with some metal measure of capacity and either sell it or store it in pits. Chaff is also measured by the *zhalli* basket.

Vegetables are not generally sold by weight. When they are sold wholesale the rate is so many baskets the rupee. Large vegetables are sold retail by the number, and other leaf vegetables, when they can be tied into small bundles of about an inch in diameter, are sold at so many bundles the anna. When the fruit vegetables are small, or the leaf vegetables cannot be tied in bundles, they are sold in small quantities at so much the anna. In very rare instances small vegetables are sold by weight. Fruits, such as mangoes guavas and cocoanuts, are sold by the number. Grass is sold by the hundred bundles, five being given in excess to cover waste; cowdung-cakes for fuel are also sold by the number at about 700 the rupee. Hides and horns are sold by the number. Firewood is sold by the cartload by those who bring it from the

Chapter V.
Capital.
MEASURES.

Chapter V.
Capital.
MEASURES.

forests. Firewood in the Government store is sold at 7s. (Rs. 3½) the *khandi*. As Dhárwár has no regular shops for selling pearls and precious stones the weights are little understood. All purchases are made in Bombay or Poona and the jewels are sold in retail by Márwár Váni and other moneychangers.

The table for measuring time is sixty vipals or eyewinks one pul. sixty pals one ghadi, 2½ ghadis one hora or hour, 3¾ ghadis one muhurta, 7½ ghadis one prahar, four prahars one divas or day, eight prahars one ahorátra or a day and night, seven days one áthavda or week, fifteen days one paksh or fortnight, two pakshas one lunar month, and twelve lunar months one lunar year. To adjust the lunar and solar years an intercalary month is added about once in every two and a half years and a month is dropped about once every 100 years. During marriage, thread, and other religious ceremonies the lucky moment is not ascertained by the ordinary watch or clock. From sunrise on the day of the ceremony the time is measured by a water-clock. A copper cup with a small hole at the bottom is floated on the surface of a basin of water. The water rising through the hole overturns the cup exactly in a ghadi. The cup is taken out and again placed on the surface of the water and goes down in another ghadi. In this manner the required number of ghadis is ascertained. Another mode of measuring time when the sun is shining is for a man to measure by his own feet the length of his shadow. To tell the time of day from a shadow one plan is, in an open sunlit spot, to measure in feet the length of one's shadow, to add six to the number of feet, and divide 121 by the sum. The quotient gives the time in ghadis of twenty-four minutes after sunrise if the sun has not crossed the meridian, and before sunset if the sun has crossed the meridian. Another plan is to hold upright a thin rod eighteen ánglis or finger-breadths long, bend it so that its shadow will touch the other end of the rod on the ground and measure in anglis the perpendicular height of the rod. This like the other plan shows the number of ghadis either after sunrise or before sunset.

PRICES.

Yearly price details some of which are little more than estimates, are available for the eighty-four years ending 1883. During these eighty-four years the rupee price of Indian millet, which is the staple grain of the district, varied from nineteen pounds in 1864 and 1877 to 165 in 1814 and averaged ninety-three pounds. In three of these eighty-four years, the price was below 160 pounds the rupee, 165 in 1814, 162 in 1832, and 161 in 1811; in four it was between 160 and 150 pounds, 157 in 1850 and 1852, and 154 in 1843 and 1845; in four it was between 150 and 140 pounds, 150 in 1841 and 1849, 146 in 1813 and 142 in 1823; in nine it was between 140 and 130 pounds, 139 in 1835 1844 and 1848, 135 in 1812 1847 and 1851, 132 in 1831, and 131 in 1815 and 1854; in seven it was between 130 and 120 pounds, 129 in 1840, 127 in 1824 1828 1838 and 1842, 124 in 1829, and 122 in 1830; in seven it was between 120 and 110 pounds, 120 in 1827 and 1846, 116 in 1808 and 1857, and 112 in 1800 1836 and 1837; in five it was between 110 and 100 pounds, 109 in 1810 and 1853, 108 in 1805, and 105 in 1809 and 1825; in

six it was between 100 and ninety pounds, ninety-seven in 1839. ninety-four in 1801 1802 and 1859, and ninety-two in 1822 and 1858, in four it was between ninety and eighty pounds, ninety in 1860 and 1869, and eighty-six in 1806 and 1855; in six it was between eighty and seventy pounds, seventy-nine in 1826 1861 and 1868, seventy-five in 1807 and 1834, and seventy-one in 1856; in eight it was between seventy and sixty pounds, sixty-eight in 1817. sixty-seven in 1816 and 1833, sixty-five in 1821, sixty-four in 1881. sixty-three in 1818 and 1819, and sixty-two in 1820; in six it was between sixty and fifty pounds sixty in 1871 and 1882, fifty-six in 1862, and fifty-two in 1875 1876 and 1883; in eight it was between fifty and forty pounds, fifty in 1803, forty-seven in 1874, forty-six in 1880, forty-four in 1879, and forty-one in 1863 1867 1870 and 1873; in two it was between forty and thirty pounds, thirty-nine in 1872, and thirty-five in 1878; and in five it was between thirty and fifteen pounds, twenty-six in 1865, twenty-one in 1804, twenty in 1866, and nineteen in 1864 and 1877. The eighty-four years may be divided into ten periods. Except in 1803 when the price was fifty pounds and in 1804 which was a famine year when the price was twenty-one pounds, in the first period of eight years ending 1807 the price varied from 112 in 1800 to seventy-five in 1807, and averaged eighty pounds. In the second period of eight years ending 1815, the price varied from 165 in 1814 to 105 in 1809, and averaged 133 pounds. In the third period of six years ending 1821 the price varied from sixty-eight in 1817 to sixty-two in 1820, and averaged sixty-four pounds. Except in 1822 when the price was ninety-two pounds and in 1826 when the price was seventynine pounds, in the fourth period of eleven years ending 1832, the price varied from 162 in 1832 to 105 in 1825, and averaged 121 pounds. Except in 1833 and 1834 when the prices were sixtyseven and seventy-five pounds respectively, in the fifth period of seven years ending 1839 the price varied from ninety-seven in 1839 to 139 in 1835, and averaged 104 pounds. In the sixth period of fifteen years ending 1854, the price varied from 157 in 1850 to 109 in 1853, and averaged 132 pounds. Except in 1857, when the price was 116 pounds, in the seventh period of seven years ending 1861, the price varied from ninety-foar in 1859 to seventyone in 1856, and averaged ninety pounds. Except in the years of short harvests and abundant money 1864, 1865 and 1866 when the prices were nineteen, twenty-six and twenty pounds, in the eighth period of six years ending 1867, the price varied from fifty-six in 1862 to forty-one in 1863 and 1867, and averaged thirty-four pounds. Except in 1868 and 1869 when the prices were seventy-nine and ninety pounds respectively, in the ninth period of nine years ending 1876, the price varied from sixty in 1871 to thirty-nine in 1872. and averaged fifty-five pounds. Except in the famine year of 1877 when the price was nineteen pounds, in the tenth period of seven years ending 1883, the price varied from thirty-five in 1878 to sixty-four in 1881, and averaged forty-six pounds. The details are:

Chapter V. Capital. PRICES.

DISTRICTS.

Chapter V. Capital. PRICES.

Dhárwar Produce Prices (Pounds the Rupee), 1800-1883.

	First Period.										SBC	OND !	Peri	DD.		
Produce.	1800.	1801.	1802.	1803.	1304.	1805.	1806.	1807.	1808.	1909	1810.	1811.	1812.	1813.	1914.	1515.
Indian millet Spiked millet Rice	112 101 54	94 80 45	94 75 45	50 70 35	21 20 18	108 101 48	86 89 39	75 72 39	116 115 75		109 94 60	161 84 56	135 77 62	14d 101 63	165 84 71	131 84 54

		TH	ird I	er 10	D.						Four	тн І	Per 10	D.			
PRODUCE.	1816.	1817.	1818.	1819.	1820.	1821.	1822	1823.	1824	1825.	1826.	1827.	1528.	1829.	1830.	1831	1832
Indian millet Spiked millet	67 56	6 8 56	63 45	63 52	62 61	65 61	92 87	142 143	105	105 98	79 78	120 105		124 115	122	132	162
Rice	07	43	45	45	52	14	56	67	60	49	49	60	60	75	69	69	

		FIFTH PERIOD.							Sixth Puriod.							
Product.	1833.	1834.	1835.	1836.	1837.	1838.	1839.	1840.	1841.	1842.	1843.	1844.	1845.	1946		
Indian millet Spiked millet Rice	67 52	75 45	139 126 67	112 105 60	112 98 43	127 133 52	97 91 39	1	150 133 71	133	l .		154 140 86	120 94 62		

	Sixth Period—continued.									Sevente Period.								
PRODUCE.		1847.	1848.	1849.	1850.	1851.	1852.	1853.	1854	1855.	1856	1857.	1858	1859.	1560.	1361.		
Indian millet Spiked millet		135 105	139	i		135 126		109 112	131 87	86 80	71 66	116 94	92 84	94 80	90 70	79 66		
Rice	•	67	64	86	75	60	67	73	60	58	45	40	45	45	41	30		

,		Eig	нтн	Peri	od.					Ninti	ı Pr	RIOD,			
PRODUCE.	1862.	1863.	1864.	1365.	1866.	1867.	1868.	1869.	1870.	1871.	1872	1878.	1874.	1876.	1876.
Indian millet Spiked millet Rice	42	41 42 26	19 16 14	26 21 14	20 19 15	41 88 22	79 63 26	90 56 24	41 81 17	60 49 26	89 31 19	41 38 20	47 42 28	52 49 41	52 49 35

		Tenth Preiod.											
Produce.	1877.	1878.	1879.	1880.	1881.	1882	1883.						
Indian millet Spiked millet Rice	19 19 15	85 80 19	44 81 24	46 87 27	64 63 26	60 56 23	52 49 80						

CHAPTER VI.

TRADE.

Before 1844, the Bombay Karnátak, especially the Dhárwár district, was very badly off for roads. Carts were almost unknown and long distance traffic was carried on entirely by pack-bullocks. Even within the district, except by a few main tracks or during the fair season after the crops had been cleared, it was extremely difficult to take a cart anywhere. There was little or no traffic westwards with Kánara and the coast. In a distance of about 350 miles, between the Bhor pass near Poona and the extreme southern frontier of the Bombay Presidency, the only cart-road across the Sahyádris was by the old Rám pass between Belgaum and Vengurla. The old Rám pass was three miles long, and for long stretches had an incline of one in five or six. Carts went up and down by lightening loads and clubbing the bullocks of two or three carts together. The Rám pass was too far north for Dhárwár traffic. What little traffic there was went on bullocks by rough tracks down the Sahyadris to Kumta, Ankola, and other North Kanara ports. About this time (1844), the inland parts of the Bombay Presidency were cut off from the sea by native states, Goa, and Madras. Sátára and Kolhápur cut off the North Karnátak from the Ratnágiri coast; Sávantvádi and Goa cut off Belgaum from the sea; and North Kánara then in Madras cut off Dhárwár. About 1845 the first pass within Kánara limits was improved, and this pass was far south leading to Honávar. About 1848 measures were taken to open a route to Kumta. Between 1850 and 1860 a great advance was made in opening communications with the western coast through Kanara. In 1850 the Dhárwár-Belgaum road in the north was unfit for traffic during the rainy season; it was unbridged and the Malprabha at times rose to a great height.2 Within Dharwar limits the last bridge on the great military trunk road north to Belgaum Sátára and Poona and south to Harihar and Madras, the Vardha bridge, about fifty-miles south of Dhárwár, was not completed till 1866. As late as 1856 the only made and bridged roads were about sixty miles of the Poona-Harihar road between Belgaum and Hubli and the road from Dhárwár by Mundgod Sirsi and the Devimani pass about 110 miles to Kumta. Since 1864 the local funds system has placed increased means for constructing and improving roads in the hands of the Commissioner and Collector. Murumed roads, that is roads laid with decayed trap, and carts have

Chapter VI.
Trade.
Roads.

² Mackay's Western India, 393.

Bom. Gov. Sel. CLV. 24; CLX. 15; CLXI. 5; and LCXII. 8.

Chapter VI.
Trade.
ROADS.

in most places replaced foot tracks and pack bullocks. So great has the change been that t and as or camps of Brinjaris with their numerous pack-bullocks are now hardly ever seen. At present (1884) three ports can be reached from Dharwar by good passes and roads, Kumta by the Arbail and Devimani passes, Karwar by the Arbail pass, and Goa by the Tinai pass, though by this last route the traffic is small.

At present (1883) Dhárwár has ten chief lines of traffic, the Poona-Harihar, the Kárwár-Belári, the Dhárwár-Kumta, the Mundgod-Bankápur, the Pála-Bádámi, the Hávanur-Samasgi, the Harihar-Samasgi, the Hubli-Sholapur, the Tadas-Gondi, and the Masur. Mundargi roads. The Poona-Harihar road, of which about 107 miles lie within Dhárwár limits, runs north-east and south-west through the sub-divisions of Dhárwár Hubli Bankápur Karajgi and On this road the milestones are numbered from The road enters the district in the north-west at 246 miles from Poona, and passes Tegur at 247 miles with a travellers' bungalow, Dharwar at 261 miles with a travellers' bungalow, Hubli at 274 miles with a travellers' and a district bungalow, Tirmalkop at 287 miles with a travellers' bungalow, Shiggaon at 301 miles with a district bungalow, Bankápur at 305 miles; crosses the Vardha by a bridge at 312 miles near Konemelehalli; passes Háveri at 320 miles, Motebennur at 327 miles with a travellers' bungalow, Ránebennur at 340 miles with a district bungalow, and Yennihossahalla at 348 miles. At 353 miles, near Harihar on the right or southern side of the river in Maisur, the road crosses the Tungbhadra by a bridge and enters Maisur. The road is bridged and partly metalled, and is fit for carts throughout the year. The Karwar-Belári road, of which ninety miles lie within Dhárwár limits, runs through the sub-divisions of Kalghatgi Hubli Navalgund and Gadag. Of the ninety miles within Dharwar limits, for twentyseven the road runs north-east from the west border of Kalghatgi to Hubli, for thirty-four it runs nearly east from Hubli to Gadag, and for twenty-nine it runs south-east from Gadag to Hesrur on the Tungbhadra. On this road the milestones are numbered from Kárwár. The road enters the district at seventy-five miles from Kárwár on the west border of the Kalghatgi sub-division, and passes Kalghatgi at eighty-five miles, Dastikop at eighty-seven miles with a travellers' bungalow, Hubli at 102 miles with a travellers' and a district bungalow, Annigeriat 123 miles with a travellers' bungalow, Gadag at 136 miles with a district bungalow, Dambal at 149 miles with a district bungalow, Mundargi at 159 miles, and Hesrur at 165 miles with a travellers' bungalow. At Hesrur the road crosses the Tungbhadra by a ford, and, leaving the district, goes twentytwo miles further to Belári. Within Dhárwar limits the road is bridged throughout and metalled for thirty-five miles and murumed, that is laid with decayed trap, for fifty-five miles. It is passable to carts throughout the year. The Dharwar-Kumta road, which leads to the large port of Kumta in Kánara, leaves the Poona-Harihar

road at Tirmalkop about twenty-five miles south of Dhárwár: passes Tadas at twenty-eight miles with a district bungalow; enters the Kanara district at about thirty-five miles on the north-western border of the Bankápur sub-division; and runs for about eighty miles to Kumta by Mundgod Pála Ekambi Sirsi and the Devimani pass. The road carries heavy traffic in cotton and is passable to carts throughout the year. To open other parts of the district with the port of Kumta, four lines were made to join the Dharwar-Kumta trunk road. From Mundgod on the Dhárwár-Kumta road in Kánara, about forty-three miles south of Dhárwár, the Mundgod-Bankapur road runs sixteen miles east to Bankapur. Of the sixteen miles twelve are within Dhárwár limits. From Pála on the Dhárwar-Kumta road in Kanara, about twelve miles south of Mundgod. the Pála-Bádámi road runs 102 miles north-east to the border of the Bádámi sub-division in Bijápur. The road enters the district about half a mile east of Pála and runs twenty-one miles to Bankápur by Malligar. The twenty-one miles between Pála and Bankápur are bridged throughout and are fit for carts throughout the year. From Bankápur the road runs forty-eight miles to Gadag by Sávànur Lakshmeshvar and Mulgund. Though the line is laid out, the forty-eight miles between Bankápur and Gadag are neither bridged nor murumed, and are fit for carts during the fair season only. From Gadag the road runs twenty-five miles to Ron. As they run in deep black soil, the twenty-five miles between Gadag and Ron, though bridged and partly murumed, are impassable during the rains. From Ron the road runs eight miles to the border of the Bádámi sub-division. As they run parallel to the Hutgi-Gadag railway line, the eight miles from Ron to the Bádámi border are not now kept in repair. From Ekambi on the Dhárwár-Kumta road in Kánara, about ten miles south of Pála, a road runs seven miles east to Samasgi on the south-western border of the Hángal sub-division. From Samasgi the road divides in two, one branch leading fiftythree miles east to Havanur and the other about sixty miles east and south-east to Harihar. The Havanur-Samasgi road runs east through the Hangal and Karajgi sub-divisions, and passes the Alur-Hangal junction at twelve miles east of Samasgi and Alur at fifteen miles; crosses the Vardha by a ford at twenty-five miles near Sangur; passes Haveri at thirty-two miles on the Poona-Harihar road, Guttal at forty-nine miles, and Hávanur at fifty-three miles. At Hávanur the road crosses the Tungbhadra by a ford and enters the Belári district. The road is partly bridged, murumed, and embanked with drains and a few culverts. The Harihar-Samasgi road runs east and southeast through the sub-divisions of Hangal, Kod, and Ranebennur, and passes Makravalli about twelve miles east of Samasgi; crosses the Vardha at fifteen miles near Houthan; passes Tallivalli at seventeen miles, Havasbhavi at twenty-seven miles, Kod at thirtyfive miles, Halgeti at forty-five miles, and Yennihossahalli at fifty-four miles on the Poona-Harihar road. From Yennihossahall the road goes along the Poona-Harihar road south for five miles to Harihar. From the Dhárwár district to Bijápur and Sholápur the chief line is the Hubli-Sholapur road. The ordinary route from Hubli to Konnur on the border of the Bijápur district passes Tirlápurat sixteen

Chapter VI.
Trade.
Roads.

Trade.
Roads.

miles north of Hubli with a travellers' bungalow, Nadgund at thirtytwo miles with a district bungalow, and Konnur at forty-four miles. For Konnur another line has been lately chosen by Hebsur and Navalgund to Nandgud and Konnur; but this line is not completed and is inferior to the ordinary route. Both these routes to Konnur. being in black soil throughout, are impassable during the rains. Konnur the road crosses the Malprabha by a ford, and, entering the Bijápur district, goes 116 miles from Hubli to Bijápur and 177 miles to Sholapur. From Tadas on the Dharwar-Kumta road, about twenty-eight miles south of Dhárwár, the Tadas-Gondi road branches off thirty-eight miles south to Gondi on the Vardha in the Hangal sub-division. The road runs south through the Bankapur and Hángal sub-divisions, and passes Dhundshi at seven miles south of Tadas, Konankeri at thirteen miles on the Mundgod-Bankapur road, Maháráipeth at twenty-three miles; goes along the Pála-Bádámi road for two miles to Malligar at twenty-five miles; passes Hangal at twenty-eight miles with a district bungalow; meets the Havanur-Samasgi road at thirty miles and the Harihar-Samasgi road at thirty-six miles; and passes Gondi at thirty-eight miles. At Gondi the road crosses the Vardha by a ford and enters Maisur. road, which is fairly complete with gutters and catch-water drains, passes through the three important markets of Hangal, Maharaipeth, and Dhundshi. Large quantities of sugar, cardamoms, betelnuts, and other Maisur produce pass north along this road. The Masur-Mundargi road joins the south of Kod with the Ranebennur and Karajgi sub-divisions and with the large market of Mundargi in the Gadag sub-division. From Masur the road runs six miles northeast to Rattihalli, eighteen to Halgeti, twenty-two to Ranebennur, and about thirty-eight to Guttal on the Havanur-Samasgi road. about twenty-four miles north of Guttal to the Gadag border the road is not made. In these twenty-four miles the track crosses the Vardha at Belvigi by a ford, passes through the Shirhatti and Gudgeti sub-divisions, and enters the Gadag sub-division by the Virápur pass in the Kapatgud hills. For eight miles from the Virápur pass to Mundargi the road is made. Besides these chief lines, of small roads beginning from the north, the Kittur-Betgeri road runs twelve miles east from Kittur at 242 miles on the Poona-Harihar road in Belgaum to Betgeri in the north of the Dhárwár sub-division. From Dhárwar on the Poona-Harihar road four lines branch off, the Dhárwár-Hebsur road running twenty miles east to Hebsur by Maragdi and Behatti, the Dhárwár-Kalghatgi road running about twenty miles south-west to Kalghatgi, the Dharwar-Haliyal road running about twenty-two miles west to Mavinkop on the borders of Dhárwár and Haliyál, and the Dhárwár-Goa road running twenty miles nearly west towards Goa by the Tinái pass. From Navalgund a road runs twenty-eight miles east to Ron. From Kalghatgi a road runs about thirteen miles south-west to Tadas on the Dharwar-Kumta road. In the Kod sub-division in the south a road runs from Maisur about fourteen miles north-west to Chik-Kerur, and from Here-Kerur on the Masur-Chik-Kerur road a road runs fifteen miles east to Tuminhatti in Ránebennur.

pur in Kánara and sixty-five miles south-east of Dhárwár.

of Sirsi in Kánara and ninety miles south-east of Dhárwár.

All the Sahyadri passes by which the produce of Dharwar is carried west to the coast lie outside of Dharwar limits. Of passes to the west coast the Arbail and Devimani passes are the most important. Cotton mostly goes by these passes to Bombay. The Arbail pass which runs to Kárwár lies twelve miles south of Yellá-Devimáni pass which runs to Kumta lies about twenty miles south passes are crossed by metalled and bridged cart-roads, eighteen to twenty-four feet broad. Besides these, the Tinái pass, about thirty miles north-west of Supa in Kanara and fifty-five miles west of Dhárwár, runs into Goa through part of Belgaum and It is a bullock track, chiefly used for the import of cheap salt and salted fish from Goa. Within the limits of the district there are few important hill-passes. The only passes worthy of notice are the Sortur-Doni and Virápur passes in the Kapatgudd range. The Sortur-Doni pass, about three miles west of Doni in Gadag, can be crossed by carts and is used only for local traffic.

Trade. PASSES.

Chapter VI.

south of the district to Mundargi market. In the two parallel ranges in the south of Kod there are three hill-passes in the north range, one leading from Hire-Kerur to Shikarpur in Maisur, another from Hire-Kerur to Masur, and a third from Ratihalli to Masur: and two on the southern range each about a mile and a half distant from the Marvali hill and leading to Shikarpur in Maisur. Of three systems of railways, the East Deccan or Hotgi-Gadag, the South Deccan or Belári-Marmagaon, and the West Deccan or Poona-Londa railways which are being introduced into the Southern Marátha Country or Bombay Karnátak, Dhárwár has two sections, one a small length of about twenty miles of the East Deccan line between Malapur and Gadag, and the other a length of about ninety miles of the South Deccan between Harlápur from Belári and Alnavar where the South Deccan line enters the Belgaum district. After crossing the Malprabha river the East Deccan line runs for some distance in native territory, entering Dhárwár at Malápur 154 miles south of Hotgi Junction. Thence it runs almost south keeping to the watershed that separates the valleys of the Bennihali and The whole line passes through the rich black cotton soil of the Dhárwár plain, and as the watershed is wide, flat, and straight, the work of construction is easy. The line passes Hombal station at 163} miles, and thence curving slightly eastwards, it joins the South Deccan line at Gadag 1731 miles south of Hotgi and ninety-The ruling gradient is one in 100 and the three west of Belári. limiting curve 2000 feet radius. The estimated cost is about £7200

The Virápur pass, about eight miles west of Mundargi in Gadag, is crossed by wheeled carriages and is used for local traffic from the

RAILWAYS.

The South Deccan section enters Dhárwár a little east of the

(Rs. 72,000) a mile. This section of the line has no works calling for remark. The only stations are third class, at Alur 1431 miles,

at Malapur 154 miles, and at Hombal 1633 miles.1

¹ The mileages on the East Deccan are from Hotgi junction unless otherwise stated.

Trade.
RAILWAYS.

village of Harlápur, and, running almost due east, reaches Gadag the junction of the South and East Deccan sections ninety-three miles west of Belári and 1731 south of Hotgi. From Gadag the line passes almost straight through Annigeri to Dundur, 117 miles on the Benni river. It then makes a wide sweep south-westward to reach Hubli, 1293 miles, and then turning north runs to Dhárwár. 142½ miles. After leaving Dhárwár, as it draws near the Sahyádrıs. it begins to wind, and passing Mugad and Kambarganvi enters Kánara at Alnavar 165½ miles. For ninety-three miles from Belári to Gadag the cost is estimated at about £6230 (Rs. 62,300) a mile, and for about 106 miles from Gadag to Deuli at 199 miles the cost is estimated at about £8990 (Rs. 89,900) a mile. The chief bridge is the Bennihalli 116 miles, which has five 100 feet girder openings and is estimated to cost about £15,000 (Rs. 1,50,000). The other bridges though numerous are small. Except Gadag junction, which is a second class, all the stations are third class. Their positions are Harlápur 81½ miles from Belári, Gadag 93, Annigeri 107¼, Dundur 117, Hubli 1294, Dhárwar 1421, Mugad 1511, Kambarganvi $158\frac{1}{4}$, and Alnavar $165\frac{1}{2}$.

Besides the East Deccan and South Deccan railways a line from Hubli south to the important town of Harihar on the Tungbhadra river is in process of survey. As the exact emplacement of this line has not been settled in length, the following remarks are subject to modification. The proposed extension is about eighty miles of which the first sixty-seven miles are estimated to cost about £6200 (Rs. 62,000) a mile. The limiting gradient is one in 100 and the limiting radius of curvature 1200 feet. The proposed extension leaves the Belári-Marmagaon main line about 1½ miles east of Hubli and runs south-east to Kundgol nine miles from the junction. From Kundgol it passes direct to Saonshi village fourteen miles, and then, running along a watershed, reaches at twenty-one miles the village of Gudagiri. Close to this village is the highest point on the extension, the line being more than 100 feet above rail level at Hubli. twenty-four miles is the village of Kalas. Up to this point all the ground passed over is black soil yielding rich crops of cotton, millet, and wheat. At Kalas it changes to a red and stony though not a barren soil. The line then falls rapidly till the main road joining the important villages of Sávanur and Lakshmeshvar is crossed at Yelligi, Lakshmeshvar being about eight miles to the east and Savanur about five miles to the west. From Yelligi the line runs almost due south, and again passing into black cotton soil crosses the Vardha near the village of Kolur and runs forty-five miles to the village of Háveri. After this it again turns south-east, and twice crossing the main Poona-Harihar road it rises till it reaches the plateau on which is the village of Byádgi fifty-six miles. Here it turns still further east, and passing through a low range of heights composed of amorphous iron stone, and crossing the Poona-Harihar main road at fifty-nine miles runs sixty-six miles close to the east of the town of Ránebennur, with about 12,000 people and an important trade. Still further south the line

crosses a range of hills nine miles south of Ránebennur and passing the village of Chelgiri seventy-three miles, it strikes the banks of the Tungbhadra seventy-nine inles at a point about 1½ miles east of Harihar. The Tungbhadra at this place is said to require about 1000 feet of waterway. Stations are proposed at Kundgol nine miles, Saonshi fourteen miles, Gudagiri twenty-one miles, Yelligi 27½ miles, Hatimatur 33¾ miles, Háveri 45 miles, Byádgi 55 miles, Ráuebennur 66 miles, Chelgiri 74 miles, and Harihar 80½ miles. The chief trade centres passed are Kundgol, Saonshi, Gudagiri, Kalas, Hatimatur, Háveri, Byádgi, Ránebennur, and Harihar. The prospects of this line are said to be bright. The people of the rich country it will traverse are reported to be most eager for its construction, and that the stations should be near their villages, a point of first rate importance which is too often overlooked.

On the roads within Dhárwár limits are twenty-two toll bars. In 1884-85 the twenty-two toll bars sold for £8753 (Rs. 87,530) against £6117 (Rs. 61,170) in 1883-84. Of the twenty-two tolls twelve are provincial and ten local fund. Of the twelve provincial tolls six are on the Poona-Harihar road at Heggeri, Unkal, Tirmalkop, Konimelihalli, Motebennur, and Kodiyál; four are on the Kárwár-Belári road at Bardanhal, Shirguppi, Gadag, and Galginkatti; one is on the Hávnur-Samasgi road at Basápur; and one is on the Dhárwár-Tinái pass road at Mugod. Of the ten local fund tolls three are on the Harihar-Samasgi road at Samasgi, Tilvalli, and Bhogávi; two are on the Tadas-Gondi road at Hosur and Malligar; and one each is on the Pála-Bádámi road at Bankápur, on the Kittur-Alagvádi road at Tadkod, on the Dhárwár-Haliyál road at Saptápur, on the Dhárwár Kalghatgi road at Kanvi-Honápur, and on the Hirekerur-Holbikond road at Holbikond. - Of these twenty-two tolls the toll at Heggeri fetched £460 in 1884, 85, at Unkal £680, at Tirmalkop £1200, at Konimelihallı £500, at Motebennur £370, at Kodiyál £510, at Barounhal £893, at Shirguppi £700, at Gadag £550, at Galginkatti £693, at Basápur £47, at Mugud £120, at Samasgi £301, at Tilvalli £50, at Bhogávi £14, at Hosur £91, at Malligar £210, at Bankápur £151, at Tadkod £150, at Saptápur £572, at Kanvi-Honápur £171, and at Holbikond £320. Except at Tilvalli, Hosur, Malligar, and Bankápur where half rates are charged, the tolls charged are for every four-wheeled carriage 1s. (8 as.), for every two-wheeled carriage drawn by one animal 3d.(2 as.), for every two-wheeled cart or carriage 6d. (4 as.) if drawn by two animals and laden and 3d. (2 as.) if unladen, 9d. (6 as.) if drawn by four animals and laden and 41d. (3 as.) if unladen, 1s. (8 as.) if drawn by six animals and laden and 6d. (4 as.) if unladen, 2s. (Re. 1) if drawn by eight or more animals and laden and 1s. (8 as.) if unladen, 2s. (Re. 1) for every elephant, $\frac{3}{4}d$, ($\frac{1}{2}$ a.) for every camel horse pony mule buffalo and bullock whether laden or unladen, $\frac{3}{8}d$. ($\frac{1}{4}a$.) for every ass laden or unladen; $\frac{1}{8}d$. ($\frac{1}{12}a$.) for every sheep goat and pig; 6d. (4 as.) for every palanquin or other litter whether carried by four or more bearers, and 3d. (2 as.) for every small litter carried by less than four bearers.

The chief bridge in the district is on the Poona-Harihar road over the Vardha river on the borders of Bankapur and Karajgi. It is

1 Distances on the southern extension are counted from Hubbi Junction.

Chapter VI. Trade.

RAILWAYS.

Tolls.

BRIDGES.

Chapter VI.

entirely of masonry, consists of seven spans each fifty feet wide, and was built at a cost of £12,937 (Rs. 1,29,370). At Harihar within Maisur limits there is a large masonry bridge over the Tungbhadra on the southern border of Ránebennur. It has fourteen spans of sixty feet each with stone piers and a brick superstructure.

REST-HOUSES.

For the use of European travellers Dhárwár has fourteen district and nine travellers' bungalows and for the use of native travellers it has thirty-six rest-houses. Of the fourteen district and nine travellers' bungalows five travellers' and three district bungalows are on the Poona-Harihar road, at Tegur at 247 miles from Poona a travellers' bungalow, at Dhárwár at 261 miles a travellers' bungalow, at Hubli at 274 miles a travellers' and a district bungalow, at Tirmalkop at 287 miles a travellers' bungalow. at Shiggaon at 301 miles a travellers' bungalow, at Motebennur at 327 miles a travellers' bungalow, and at Ránebennur at 310 miles a district bungalow; besides the two bungalows mentioned on the Poona-Harihar road at Hubli, three travellers' and two district bungalows are on the Kárwár-Belári road, at Dastikop at eighty-seven miles from Kárwár a travellers' bungalow, at Annigeri at 123 miles a travellers' bungalow, at Gadag at 136 miles a district bungalow, at Dambal at 149 miles a district bungalow, and at Hesrur at 165 miles a travellers' bungalow; two bungalows are on the Hubli-Sholapur road, at Tirlapur at sixteen miles north of Hubli a travellers' bungalow, and at Nadgund at thirty-two miles a district bungalow; two district bungalows are on the Navalgund. Ron road at Navalgund and Ron; and of the remaining six district bungalows one each is at Gadag in Dhárwár on the old Poona-Harihar road, at Kusugal in Hubli, at Jugalgi and Tadas in Bankapur, at Devgiri in Karajgi, and at Hángal. Of the thirty-nine rest-houses nine are on the Poona-Harihar road at Dhárwar, Hubli, Miniramankop, Tirmalkop, Shiggaon, Konimelehalli, Háveri, Motebennur, and Ránebennur; eight are on the Kárwár-Belári road at Devikop, Kalghatgi, Nalavadi, Hulkoti, Gadag, Dambal, Mundargi, and Hesrur; five are on the Hubli-Sholapur road at Behatti, Tirlapur, Alagvadi, Nadgund, and Konnur; three are on the Tadas-Gondi road at Tadas, Dhundshi, and Hángal; and two are on the Harihar-Samasgi road at Tirvalli and Havasbhávi. Of the remaining twelve rest-houses four are in Dhárwár at Niralgi, Bandur, Padmangatti. and Hebli; one in Navalgund, at Navalgund; two in Ron at Ron and Yaongal; one in Hubli at Hebsur, one in Bankápur at Bankápur; one in Kod at Hirekerur; and two in Ránebennur at Halgheti and Byádgi.

FERRIES.

Of thirty-one ferries, all of which ply only during the rains, that is from June to October or November, twelve are across the Tungbhadra, six in Ránebennur, one each at Kusgatti, Mudenur, Airani, Hirebidri, Medleri, and Chandápur; two in Karajgi, one each at Harlahalli and Hávnur; and four in Gadag, one each at Gumgol, Shingtalur, Korlahalli, and Hesrur: fifteen are across the Vardha, seven in Hángal, one each at Gondi, Honkan, Malgund, Havangi, Ballambid, Adur, and Kudla; and eight in Karajgi, one each at Sangur, Devgiri, Kalsur, Karajgi, Hossahitti, Akur,

Marol, and Belvagi: three are across the Kumadvati, two in Kod. one each at Masur and Ratihalli, and one in Ránebennur at Kupelur: and one is across the Malprabha at Konnur in Navalgund. Of the thirty-one ferries, two, one at Konnur on the Malprabha and the other at Hesrur on the Tungbhadra, are provided with double ferry boats and a third at Karajgi on the Vardha has a single ferry boat. The remaining twenty-eight ferries are provided with leather covered bamboo baskets. The ferry boats, which are twenty-five feet long eight broad and three deep, carry fifty passengers or four laden carts, or 5000 pounds weight. The coracles or basketboats, which are made of split bamboos covered with half-dressed hides, are twelve to fifteen feet in diameter and three deep and do not cost more than £10 (Rs. 100) each. In making these basket-boats a number of pieces of split bamboos, perhaps twenty in all, are laid on the ground crossing each other near the centre, and fastened at the centre with thongs; the ends of the bamboos are raised and fixed by stakes at due distances from each other and are there bound by other long slips of bamboo introduced alternately over and under the first crossed pieces, and tied at the intersections. When this is done, beginning from the bottom or centre, the parts above the intended height or depth of the baskets are cut off, and it is freed from the stakes, overset and covered with hides sewed together by thongs. When bullocks have to cross they are tied to the basket, goaded in the proper direction, and help to tow the boat At other times the basket is rowed over with paddles, or, when the water is not too deep, is pushed with bamboo poles. the rains the Tungbhadra is very rapid, and if there has been a great fall of water to the north and west, the baskets have much difficulty in crossing. They sometimes take an hour though the distance is not seven hundred yards. The ferries are divided into four classes according to the number of times the boats can cross and recross the river in one day of fourteen hours. If a boat cannot make more than six trips across and back in a day, the ferry falls under the first class; if it can make seven to ten trips the ferry falls under the second class; if eleven to fifteen it falls under the third class; and if more than fifteen it falls under the fourth class. The fees charged for laden carts are 1s. (8 as.) in first class ferries, 9d. (6 as.) in second class, 6d. (4 as.) in third class, and 41d. (3 as.) in fourth class ferries. For unladen carts the charge is $7\frac{1}{2}d$. (5 as.) in first class, 6d. (4 as.) in second class, 41d. (3 as.) in third class, and 3d. (2 as.) in fourth class ferries. For laden ponies, mules, and horned cattle, as well as for horses both laden and unladen, the charge is 4½d. (3 as.) in first class, 3d. (2 as.) in second class, and $1\frac{1}{2}d$. (1 a.) in third and fourth class ferries. For passengers, other than children who are allowed a free passage, the charge is $1\frac{1}{2}d$. (1 a.) in first class, $\frac{3}{4}d$. (1/4 a.) in second class, and 3/d. (1/4 a.) in third and fourth class ferries. In 1883-84 the ferry revenue amounted to £409 (Rs. 4090) against £272 (Rs. 2720) in 1882-83.

Dhárwár forms part of the Kánara postal division. Of forty-nine post offices one is a disbursing office, two are town sub-offices,

Chapter VI.
Trade.
FERRIES.

POST OFFICES.

Chapter VI.
Trade.
Post Offices.

twenty-eight are sub-offices, and eighteen are village offices. Of the twenty-eight sub-offices and eighteen village offices twenty-five sub-offices and seventeen village offices are within British limits and three sub-offices and one village office lie in the Bombay Karnátak states. The disbursing office at Dhárwár is in charge of a postmaster who draws a yearly salary of £120 (Rs. 1200). The two sub-offices at Dhárwár and Betgeri, the twenty-five sub-offices within British limits at Amingeri, Bankapur, Byadgi, Dambal, Dhundshi, Gadag, Garag, Gudgeri, Hangal, Haveri, Hebli, Hire-Kerur, Hubli, Kalghatgi, Karajgi, Mushrikot, Mugud, Mundargi, Nargund, Navalgund, Ránebennur, Ron, Sávanur, Shiggaon, and Tumminkatti, and the three sub-offices in the Bombay Karnátak states at Kundgol, Lakshmeshvar, and Shirhatti, are in charge of sub-postmasters, drawing £12 to £60 (Rs. 120-600) a year. ()f the eighteen village post-offices the seventeen within British limits are at Abbigeri, Agadi, Alur, Arlikatti, Bammanhalli, Guttal, Halgeri, Hulkoti, Kupelur, Kurtakoti, Mahárájpeth, Motebennur, Mulgund, Narendra, Tadkod, Tadas, and Uppin-Betgeri, and one in the Bombay Karnátak states is at Dodvad. Of these eighteen village post offices seventeen are in charge of village schoolmasters who receive, in addition to their pay as schoolmasters, yearly allowances varying from £3 12s. to £7 4s. (Rs. 36-72), and the remaining one is in charge of a local resident who is paid a yearly allowance of £3 12s. (Rs. 36). In towns and villages which have post offices, letters are delivered by twenty-one postmen, of whom two draw yearly salaries of £12 (Rs. 120) and the remaining nineteen of £9 12s. (Rs. 96). In some of these villages, besides by the twenty-one postmen, letters are also delivered by postal runners who receive yearly £2 8s. (Rs. 21) for this additional work. In small villages without post offices, letters are delivered by forty-four postmen these, thirteen are paid yearly from £9 12s. to £12 (Rs. 96-120) from the Imperial post, and the remaining thirty-one are paid yearly from £10 16s. to £12 (Rs. 108-120) from the Provincial post. Except at all the village offices and the seven sub-offices at Byádgi, Dambal, Dhundshi, Garag, Hebli, Mugud, and Tumminkatti where money orders only are issued, money orders are issued and savings banked at all the post offices of the district. Mails to and from Bombay are carried by the Great Indian Peninsula Railway between Bombay and Poona; the mails between Poona and Dharwar are carried in pony carts or tonga dáks, which run from Poona to Hubli through Sátára, Kolhápur, Belgaum, and Dhárwár. The post offices are supervised by the superintendent of post offices, Kánara division, who has a yearly salary of £360 (Rs. 3600) rising to £480 (Rs. 4800) in five years. The superintendent is assisted in Dhárwár by an inspector who draws £96 (Rs. 960) a year and whose head-quarters are at Shiggaon.

TELEGRAPH.

There are three telegraph offices at Hubli, Dhárwár, and Gadag. Since the beginning of British rule in 1817 the making of good

¹ Trade and Craft details are chicfly compiled from material's supplied by Rav Bahadur Tirmalrav Venkatesh.

trunk and local roads, the opening of the south-eastern branch of the Peninsula railway, and the regular service of steamers along the western coast have caused a great change in the trade system of Dhárwár. Direct trade with Bársi and Vairág in Sholapur, Umrávati in Berár, Hamnabad near Bedur in the Nizám's territory and other places on the north and east, and with Rajapur on the Ratnagiri coast has ceased. Except in rural parts where there are no made roads head-loads, bamboo-loads, pack-bullocks, and horses are no longer used. In the trade which sets north and east all imports, consisting of European woollen printed and plain cloths, yarn, silk, stationery, hardware, musk, saffron, and sugarcandy from Bombay; silk and cotton cloths from Nágpur and Paithan on the Godávari; lace cloths from Benares; plain and lace-bordered headscarves and coloured women's robes from Rájmandri, Nellur, Guntur, and Tádpatri; and lamp glass to make bangles from Belári come by rail as far as Sholápur or Belári, and from Sholápur and Belári are brought into the district by carts, or on ponies. Similarly, of late years, the copper and brass vessels of Hubli, the cardamoms pepper and cocoanuts of Kanara, and the millet, sugarcane, molasses, cotton, and cotton robes and silks of Betgeri, Byádgi, Dhárwár, Dhundshi, Gadag, Hubli, Mundargi, Navalgund, Ránebennur, and Ron pass east to Belári; and the cotton robes and blankets of Gadag, Hubli, and Ránebennur, and the cardamoms pepper and cocoanuts of Kánara pass north-east to Sholápur. Again between October and May cotton goods, yarn, silk, hardware, opium, liquor, and other stores from Bombay are brought by steamers and sailing vessels to Kárwár and Kumta in Kánara, and from Kárwár and Kumta travel east in carts by the A'rbail and Devimani passes. Similarly, of the exports that go to Bombay by Kárwár and Kumta, the chief are cotton, wheat, bájri, clarified butter, molasses, linseed, sesamum, and occasionally coarse waistcloths and women's robes; and, besides these, of other articles that go to smaller ports between Bombay and Manglor, the chief are cotton seeds, oilcakes, onions, garlic, chillies, pepper, cardamoms, and myrobalans.

The leading traders are Lingáyats, Bráhmans, and Musalmáns. Of these the Lingáyats are by far the largest class, and the Musalmáns are few and seldom rich. At Gadag and other places in the east of the district there are a few Márwár Vánis. At Hubli and Gadag two European firms Messrs. Robertson Brothers and Company and Messrs. P. Chrystal and Company trade in cotton oilseed myrobalans and wheat. Except the ironware trade, which is generally in the hands of Gujarát Bohorás and of local Musalmáns, and the trade in leather which is carried on solely by Musalmans and lowcaste Hindus, the different branches of trade are open to all. In the 1876-77 famine, when other trade was at a stand, moneylenders, clothmerchants, cotton-brokers, and dealers of all kinds imported grain. Of large traders who have a capital of £20,000 (Rs. 2,00,000) and upwards, there are not more than two houses: One at Gadag belongs to the Gujar trader Venkatidas, who, besides lending money and granting bills, trades in cotton, and the other at Ránebennur belongs to Bráhman traders, Gopál and Shrinvas Náik, who, besides lending money, trade largely in cotton, Europe and Bombay machine-spun

Chapter VI.
Trade.
TRADE.

TRADERS.

Trade.
Trades

varn. silk, cotton waistcloths and women's robes, indigo, and Maisur bullocks and cows. Of grain dealers few, perhaps not more than ten, have a capital of more than £5000 (Rs. 50,000). The European firms at Hubli and Gadag, which have been established within the last thirty years, have as much as £10,000 (Rs. 1,00,000). In addition to their regular business traders employ their capital in moneylending. The leading Hubli merchants trade on their own account and with their own capital, in the cotton season (October-May) supplementing their capital by borrowing from the Hubli branch of the Bank of Bombay. The same traders carry on both an import and an export trade. They have generally agents or corresponding houses at Bombay, Poona, Sátára, Ahmadnagar, at Bársi Sholápur and Vairág in Sholápur, at Rájápur and Vengurla in Ratnágiri, at Kumta and Kárwár in Kánara, at Hamnabad in the Nizám's country, at Bangalur in Maisur, and at Belári Salem Some of the largest deal direct with and Tádpatri in Madras. Bombay and other leading markets, Poona, Sholapur, Kumta, Belari, Bangalur, and Mánglor, exporting cotton and importing sugar and hardware, cotton goods, and other articles of European manufacture. Except cotton sales between local dealers and Bombay firms, which are negotiated by bills, almost all purchases are paid in silver.

TRADING COMPANIES.

At present (1883) Dhárwár has two trading joint stock companies in the towns of Dhárwár and Hubli. In April 1876 a joint stock company, chiefly for the export and import of cloth, under the name of the Dhárwár Company, was started at Dhárwár by a few traders, with a capital of £1187 10s. (Rs. 11,875) divided into 475 shares of £2 10s. (Rs. 25) each. Since 1876 the company has increased the number of its shares to 1600, making a capital of £4000 (Rs. 40,000). Up to the end of 1883, of the 1600 shares 1282 equal to a capital of £3205 (Rs. 32,050) have been taken by 143 persons, of whom 132 are Brahmans, five Lingáyats, three Komtis, one a Mudliyar, one a tailor, and one a shepherd. Of these 143 persons eighty-five are Government servants, fifteen students, thirteen traders, eight men of means, seven landholders, five pleaders, four Government pensioners, four Bráhman priests, one editor of a native newspaper, and one The object of the company has been to import cloth from Bombay, Poona, Ahmadabad, Benares, Belári, and Bangalur. The chief cloths imported are from Bombay, European cotton plain and prints, broadcloth, silk, and waistcloths and women's robes; from Poona and Sátára, Nágpur, Yevla, and Poona-made lacebordered and plain silk waistcloths and women's robes, and silk borders called dáls to be sewn to plain cotton cloths; from Benares and Ahmadabad, lace robes, gold lace cloth, and lace; from Belári and Tádpatri, headscarves and turbans; and from Bangalur, lacebordered head and shoulder scarves, waistcloths, and women's robes, and nimbávali pattalas or bright yellow female robes and bodicecloths, both with bugdi borders that is with one plain and two ornamental stripes. Besides these, from Shahapur in Belgaum, and Guledgud in Bijápur, waistcloths, women's robes, and bodicecloths are also brought. The nimbávali pattalas from Bangalur and the bodicecloths from Guledgud, which are the best of their kind, are in great local demand. In addition to the cost of carriage to

Dhárwár and Hublí, the company sell their stock at a net profit of 61 per cent on the original purchase. The company also buy the produce of local hand looms and towels and thick cloths made in the Dhárwár jail, and send them to order to Belári, Belgaum, Bombay, and Poona. On the 31st of August of every year the company balance their accounts, and out of the net profits, after deducting the cost of establishment and carriage, they leave aside one to five per cent for charity, and five per cent for the reserve fund; and the rest they declare as dividends. During the eight years ending 1883 the yearly dividends declared by the Dhárwár cloth company have varied from fifteen per cent in 1878 to six per cent in 1882, the details being 91 per cent in 1876, twelve in 1877, fifteen in 1878, eleven and quarter in 1879, nine in 1880 and 1881, six in 1882, and eight and quarter in 1883. Since 1877 a branch of the Dhárwár company has been opened in Hubli, the accounts of which are included in those of the head office at Dharwar. managing body of the company consists of four directors and two agents, one of whom lives at Dhárwár and the other at Hubli. The conditions of the Dhárwár company are that no sharer can withdraw his capital, within two years from the date of his taking the shares; and that he must give notice of withdrawal two months before the 31st of August, when the accounts of the company are balanced. that case he will get his capital together with his dividend, after the general committee has held its meeting. If he wishes to withdraw his money before the closing of accounts on the 31st of August, he will get it back, two months after the date of his notice; but without his portion of the dividend and minus 2s. (Re. 1) for each share. If a sharer takes up a share before the 5th of a month, he will get his share of the dividend for that month; but if he takes it up after the 5th, he will get no dividend for that month. In the beginning of 1878, a rival Hubli cloth company was formed with a nominal capital of £4000 (Rs. 40,000) divided into 200 shares of £20 (Rs. 200) each. Up to the end of 1883, of the 200 shares 110 equal to a capital of £2200 (Rs. 22,000) have been taken by fifty-four persons of whom twenty-five are Brahmans, twenty-four Lingayats, two Jains, one a Raddi, one a Musalmán, and one a Marátha. Of these fifty-four shareholders, forty are traders, eight Government servants, three pleaders, two landholders, and one a person of means. The business and imports of the Hubli company differ little from those of the Dhárwár Company except that the Hubb Company also import Europe and Bombay machine-made yarn from Bombay and sugar from Bangalur. On the 31st of December of every year the company balance their accounts, and out of the net profits, after deducting the cost of establishment and carriage, they leave aside one per cent for charity and ten per cent for the reserve fund; and the rest they give as dividends to the shareholders. During the six years ending 1883 the yearly dividends declared by the Hubli company varied from twelve per cent in 1879 to nothing in 1882. The details being ten per cent in 1873, twelve in 1879, seven and half in 1880, nine in 1881, nothing in 1882, and eight and half in 1883. As the company suffered a heavy loss in one transaction, no dividends were declared for 1882. The conditions of the Hubli

Chapter VI.
Trade.
TRADING
COMPANIES.

Chapter VI.
Trade.

TRADE CENTRES.

company are that no shareholder can withdraw his capital invested in the company's shares. If he wants money, he must sell the shares privately.

Of the ten chief trade centres five are both wholesale and retail and five are exclusively wholesale or padmuli (K.) centres. The five wholesale and retail trade centres are Hubli and Dhárwár in the west, Navalgund in the north, Gadag in the east, and Ránebennur in the south. The padmuli or wholesale trade centres are Mundargi in Gadag, Byádgi in Ránebennur, Háveri in Karajgi, Dhundshi in Bankápur, and Nadgund in Navalgund. Of the five wholesale and retail trade centres Hubli and Gadag are the most important.

Hubli,

Before the Kánaresecountry was divided into Dhárwár and Belganm and before the Belgaum-Vengurla road was made, Hubli was the greatest trade centre in the Kánarese districts. At present (1883) Hubli comes next to Belgaum. Hubli has about 700 traders mostly Lingávats, Jains, Komtis, Bráhmans, Gujarát and Márwár Vánis, Devangs, and Musalmans. Of these about 300 have capitals of £500 to £10,000 (Rs. 5000-Rs. 1,00,000). Almost all are independent The chief articles of local growth are wheat, millet, traders. pulse, sesamum seed, and other grains, and cotton, molasses, and of hand-woven cotton cloth, coarse and fine waistcloths, and women's robes, hachadas or coarse long cloths, silk cloths with or without lace borders, valli or children's scarves, carpets, and blankets. The chief imports are, English and Bombay machine-spun yarn, China silk, musk, saffron, and kerosine oil from Bombay in the north, chiefly by Kumta and Kárwár: turmeric, mill-drawn castor oil, headscarves, chintz, and ouminseed from Belári in the east; cocoanuts, cocoa kernel, hemp, sugar, and blankets from Dhávangeri in Maisur; molasses, sugar, red sugar called maktumisakri, and chillies from Shimoga in Maisur; and betelnuts, cardamoms, pepper, and sandalwood from Kanara. The chief exports are, cotton, oilseed, handwoven cloth, tamarind, sweet oil, cotton seed, onions, and horns and hides, some passing east by rail from Belári to Madras and Haidarabad and others passing west by sea from Kárwár and Kumta to Bombay. At Hubli a market is held on Saturday.

Gadag.

Gadag has nine large traders with capitals of £500 to £20,000 (Rs. 5000 - Rs. 2,00,000). Of these two are Europeans, six are Lingáyats, and one is a Gujarát Váni. They are all independent traders. The chief export is cotton by rail from Belári and by sea from Kárwár and Kumta to Bombay. The chief imports are, cloth, cotton yarn, and silk. During the last twenty years the greatest change has been the fall in the value of the export trade in raw cotton. At Gadag a market is held every Saturday.

Byádgi and Mundargi, Of the wholesale or padmuli (K.) centres, Byangi lies close to Maisur on the south and to Kanara on the west. On every Saturday and Sunday when markets are held, Maisur and Kanara traders and husbandmen bring large quantities of rice, millet, wheat, pulse, molasses, sugar, chillies, betelnuts, cocoanuts and cocoa-kernels, and cocoa-oil, and sell them wholesale to traders who come to Byangi from Dharwar, Hubli, and other parts of Dharwar, as well as from Belari and Bagalkot. In the same way, at Mundargi,

which lies close to Belári and the Nizám's dominions, and where markets are held every Tuesday and Wednesday, traders and husbandmen from Belári and the Nizám's country sell the same goods wholesale to traders who come to Mundargi from Dhárwár, Hubli, and other parts of Dhárwár, as well as from Shimoga, Dhávangeri, and Chitaldurg in Maisur and from Sirsi in North Kánara. These purchasers retail the goods on their way home and in their villages.

HAVERI, sixty miles south of Dhárwár, has about twenty-five traders with a capital of £100 to £5000 (Rs. 1000-Rs. 50,000). of the traders are Lingáyats and a few are Jains and Bráhmans. Of the twenty-five traders four, two Lingavats one Jain and one Bráhman, have capitals of £1000 to £5000 (Rs. 10,000-Rs. 50,000); the res have capitals of £100 to £500 (Rs. 1000-Rs. 5000). Háveri is the hief wholesale or padmuli trade centre for cardamoms, betelnu.'s, and pepper. These articles come in large quantities from Maisur and Kanara and are either exported in bags direct to, or sold to agents of, Belári, Haidarabad, Bangalur, Poona, and Bombay merchants. Every year between the months of Ashvin and Vaishákh (October-May), Lingávat and Havig or North Kánara Bráhman husbandmen bring to Háveri in strong hemp-fibre bags about twelve tons (1000 mans) of cardamom berries, which the Lingayat Gujaráti and Márwári traders from Sholápur and Hamuabad and local Lingayat traders buy at £8 to £10 (Rs. 80-100) the man of twentyfive pounds When cardamom berries are brought from the Kanara and Maisur forests they are small and dirty; at Haveri the traders add to their appearance and their size by scraping cleaning and soaking them. The berries are first washed in a solution of the water of a particular brackish well at Háveri and a few soapnuts and sikikais the unripe acid fruit of the Mimosa abstergens; they are again washed in the brackish water and country soap and spread on a mat to dry. During the night plain water is sprinkled on them, and the next day, after drying them in the sun, they are tied for four or five hours in blankets. Hundreds of women, mostly Lingáyats and a few Maráthás and shepherds, are employed in cutting the edges of the cardamom berries. For this they are paid 11d. the pound (1 a. the sher). In one day a woman cuts about three pounds (6 shers) of cardamom berries. The whole process of cleaning about 200 pounds (8 mans) of berries takes four days for twelve men and costs about 16s. (Rs. 8). In addition to the cleaning, the edge-cutting costs about 10s. (Rs. 5), that is a total outlay of £1 6s. (Rs. 13). The berries are then separated into first, second, third and fourth sorts. Before they are sent out of the district, the berries are filled in bags of strong cotton cloth, each containing about ninety pounds (34 mans). The cotton bags are covered with date-leaf mats and again put into hemp-fibre bags. In these bags cardamoms are sent to Bombay, Poona, Haidarabad, Belári, and

Chapter VI.
Trade.
TRADE CENTRES.

Havers.

¹ The well from which the brackish water for washing the cardamom berries is brought, is fifty-six feet deep, and, in March 1884, contained water to a depth of about twenty-six feet. It hes near the monastery of Sivlingappa in the Navipeth street at Haveri. As the water is saltish it is used only in bathing and washing clothes, and not in drinking.

Chapter VI.
Trade.
TRADE CENTRES.

Háveri.

other places. In 1884 the ruling prices were £18 to £20 (Rs. 180-200) the man of twenty-five pounds for the first sort, £15 to £17 (Rs. 150-170) for the second sort, £12 10s. to £13 (Rs. 125-130) for the third sort, and £10 to £11 (Rs. 100-110) for the fourth sort. Kánara cardamoms are of larger size, but Maisur cardamoms have the stronger flavour. Of late the process of cleaning cardamom berries and cutting their edges has been started at Sirsi. Betelnuts come to Háveri in large quantities from the Kánara and Maisur spice gardens. The Lingáyat Gujaráti and Márwári dealers from Sholapur, Hamnabad, Belari and a few local Lingayat dealers buy the betelnuts at 12s. to 12s. 6d. (Rs. 6-61) the man of twenty-five pounds. The nuts are then handed to Lingáyat, Maráthi and shepherd women who sort them into the four classes of best and middling chikni, and best and middling bhardi. In on day a woman sorts about fifty pounds (2 mans) of betelnuts for 3a (2 as). The dealers then pack the nuts into strong hemp-fibre ba s, each containing 100 to 125 pounds (4-5 mans), and send them to Bombay, Poona, Sholapur, and Hamnabad, where in 1884 they fetched £1 4s. (Rs. 12) the man of twenty-five pounds for the best chikni, 16s. (Rs. 8) for the middling chikni, 12s. (Rs. 6) for the best bhardi, and 10s. (Rs. 5) for the middling bhardi. Taking the four classes together, the dealers get on an average about 15s. 6d. (Rs. 71) the man of twenty-five pounds. Besides these four kinds of betelnuts, five other kinds are sold at Haveri in small quantities, kesrichur, khaddichur, naregal, lavangchur, and battal. When cut into small long pieces of the size of a fine needle, the best chikni betelnut is called kesrichur as it looks as fine as kesar or saffron fibres; when cut into small pieces of the size of a thick needle, it is called khaddichur; and when cut into thin slices like wafers, it is called naregal, that is, the betelnut made at the village of Naregal near Háveri. These three kinds are made to order in small quantities and are presented to friends as a rarity. Of these the kesrichur fetches 2s. 3d. (Rs. $1\frac{1}{8}$) the pound, the khaddichur 1s. $1\frac{1}{2}d$. (9 as.), and the naregal 1s. 6d. (12 as.). When cut into about sixteen long pieces, the bhardi or coarse betelnut is called lavangchur that is of the size of lavang or clove, and fetches $9\frac{1}{2}d$, the pound $(6\frac{1}{2}$ as. the sher). From Tirthahalli and Simoga in Maisur betelnuts cut into two and called battal that is cup-shaped, are brought to Háveri by Havigs and Tulus, and fetch 16s. to 18s. (Rs. 8-9) the man of twenty-five pounds. The lavangchur and battal betelnuts are sent in small quantities to Belári and other parts of Madras. The average yearly export of betelnuts from Háveri is estimated to be worth £10,000 to £12,000 (Rs. 1,00,000 - Rs. 1,20,000). Besides cardamoms and betelnuts large quantities of pepper come to Háveri from the Kánara and Maisur gardens. Unlike cardamoms and betelnuts pepper is neither cleaned nor sorted in Háveri. From Háveri pepper goes east to Belári and Haidarabad, north to Sholapur, and by Belgaum and Vengurla to Bombay. The sales of pepper at Háveri average 300 to 400 pounds and the ordinary price is about 6d. (4 as.) a pound. At Háveri a market is held every Thursday.

Dhundshi.

Within the last twenty years, next to Nadgund, Dhundshi, thirtythree miles south of Dhárwár, was the chief wholesale mart in the district. Since the making of good roads from Kumta and Hubli to Kárwár most of the trade has passed from Dhundshi to Hubli. Dhundshi has about 250 traders, mostly Lingáyats, Jains, and Musalmáns. Of these about six have capitals of £1000 to £5000 (Rs.10,000-Rs.50,000). The larger traders buy betelnuts, cocoanuts, molasses, sugar, red pepper, salt, oil, and tobacco, which are brought for sale by the growers from Maisur and south Dhárwár. These articles the wholesale dealers sell either to small local traders for local use or to traders of Hubli, Navalgund, and Nadgund. None of the Dhundshi traders export directly. Until 1857, when he chief of Nadgund rebelled, Nadgund was the greatest wholele mart in the district. Since 1857 the trade has greatly fallen bugh it still is a small wholesale centre.

resides at the ten chief trade centres, weekly markets are held at alut all towns and large villages where mamlatdars or sub-judges hold hir offices, or which were formerly the head-quarters of the village oups called parganas, mahals, tarfs, or karayats. Except the ten held contres, where the attendance varies from 10,000 at Hubh to 3000 f Haveri, most weekly markets are attended by less than 10 people. Markets are generally held in the middle of the tology village from eight in the morning till five in the evening. The chief article sold are cloth, copper and brass vessels, earthen pots, salt, chill, molasses, sugar, coriander, mustard, cumin, menthia or Greegrass seed, pepper, turmeric, vegetables, lamp-oil, fuel, and dry codung-cakes. The sellers are chiefly shopkeepers of the town of to some extent local growers. The buyers are people of the owns and of the neighbouring villages. There is little barter.

In alm all villages where there are one or more Hindu temples, and inbout one-fourth of the villages where there are one or more moues and tombs, small yearly fairs called jútrás are held to elebrate a festival in honour of a deity or a saint. When a car is drawn the fair is called a teru (K), and when it is held in honour of a Musalmán saint it is called an urus(H). These gatherings are too small to have much trade importance. None of the Dhárwár fairs are on so large a scale as those held at Maheji in Khandesh or at Pandharpur in Sholapur. The three most important fairs are one each at Yemmur in Navalgund, at Gudguddápur in Ránebennur, and at Hulgur in Bankápur. Of these the Yemmur and Hulgur fairs are held in honour of Musalman saints and the Gudguddapur fair in honour of Malhári or Shw. The chief articles sold at these fairs are waisteleths or dhotars, women's robes or sádis, ready-made jackets and trousers, small carpets, copper brass and iron vessels, lamps, small metal boxes, toys, sugar, rice, pulse, sweetmeats, flowers, fruits, country liquor, needles and thread, combs, redpowder, perfumes, false pearls and coral, beads, and matches. The Yemmur fair is held in March, lasts four or five days, and is attended by about 50,000 The estimated value of the goods sold is about £200 (Rs. 2000). The Gudguddápur fair is held in October, lasts for two days, and is attended by about 12,000 people. The estimated value of the goods sold is about £80 (Rs. 800). Between 1834 and 1862 the Hulgur fair was yearly visited by the Nawab of Savanur

Chapter VI.

TRADE CENTRES.

Nadgund.

MARKETS.

FAIRS.

Chapter VI. Trade.

SHOPKEEPERS.

with a strong retinue, and was largely attended by wrestlers, dancing girls, beggars, traders, and others. Since the death of the Nawah in 1862, the Hulgur fair has lost its importance.

Except some villages in the west, almost all large villages have shopkeepers. The village shopkeeper as a rule is a Lingayat; he occasionally is a Jain, a Komti, or a Musalmán. They deal in all groceries, salt, grain, pulses, spices, chillies, tobacco, sugar, molasses. clarified butter or tup, and in the larger villages in cloth; people generally buy cloth and all miscellaneous articles not of daily use either from the head-quarters town of the sub-division or at some market town to which such articles are brought by shopkcepers on market days. The shopkeepers gather their stock-in-trade from Some of it is received in payment of money le various sources. some in return for advances of grain to the poorer husbandmen. some from larger dealers in one or other of the leading trade Lates, such as Hubli, Gadag, and Dhundshi. Village shopkeepers ner huy straight from Bombay. It is usual to pay ready in a frarticles sold, but running accounts, which are generally ade up once a month, are sometimes kept. Only the large-shopkpers remain all the year at a central village; the smaller ones travel all the village markets within a radius of twenty or thirty miles oheir homes.

CARRIERS.

Carriers carry either in carts or on pack-bullo's and ponies. They are Lingáyats, Komtis, Devangs, Kurubars, and de-banajigers. Pack-bullock and pony carriers sell from village village small quantities of tobacco, betelnuts, and other miscellane's articles; in addition to these articles cart-carriers sell grain and clh. Carriers buy their stock from large shops and from the growers

IMPORTS.

The chief Imports are: Of building materials, rafters, pts, small cross rafters, and bamboos are brought from Kánara either byousebuilders or wood-sellers, and nails, screws, and other iron articles." brought from Bombay by Musalmán shopkeepers to the leading local trade centres. In ordinary years little grain is imported. Of metals, gold and silver bars and sheets of copper brass iron and tin are imported from Bombay. Of house furniture, large town traders bring copper and brass pots from Poona Belgaum and Nágpur, and clocks, watches, and glass and Chinaware from Bombay. Of food drink drugs and stimulants, sugar, palm-molasses, turmeric, and cuminseed come from Maisur, cocoanut kernel and oil, betelnuts, cardamoms, and pepper from Kánara and Maisur, and sult from Kánara. Wine is brought from Bombay and sold in small quantity by Pársi shopkeepers. Drugs are brought in small quantities from Bombay; gánja that is hemp flowers and bháng that is hemp leaves are brought from Vairág, Bársi, and Tásgaon by liquor-contractors. comes from Bombay and is sold wholesale at Government treasuries to licensed shopkeepers and by them is retailed to the people. appliances, penknives, pickaxes, and spades are brought from Bombay and Madras. Of dress, mánjarpáts or longcloths, printed cotton cashmere cloth, European and Bombay made piece-goods, cotton and silk lace, and coloured and

¹ Details of these three fairs are given under Places.

uncoloured silk, and steam-spun yarn are brought from Bombay¹; cotton and silk rumáls or headscarves, dhotars or waistcloths, woollen carpets and woollen waistcloths, and red handkerchiefs are brought from Madras; shawls, súdis or women's robes, bodiccoloths, and yellow sheets from Bangalur; turbans from Madura; and fine muslin from Masulipatam. No ornaments are imported. Of dyeing materials indigo comes from Madras. Of toys, cards, chess, marbles, and children's hand-balls are brought from Bombay and Madras. Of fuel firewood is partly brought from the Kánara forests and partly gathered in small quantities from local forests and fields. A few pomes are brought by Pendháris from Pandharpur and a few Arab horses from Bombay; carts and pony carts are made in the district.

Cotton is the most valuable of Dhárwár exports. During the five years ending 1883 the average quantity of cotton which has left the district is about 9500 tons worth £450,000 (Rs. 45 láhhs). whole amount about one-third is saw-ginned Dhárwár or American and two-thirds Kumta or local cotton. According to rough estimates by Bombay merchants and cotton dealers of the American or as it is called saw-ginned Dhárwár received at Bombay, about sixty-eight per cent is (1883) from Dhárwár and the remaining thirty-two per cent from Belgaum, Bijápur, and the Bombay Karnátak states, and of the Kumta or local Karnátak cotton about sixty-eight per cent comes from Belgaum and Bijápur and thirty-two per cent comes from Dhárwár. Since 1854 when Mr. A. C. Brice, the senior partner of Messrs. Brice and Company, started a large cotton business, Dhárwár has had European cotton agents as well as agents of Bombay European houses, who do business with Bombay in full-pressed bales of saw-ginned Dhárwár. The business of native dealers in saw-ginned Dharwar is entirely in bundles or dokras. Almost the whole trade in Kumta or local Dhárwár cotton is in the hands of Bombay native merchants, chiefly Cutch Vániás and Bhátiás and a few Kánarese Bráhmans. Some business is done between Bombay and Dhárwár dealers at the South Konkan ports. There is considerable variety in the arrangements under which cotton is prepared in Dhárwár and sent to market. Many landholders sell their own cotton direct to the exporter. They clean it, pack it in bundles or dokrás of 164 to 196 pounds and sell it to a dealer, who may be either a native or a European and is generally a native. Some, but this practice is becoming less common every year, sell their seed cotton, that is their unginned cotton, to a large merchant, who gins and packs it. In other cases the grower does not sell locally, but gins his cotton, packs it on carts, and takes it to the coast, where he either sells it or ships it through a broker to Bombay. Gin-owners and cotton dealers often make advances to landholders to secure the growing crop of cotton. The landholder agrees to deliver a certain quantity of seed cotton by a certain date. If the quantity falls short, or the crop fails, the landholder has to

Exports.

Cotton.

Chapter VI.
Trade.
IMPORTS.

¹ The term manjarpat is perhaps a corruption of Manchester Peth that is cloth made at Manchester town. The term is now applied to longcloth woven in the Bombay mills. Ráo Bahádur Tírmalráv. According to Molesworth majárpát is a corruption of madarpat that is cloth woven at Madrepollam.

Chapter VI.
Trade.
EXPORTS.
Cotton.

pay interest on the money he has received until he completes the delivery of the cotton agreed on, which is generally in the following season Advances are also occasionally made on the standing crop, the person advancing the money taking all risks. dealer rarely lends money to a landholder on the security of the crop. If he does the landholder pays interest until he has sold his cotton, when he refunds the amount he has borrowed. These arrangements are all carried on under regular bonds. Since the extreme rise in the value of cotton during the American War in 1864-65 the growers have generally been in a position to exact terms which are more in the grower's than in the dealer's favour. In some cases cotton dealers and gin-owners receive advances from wealthy brokers. who have undertaken to supply European houses with cotton at a fixed date. The petty dealer or gin-owner makes over the cotton according to agreement, and the broker sells it to the European firm at the rate agreed on, or, if he has been working with the European merchant's money, he is paid by commission. Agents of Bombay native dealers in the cotton growing districts, partly advance money to the growers and partly buy in the local markets. The chief local cotton markets are Hubli, Gadag, and Dhárwár. The details of the business are carried out by middlemen, who have largely increased in number during the last few years owing to the keener competition among European buyers. Though much sawginned Dhárwár comes to Bombay in full-pressed bales, the difficulty of the land journey forces considerable quantities to be sent in the much lighter and handier bundles or dokrás. As its name shows Kumta in North Kánara was formerly the chief port of shipment for Dhárwár cotton. At present (1884) almost the whole crop of Dhárwár cotton goes to Bombay, about two-thirds going from Kumta and one-third from Kárwár. A little both of saw-ginned Dhárwár and of Kumta cotton, both in steamers and in native boats from Kumta and Kárwár, reaches Bombay in April. But no largo supplies either of saw-ginned Dhárwár or of Kumta are available till about the end of May. So that except in seasons when the rains hold off no large quantities reach Bombay before the beginning of the rains (June 7th-15th). Of saw-ginned Dhárwar, on a rough estimate about § goes by Kumta and § by Kárwár; of Kumta about goes by Kumta, t by Kárwár, and is used locally. Occasionally a little cotton is sent to Madras by Belári. In an ordinary season, under existing conditions that is with good roads but no railways, about § of the saw-ginned Dhárwár and § of the Kumta which is a later crop reach Bombay before the south-west rains. Of the rest, except a little which sometimes goes to Belári either for local use or for Madras, the whole is packed during the rains (June-November) in Dhárwár store-rooms. Of this stored cotton about two-thirds is kept loose, one-third in bundles or dokrás, and little or none in pressed A large quantity of cotton, roughly averaging about 8000 bales, is often kept at Kumta during the rains the amount depending on the date of the break of the monsoon which stops shipping. cording to the state of the Bombay market the supplies which have been kept in Dhárwár stores and godowns during the rains begin to come forward in September and October, getting from Dhárwár to the coast chiefly in October and November and reaching Bombay

as a rule before the close of December. Of the Dhárwár cotton which goes to Bombay by sea about & goes in native boats and & in steamers. In average seasons the whole cotton crop leaves the district by the middle of the following season, that is by about the end of March. The opening of the new lines of railway through Dharwar and to the coast will greatly add to the value of the Dhárwár cotton crop. It will be possible to press and ship considerable quantities from Marmagaon before the close of May and by land to stations on the South East and West Deccan railways during the whole of the rains. Before the opening of the Suez Canal (1869) much saw-ginned Dhárwár went by ship to Liverpool and was forwarded from Laverpool to the continental ports. The chief continental ports which use saw-ginned Dhárwár are Cronstadt, Odessa. Revel, Trieste, and Venice. At present (1884) saw-ginned Dhárwár finds little favour with English spinners, the seed has grown poor and the gins have fallen out of repair. The bulk of what is exported goes to the continent of Europe, but the quantity exported is small. Probably more than half the outturn is used in the Bombay spinning mills where its whiteness makes it valuable for mixing. strong and fairly long staple makes Kumta particulary well suited for spinning the lower counts of yarn up to thirties and for this purpose it is largely used in the Bombay mills. Twenty years ago Kumta cotton was in favour among Lancashire and Glasgow spinners and was largely exported; and were it not grossly adulterated with seed it would still find a ready market in England and on the continent of Europe. Till 1847 cotton was carried to the coast on bullock-back at a cost averaging about 12s. (Rs. 6) for every bullock-load of 250 pounds. Bullock carriage ceased about 1861, when the Dhárwár-Kumta road by the Devimani pass was opened and carts came into general use. At first, owing to the cheapness of grass and grain, the cart hire from Dhárwár to the coast averaged about 12s. (Rs. 6) the khandi of 784 pounds or less than one-third of the old pack-bullock charge. During the American Civil War cart rates ran to £3 to £4 (Rs. 30-40) and even higher. Since 1865, with the increase in the number of carts, the rate has gradually fallen to 16s. (Rs. 8) to Kárwár and £1 (Rs. 10) to Kumta. To this have to be added a cart broker's fee of 3d. (2 as.) and 1s.43.1. (11\frac{1}{4} as.) for tolls. With slight variations 19s. (Rs. 9\frac{1}{2}) may be taken to represent the average cost of carting one khandi of 784 pounds of cotton from the Dhárwár cotton fields to the coast. This is a heavy charge. Taking 30s. a ton of 2240 pounds as the average of the cotton freight by steamers from Bombay to Liverpool during the year 1882, the charge from the Dhárwár cotton fields to the coast is nearly twice as heavy as the charge from Bombay to Liverpool. The cost of freight by phatemari to Bombay is 3s. 3d. (Rs. 15) and by steamer 8s. (Rs. 4) a khandi of 784 pounds that is for phatemaris a third and for steamers four-fifths of the average 1882 steamer freight from Bombay to Liverpool. When cotton is sent in

Chapter VI.
Trade.
Exports.
Cotton.

full-pressed bales, the cost, including the pressing carting and shipping charges, comes to about £20s. 6d. (Rs. 201) a khandi of 784 pounds, 1 or

¹ The details are: Pressing £1; cart hire to Kárwar 12s; freight to Bombay 8s; Kárwár agency 6d.

Trade.
EXPORTS.
Cotton.

about 13.5 per cent of the value of the cotton. If the Dhárwár dealer sends his cotton to Bombay in bundles or dokrás, and it is sold in Bombay at his risk, the cost of bringing it to market comes to about £1 19s. 2d. (Rs. $19\frac{7}{12}$) the *khandi* or 13.05 per cent of the value of the cotton.

During the last fifty-five years Government have made repeated efforts to improve the Dhárwár cotton trade. In 1812 the Madras Government calculated the export cotton trade of Dhárwár and all the adjoining districts, through Kánara to Bombay, at about 1065 bales, probably nags of 300 pounds each. Of these 1065 bundles probably not more than 300 were of Dhárwár growth.2 1829 there was no regular trade in Dhárwár cotton; a few bales were carried by Lamáns or pack-bullock men to the Madras districts for hand loom weaving. Dirt greatly reduced the value of the cotton which found its way by sea to Bombay. Much of this dirt was due to the difficulties of carriage. The cotton was thrown loosely into bags which were carried on bullocks and had to be daily laden and unladen. In crossing streams the cotton was wetted, and, at the daily halt, the pack was rolled into the dust or mud. The damage and loss did not cease when the cotton reached the coast. In the voyage to Bombay it suffered much from salt water, and, till as late as 1840 when the state lapsed to the British, Angria, the chief of Kolába, stopped all cotton boats as they passed, sent officers to board them, and levied a heavy and vexatious toll on their cargo.3 In 1836 some samples of specially cleaned Dhárwár cotton were valued in Bombay at £10 16s. (Rs. 108) the 550 pounds, when ordinary Surats were selling in England at £8 to £9 10s. (Rs. 80-95). The enhanced value of this cotton did not meet the charges for its special cleaning. In England the specially cleaned cotton was valued at 8½d. a pound and the common dirty cotton at $6\frac{1}{2}d$, to 7d, while in Dhárwar the specially cleaned cotton cost £7 10s. (Rs. 75) and the common cotton cost £4 (Rs. 40) the khandi of 784 pounds or a difference of $1\frac{1}{14}d$, the pound. Government did not consider these results promising enough to justify further expenditure on improved methods of cleaning cotton.

From 1842 attempts began to be made to grow American seed cotton. At first from the difficulty of cleaning it and from the want of a market, either in Dhárwár or in Bombay, the native dealers would not touch American seed cotton. Till 1846-47 most of the Dhárwár-American cotton was shipped by Government at their risk. In 1846 native merchants for the first time bought Dhárwár American on their own account. In the same year the Government shipments to England were reported to have left a profit of nearly twenty-three

¹ The details are: Cart hire and tolls to the coast 17s. 6d.; cart broker's fee 3d.; freight to Bombay 3s. 3d.; landing charge $1\frac{1}{2}d$.; wharfage fee $1\frac{1}{2}d$.; weighing charge $1\frac{1}{2}d$.; agent's charge in Bombay 4s. 6d.; agent's charge at the coast $10\frac{1}{2}d$.; buyer's discount at $3\frac{1}{2}$ per cent equals 10s. 6d. when cotton is at £15 (Rs. 150) a khandi; broker's fee in Bombay on sale of the cotton 1s. 6d.; subscription for the Bombay animal home 6d.; subscription for other Bombay charities $\frac{3}{2}d$. When the cotton is shipped at Kumta a fee of $2\frac{3}{4}d$. is levied on every khandi of cotton to support the Kumta temples.

² Walton's Dhárwár Cotton, 3.

³ Walton's Dhárwar Cotton, 16.

per cent. Mr. Mercer, one of the American planters, including packing charges, calculated the cost of sending a Bombay khandi of 784 pounds of cotton from Dhárwár to Bombay at £1 15s. (Rs. 17½), of which no less than £1 (Rs. 10) was the cost of carriage to the coast. The calculation was exclusive of a duty of 6s. (Rs. 3) the khandi which was imposed at the ports, but was remitted on shipments to England. These charges represented about forty-five per cent on the value of the cotton in Dharwar, so that, by the time the cotton was on board ship in Bombay for England, of every £10 (Rs. 100) worth of cotton, at least £6 (Rs. 60) represented the carriage from the fields to the ship. In 1847 the Bombay cotton trade was so sick that, at the request of the leading firms, a commission of ten Government officers and merchants was appointed. The members of the commission were Messrs Glass, Spooner, Inversity, Bowman, Crawford, Smith, Murray, Karsetji Jamsetji and Karsetji Kawasji, to whom was afterwards added Mr. now Sir H. B. E. Frere. Commission made many sound and practical proposals. suggestion of most importance to Dhárwár was that roads should be made from the Dhárwár cotton fields to the coast. One practical result of this recommendation was the order that the making of the road from the Dhárwár cotton districts to Kumta should be at once pressed on and that the road should be made fit for carts throughout its whole length. At this time the Dhárwár cotton is described as moving along on bullocks at one to two miles an hour. The bullocks were loaded and unloaded twice a day, generally near water where their packs were rolled in the mud. During the march each bullock consoled himself by keeping his nose in his leader's pack, and steadily eating the cotton. The loss in weight, which had not been made good by dust, was too often supplied by water and mud at the journey's end. The want of cheap and easy communication with the coast smothered the trade.

About this time the Bombay Government addressed the Bombay Chamber of Commerce in the hope of inducing them to take an active part in the Dhárwár cotten trade, Government stated that the outturn of American cotton was now so large, that they were unable to buy the whole quantity through their own agents; the Government planters had found it necessary to make contracts through native traders. Government also stated that there was enough American seed to sow 100,000 acres, and that the landholders were willing to sow American cotton to any extent, if only they were sure of a market for their produce. To foster the growth of American cotton Government had hitherto undertaken to buy all American cotton grown at £510s. (Rs. 55) a khandi of 784 pounds. Government thought it was time that this cotton buying should pass from them to the Bombay merchants to whom, Government were satisfied. Dhárwár American cotton would prove a profitable investment. reply the Chamber, who expressed much interest in the growth of American cotton, asked that enough of it might be sold in Bombay to determine its value. Sir G. Clerk, then Governor of Bombay, approved of this suggestion and ordered 500 bales to be sold in Bombay on condition that the buyer engaged to ship it to England. In accordance with this arrangement 307 bales of Dhárwár American

Chapter VI.
Trade.
Exports.
Cotton.

Chapter VI.
Trade.
Exports.
Cotton.

were sold by auction in Bombay. Their price averaged £11 6s. (Rs. 113) the Surat khandi when the corresponding price was £10 (Rs. 100) for Surat, £8 14s. (Rs. 87) for Amravati, and £8 10s. (Rs. 85) for Kumta. In 1847 Mr. Mercer, the Dhárwár American planter, visited Manchester and secured a large increase in the demand for Dharwar-American. About this time complaints of the adulterated state of cotton were so loud that in 1851 Government passed a law strengthening the penal provisions of Act III. of 1829 against adulteration. Act III. of 1829 had made the mixing and the selling of mixed cotton penal; Act XV. of 1851 made the holder of mixed cotton, as well as the mixer and seller liable to punishment. The new Act provided that damaged or adulterated cotton should be confiscated and sent to England for sale; and, to encourage detection, the Act laid down that two-thirds of the value of confiscated cotton should be given to the informer. As the new Act was made applicable to the city of Bombay, the agents of Bombay merchants refused to buy damaged or falsely packed cotton, and this refusal had a good effect on up-country dealers. Though the new Act did good serious cause of complaint remained, and the fact that the ports of shipment were under Madras while the cotton-growing districts werein Bombay greatly enhanced the difficulty of preventing fraud. In 1850 the Manchester Mercantile Association sent Mr. A. Mackay to India. to enquire into the causes which prevented the increased growth of cotton in India. He was of opinion that 254,982 acres, the area under cotton during the year 1853-54, was more than could be maintained. In noticing this Captain Anderson, then superintendent of the revenue survey, estimated the cotton land in Government and private or inám villages in Dhárwár at not less than 1,300,000 acres: and experience has since shown that this estimate was correct. Captain Anderson's opinion the two chief difficulties in the way of the successful growth of Dhárwar cotton were the cost of carriage and the late season at which the crop ripened. In 1854 Mr. A. C. Brice, whose firm was backed by the well-known London firm of Messrs. Dunbar and Son, settled in Dhárwár and did a large cotton business. Mr. Brice proposed to Government to provide for the future superintendence of the local saw-gin factory and machines; to improve the different kinds of cotton grown; to improve the sawgin by the introduction of cattle-power; to build half screw-presses in suitable spots in the cotton growing districts; to introduce a better cotton cart; to establish full screw-presses on the coast; and to open a direct cotton trade between England and the Bombay Karnátak. By this time the Dhárwár cotton trade had grown so large, that, according to Mr. Brice's calculation, ginning alone employed not less than 45,000 hands. Ten years later, during the American civil war, the Dharwar cotton trade greatly increased, though fraud and dirt-mixing seriously reduced the value of the cotton. In 1863 and 1864 prices ran so high, that in 1863 in Dhárwár a khandi of cotton was worth £38 (Rs. 380) and in 1864 £46 10s. (Rs. 465). By 1874-75 the Dhárwár cotton trade had still further developed chiefly in consequence of the opening of good roads. Since the American war one notable change in the cotton trade has been the increasing quantity of Kumta which is used in the Bombay mills instead of being sent to

Europe. Of saw-ginned Dhárwár about half goes to Europe from Bombay, and of Kumta about two-thirds stops in Bombay and one-third goes to Europe. Another important change is the decline of about a third in the proportion of American to local cotton, a decline which seems to be chiefly due to the deterioration of the seed, to the failure of the arrangements for keeping the sawgins in repair, and to adulteration. This decline in the proportion of saw-ginned Dhárwár represents a considerable diminution in the whole value of the Dhárwár crop as in Bombay in 1883 a 784 pound khandi of saw-ginned or American was worth about £2 (Rs. 20) more than a khandi of Kumta or local Dhárwár. A third change has been the starting of steam presses and steam ginning factories and a steam spinning mill. Two European firms are (1884) locally engaged in the Dhárwár cotton trade, Messrs. Robertson Brothers and Co. who started in 1864 and Messrs. Chrystal and Co. who started in 1873. During the last four years the condition of the Dharwar cotton trade seems to have been unsatisfactory. Between 1879 and 1883 both kinds of Dhárwár cotton have fallen in money value, and they have also declined in value compared with most other varieties of Bombay cotton and with American cotton. Opinions differ how far this decline in value is due to the withdrawal of Government supervision.1

Of other exports hand-made coarse cotton cloth goes to Kánara, Belári, Kadapa, and the Deccan, and a few women's robes made at Hubli Gadag and Ránebennur and a few silk cloths made at Hubli go to Belgaum and Belári. Cardamoms, betelnuts, and pepper, which come from Kánara and Maisur, are sent to Poona, Sátára, and Bombay in the north, and to Belári, Kadapa, and the Nizám's dominions in the east. Of grain, wheat is sent to Belári and Kadapa, and chena to Kánara, Belári, and Kadapa. Of metal, copper and brass pots are sent from Hubli to Belári, Bangalur, and Belgaum; clarified butter is sent to Bombay in tin kerosine-oil boxes; sesamum-seed, cashewnuts, nutmegs, myrobalans, and marking-nuts are sent to Belári, Kadapa, and the Nizám's dominions; cotton seed, coriander-seed, onions, and garlic are sent to Kánara and Goa. Small quantities of hides and horns are sent by Musalmán traders

Chapter VI.

Miscellaneous Exports,

Trade.
Exports.
Colton.

¹ The details are: According to the Bombay Cotton Report for 1882-83, in the Bombay market saw-ginned Dhárwár averaged about 5½d. the pound in 1879-80, 5½d. in 1880-81, 5d in 1881-82, and 4¾d. in 1882-83; and in the Liverpool market it averaged 6½d. the pound in 1879-80, 5½d. in 1880-81, 5½d. in 1881-82, and 5½d. in 1882-83 In the Bombay market Kumta or local cotton sold for 5½d. the pound in 1879-80, 4¾d in 1880-81, 4¼d. in 1881-82, and 4¾d. in 1882-83; in the Liverpool market Kumta sold for 5¾d. the pound in 1879-80, 4¾d. in 1882-83; in the Liverpool market Kumta sold for 5¾d. the pound in 1879-80, 4¾d. in 1880-81, 4¾d. in 1881-82, and 4¾d. in 1882-83. In November 1879 a khandı of Broach was worth £1 10s. (Ks. 15) more than a khandı of sawginned Dhárwar and £3 to £3 4° (Rs. 30-32) more than a khandı of Kumta; in 1883 Broach was worth £2 10s. (Rs. 25) more than saw-ginned Dhárwar and £4 10s. to £5 (Rs. 45-50) more than Kumta. In November 1879 a khandı of good Dholera was worth 10s. (Rs. 5) more than a khandı of good saw-ginned Dhárwar and £1 10s. (Rs. 15) more than a khandı of Kumta; in December 1883 there was no difference between the value of Dholera and of saw-ginned Dhárwar and a khandı of Dholera was worth £2 (Rs. 20) more than a khandı of Kumta. In 1879 in Liverpool a pound of American Mid Orleans was worth ¼d. more than a pound of good saw-ginned Dhárwar and 1½d. more than a pound of good fair Kumta; in November 1883 a pound of American Mid Orleans was worth 1½d. more than good saw ginned Dhárwar and 1½d. more than good fair Kumta; in November 1883 a pound of American Mid Orleans was worth 1½d. more than good fair Kumta; in November 1883 a pound of American Mid Orleans was worth 1½d. more than good fair Kumta.

Chapter VI. Trade.

EXPORTS.

to Bombay and large quantities are sent to Madras. Hides are cured at Ambur near Madras before they are offered for sale in the Madras market. In Dhárwár the price of a sheep's hide is 1s. 6d. (12 as.), of a goat's hide 1s. 9d. (14 as.), of a bullock's and cow's hide 4s. to 6s. (Rs. 2-3), and of a buffalo's hide 6s. to 8s. (Rs. 3-4). Horns are sold at £23 to £38 the ton (Rs. 3-5 the man). During the last twenty-five years there has been a great increase in the import of Bombay mill made and European yarn, cotton and woollen cloth, penknives, scissors, needles, thread, kerosine-oil, lamps, wax candles, stationery, watches, clocks, boots and shoes, glassware, matches, and intoxicating drinks.

Crafts.

The chief crafts and industries are the ginning pressing and spinning of cotton, the weaving of cotton and silk goods, the weaving of carpets and printed floor-cloths or jájams, the making of caps, the weaving of blankets, the working in gold, silver, copper, brass, iron, tin, stone, earth, wood, and leather, and the making of molasses, sugar, glass bangles, oil, redpowder, and ink. Three crafts have entirely or almost entirely died out, the making of saltpetre, earth-salt, and paper.

GINNING.

One of the chief industries of the district is the ginning of cotton, that is the separating cotton wool from cotton seed. Though the practice is greatly neglected, cotton should be dried before it is ginned. If it is not dried the fibre is stained or otherwise harmed. To dry the cotton it should be spread in the sun and often turned so that every part of it, especially the seed, may be thoroughly dried. Cotton cannot be properly ginned in wet or even in damp weather; a short smart shower unless followed by a steady dry wind will stop cotton ginning for days. Each landholder is careful to put on one side part of his best cotton for This is ginned separately with much more care than what is meant for sale. The quantity set apart for home spinning depends on the number of women in the household and the leisure they have for working the spinning machine. For home spinning the staple is so well cleaned that not a single seed can be found in a dozen pounds. Three machines are used for ginning cotton; the ginning wheel or charka, the foot-roller or hattigudda, and the saw-Of these machines the ginning wheel and the foot-roller are used for Kumta or local cotton only. Except in outlying parts on the borders of Madras and Maisur the ginning wheel or charka is very little used in Dhárwár. It turns out more work than the foot-roller. but does not clean the cotton so well. The foot-roller is a rude primitive machine. Its chief parts are the tevuntigi, that is the threelegged stool on which the ginner sits, worth 6d. (4 as.); the am-kul or flat stone about one foot by six inches and two inches thick worth 3d. (2 as.); the pavuntigis or the two wooden soles for placing under the feet when turning the roller worth 11d. (1a.); and the kuda or iron roller about one foot long and tapering from about half an inch in the middle to a point at the ends. The foot-roller is worked only

¹ From Walton's Dhárwár Cotton in 1877.

² A detailed description of the charka is given in the Belgaum Statistical Account

Chapter VI. Crafts. Ginning.

In using the foot-roller the seed cotton is by women and children. laid in the sun, frequently turned, and when well dried is sharply beaten with a thin bamboo called shedi that it may be as loose as possible for ginning. When a heap of cotton is ready the ginner sits on her three-legged stool. She sets the stone on the ground before her, and, on the stone, lays the iron roller whose ends stand about three inches beyond the sides of the stone. On each end of the roller she sets one of the wooden soles. She leans forward still sitting but partly balancing herself on her feet which she rests on the wooden soles at the ends of the roller. She takes a handful of seed cotton in her right hand and pressing with her feet on the wooden soles moves the roller back and forward on the stone. As the roller moves she drops seed cotton under it and the pressure of the roller on the seed cotton separates the wool from the seed. The seed comes out in front and the wool comes out behind. As the wool comes out the ginner keeps pulling it under her stool with her left hand. Ginners are sometimes paid in kind and sometimes in money. When they are paid in money, the day's earnings range from 3d. to 6d. (2-4 as.). The wages are in proportion to the work done. If cotton owners wish the cotton to be free from seed and dirt for local spinning, the ginner is paid by the amount of seed and dirt she takes out; if the cotton is for export, the ginner is paid by the weight of clean cotton. If honestly worked the foot-roller cleans local cotton better than any other machine. It is the only machine that separates the seed without harming the fibre. At the same time the process is very slow. Only forty-eight pounds of seed cotton are ginned in a day. This slowness is a very serious evil as the local cotton cannot be ginned in time to reach Bombay before the rains, and loses much of its value by being kept for months in damp dirty storehouses. So important an element is the ginning in the preparation of the local cotton that when labour is cheap, the area under local cotton rises, and when labour is dear the area under local cotton falls. American cotton can be ginned by the saw-gin only. Besides some steam gins, which have lately been started in some of the leading centres of the local cotton trade and of which details are given later on, more than a thousand hand-worked saw gins are scattered over the district. dry weather an eighteen saw-gin in proper order cleans about an hundredweight of seed cotton in an hour. But like the foot-roller, a short sharp shower of rain, unless followed by a steady dry wind often stops saw-ginning for days. Though the saw gin is suited only for American cotton, it is often used to gin the local or Kumta staple; this practice is especially common when the local cotton has been dulled or soiled by rain or has been beaten down on the ground. With the foot-roller it is impossible to make damp and dirty local cotton look well, so the holder passes it through a saw gin, which freshens it and brightens it, and also gives the dealer the chance of passing it as saw-ginned American. Saw gins were brought into India as early as 1828. In 1828 one of two Whitney saw-gins sent by the Court of Directors to

¹ The saw-gin is described in the Belgaum Statistical Account.

Chapter VI.
Crafts.
Ginning.

the Bombay Government was forwarded to Dhárwár for trial. Under skilled European control and care the saw-gins at first seemed to work well. At this time the only cotton grown was the local cotton. and, after considerable experience, Dr. Lush, the superintendent of experiments, came to the conclusion that the failures in working the saw-gins were due not to carelessness but to the fact that the saw-gin is not suited to the local cotton. In 1833 Dr. Lush condemned the American Whitney gins. Much time had been lost by assuming that, because the machine did well in America, it must do well in India; a gin was wanted to do for India what the Whitney gin had done for America. On this the Court of Directors offered a £100 (Rs. 1000) prize for the gin best suited to clean Indian cotton. No satisfactory results followed this offer. The introduction of American seed cotton in 1842 gave a fresh importance to sawgins. The local foot-roller could not separate the New Orleans seed from the fibre. Mr. Shaw, the Collector of Dhárwár, was satisfied that American cotton would never be popular until a simple portable gin was introduced. In 1844, with some difficulty, five saw-gins were procured which cleaned 300 to 350 pounds of seed cotton a day. Still the annoyance of carrying their cotton long distances to a gin-house prevented many from growing American cotton. On Mr. Shaw's application Government allowed small gin houses to be started in different places; and on the request of Mr. Mercer the American planter, twenty-four charkás or ginning-wheels were brought from Broach. In the same year a proposal was made to make saw-gins in Dhárwar with materials to be supplied by the Court of Directors. This was the origin of the cotton factory which was established at Kusvugal. Accordingly, in 1845, an indent was sent for 1000 saws, 1200 graters, and 1025 zinc washers. In 1845 twelve saw-gins were at work, of which seven were in the hands of private persons and five were in the hands of Government. The demand was still in excess of the supply; if twenty more saw-gins were available all would be busy. In June 1845 Mr. T. W. Channing, one of the American planters of Kusvugal, expressed the opinion that if a saw-gin could be made cheap enough for the ordinary landholder it would come into general use. In the same letter he obtained leave to make two twenty-five saw-gins at an estimated cost of £19 16s. (Rs. 198). The actual cost proved as low as £14 14s. (Rs. 147), a notable saving from £35 (Rs. 350) the ruling price of an American gin of the same capacity. In October 1846, Captain, afterwards Sir G., Wingate, then superintendent of the revenue survey, had a trial between the new gin and an American gin of the same capacity, and found that the new gin beat the American by twenty-five per cent. Mr. Mercer wrote to Government that as the demand for gins would increase with the spread of American cotton he would require the help of a good European mechanic to make and repair gins. Instead of sending a mechanic the Court of Directors sent 500 saws as the other parts of the gins could be made in India. In 1846 Mr. Channing recommended that Sheffield saws should alone be used as they lasted much longer than American saws. At this time local cotton as well as American was saw-ginned. Mr. Channing calculated that the cost of roll-ginning 500 pounds of local sced cotton was 2s. (Re. 1), while a good twenty saw-gin would gin 840

pounds in a day at a cost of 2s. 3d. (Rs. 1) including oil and repairs to belts. At these rates after paying all repairing charges the owner would save £9 4s. $11\frac{1}{2}d$. (Rs. $92\frac{23}{48}$) each season, the saw-gin would pay for itself in two seasons, and would remain in good order if proper care was taken of it. He noticed that the cotton-growers of Hulgur in Bankápur had clubbed together to buy a saw-gin Mr. Shaw, who had returned to Dhárwár as Collector, wrote to the Revenue Commissioner, recommending that the gins in the district should be transferred to private owners and that one hundred more gins should be made. He had applications from Gadag dealers to buy twelve of the Government gins at £17 (Rs. 170) a gin. Government approved, and in 1847 the Court of Directors made arrangement for sending 5000 Sheffield saws. At this time in Bengal a £50 (Rs. 500) prize was awarded to a Mr. Mather's gin. This machine was tried in Dhárwár, but, though it cost as much as £19 6s. (Rs. 193), it was found not nearly so effective as Mr. Frost's Dhárwár factory gin which cost £1 10s. (Rs. 15). In September 1847 the Court of Directors wrote to the Bombay Government, that, in consequence of the Manchester spinners' and weavers' approval of the saw-ginned Dhárwár cotton, they were sending saws enough to make 200 saw-gins of twenty-five saws each. In 1848, the Court of Directors sent 2600 saws to Dhárwár, and all the machinery of the cotton factory was removed from Kusvugal to Dhárwár. In 1849 twenty-nine saw-gins belonged to Government, five belonged to private persons, and about thirty were being made at the Government factory. By the end of 1849 many of the Government gins had been passed to private persons, sixty-two gins were worked by private persons, and only eight by Government. By this time many of the early gins had become useless, and they were being rapidly replaced by new gins made at the Dhárwár factory. It was believed that what the Dhárwár cotton dealers wanted was an effective, small, and cheap gin, and both in England and in India efforts were made to construct such a machine. On the model of a large gin made by Mr. Frost the engineer of the Dhárwár factory, which had been lent to the Manchester Commercial Association by the East India Company, a small machine was made which is known as the Manchester cottage gin. Several of these cottage gins of different designs were subjected to a public trial, at which the East India Company was represented by Dr. Forbes Royle. The Court of Directors ordered 200 gins of the pattern that Dr. Forbes Royle had approved, and a small consignment of them arrived in Bombay in 1849. Seven of these were sent to Dhárwár. They were not very successful when worked in villages, and Mr. Frost improved on the plan by making a number of seven saw-gins, which he sold at £4 (Rs. 40) a gin. At this time the factory issued gins each of seven to twenty-five saws worth £4 to £22 10s. (Rs. 40-225). Complaints in England that cotton was being cut by the saw-gin raised a discussion as to the rate at which a saw-gin should be driven. Channing, one of the planters who had considerable experience in the Bombay Karnátak, held that a gin driven at 180 to 190 steady revolutions the minute, would separate the fibre from the seed with as little injury as if it had been done carefully by hand, but that if the speed were either increased or lessened, the cotton would be injured B 99-47

Chapter VI Crafts. Chapter VI.
Crafts.
Ginning,

as its steady roll would be disturbed. Shortly before this, an Egyptian cotton ginning wheel or charka had been sent by Government to Dhárwar; it was set up at the Dhárwar factory, and tried by Messrs. Blount and Frost of the cotton department. Both these officers reported that the Egyptian wheel did not possess a single advantage over the Indian wheel gin and was inferior to it in several respects, the cost was eight times as great, it wanted a strong trained man to work while the native wheel was worked by a woman, and it was fixed while the native wheel was movable. With all these disadvantages the Egyptian wheel did not turn out more work than the Dhárwár wheel. In 1850 the total sale of gius from the Dhárwár factory had reached 144 of which thirty-six had been bought for the neighbouring districts. In 1852-53, 184 saw-gins were at work, and by the end of 1854 the number had risen to 298. In 1854 Mr. Brice, of Messrs. Brice and Company, proposed to take over the Dhárwár factory. In 1855 Mr. Frost resigned, and in May of the same year Dr. Forbes the civil surgeon of Dharwar for a time took charge of the factory. Many farmers and dealers complained to the new superintendent that they had been supplied with bad gins and had no means of repairing them. Dr. Forbes considered these complaints well founded. On his recommendation Government determined to withdraw all defective machinery and replace it with good saw-gins, on terms more favourable to the landholders and dealers. Much damage had been done to the gins by careless handling. The gins had been taken from place to place by labourers who were entirely paid by the amount of cotton they turned out, and the labourers were not long in finding that a gin whose parts were loose and whose saws were worn passed more cotton than a gin in good repair. The existing gins were too delicate for the rough handling they had received. Dr. Forbes tried to inventa simple lasting and strong machine. Even his gins were not strong enough; but some made in England in iron frames answered better. In 1855-56 fifty gins were issued from the Government factory, some of which were sent to take the place of the condemned gins. Mr. Brice also bought some cotton gins from the Government factory and again made an offer to take up the whole establishment; but Government preferred to keep the factory in their own hands. It was determined that Dr. Forbes should continue to manage the experiments, which now consisted almost solely of providing and repairing machinery. In 1856-57, 123 saw-gins were issued from the Government factory. By this time Messrs. Brice and Company had started cotton agencies at Bankápur, Gadag, Narigal, Navalgund, Ránebennur, and Ron, where they had employed a large number of people in foot-rolling, as their gin houses were not ready. This season Dr. Forbes tried his new ten saw-gins and found them work steadily without damaging the staple. He also made twenty-six wheels or charkás for ginning local cotton, but they required too much skill and caré and never came into use. Dr. Forbes wished to engage twenty-five boys chosen from the families of village carpenters and blacksmiths and train them to be skilled workmen. Many of the village workmen did not know the use of a screw-nail or a bolt and always injured and often ruined a gin when they tried to repair it. Government held that so long as

mechanics freely offered their services for employment Dr. Forbes' scheme of training apprentices was unnecessary. In 1857-58, 130 guns were issued, of which seventeen were sent to replace condemned gins. This replacing of old gins by new gins was managed without loss to Government, as it was found that the prices charged for the new gins covered all expenses. By this time gius were scattered all over the district, and it was found very difficult to repair gins fifty to ninety miles from the factory. If a gin was damaged it could be repaired only at the factory, and the owner had . to move his gin to the factory at a great cost of money and time. At Dr. Forbes' suggestion a branch factory for repairing gins was established at Karajgi a sub-divisional town about fifty miles southeast of Dhárwár, under Mr. Courpalais, who had been trained as an apprentice by Messrs. Blount and Frost. The factory then employed ninety hands at a monthly cost of £120 (Rs. 1200), and it had become a school for carpenters, smiths, wood and metal turners, and general outlitters. At the end of 129 the Bombay Government sent Dr. Forbes to England, with the models, he had prepared to arrange for the construction of 600 cast-iron gins. In 1859-60, fifty-six new gins were issued from the factory; and about 600 were at work, of which one-half were improved gins and the other half required constant repairs. Dr. Forbes' own gins had been at work for a long time and required frequent inspection. The owners went on working a gin after something had gone wrong until either the gin was broken or the cotton ruined. The system of paying the labourers by the outturn, irrespective of quality, was more general than ever. The labourers had to turn out a certain weight of cotton for a day's work, and, as soon as this was performed, the day's labour was over and they were free to work for other employers. The ginners had come to know that by removing screws and loosening bolts they could let seed and dirt run through and thus increase the weight of cotton. In consequence of the injury that was being done to the good name of Dharwar-American cotton. Dr. Forbes persuaded the people of Karajgi and Gadag to subscribe 12s. (Rs. 6) a gin and he undertook with the proceeds to keep their gins in repair. In 1860 Dr. Forbes showed a machine for ginning local cotton to a committee of the Bombay Chamber of Commerce. It was made on the principles of the Gujarát wheel gin or charka,, was worked by a boy, and ginned 430 pounds of seed cotton in twelve hours. At the same time Dr. Forbes produced a large machine which was called the power-gin wheel or charka. It was worked by two men and a boy who fed it with cotton, and it ginned 1000 pounds of seed cotton in a day. Neither of these machines came into use as Dr. Forbes thought the machinery too delicate to stand the rough work to which they would be exposed. In 1860-61, forty-two gins were issued, raising the total issue of gins from the Dharwar factory to 884. Some enterprising workmen who had been trained in the factory had to make and sell gins, and, by the end of 1862, the number of gins at work in the district had risen to 1000. The issue of the private gins was a mistake as they were so ill-made that they did more harm to the cotton than the gins formerly condemned by Dr. Forbes. In 1863,282 gins and in 1864 181 gins were issued from the factory. At the factory

Chapter VI. Crafts.

GINNING.

Chapter VI.
Crafts.
Ginning.

the highest price charged for the largest gin was £40 (Rs. 400); but the demand was so great and money was so plentiful that after leaving the factory many gins were bought for £80 (Rs. 800) and some for as much as £100 or £120 (Rs. 1000 - Rs. 1200). The demand was so great that many useless gins were sold by private workmen. In 1865, in succession to Major Hassard, Mr. W. Walton was transferred from the forest department to the charge of the factory. The sale of saw-gins for the year was 110. Mr. Walton found the Karajgi and Gadag branches in a bad state. committees were largely accused of managing them rather in the interests of themselves and their friends than in those of the general body of subscribers. Many of the workmen had left the factories and gone to work on buildings that were being raised by cotton growers and cotton dealers who had grown rich during the American The travelling workmen did not repair the gins, but took to other work; and when called on to produce certificates produced false certificates. It was impossible to punish them as village officers and other influential persons were implicated, and they could not be dismissed as there were no other workmen to take their place. In 1865-66 twenty-nine gins were issued. Like Dr. Forbes Mr. Walton when on tour held meetings of gin-owners and proposed to them to build two more branches one at Bankapur and one at Ránebennur, both important cotton trading towns. In 1868-69 a repairing branch was started at Hubli, where up to this time a clever workman had worked a shop at which he repaired gins. In this season 200 gins were repaired. In March 1868 the two new repairing factories began to work. The demand for the use of the factories was greater than could be met, not only on account of the limited number of skilled workmen, but also on account of deficient The gin-owners refused to subscribe a sufficient sum for adequate supervision, and Government were unwilling to bear the expense. During this season a cattle-power machine designed to drive one to four saw-gins of eighteen saws each, was issued from the Dhárwár factory to an influential farmer at Halivál six miles from Hubli. The machine was driven by three pairs of bullocks, working two gins of eighteen saws each. It was the result of many years' study on the part of Dr. Forbes and other superintendents of the factory and was constructed in England. In the 1868-69 Broach exhibition, this machine and a treadle or charka were shown. Both these machines were highly spoken of, but never came into general use in Dhárwár. In 1870-71 during Mr. Walton's absence in England the factory was entrusted to Mr. E. Jones. Mr. Jones devoted his time to the construction of a new rolling gin and the regular work of the central and branch factories fell into disorder. succeeded by Mr. Livingston, who had experience of cotton-ginning factories in Gujarát. In 1871-72 Government appointed a committee to consider whether they could withdraw from all connection with the Dhárwar factory. While these inquiries were being made Messrs. W. Nicol & Co., of Bombay, engaged to maintain the gin repairing establishments at Bankápur, Gadag, Hubli, Karajgi, Navalgund, Ránebennur, and Ron, doing away with subscriptions and charging for repairs. Government declined this offer and asked the Revenue Commissioner to suggest how the factories could be best disposed of. Mr. Havelock the Commissioner was unwilling that the factories should be closed. He thought them an excellent school for training workmen. Mr. Robertson the Collector thought that Government was almost bound to provide means for repairing gins. The gins had been bought and the growth of American cotton had spread to a great extent on the understanding that Government would enable the people to keep the gins in order. After inquiry Government agreed to continue the central factory provided the cost did not exceed £1000 (Rs. 10,000) a year; all branch factories which did not pay were to be closed.

In 1872 Mr W. Bowden was sent by the Secretary of State to conduct experiments to decide which was the best machine for ginning freshly picked Dhárwár-American cotton. of roller gins in England were in favour of roller gins and Dr. Forbes was in favour of saw-gins. Trials were made at Dharwar both with hand and with cattle power. These trials established one point that the only machine that successfully and economically ginned Dhárwár-American cotton was the saw-gin. Mr. Jones started a small steam-ginning factory with ten of his roller gins at Navalgund. The factory did little work and Mr. Jones shortly afterwards sold the machinery to the Kárwár Company a cotton trading joint stock association. Messrs. Robertson and Brothers worked ten roller gins also by steam in Gadag. was supposed that machine-ginned local cotton would fetch a sufficiently higher price than foot-rolled local cotton, to cover the expenses of the machinery; but it was found that good foot-rolled local cotton fetched higher prices than machine-ginned local cotton. In 1873, on the suggestion of the Collector Mr. E. P. Robertson, a school of industry for training boys in carpenter's smith's and fitter's work was established in connection with the factory. In May 1875 the central factory was closed as a separate institution and incorporated with the school of industry and in September 1883 the school was closed on account of its expense. In 1873-74 Mr. Jones sold his steam ginning factory to the Kárwár Company who removed it to The Kárwár Company tried to work the gins with local cotton, but failed, the manager thought from the want of European supervision. With the object of supplying the trained workmen of Dharwar with materials required for repairing gins, an auction sale was held at the Dhárwár factory on the 5th of June 1874. No buyers attended. In 1874 the Kárwár Company started a steam-ginning factory at Hubli, but in the same year gave up the idea of cleaning local cotton with steam gins. In 1877 the Kárwár Company started another steam-ginning factory at Gadag. The Hubli steam factory was worked by a ten-horse power engine with ten gins of forty saws each, and the Gadag steam factory was worked by a twenty-horse power engine with twenty gins of forty saws each. Since 1881 when the Karwar Company failed, the steam factories owned by the Karwar Company at Hubli and Gadag have been worked by Messrs. Framji and Company. In 1882 the whole of the old sawgins in these steam factories were replaced by twenty-six double roller Platts' Macarthy gins, eight being at Hubli and eighteen at Gadag. With these new gins the steam factories at present (1884) gin local or Kumta cotton. At present (1884) the branch factories

Chapter VI.
Crafts.
GINNING.

374

Chapter VI.

are supported entirely by the subscriptions paid by gin-owners, the receipts for work done and the balance of the former Cotton Frauds Funds.

PRESSING.

The first attempt to press cotton was made about 1836 when the Bombay Government established screw presses at Dhárwár, Gadag, and Navalgund. In 1848 Mr. Blount one of the American planters Penewed the attempt to start a cotton press; but his attempt also seems to have failed. In 1855 Messrs. Brice and Company bought some presses from the Government factory and worked them in the This attempt like the two previous ones proved a failure. The cause of these repeated failures was the want of confidence in the ginners and dealers. So long as the cotton was in a loose bundle it was easy for the exporter or the exporter's agent to open and test a bundle but with pressed bales there was no security. Even in 1864-65 no sort of pressing was in general use till Mr. Walton made a vigorous effort to introduce half-pressing. In 1873-74 Messrs. P. Chrystal and Co. started the first full-press in the district at Gadag. The press was worked by a steam engine and during that season pressed and packed 3400 bales chiefly of In the same year the Kárwár Company started a American cotton. Since 1876-77 four steam full-presses have steam press at Hubli. been at work, two at Gadag and two at Hubli. At present (1984) four steam presses are at work, two at Hubli and two at Gadag, and two hand or half presses, one at Hubli and one at Gadag. Of these the two steam presses at Hubli and one of the two at Gadag, each of twenty horse power, are owned by Messrs. Framji and Company and the other steam press at Gadag of twenty-five horse power, is owned by the West Patent Press Company. The two hand presses belong to Messrs. Robertson Brothers and Company. Besides the engineer, engine-driver, fireman, fitter, and blacksmith, a steam press, when at work employs about sixteen men and sixteen women labourers, mostly Maráthás and Musalmáns. Men are paid $4\frac{1}{2}d$. to 6d. (3-4as)a day and women 3d. (2 as.). April and May are the busiest months for pressing. During the three years ending 1883, of the three presses owned by Messrs. Framji and Company the Gadag factory pressed about 3000 bales and the two Hubli presses about 1000 bales a year, almost all of local or Kumta cotton. The other Gadag press owned by the West Patent Press Company did no work during the four years ending 1883; in 1884 it pressed some saw-ginned Dhárwár. The full-pressed bales chiefly go by Kárwár to Bombay.

SPINNING.

In a Hindu house there is next to no sewing. Almost all clothes are worn as they come from the loom, so that when there is no field work, after their house work is over, the women have a good deal of spare time. As a class the women are hardworking and spend all their spare time in spinning. Most women spin five hours a day, and others whose house work is light, spin still longer. For hand spinning local or Kumta cotton is alone used. Cotton to be used for local spinning is cleaned with very much greater care than cotton to be packed for export. In ginning for home spinning almost no seed dirt or leaf is left. This clean cotton is given to Pinjáris who thoroughly loosen and divide it, and make it into little rolls or hanjis of the size of the finger. These hanjis are spun by the spinning wheel called nulurati which costs about 4s. 6d. (Rs. 24). The thread

thus spun is rolled into small oblong reels or kukdis by the aid of the same spinning wheel. The yarn of these reels is then spread on a wooden frame or hasmari which is fitted with pegs and costs 1s. 6d. (12 as.). The threads when thus arranged are called putis or hanks of yarns. These putis are brought to market and sold to weavers, carpet-makers, and rope-spinners. In September 1883 a beginning was made of spinning cotton by steam power at Hubli. In September 1881 a spinning mill called the Southern Marátha Spinning and Weaving Company Limited was registered in Bombay. It is a company with limited liability and has a capital of £60,000 (Rs. 6,00,000) divided into 2400 shares of £25 (Rs. 250) each. The managers and secretaries of this company are Messrs. P. Chrystal and Company of Bombay and Hubli. On the 1st of September 1882 the foundation stone was laid at Hubli, and in spite of the great difficulty of carrying the heavy machinery from Kárwár to Hubli by the Arbail pass, a one-storeyed building covering 4000 square yards and capable of holding 10,000 spindles, besides the engine and boiler house, was finished and machinery fitted by the 2nd of September 1883 when work was begun. The machinery is made by Messrs. Platt Brothers and Company Limited, Oldham. It is worked by a compound engine of 400 horse power, driving a flywheel twenty-four feet in diameter and making fifty revolutions a minute. In March 1884 4700 spindles were at work yielding a daily outturn of about 1300 pounds of yarn. Local or Kumta cotton was found better suited for spinning than saw-ginned American. In March 1884, besides spinners jobbers and fitters, the factory employed 250 hands; the men were paid 6d. to 1s. (4-8 as.) a day, the women $4\frac{1}{2}d$. (3 as.), and the children 3d. to $4\frac{1}{2}d$. (2-3 as.). Europeans on the staff are the manager and the engineer. The factory promises well. Cotton grows abundantly at the door and the yarn has a large demand in the neighbouring towns of Belgaum, Hubli, Gadag, Ránebennur, and other weaving centres. March 1884, of the 2400 nominal shares, 1210 equal to a capital of £30,250 (Rs. 3,02,500) have been taken, 396 in the district, 110 in England, and 704 in Bombay and its neighbourhood.

Chiefly in the towns of Annigeri, Betigeri, Dambal, Gadag-Betigeri, Garag, Hubli, Lakundi, Nadgund, and Navalgund, both cloth of gold and silver and plain or silk-bordered cotton cloth are woven by a large number of Lingáyat, Hatkár or Devang, Patvegár, Sáli, and Momin Musalmán weavers. Of about 2400 cotton and silk weavers, about 1250 are Musalmáns, 500 Patvegárs, 300 Devangs, 200 Sális, 150 Lingáyats, and twenty-five Native Christians. The materials used in weaving this silk-cotton cloth are chiefly thread, silk, and gold or silver lace. Up to about 1872 thread spun locally by women of the labouring and cultivating classes, especially by Holeru or Mhar women which was the finest and best, was largely used by the weavers. Part of this home-spun yarn was used uncoloured in weaving waistcloths and other coarse dangri cloths; part was coloured and used in making women's robes or sádis, bodices or kubsás, and headscarves or rumáls. The dyers of cloth and yarn are Lingáyats, Námdev Shimpis, and Musalmans, and the chief colours dyed are black, blue, pink, scarlet, Since 1872 Bombay machine-spun yarn, which is better finer and cheaper, has to a great extent driven the home-spun

Chapter VI.

SPINNING.

SILE AND COTTON Goods. Chapter VI.

SILK AND COTTON GOODS.

yarn out of the market. Cloth-dealers and rich moneylenders bring the machine-spun yarn from Bombay by Kumta and Kárwár. machine-spun yarn is chiefly used in weaving fine waistcloths and women's robes, bodicecloths, and headscarves. Almost all cloths valued at more than 10s. (Rs. 5) each are made of machine-spun thread. As the hand-made yarn sells dearer than the machine-spun yarn and also requires more labour in weaving, the cost of weaving cloth out of hand-made yarn is about twenty-five per cent higher than of weaving cloth out of machine-spun yarn. Though dearer and coarser than machine-spun yarn, the home-spun yarn is much stronger and much more able to stand hard work. Of the yarn used in local weaving about one-third is still home-spun. The home-spun yarn is chiefly used in weaving coarse waistcloths and women's robes, coarse longcloth called dangri jot or khádi, and carpota, floorcloths or jájams, and tent or booth-cloths called gudárs (K.) or páls (M.). Of the other raw materials the coloured silk and the gold and silver lace come from Bombay, and the uncoloured silk partly from Bombay and partly from Maisur. The weavers are partly capitalists and partly labourers employed by the capitalists either by the day or by the piece. Handloom weaving is briskest during the marriage and fair-holding months, especially from January to May. The women of weavers who have capital help the men, and the women of labouring weavers work for hire, in arranging and sizing the warp and in filling the shuttles. A cotton weaver on an average earns not less than $4\frac{1}{2}d$. to 6d. (3-4 as.) a day. clothes woven in the Dhárwár looms are dhotars or meu's waistcloths about five yards long and one yard broad. They vary in price from 1s. 3d. to 1s. 6d. (10-12 as.) when made of coarse village yarn, and from 2s. to £1 (Rs. 1-10) when made of fine machine-made twist with silk borders and costly colours. Punjis or boys' waistcloths, about 12 to two yards long and three-quarters to one yard broad, are generally made of coarse village yarn and vary in price from 41d. to 9d. (3-6 as.). Sádis or women's robes, about 71 yards long and one yard broad, vary in price from 3s. to 8s. (Rs. 13-4) when made of coarse village yarn, and from 8s. to £2 10s. (Rs. 4-25) when made of English or Bombay mill yarn with silk borders. Kirgis or girls' robes, about 3½ to five yards long and two to 2½ feet broad, vary in price from 1s. 3d. to 2s. 3d. (Rs. $\frac{5}{8}$ -1 $\frac{1}{8}$) when made of coarse village yarn, and from 3s. to 16s. (Rs. 1½-8) when made of English and Bombay mill made yarn with silk borders. Kubsás or bodicecloths about three-quarters of a yard long and half a yard broad, vary in price from 3d. to $4\frac{1}{2}d$. (2-3 as.) when made of village coarse yarn, and from 6d. to 2s. 9d. (Rs. $\frac{1}{4}$ - $1\frac{3}{8}$) when made of English and Bombay mill yarn. Both mundars or turbans, 7½ to fifty yards long and sixteen to twenty inches broad, and shella's or men's sholder cloths 21 yards long and 1½ broad, vary in price from 2s. to £7 10s. (Rs. 1-75). By adding gold or silver tinsel borders, turbans and shouldercloths fetch a still higher price. Vastas or handkerchiefs, fifteen inches to one yard square, vary in price from 2½d. to 9d. (1½-6 as.) when made of coarse village yarn, and from 1s. 3d. to 2s. (Rs. \frac{1}{5}-1) when made of English or Bombay mill yarn. In a few towns, especially in Hebsur and in Kerasur and its neighbourhood, tents or booth cloths called pals are made. They are first woven in strips of coarse strong cotton cloth of various lengths, and ten to sixteen inches wide. These lengths are then sewn together, until they form the páls or booth cloths which are twelve to thirty feet long and eight to twenty-five feet broad, and sometimes even larger. They are used as carpets, as cloths for sorting grain or for carrying grain in carts from the fields, for rude tents and booths at fairs or játrás, and for market stalls. They range in price, according to size and quality, from 14s. to £2 (Rs. 7-20). Cotton and silk cloth are sold by the weavers either to the local cloth-dealers or to the people on market days. Cloth is bought either direct from the weavers or through brokers or daláls who are paid by the weavers $\frac{3}{8}d$. to $\frac{3}{4}d$. $(\frac{1}{4}-\frac{1}{2}a)$ on every rupee of cloth sold. Most of the cloth is used locally. It is also exported to North and South Kánara and Belgaum and Sháhápur; from Belgaum and Shahapur it goes to the coast for sale. Especially from Gadag-Betigeri it is also sent to Sholapur, Pandharpur, Mudhol, Jamkhandi, Jath, and Sángli. Between 1862 and 1865, when cotton and grain were both unusually dear, in spite of the good demand for cloth, the weavers suffered. The fall in the price of grain and of cotton between 1866 and 1872 helped the weavers, and since 1872 cheap Bombay yarn has enabled them to hold their own against imported cloth. The weavers suffered grievously in the 1876 famine. The price of grain ruined them and the sale of cloth was at a stand; most of them passed out of the famine heavily laden with debt. Since 1876 the brisk local demand for cloth, the fall in price of Bombay yarn, and the local cheapness of grain have so greatly helped the hand-loom weavers that many of them have freed themselves from their famine debt and are fairly off. The opening of the new railways will help the weavers by cheapening Bombay yarn. But it will also increase the competition of outside goods, and, by raising the local price of grain, will make living dearer to the hand-loom weavers and so prevent them producing their cloth as cheaply as before. The opening of railways will also probably be followed by the establishment of local spinning and weaving mills, and, in the end, even more than at present, hand-made products will be ousted by steam-made. The

Chapter VI.

SILK AND COTTON GOODS,

¹ From its much greater bulkiness compared with its value the road-carriage of yarn is much costlier than the road-carriage of cloth. In spite of this disadvantage in rich cotton and grain growing tracts like the Bombay Karnátak, which long road distances separate from railways and from boats, cloth woven locally from imported yarn has of late years held its own with imported cloth. Railways, the great cheapeners of the carriage of bulky articles, should remove or should greatly lessen the disadvantage which long road carriage inflicts on imported yarn in competing with imported cloth. The opening of railways should favour the import of yarn more than the import of cloth; handloom weaving should therefore increase in Dhárwár after the railways are opened. But judging by their effect in other districts, instead of fostering local handloom weaving, railways will reduce or destroy the industry. One of the reasons, why, in spite of the gain from the special cheapening of imported yarn, railways smother handloom weaving seems to be the marked increase in the price of grain, and therefore in the cost of living, which follows the opening by railways of new markets for bulky local field produce. The cost of feeding his family rises so greatly, that, in spite of the gain in the relatively greater cheapening of imported yarn, the handloom weaver fails to maintain his competition with imported cloth; he can no longer live on the margin of profit which used to be enough for his support. The rise in the price of local grain which they cause by opening fresh markets to local field produce seems the chief reason why railways work the ruin of local industries. At the same time, as the bulk of the people are grain growers not craftsmen, the gain from the rise of grain prices is probably greater than the loss from the decay of local industries.

Crafts.

CARPETS.

silk weavers suffered specially severely during the 1876 famine as there was a great scarcity of silk as well as of grain.

Besides by the prisoners in Dhárwár jail cotton carpets are woven by sixteen Musalmán families, of whom eight live at Navalgund. seven at Hubli, and one at Dhárwár. Of the raw materials used the patte or thick hand-spun yarn is bought locally. The women of the carpet-weaving families twist a large quantity of yarn into strong and long warp threads, either by hand or by the simple spinning and twisting wheel. They then arrange and size these twisted threads till they are about one hundred feet long, and roll them round a roller which is fixed in the loom. Some of the yarn is dyed red, black, blue, green, and yellow, and occasionally green and yellow yarn is brought from Bombay and used untwisted for the woof. The carpet weaver's women fill a large number of shuttles with red and black yarn and roll the other coloured yarns into several small bundles. Two carpet looms are in use. One is fixed upright from the roof of the house to a pit, about three feet below ground; the other is laid level with the ground from end to end of the weaving toom. In the upright loom a carpet of any length and of any breadth can be woven. Any number of weavers, according to the breadth of the carpet, can sit in a row on each side of the loom, face to face, separated by the upright warp. No weaving or loom comb is laid across the web and no warp threads are passed between the teeth of the comb as in cloth weaving. When carpets of six feet broad or less are to be woven they are woven within doors. If a carpet is nine to twenty feet broad, the loom is set upright in an open space under a tree; a trench is dug about three feet deep and three feet broad, and as many feet long as the carpet is to be broad. The top of the loom is tied to a strong branch of the tree and the bottom is fixed in the trench. Several weavers both men and women sit in a row on each side of the warp, face to face, with their feet in the trench. The woof is passed from end to end of the warp not in shuttles, but by the weavers' hands who sit in a row on each side of the warp. By means of a rough mechanism fixed in the trench and worked by the weaver's feet, each time the woof threads are crossed between the warp threads, alternate warp threads are moved forwards and backwards. Instead of the comb frame used in the ordinary loom to drive the woof fibre home, each weaver on either side of the vertical carpet warp threads holds an iron instrument one end of which has blunt saw-like teeth, and with the teeth drives the woof threads into their place. The teeth of the instrument, which serve the purpose of the comb teeth, fix the woof between alternate warp threads. When flowers or other figures are to be woven, each weaver passes the bundles of the woof threads of different colours, between the required number of warp threads, instead of from one end to the other of the carpet, and weaves the required flower or figure. When two or three feet of the carpet are woven the completed part is rolled round a roller in the trench, and the roller with the warp at the top of the loom is loosened a little, and a fresh portion of the warp drawn down and woven This process is repeated until the required length of carpet is finished. The carpet is then cut from the loom and the weavers begin a new carpet out of the remaining warp threads in

the loom. A carpet thirty-two feet long by ten feet broad costs £12 to £15 (Rs. 120-150), according to the thickness of the texture and the fineness of the workmanship. At the level carpet loom the man weaves a carpet six or seven feet long and four or five broad. The level loom is almost the same as a cloth loom. The weaver does not use any small toothed instrument to drive and fix the woof into the warp threads as in the upright loom. He drives home the woof thread with the regular weaving comb. Instead of the reeds of the cloth comb the teeth of the carpet comb are formed of a close row of iron plates, which are kept in their place by a strong heavy wooden frame. The weaver also uses the shuttle filled with red or black untwisted yarn and with it passes the woof yarn between the warp threads as if weaving in a cloth loom, and, as in cloth weaving, drives the woof thread into its place by pulling towards him the weaving comb. This is done when the carpet to be made is of one or two inch broad red and black stripes. When flowers or figures are to be woven, the weaver passes the woof yarn of all colours by his hand and then pulls the weaving comb towards him to fix the woof thread in its place in the warp.

The jajam or floorcloth, an inferior carpet, is adorned with figures of flowers, horses, and elephants. These figures are printed, not woven. Uncoloured common cloth woven with thick yarn to make labourers' and husbandmens' coverlets, jackets, and trousers is bought and cut or sewn together to the required length and breadth. A piece of strong white cloth ten feet by five costs about 4s. (Rs. 2). The cloth is steeped for a night in a solution of sheep's dung, it is washed, and for a second night is soaked in oil and earth salt or fuller's earth. The cloth is washed three or four times, but not so thoroughly as to remove the whole of the oil, and is soaked in a strong solution of myrobalans and water, and dried. The printers have two sets of wooden blocks each about four inches square. One block is carved with the outlines of the creepers, flowers, horses, and elephants, to be printed on the cloth. These outlines stand beyond the plane of the block, so that they may touch the cloth when printing; while the rest of the surface of the block is depressed, so that it does not touch the cloth. In the second block the parts corresponding to the outstanding lines in the first stamp are depressed and do not touch the cloth, while the parts corresponding to the lowered parts in the first stamp, are raised so as to touch the cloth. After the cloth has been steeped in a solution of myrobalans and water the printer dips the first block in a solution of iron rust and water, and stamps the cloth with the outlines of the figures in black. He then dips the second block in a solution of alum and water, and stamps the same parts of the same cloth. The cloth is then boiled in water with some alkali. The parts of the cloth which have been stamped with the iron rust and water remain black, those stamped with the alum and water turn red, and the untouched spaces left by the second stamp become white, when boiling has removed the solution of myrobalans. After the cloth is washed in plain water and dried, Chapter VI.
Crafts.
CARPETS.

FLOORCLOTHS.

Crafts.
Floorcloths.

it is ready for sale, being ornamented with black and white figures on a red ground. To print a cloth ten feet by five costs 4s. (Rs. 2). Another piece of cloth of the same nature and size either dyed in indigo or undyed is laid below the printed piece, and the two are sewn together. The jájam is then ready for use. The undyed undercloth costs 4s. (Rs. 2); if dyed in indigo it costs 1s. (8 as.) more. Thus a floorcloth ten feet by five costs 12s. to 13s. (Rs. 6 - 61). Floorcloths are made to order in Hubli and Karajgi by three or four families of Jingars or painters, who claim to be Kshatris. Large numbers of floorcloths printed in Belgaum and other districts are also brought for sale on market days. When not stamping floorcloths, the Jingars or painters make and paint toys, cradles, and other wood work, and draw pictures. Floorcloths last only two or three years, while good carpets last twenty-five to thirty years.

HATS.

Excellent boys' hats in the shape of Brahman and Maratha turbans are made at Hubli by fifteen families of Jingars and are sold at 2s. to 10s. (Rs. 1-5) each. In making these hats tamarind seeds are soaked in water. Their upper coloured husk is removed and the inner pithy parts are ground into a paste and boiled. The paste is rubbed on several pieces of cloth spread one over the other, according to the required size and shape of the cap and dried. When it is dry the upper part is covered with different coloured velvet and sewn together with silk. The hat is then ornamented with flowers of real or false lace, and the whole is made to look like a Brahman or a Maratha turban. The inside is stuffed with cotton and lined with printed or silk cloth.

BLANKETS.

White, black, or white and black striped blankets are woven by shepherds. Of 87,768 shepherds shown in the 1881 census about one-tenth or 8700 are blanket weavers. In the Ranebennur sub-division in the south-east large blankets, about sixteen feet by six are woven; the blankets woven in the rest of the district are not larger than nine feet long and four broad for men and 71 feet long and three broad for children. Generally the women spin the wool into thread, arrange and size the warp, and fill the shuttles; and the men weave. In Dharwar, wool is not sold by the ordinary sher weight. Either the shearing of 100 sheep is bought in a lump for about £4 (Rs. 40), or the wool is bought by the chitti or four sher millet measure which costs about 16se (Rs. 8) that is at the rate of 14d. the pound, One chitti or fourteen pounds of wool works into four blankets, each nine feet long by four feet broad. Of these four blankets two are black together worth 16s. (Rs. 8) and two are white together worth 8s. (Rs. 4). To spin the wool and weave these four blankets take a man and a woman about forty days, that is after deducting 16s. (Rs. 8) as the cost of one chitti of wool, the men and women earn 8s. (Rs. 4) in forty days, or 8s. (Rs. 3) a month. At the rate of three blankets a month for each couple the 8700 blanket weavers, during the eight fair months, yield an estimated outturn of 104,400 blankets worth £31,320 (Rs. 3,13,200). This outturn is not enough to meet the local demand. Blankets are largely imported from Belári and Maisur, part of the imports being used locally and part being sent to the coast. Blanket weavers generally sell their produce direct to the wearers on market days in local market towns. When not sold in the markets, blankets are sold to local blanket dealers who are generally rich shepherds and are sometimes Lingáyat cloth-dealers. As white and white and black striped blankets fetch 4s. (Rs. 2) each and black blankets fetch 8s. (Rs. 4) each, most of the blankets woven are black.

Goldsmiths who make gold and silver ornaments are found in all large towns. The gold and silver is generally given by customers and worked by the goldsmiths into ornaments at their homes. In rare cases goldsmiths are called by rich men to work at their houses and are paid £1 to £1 4s. (Rs. 10-12) the month. At Hubli and Dhárwár two or three clever goldsmiths cast gold and silver gods, set precious stones in gold, and make richly carved and engraved gold and silver work. Goldsmiths receive no help from the women of their families. The average earnings of a goldsmith's family are £10 to £20 (Rs. 100-200) a year. As a class they are fairly off. During the 1876-77 famine they bought gold and silver ornaments at low prices and made considerable profits. Like tailors, goldsmiths are proverbially fond of stealing part of the materials given to be worked.

Workers in copper and brass, called Kánchgárs if Hindus and Támbatgárs if Musalmáns, are chiefly settled in Hubli where there are about 400 families. The copper and brass are brought in plates or sheets from Bombay. The chief cooking and water pots are handás or large round vessels, tapelás or small vessels, panchpátris or mugs, kolgás or jars, tábans or plates, gangáls or round and short bathing tubs, kodás or pitchers, samayas or lamps, dabaris or basins, and paráts or large plates. These vessels vary from about two or three inches across and as many high to three to five feet across and three to four feet high. Besides these copper and brass vessels coppersmiths make belimetal bells and gong plates from khanchu or bellmetal a mixture of copper and lead or tin. Musalmáns and Lingáyats generally use white or bellmetal vessels because there is no risk that from want of tinning they should grow poisonous. Besides supplying the local demand the Hubli coppersmiths send copper and brass pots to Belgaum, Bangalur, and Belári. Copper and brass smiths are a thriving class. The copper and brass sheets are brought from Bombay through Kárwár and Kumta by local dealers of the Bogár, Lingáyat, Márwári, and Musalmán castes. The coppersmiths buy them from the copper-dealers paying $7\frac{1}{2}d$, to 10d. (5-6\frac{2}{3} as.) a pound. They sell their wares at $8\frac{1}{4}d$. to $11\frac{1}{2}d$. $(5\frac{1}{2}-7\frac{3}{4}as.)$ a pound, leaving a profit of $\frac{3}{4}d$, to $1\frac{3}{8}d$, $(\frac{1}{2}-1 as.)$ the pound. During the 1876-77 famine coppersmiths bought old copper and brass vessels at low prices and have since re-sold them at a profit. There has also been a brisk demand for new vessels, and, in the low prices of grain, they have been able to save considerable sums.

Two classes, blacksmiths and iron-smelters, live by working in iron. Almost every town or large village has its blacksmith, Lohár (M.), Kambár (K.), who lives by making articles of iron. Some of these articles are made from lumps of local iron costing about 3d. (2 as.) and about a pound in weight. The rest are made from sheets and

Chapter VI.

GOLD AND SILVER

Copper and Brass.

IRON.

Chapter VI.

IRON.

plates of iron brought from Bombay and Madras. Of the local iron-smelters some account is given below. The iron sheets and plates are brought from Bombay through Kárwár and Kumta by Bohoras and other Musalmáns. The present (1884) price of iron sheets in the Dhárwár markets varies from 12s. to 14s. (Rs. 6-7) the hundredweight. The blacksmiths, some of whom are men of capital and others are labourers, buy the iron and make it into axes, pickaxes, spades, and other field tools for which husbandmen pay them either in grain or in cash. Blacksmiths also make measures of capacity, tires for wheels, cocoa-kernel and cucumber gratery, hoops for tubs, spoons, round plates for baking cakes, lamps, make, locks, keys, and hooks. The women and children help the men cuber in blowing the bellows or in heating the iron orsteel before it is beaten. The yearly earnings of a blacksmith's family average about £10 (lis. 100). They suffered much in the 1876 famine from want of work, but during the last four years cheap iron, a brisk demand for their wares, and cheap grain have enabled them to recover much of what they lost.

IRON SMELTING.

Iron is smelted by about thirty Kudivakkalgeri Lingáyats in the village of Tegur fifteen miles north of Dhárwár. The ore is dug out of the Tegur spur of the Sahyadris and the charcoal is made by burning firewood. The ore is broken small by hand-hammers and put with some charcoal into an earthen crucible. Each crucible measures about a foot and a half across inside and two and a half feet outside and is five feet high. On one side of the bottom of the crucible a hole is made and in the hole a clay pipe is When the furnace below the crucible is sufficiently heated the ore in the crucible melts, and the melted iron runs out by the pipe at the bottom of the crucible into an earthen basin placed to receive it and forms a lump of iron. The lump of iron is removed twice a day at twelve in the morning and at five in the evening. is heated in another open furnace, laid on an anvil, and beaten by four hammermen into bars about a pound in weight and three feet long and an inch and a half square. The four hammermen work together with much regularity and skill. Each crucible yields two bars a day, the bar being worth about 3d. (2 as.) the pound. Iron was formerly smelted at many places besides at Tegur. But chiefly from want of fuel the smelting did not pay and the works were closed.

TIN.

There are two classes of tin-workers, makers of tin articles and tinners of copper and brass vessels. In Dhárwár, Hubli, and Gadag a few Bohoras make tin lanterns, boxes, lamps, glass-cases, small water pipes, tumblers, and toys. The tin plates and the glass panes come from Bombay. All the tinware used in the district is bought at Dhárwár, Hubli, or Gadag. Before tinning them brass and copper vessels are heated and pieces of tin and sal ammoniac are put into them. When the tin and sal ammoniac have melted, the vessel is held fast with a pair of iron pincers and the melted tin is rubbed all over it with a handful of cloth. As a rule Hindus get their vessels tinned inside only and Musalmáns both inside and outside. The cost of tinning varies from 1½d. to 1s. (1-8 as.) according to the size of the vessel.

Three classes work in stone, Josigerus who make stone vessels and Uppars and Vaddars who work as masons and cut grindstones. All the stone used in the district is found in local quarries. The Josigerus hollow out of a block of soft black stone, called pot-stone in Madras, round cups about five inches across and four high, jugs and tubs about two feet across and a foot high, and large round plates about four feet across and five inches high. These vessels are roughly smoothed by the chisel and sold at $1\frac{1}{2}d$, to 6s. (Rs. $\frac{1}{16}$ - 3). the sourcess causes no corroding or unwholesomeness these stone vessels are of great use in preserving pickles and other sour articles for a year, in cooking sour vegetables, in boiling milk, and in keeping buttermilk. It is a common experience that vegetables cooked in stone have more flavour than vegetables cooked in metal. All the stone vessels made are sold in the district. Besides working as masons or stone-cutters, Uppárs and Vaddars make grindstones. To make grindstones hard stones are cut into two equal circular pieces, each two to three feet across and two to three inches thick. Of these two stones, which are laid one over the other at the time of grinding, the lower stone has a hole in the centre in which a small wooden peg is fixed as a pivot. The upper stone has two holes, one a large hole in the centre through which the stone passes down on the pivot fixed in the lower stone. The other is a side hole in which a wooden peg about a foot long is fixed as a turning handle. Grindstones are sold at 2s. (Re. 1) the pair, and a pair is found in almost every house. They are used in grinding grain into flour. At the time of grinding, some handfuls of grain are put into the central hole of the upper stone which is turned by the hand with the handle fixed in the side-hole. Except large and heavy stones which require two women, grindstones are generally worked by one woman. After two or three months the grindstones are roughened by Vaddar women who strike them with a heavy hammer which has steel nails fixed into its head. The cost of roughening a pair of grindstones is about $\frac{3}{6}d$. ($\frac{1}{4}a$.). Besides a pair of grindstones each house has generally a stone mortar fixed in the ground close to the grindstone. In the stone mortar grain is pounded by four feet long wooden pestles whose ends are shod by iron rings. Stone mortars are made by Uppars and are sold at 8s. to 12s. (Rs. 4-6).

In almost all towns and large villages earthen pots, tiles, and bricks are made by Lingáyat potters. The clay in general use is a soft and sticky mud from marshes and from the bottom of ponds. It is cleared of stones and well worked with the hands and feet. When properly kneaded the lumps of clay are laid on the centre of a heavy wheel which turns horizontally on a pivot. The potter holds a short wand or bamboo cane in his right hand, and putting the point of the cane close to one of the spokes of the wheel presses it with force till the wheel turns at a high speed. As the wheel turns the potter moulds the whirling clay with his two hands, the squat lump of mud quickly rising outwards and upwards into a shapely jar. When the vessel is properly formed the wheel is stopped, a wetted string held in the two hands is sharply drawn between the bottom of the vessel and the wheel, and the vessel is

Chapter VI.
Crafts.
STONE.

EARTH.

Chapter VI. Crafts. Earth, set in the sun to dry. When nearly dry, it is gently tapped with a wooden bat to strengthen the clay, and is then baked in a large kiln. Clay pots are sold at $1\frac{1}{2}d$. to 3d. (1-2 as.) each. Tiles and earthen pipes are made and baked in the same way as earthen pots. A potter's wife and children help him greatly in his work. The average earnings of a family are about £10 (Rs. 100) a year. Besides Lingáyat potters a few Mhárs make tiles and bricks.

Wood.

Wood-workers, who are found in almost every large village, are Jingars or carpenters, and Musalmans. Besides making the woodwork of field tools, cots, cradles, chairs, boxes, tables, stools, and houses, Jingars make wooden figures of tigers, horses, men, cats, and dogs, and other toys, colour them, and sell them on market days and in fairs. Jingars and a few Musalmans in large towns make wooden hair-combs, and a few Hubli Musalmans make weaving or loom combs. Hair-combs are thin wooden plates two or three inches Hair-combs are of two kinds, head-combs which are toothed on both edges and beard-combs which are toothed only on one edge. Ivory combs are also brought from Bombay. weaving or loom comb, which is laid across the web and through which the warp threads are passed, is about five feet long and three inches broad. It is made of strong reeds which are brought from the Parvat Milar hills about 430 miles south of Dhárwár in Karnul in Madras, and, after being cut, are formed into a close row of reeds like the teeth of a comb which are kept in their place by a heavy wooden Each time the shuttle passes the comb is pulled towards the weaver so as to drive the thread into its place. A weaving comb costs 6s. to 8s. (Rs. 3-4). Another article made by wood-workers is a pair of wooden grinders on the model of grindstones four to five feet across and a foot and a half thick; they are made of mango or other light wood, as teak or other hard timber would crush the grain. They are used in unhusking rice. The grinding faces are carved like the teeth of a saw, partly in one direction and partly in another. When in regular use they have to be roughened every eight or nine weeks and do not last more than a year or two.

MOLASSES.

In all parts of the district molasses is made from sugarcane. Close to sugarcane fields large wooden sugarcane-mills are fixed in the ground, and near the mills a furnace is made for boiling the juice. The cane is brought from the fields in headloads and piled near the mill. The mill, which is worked by four to six bullocks, consists of a long wooden shaft to which the bullocks are yoked, and of two wooden rollers whose surface is carved with screw rings which work into each other like a male and female screw. As the bullocks go round, the rollers turn in opposite directions and crush the cane with which they are kept constantly fed. juice runs into a large earthen vessel which is buried close to the rollers. A man sits on the opposite side of the rollers, draws off the pressed canes, and hands them back to the feeders who double them and again pass them between the rollers. This is repeated a third time when the whole juice is supposed to be pressed out, and the pith of the pressed cane is spread in the air to dry and is generally used to boil the juice. When the vessel into which

the juice runs is filled, the juice is taken to the furnace and poured into an iron pan about four feet high and eight feet across at the top and four or five feet at the bottom. The pan is put on the furnace, and a large fire is lighted below. After boiling for about six hours the juice thickens into liquid molasses. The liquid is taken out and put into round or square holes in the earth which are lined with cloth. It is then allowed to cool; when it thickens the molasses is ready for use and sale. In an ordinary year the price varies from $1\frac{1}{2}d$. to 2d. the pound (Rs. $1\frac{1}{2}-2$ the man). Since about 1840, when the Mauritius cane was introduced, a little white sugar and sugarcandy have been made in Hángal. They are inferior to the China and other sugar imported by Vengurla and Kárwár. Formerly all the fine sugar and sugarcandy were imported by Rájápur in Ratnágari and went by the name of Rájápur sugar.

Glass Bangles are made by about ten famililes of Bogár or Jain bangle-makers. Of the raw materials bangle glass is brought in lumps from Belári at about £2 the hundredweight (Rs. 41 the man). In Belári bangle glass is made by melting a particular sand with some alkalis. At the time of melting bangle glass is coloured either green, blue, red, or black. In making bangles a lump of this glass is melted in a half-closed earthen caldron. Four men sit round the caldron. Each thrusts into the molten glass a long iron spike with a bent end. When it is drawn back, the spike brings with it a few grains of melted glass. The bangle-maker, who is standing close by, immediately taps with a knife the head of the bent end of the spike, and while it is yet red-hot the molten glass runs up the spike like a small ring. The red-hot glass ring is with the help of some cross nails at once moved to a cone-shaped iron rod set upright in the ground about two feet from the furnace. The iron rod is then turned round on a roller and the bangle is shaped with a knife. In this way a bangle-maker shapes about twenty-five bangles in fifteen minutes. In one day four men working together can make a man or twentyfive pounds of lump glass into 4500 bangles. When the day's work is over, the makers gather and string the bangles. These are sold at about £2 10s. the hundredweight (Rs. 5½ the man). The banglemakers earn about £10 (Rs. 100) a year. These glass bangles are worn by the women and girls of all castes except by some widows. Except some under twenty whose heads have not been shaved, Bráhman widows do not wear bangles; Marátha and other widows break their bangles at the death of their husbands, and afterwards put on new ones. Musalmán widows do not wear bangles. glass bangles are in great demand, they are brought from Bombay, Belári, and Maisur by Bogár-Jain and Musalmán bangle-dealers.

Oil is extracted chiefly by Lingayat Ganigias from sesamum, linseed, safflower, and castor seed, grown in the district and bought by the oil pressers from the growers. Small quantities of oil are also extracted from spices and almonds for medicine and perfume. From sesamum linseed and safflower the oil is extracted by pressing the seeds in an oil mill; from castor seed the oil is extracted by boiling its pulp in hot water; and from spices and almonds

Chapter VI.
Crafts.
Molasses.

GLASS BANGLES.

OIL

Chapter VI. Crafts.

the oil is extracted by distilling. The mortar of the oil mill used in pressing sesamum, linseed, and safflower is a huge stone eight feet long and about twelve feet round. part is buried in the ground. The upper three feet are hollowed out and lined inside with wood, which has to be renewed once a year. None of the three grains, sesamum linsced or safflower, is put alone in the mortar. If any of these is pressed by itself it yields little oil, while if equal quantities of any two or more of these grains are pressed together, the outturn is greatly increased. After the stone mortar has been fresh lined with wood it does not hold more than twenty-nine pounds (8 shers) of seed. Afterwards, when the roller or piston wears away the wood, the mortar daily holds a larger quantity of grain, till, in the course of a year, it can hold 115 pounds (32 shers) of seed. Before putting them into the mortar the seeds are slightly wetted. The roller is turned round and round in the mortar by means of bullocks yoked to a cross shaft which is attached to the roller from outside. This process expresses and separates the oil from the seed. The oil is taken out for use and the crushed seed is scraped out and used as cattle food. When a mortar holds only twenty-nine pounds (8 shers) of seeds two good bullocks take about two hours to press the oil. When the mortar begins to hold up to 115 pounds (32 shers) the pressing takes about twice as long. with a freshly repaired mill oil is drawn out six times a day and only three times when the wooden lining gets worn. Sesamum oil is sold both wholesale and retail at about 3½d. to 4¾d. the pound (Rs. 3-4 the man of twenty pounds). In retail oil is generally sold from house to house by Ganigia women. Since 1876 the importation of kerosine oil has greatly reduced the profits of the oil-pressers.

To extract oil by boiling, castor seeds are parched in pans until they become red, and give out a pleasant smell, when they are pounded to flour in a mortar. The flour is thrown into an earthen vessel about half full of boiling water, and it is allowed to boil until nearly all the water has passed off in steam. By this time, the oil begins to float and it is carefully poured into another vessel and preserved. The oil is now in its purest state fit for anointing a new-born babe.

Oil is distilled from spices and almonds. The almonds or spices from which the oil is to be distilled are put in an earthen cup with a little water in it. Under the cup a strong fire is lighted. The cup is covered with a second cup having a horizontal tube fastened to it, and the division between the two cups is carefully closed with clay. A wet cloth is laid on the top of the upper cup and cold water is constantly dropped on the cloth. By keeping the cup cool the vapour of oil that rises from the heated jar condenses and passing down the tube drops into a third cup. In the second form of still, which is less common than the first, the cooling or condensing is done by earth not by water. A jar is buried in the ground and over its mouth is set a second jar with a very small hole bored in its bottom. The oil seed is put into the upper jar, its mouth is carefully closed, and the whole jar is surrounded with fire. The cool air in the lower jar condenses the vapour and the oil falls in drops into it.

Redpowder or kunku, literally saffron, is made at Dhárwár and in a few other places. At Dhárwár about thirty families of low-caste Hindus and two or three families of Musalmáns make redpowder. A small quantity is also made by Bráhmans as some strict Hindus will use none but Bráhman-made redpowder. To make redpowder six pounds of turmeric root are soaked in water for three days, dried, and broken into pieces. The pieces are soaked for three days in a liquid mixture of lemon-juice and powder of three-fourths of a pound of balgar or borax and five-eighths of a pound of alum or fatki. They are then dried and ground into fine redpowder called kunku. The materials cost about 2s. 6d. (Rs. 1\frac{3}{4}), and yield seven pounds of kunku worth about 3s. 6d. (Rs. 1\frac{3}{4}) at the selling price of 6d. (4 as.) the pound. Sometimes, to deepen the colour, a few drops of oil are added to the kunku, but this colour soon passes off All Hindu women whose husbands are alive mark their brows with redpowder.

Besides English ink, which is much used in public offices, two kinds of local ink are made. Of these one kind is used in public offices in writing on country paper and the other is used by Bráhmans in writing religious books. To make the native official ink one-sixteenth of a pound of rice, Indian millet, and rági are put in an earthen vessel and placed on a furnace. When the grains are about to take fire, a gallon of water is poured into the vessel, and the whole is allowed to boil. The liquid is strained and poured into a plate. Lamp-black tied in a cloth is then ground into the liquid and the ink is ready for use. This ink does well for writing on country paper into which it soaks a little, but when written on smooth polished paper it is easily washed off. In writing religious books both black and red ink are used. To make black ink two and two-thirds ounces (6 tolás) of good sealing-wax or bhangardargu and four-fifths of an ounce (2 tolás) of balgar or borax are boiled together for about an hour in a pint (40 tolús) of water, and the liquid is strained. Some lamp-black tied in a cloth is ground into the liquid and the ink is ready. shines when written, cannot be scratched or washed off the paper, and is said to last unfaded for centuries. red ink two and two-fifths ounces (6 tolás) of bad sealing-wax or khaddiargu, four-fifths of an ounce (2 tolás) of balgar or borax, one-lifteenth of an ounce (tola) of alikhan Eschynomene aspera leaves, and two-fifteenths of an ounce (\frac{1}{3} tolu) of chijjikhar or alkali, are boiled together in one pint (40 tolás) of water, and the liquid is strained. This forms a good red ink. If lampblack is added. it turns to a dull but serviceable black ink.

There are two classes of leather-workers, tanners and shoemakers. The tanners are chiefly Madigerus, Holerus, and Dhorarus. The skins are stripped off dead animals and the inside is rubbed with water and lime at two to four pounds for each skin. The skins are then steeped in water for fifteen days. The hair is next scraped off with a broad blunt knife and the skins are again steeped in a mixture of myrobalans and $b\ell bhul$ bark for six days when they are taken out and dried into leather. The leather is partly used in making shoes, ropes, and other articles of husbandry, and is

Chapter VI.

REDPOWDER.

INK.

LEATHER.

Chapter VI.

partly sent by hide-dealers to Bombay and Madras. Shoemakers are either Mochigárarus or Samgars (K.). Samgars or Chámbhárs make and mend shoes and sandals, tan, and cover bamboo boats with leather. Shoes and sandals are sold at 1s. to 4s. (Rs. ½-2) the pair.

SALTPETRE.

Three crafts, the making of saltpetre, earth-salt, and paper, have almost or altogether died out. In 1841 salt petre was made at Dhárwár. In a plain oatside of the town men of the Uppar caste raised an earthen mound or pillar about fifteen feet high and 100 feet round. On the top of the mound were built seven or eight basins of lime and stones each about four feet across and ten feet deep. At the bottom of each of these basins was a hole carefully filled. In the ground round the mound several pits were dug five or six feet square and a foot deep. From each of these pits a channel two or three inches broad led to the hole at the bottom of each of the basins. The hole in each of the masonry cisterns on the top of the mound was then filled with leaves from the inside and the cistern was partly filled with saltearth or saulumannu. Over the salt-earth water was poured, which, draining through the salt-earth and leaves, passed out by the channels and brought all the saltpetre into the small pans or pits. When the pits were full the holes were stopped and the water was left to dry in the sun. When the pan was dry the saltpetre was scraped off the bottom and purified. At present (1883) one shepherd family who call themselves Uppars that is salt-makers make saltpetre in the jágir village of Hebli. The right of making saltpetre is yearly farmed for about £1 7s. (Rs. 131) by the two sharers of the Hebli estate. Every year, provided no rain falls during these two months, saltpetre is made between January and March. If rain falls the saltpetre is washed away and the labour is wasted. During these two months about 900 pounds (36 mans) of saltpetre are yearly made and fetch about £5 8s. (Rs. 54) at 11d. the pound (Rs. $1\frac{1}{2}$ the man).

EARTH SALT.

About thirty years ago earth salt, called in Kánarese sauluppen that is brackish salt and manuppu that is earth salt, was extracted in several parts of Dhárwár from a peculiar kind of earth containing salt. Earth salt was made in the same way and by the same class of people as saltpetre. The making of earth salt has been stopped under the salt act, Act VII. of 1873.

PAPER.

About twenty years ago, paper was made at Dhárwár, Gadag, Gutal, Hubli, Karajgi, Navalgand, Ránebennur, and several other places in Dhárwár. Since then the craft has almost or altogether died away under the competition of better and cheaper European paper.

¹ Saltpetre has two names in Kánarese soruppu and moddupu. Uppu means salt, and as saltpetre when fired makes a noise like sor it is called soruppu that is the sor sounding salt. Saltpetre is also called modduppu or gunpowder salt. Though spelt in the same way Uppar a salt-maker is differently pronounced from Uppar a mason. Ráv Bahádur Tirmalráv.

CHAPTER VII.

HISTORY.

The traditional history of Dhárwár goes back to the time of the Pándavs Hángal fifty miles south of Dhárwár in inscriptions of the twelfth century is called Virátkot and Virátnagari, the Fort and City of Virát, and is locally believed to be the place where the Pándavs (B.C. 1500) lived during part of their exile. The names Virátkot and Virátnagari support the tradition, as, according to the Mahábhárat, Virát was the name of the king at whose court the Pándavs spent the thirteenth year of their exile.

The earliest historical information regarding Dhárwár belongs to the fifth century after Christ. For the history of the eight hundred years between the fifth century and the Muhammadan conquest of the Deccan under Alá-ud-din Khilji (1290-1310) an unusually large number of copperplates and stone inscriptions record the names of dynasties and kings, the year of the inscription sometimes in the Kaliyug but more commonly in the Shak era,2 the nature of the grant, to whom made and why, and generally add details which throw light on the state of the country at the time. So far about ten copperplates and 600 stone inscriptions have been collected and deciphered at first (1825-1840) by Sir Walter Elliot for some time Sub-Collector of Hubli, and of late years (1870-1884) chiefly by Mr. J. F. Fleet, of the Bombay Civil Service. Banavási in Sirsi in North Kánara, now a little outside of Dhárwár limits, may be regarded as the earliest historical capital of the Dharwar country. Buddhist references carry the history of Banavási to the third century before Christ, and local inscriptions show that it was a centre of power in the first century after Christ. From the first to the end of the thirteenth century many inscriptions prove that Banavási was the centre of a large territory called the Twelve Thousand which must have included at least the centre and south of the present district of Dhárwár. Next to Banavási, Pánungal or Hangal is the oldest local historical centre. Other ancient places of importance are Annigeri thirty miles east of Dhárwár mentioned in or containing sixteen inscriptions of the eleventh to the sixteenth centuries; Bankápur forty miles south of Dhárwár mentioned in or Chapter VII.

History.

EARLY HISTORY.

era begins in A.D. 78 (March - April).

¹ Mahabharat, book iv. Viratparv; Indian Antiquary, V. 179; Fleet's Dynasties of the Kanarese Districts of the Bombay Presidency, 7 note 2.

2 The initial date of the Kallyng is the spring equinox of B.c. 3102, the Shak

Chapter VII. History. EARLY HISTORY.

containing seven inscriptions of the eleventh and twelfth centuries: Chaudadámpur fifteen miles north of Ránebennur mentioned in or containing eight inscriptions of the ninth to the thirteenth centuries; Dambal fifteen miles south of Gadag mentioned in or containing five inscriptions of the eleventh and twelfth centuries; Gadag forty-five miles east of Dhárwár mentioned in or containing nineteen inscriptions of the twelfth to the sixteenth centuries; Lakkundi eight miles south of Gadag mentioned in or containing thirty-five inscriptions of the ninth to the thirteenth centuries; Lakshmeshvar forty miles south-east of Dhárwár mentioned in or containing twenty-nine inscriptions of the tenth to the sixteenth centuries; Naregal sixteen miles north-east of Gadag mentioned in or containing nine inscriptions of the tenth to the thirteen centuries; and Rattehalli ten miles south-east of Hirekerur mentioned in or containing seven inscriptions of the twelfth to the sixteenth centuries. Almost all of these places. though now reduced in importance some even to petty villages, have ruins of beautiful stone temples varying from the ninth to the thirteenth century, built without mortar in what is locally known as the Jakhanáchárya style.2

Of Shátakarni or Andhrabhritya rule in Dhárwár (B.C. 200. A.D. 200) there is no local record. Considering the wide spread of Shátakarni sway in the Deccan, at Kolhápur, and at Banavási, it is probable that during the centuries before and after the Christian era the lands now included in Dhárwár were subject to the Banavási branch of the Shatakarnis.4 After the Shatakarnis the district probably passed to the Ganga or Pallav kings. The accession to power of the Early Kadambadynasty of Banavási and Halsi in Belgaum, after

Kadambas.500.

¹ Details are given below under Places.

believing that they were Aisacidan Parthians.

² Jakhanáchárya is said to have been a prince who having accidentally killed a Brahman, employed twenty years in building temples from Benares to Cape Comorin to atone for the sin of Brahman-killing, Ind. Ant. I. 44. In style and date Jakhanacharya's temples correspond to Hemadpant's temples in Khandesh and the North Deccan.

⁴ An inscription at Banavási shows that about the first century after Christ its ruler was Háritiputra Shátakarni of the Vinhukadadutu family. Details are given in Bombay Gazetteer, XV. Part II. 77, 261.

5 The Gangas were an early and important family in Maisur. Their history is doubtful as Mr. Fleet (Kánarese Dynasties, 11-12) has shown reasons for believing that several of the inscriptions regarding them are forgeries. The Pallav dynasty was one of the most important enemies against whom the Kadambas and afterwards was one of the most important enemies against whom the Kadambas and afterwards the Chalukyas had to fight. About the middle of the sixth century they were probably driven out of Vátápi or Bádámi by Pulkeshi I. Early in the seventh century the Eastern Chalukyas forced them out of Vengi on the east coast between the Krishna and the Godávari. In the time of the Western Chalukya Pulkeshi II. (610-634) their capital was at Kánchi or Conjeveram and they long continued a powerful dynasty. The Pallavs rank in the Puráns with the foreign races, the Halhayas, Shaks, and Yavans. Mr. Fleet (Dynasties, 15) has shown, reasons for believing that they were Argeidan Parthians.

The Shatakarnis, better known by their Puranik name of Andhrabhrityas, were a powerful Deccan dynasty which is supposed to have flourished in the three centuries before and after the Christian era. Their original seat was A'ndhra or Telangan, and their capital Dharnikot at the mouth of the Krishna. At the height of their power (about A.D. 10-40) they appear to have held the whole breadth of the Deccan from Sopara in Thana to Dharnikot near the mouth of the Krishna. Their inscriptions and coins have been found at Kanheri and Sopára in the Konkan, at Junnar, Karhád, Kolhápur, and Násik in the Deccan, at Banavási in North Kánara, at the Amravati tope in the Kistna district, and in other parts of the Madras Presidency. Details are given in Bombay Gazetteer, XIII 409; XVI.181-183, 620-623.

defeating either the Gangas or the Pallavs, is the first certain event in local Dhárwár history. These Kadambas, whose origin is not vet fixed, were a family of Jain chiefs whose capital was Banavási and who had minor centres at Uchhrangi near Harihar in North Maisur, at Halsi in Belgaum, and at Triparvat perhaps Trigiri or Tegur in North Dharwar. Their copperplates, found among other places at Devgiri six miles west of Karajgi, give the names of nine kings and chiefly record, in letters of about the end of the fifth century, grants of villages and lands for the benefit of Jain temples. The subsequent early Hindu history of the district may be divided into three periods. An Early Chalukya and Western Chalukya period lasting from about the begining of the sixth century to about A.D. 760; a Rashtrakuta period from A.D. 760 to A.D. 973; and the third and last period of Western Chalukya (973-1165), Kalachuri (1165-1184), Hoysala Ballál (1192-1203), and Devgiri Yádav (1210-1295) overlords, when, at least till the end of the twelfth century, the district was directly governed by feudatory Kadamba chiefs whose head-quarters were at Banavási and Pánungal or Hángal. The Early Kadambas appear to have been defeated by the Early Chalukyas about the beginning of the sixth century.2 The earliest record of Early Chalukya rule in Dhárwár is an undated tablet at Adur ten miles east of Hángal of the sixth Early Chalukya king Kirtivarma I. (A.D. 567) recording gifts to a Jain temple built by one of the village headmen. The inscription gives the name of Kirttivarma as overlord, Adur or Pándipur as it is called in the inscription, being then directly governed by two chiefs named Sind and Madhavatti. This inscription in the heart of the Kadamba territory supports a statement that Kirttivarma defeated the Kadambas which occurs in an important inscription at Aihole, fifteen miles north-east of Bádámi, dated A. D.634-5.3 Of the Western Chalukyas (610-760) the earliest local record is a stone tablet at Amin-bhávi seven miles north-east of Dhárwár. It belongs to the second Western Chalukya king Pulikeshi II. (612-634), the contemporary of the famous Chinese pilgrim Hiwen Thsang (629-643),4 but is wrongly dated 564 (S. 488). The next inscription is a forged grant of the second Western Chalukya king Yikramáditya I. (670-680). It was found at Kurtkoti, about eight miles south-west of Gadag, and bears date 610 (S. 532). It was probably forged in the ninth or tenth century.6 Of the three next kings, Vinayáditya (680-697), Vijayáditya (697-733), and Vikramáditya II. (733-747) stone tablets, dated 687, 729, and 734, and recording grants to Jain temples and priests, have been found at Lakshmeshvar twenty miles north-east of Bankápur. About 760, when the Ráshtrakutas overthrew the

Chapter VII. History. EARLY HISTORY. Kadambas,

> Chalukyas, 510-760.

¹ Fleet's Kánarese Dynasties, 7-10. ² Fleet's Kánarese Dynasties, 10.

Ind. Ant. VIII. 23; Fleet's Kanarese Dynasties, 21. ⁴ Hiwen Thsang calls him Pu-lo-ki-she and gives an account of his kingdom of Mo-ho-la-ch's or Maharashtra twelve hundred miles in circuit. A special interest attaches to Pulikeshi as an Arabic chronicle relates that in 625 Khosru II. of Persia sent an embassy to him which is believed to form the subject of painting 17 in Ajanta Cave I. Details are given in Fleet's Kánarese Dynasties, 24-25; and Bombay Gazetteer, XII. 513.

Fleet's Kánarese Dynastics, 27. Ind. Apr. VII. 217 Ay Gazetteer, XII. 513.

Solution of Fleet's Kanarese Dynasties, 23.

Fleet's Kanarese Dynasties, 27; Ind. Ant. VII. 217.

Fleet's Kanarese Dynasties, 27, 28, 29; Ind. Ant. VII. 110, 112.

Chapter VII. History. EARLY HISTORY. Ráshtrakutas,

760.973.

Western Chalukyas, Dhárwár, like their other possessions, seems to have passed from the Chalukyas to their conquerors. The earliest record of Ráshtrakuta rule in Dhárwár is an undated fragment at Lakshmeshvar of the fourth king Govind III. (803-807), whom the inscription calls Shriballaha or Shrivallabh. Five inscriptions are dated in the reign of Govind III.'s son Amoghvarsh I. (814-877). Of these one, dated 865, was found at Mantravádi four miles cast of Shiggaon; a second dated 866 in the fifty-second year of his reign was found at Shirur seventeen miles north-west of Navalgund; a third, dated 869 and found at Soratur ten miles south of Gadag, records that Amoghvarsh's feudatory Ahavaditya of the Adav (Yadav?) dynasty was then governing the Kuppeya Purigere or Lakshmeshvar province; 2 and two undated occur at Nidgundi five miles west of Bankápur and at Kyásanur seven miles south-west of Hángal. The Shirur inscription records that Amoghvarsh's feudatory Devannayya governed the Belvola Three Hundred at Annigeri.3 The Nidgundi inscription records that Amoghvarsh I.'s (851-877) feudatory, Bankeyaras of the Chellaketan family, governed the Banavási Twelve Thousand, the Kundur Five Hundred, the Belvola Three Hundred,4 the Puligere or Lakshmeshvar Three Hundred, and the Kundarge Seventy.5 The Kyásanur inscription records that Amoghvarsh's feudatory Shankargand, also of the Chellaketan family, governed the Banavási province. Of Amoghvaish's son Krishna II. (902-911) three inscriptions have been found in Dhárwár, two dated at Mulgund twelve miles south-west of Gadag and at Adur ten miles east of Hángal and one undated inscription at Kyásanur seven miles south-west of Hángal. The Mulgund inscription, dated 902, calls Krishna, Krishnavallabh, and the A'dur inscription, dated 904, calls him Akálvarsh, and records that the Banavási Twelve Thousand was governed by his under-lord a Mahásámant of the Chellaketan family. The undated inscription at Kyásanur calls Krishna Kandarvallabh and records that the Banavási province was governed by his under-lord the Mahásámantádhipati Shankargand of the Chellaketan family. Of Krishna's son and successor Jagattung II. probably also called Prabhutvarsh a stone inscription dated 918 has been found at Dandápur two miles north-west of Nargund. Jagattung's son and successor was Nityamvarsh or Indra IV. a stone inscription of whose, dated 916, probably while he was ruling as heir apparent during his father's lifetime, has been found at Hatti-Mattur six miles north of Karajgi. Indra IV.'s successor was his younger son Govind V. an inscription of whose, dated 930, has been

² Fleet's Kánarese Dynasties, 35. ¹ Fleet's Kánarese Dynasties, 34.

³ Ind. Ant. XII. 216. ^a Ind. Ant. XII. 216.
^b Belvola or crop-land, the Kanarese bele to grow and hola a field, was the country round Gadag, Lakkundi, and Dambal in Dhárwár, Huli in Belgaum, and Kukkanur in the Nizám's Dominions. Fleet, 42 note 3. In a palm-leaf manuscript of the Kolhápur Jains the Chellaketan Bankeyaras or Bank is said to have called after himself the famous city of Bankápur, the greatest among cities. It was the capital of the Vanavás or Banavási province under the Chellaketans. Ind. Ant. XII. 217.
^b The Sántalige Thousand was a part of Maisur and the Kisukád Seventy was the country round Pattadakal in South Bijapur. Fleet's Kánarese Dynasties, 42.
^c Fleet's Kánarese Dynasties, 35.

found at Kalas fifteen miles north-east of Bankapur. Of the next Ráshtrakuta king Krishna IV. (945-956) four inscriptions have been found two dated 945 at Kyásanur seven miles south-west of Hangal, the third dated 951 at Soratur ten miles south of Gadag. and the fourth dated 956 at Alar five miles south-east of Hangal. The Kyásanur inscriptions call Krishna, Kannara, and record that his underlord the mahásámanta Kalivitta of the Chellaketan family was governing the Banavási province.2 The Soratur inscription gives the name of the commandant of the king's bodyguard Rudrapayya as governing the city of Saratvur.3 In 973 Krishna IV.'s son and successor Kakka III. was defeated and slain by the Western Chalukya Taila II. who put an end to Ráshtrakuta rule.4 Dhárwár, with the rest of the Rashtrakuta territory, passed to the revived Chalukyas whose capital later on (1050) was Kalyán in the Nizám's country about forty miles north of Gulburga. They continued to rule Dhárwár through their feudatories the Kádambas of Banavási and Hángal. The earliest record of Western Chálukya (973-1190) sovereignty in Dhárwár is an inscription at Gadag which describes Taila II. (973-997) as having uprooted the Rattas or Rashtrakutas, slain Munj king of Málwa, killed the leader of Pánchál in Upper India, and reigned over the whole earth for twenty-four years beginning with 973 (S. 895), the cycle year being Shrimukh. Another of Taila II.'s inscriptions at Talgund in Maisur dated 997 records that his underlord Bhimras, who was honoured with the title of Tailap's Champion, governed the Banavási province. Of Taila II.'s son and successor Satyáshraya II. (997-1008) three inscriptions have been found in Dhárwár; at Gadag dated 1002, at

Chapter VII.
History.

EARLY HISTORY.

Rashtrakutas,
760-973.

Western Chálukyas, 973-1190.

¹ Ind. Ant. XII, 223 - 225, 249. Between Govind V. and his successor Krishna IV. are inserted the names of Krishna III., Amoghvarsh II., and Khottiga. These chiefs

do not appear to have reigned.

² Fleet's Kánarese Dynasties, 87, 88. An inscription of Krishna IV.'s elder brother Khottiga, dated 971, has been found at Idargunchi village in Hubli. The inscription mentions Khottiga's underlord the Ganga Mahámandaleshvar Permánadi Mársimh as governing the Gangvádi Ninety-six Thousand in Maisur, the Purigere or Lakshmeshvar Three Hundred, and the Belvola Three Hundred, and gives the names of two places Sebbi or Chabbi six miles south of Hubli and Ron the chief town of the Ron sub-division. Khottiga left no issue, and this explains why his date 971 is considerably later than the dates of his younger brother Krishna IV. which begin with 945. It appears that when it became improbable that Khottiga should leave any issue, his younger brother Krishna IV. and afterwards Krishna's son Kakka III. were joined with him in the government. Khottiga seems to have died between the date (971) of the Idargunchi inscription and the date (972) of Kakka's Karda plates. Ind. Ant. XII. 255.

⁴ The temple of Banshankari at Gundur five miles east of Shiggaon has an inscription dated in the year (973) of Kakka III.'s overthrow. Whether after Kakka's defeat and death the Rashtrakutas lost all their power, or whether, for a time, the Rashtrakutas continued to govern as the underlords of the Western Chalukyas is not certain. An inscription at Hebbal village near Lakhmeshvar is dated 974-5 and gives the names of two Ganga chiefs as underlords of Kakkaldev and governing the Puligere and Belvola Six Hundred, the Kisukád Seventy, and the Bage Seventy. The inscription invests Kakkaldev with the usual titles of supreme sovereignty, which seems to show that Krishna IV. survived his son's overthrow and continued to hold some power, or that Kakka III. had a son governing the southern provinces of his kingdom who maintained himself against the Western Chalukyas longer than his father. Ind. Ant. XII. 270-271.

Fleet's Kanarese Dynasties, 40-41, Fleet's Kanarese Dynasties, 41-42.

Chapter VII.

History.

EARLY HISTORY.

Western Chalukyas,
973-1190.

Kanneshvar ten miles south-east of Hángal dated 1005, and at Munvalli one mile north-west of Bankapur dated 1008. The Gadag inscription records that under Satyáshraya as overlord, Sábhanras or Sobhanras governed the Belvola Three-Hundred and the Puligere or Lakshmeshvar Three-Hundred. The Kanneshvar inscription records that Satyáshraya's underlord Bhimráj, known as Taila's Champion governed the Banavási, Kisukád, and Sántalige districts. Of Satyáshraya II.'s nephew and successor Vikramáditya V. (1008-1018) three inscriptions have been found in Dhárwar; at Sudi nine miles north-east of Ron, at Alur five miles south-east of Hángal, and at Galagnáth twenty miles north-east of Karajgi. The Sudi inscription is dated 1010; the Alur inscription, also dated 1010, records that Vikramáditya's underlord Iriva Nolambádhiráj governed parts of Maisur and Dhárwár; the Galagnáth inscription is dated 1011.1 Of Vikramáditya's younger brother and successor Jaysimh III. (1018-1042) three inscriptions have been found. One dated 1025 is at Kalyán four miles south of Shiggaon, a second dated 1026 is at Hávangi seven miles south-east of Hángal, and a third dated 1033 is at Benkankond five miles south of Ránebennur.2 Among Jaysimh III.'s Dhárwár underlords and officers were the Mahámandaleshvar Kundamras of the Kádambas of Banavási and Hángal³ who was governing the Banavási Twelve Thousand and parts of Maisur and Kánara; the Dandanáyak Barmdev who in 1024 was governing the Taddevádi Thousand, the Belvola Three Hundred, and the Puligere Three Hundred; and the Mahamandaleshvar Mayurvarma II. of the Kádambas of Banavási and Hángal who in 1034 and 1038 was governing the Pánungal or Hángal Five Hundred. Of Jaysimh's son and successor Someshvar I. (1042-1068) inscriptions have been found at Nilgund twelve miles south-west of Gadag, at Adur ten miles east of Hángal, and at Ingalgondi eight miles south of Kod. The Adur and Nilgund inscriptions are dated 1044 and the Ingalgondi inscription is dated 1049. In 1044 Someshvar I.'s underlord in charge of the Panungal Five Hundred was Mayurvarma II. of the family of the Kádambas of Banavási and Hangal; and in 1045 and again in 1062 the Mahamandaleshvar Chávundráy of the same family was governing the Banavási Twelve Thousand. Someshvar's aunt Akkadevi seems to have held a command during his reign, as, in an inscription dated 1047, she is mentioned as laying siege to the fort of Gokáge or Gokák in Belgaum. In 1049 Someshvar's eldest son Someshvar II. was governing the Belvola Three Hundred and the Puligere Three Hundred. In 1053 Someshvar's chief queen Mailaladevi was entrusted with the government of the Banavási Twelve Thousand; and in 1055 Someshvar's second son Vikramáditya VI. was governing the Gangvádi Ninety-six Thousand in Maisur and the Banavási Twelve Thousand with Harikesari of the family of the Kádambas

¹Fleet's Kánarese Dynasties, 43.

Fleet's Kanarese Dynasties, 43; Dr. Burgess' Lists of Antiquarian Remains, 18,

^{23, 28.}This is the earliest mention of a Kadamba feudatory of the Western Chalukya kings after the Chellaketans (850-950).

of Banavási and Hángal as his subordinate in charge of Banavási. In 1068 Someshvar's underlord the Mahamandaleshvar Kirttivarma of the Banavási and Hángal Kádambas was governing the Banavási Twelve Thousand. An inscription of Someshvar's eldest son and successor dated 1071 mentions an incursion of a Chola king into the Western Chálukya dominions during Someshvar I.'s reign. Cholas invaded the Belvola Three Hundred, and, burning many temples, went to Puligere or Lakshmeshvar and there destroyed several Jain temples. The Cholas' success did not last long. Someshvar I. repulsed their army, drove them south, and slew their leader in a battle fought at Kakkargond, the modern Kakargundi, on the Tungbhadra between Harihar and Dávangere in North-west Maisur. Of Someshvar I.'s eldest son and successor Someshvar II. (1068-1075) five inscriptions have been found in Dhárwár: one dated 1069 at Sudi nine miles north-east of Ron; one dated 1071 at Soratur six miles southcast of Mulgund, one of uncertain date at Kallukeri six miles south of Hángal, and two dated 1072 at Gavrabad twelve miles north of Gadag and at Gudugudi five miles north-west of Hángal. Someshvar II.'s chief Dhárwár underlords and officials were Lakshmanras. who, in 1071, was governing the Belvola Three Hundred and the Puligere Three Hundred and who repaired the Lakshmeshvar Jain temples which had been destroyed by the Cholas during the reign of Someshvar I.; and Udayáditya of the Ganga family, who, in 19/1, was governing at the city of Bankapur and in 1075 had charge of the Banavási Twelve Thousand and parts of Maisur. Someshvar's II.'s successor was his younger brother Vikramáditya VI. (1073-1126) perhaps the most powerful king of his dynasty. Nearly two hundred inscriptions, not yet arranged, scattered over North Maisur, East Kánara, West and North-west Haidarabad, and all Dhárwár. Belgaum, and Bijápur show how completely Vikramáditya ruled the Deccan and Karnátak. One of his most interesting inscriptions is a Buddhist tablet at Dambal which records grants made to a vihára of Buddha and a vihára of Arya Tára Devi at that town. The inscription is dated 1095 (S. 1017) and proves that the Buddhist religion was a living faith in the Kanarese country as late as the end of the eleventh century. Vikramáditya's leading underlords and officials in Dhárwár were the Kádamba Mahámandaleshvar Kirttivarma II. who in 1076 and 1077 was governing the Banavási Twelve Thousaud; the Mahápradhán and Dandnáyak Barmdev who in 1077 was governing the Banavási Twelve Thousand and the eighteen Agraháras; 2 the Kádamba Mahámandaleshvar Shántivarma who in 1018 was governing the Banavási Twelve Thousand and the Pánungal Five Hundred; Queen Lakshmadevi who in 1095 was governing the eighteen Agraháras and Dharmápur or Dharmavolal the modern Dambal; the Kádamba Mahámandaleshvar Tailap II. who in 1099, 1108, and 1115, was governing the Banavási Twelve Thousand and the Pánungal Five Hundred; the Mahapradhan and Dandnayak

Chapter VII.
History.

EARLY HISTORY. Western Chalukyas, 978 - 1190.

¹ Details are given below under Dambal in Places.

² The eighteen Agraharas seem to have been eighteen important towns scattered over the Belvola Three Hundred district. Huli was one of them, Nargund another, and Dambal was perhaps a third. Flect's Kánarcse Dynasties, 48 note 3; Ind. Ant. XII. 47.

EARLY HISTORY, Western Chalukyds, 973-1190.

Anantpál who in 1103 was governing the Belvola Three Hundred. the Puligere Three Hundred, and the Banavási Twelve Thousand: and the Mahápradhán Dandnáyak and Chamberlain Govind who in 1114 was governing the Banavási Twelve Thousand and the Sántalige Thousand. Vikramáditya's long reign was fairly peaceful, except that his younger brother Jaysimh IV., whom he had placed as viceroy in charge of the Banavási Twelve Thousand, rebelled and winning over many local chieftains advanced as far as the Krishna. In a battle fought near the Krishna Jaysimh was made captive and the insurrection was crushed.1 Two of Jaysimh's inscriptions have been found, one at Anantpur in Maisur and one at Lakshineshvar. The Anantpur inscription records that in 1079 Jaysimh was governing the Banavási Twelve Thousand; and the Lakshmeshvar inscription records that in 1081 Jaysimh was governing the Banavá-1 Twelve Thousand, the Santalige and Kandur Thousands in Malsur, and the Belvola and Puligere Three Hundreds in Dhárwár. These inscriptions style Jaysimh heir-apparent. He seems to have died before Vikramáditya VI., whose successor was his own second son Someshvar III. (1126-1138). Inscriptions of Someshvar III. have been found at Abbalur and Hire-Kerur in Kod and at Bankapur. The Abbalur and Hire-Kerur inscriptions have not been deciphered, but the two Bankápur inscriptions are dated 1138. Someshvar's leading underlords and officers in Dhárwar were the Kádamba Mahámandaleshvar Mayurvarma III. who in 1131 was governing the Banavási Twelve Thousand, the Santalige Thousand in Maisur and the Pánungal or Hángal Five Hundred; the Kádamba Mahámandaleshvar Tailap II. who in 1135 was governing the Banavási Twelve Thousand, the Pánungal Five Hundred and the Puligere Three Hundred; and the Dandnáyak Mahádev who in 1130 was governing at his capital of Puligere.2 Of Someshvar III.'s eldest son and successor Jagadekmalla II. three inscriptions have been found at Dhárwár; one dated 1143 at Hire-Kerur seven miles south-west of Kod, and two dated 1144 and 1148 at Bálehalli six miles south-west of Hángal. Jagadekmalla's capital was Kalyán, but in 1148 he appears to have had a provincial centre at Kadalipur' in the Kondarte Seventy, which was a small sub-division on the Dharwar and North Kánara Frontier near Hángal. Jagadekmalla II.'s chief Dhárwár underlords and officers were the Dandnáyak Bomanayya, who in 1148 was governing the Banavási Twelve Thousand; the Dandnávak Keshiráj or Keshimayya who in 1142 was governing the Belvola Three Hundred, the Palasige or Halsi Twelve Thousand and the Panungal Five Hundred. Of Jagadekmalla's younger brother and successor Taila III. (1150-1162) inscriptions have been found in Dhárwár at Pura and Hamsabhávi in the Kod sub-division, and at Haveri in the Karajgi sub-The inscription at Pura about three miles south of Rattehalli bears date 1152 and the Haveri inscription is dated 1157.

Town.

Fleet's Kanarese Dynasties, 50.
 Kadalipur is mentioned in one of the Balehalli inscriptions. It is probably Balehalli as Kadalipur is the Sanskrit translation of the Kanarese Balehalli or Plantam

Taila III.'s leading underlord and officer in Dhárwár was the Dandnáyak Mahádev, who, in 1152, was governing the Banavási

Twelve Thousand and the Puligere Three Hundred.

Taila III.'s commander-in-chief was the Mahamandaleshvar Bijjala of the Kalachuri dynasty. As later Kalachuri inscriptions record that Bijjala destroyed the Chalukya kings and acquired the whole of the Kuntal country,1 it is clear that Bijjala abused his trust and used his sovereign's armies to deprive him of his kingdom. An inscription dated 1161-2 (S. 1083) found at Balagámve in Maisur styles Bijjala Mahámandaleshvar, a second inscription dated 1162-3 (S. 1084) found at Annigeri invests Bijjala with full royal titles and calls Annigeri his royal capital. This fixes the date of Bijjala's usurpation between January 1161-2 and January 1162-3. Of the Kalachuri² usurper Bijjal (1161-1167) inscriptions have been found at Ablur and Rattehalli in Kod and at Annigeri in Navalgund. Bijjala's leading underlords and officers in Dhárwár were the Dandnáyak Barmaras, who, in 1161, was governing the Banavási country; the Dandnáyak Shridhar who in 1161 was governing from Annigeri; and Káshyapnáyak who in 1163 was governing the Banaváse Twelve Thousand and the Pánungal Five Hundred. Though the Kalachuris were Jains, Bijjala took a great interest in Shaivism. His minister Basava, taking advantage of his master's leaning towards Shaivism, started the Lingáyat form of that faith, and securing a large following, dethroned Bijjala and for a time assumed the sovereignty. According to Jain accounts, dreading Chapter VII. History. EARLY HISTORY. Kalachuris, 1161-1184.

The Kalachuris or Kalachuryas have the title of Kálanjara-puravarádhishvara, that is Supreme lord of Kálanjara the best of cities. The original stock therefore started from that city, now the hill-fort of Kálanjar in Bundelkhand. An account published by General Cunningham (Arch. Report, IX. 54) shows that in the mnth, tenth, and eleventh centuries a powerful branch of the family held Bundelkhand which was also called Chedi. This family seem from their ers, which is called either the Kalachuri or the Chedi era, to date from as early as a. D. 249. Their capital was at Tripura, now Tevar, about six miles west of Jabalpur. Members of this Tripura family of Kalachuryas several times intermarried with the Rashtrakutas and Western Chalukyas. Another branch of the tribe in the sixth century had a kingdom in the Konkan, from which they were driven by the early Chalukya Mangalish, uncle of Pulikeshi II. (610-634). The Kalachuryas call themselves Haihayas and claim descent from Yadu through Kartavirya or Sahasrabáhu-Arjuna.

Details are given in Bombay Gazetteer, XV Part II. 90.

¹ The country of Kuntal included, on the south, Balagámve and Harihar in Maisur, and Hampe or Vijayanagar in the Belari district. To the north of these places it included Lakshmeshvar, Gadag, Lakkundi, and Naregal in Dharwar, and Kukkanur in the Nizam's dominions; further to the north, Konnur, Kalhole, Saundatti, and Manoli in Belgaum, and Pattadakal and Aihole in South Bijapur; and still further to the north, Bijapur, Taddevádi, and Mannugulli, in Bijapur. Still further to the north, it probably included Kalyán itself; but the inscriptions as yet available do not suffice to define its extent in that direction and to the north-west. In the south-west corner, it included Banavási in North Kánara, and Hángal in Dhárwár, and, on this side, was bounded by the Hayve Five Hundred, which was one of the divisions of the Konkan, and which lay between Hangal, Banavasi, and Balagamve, and the coast. To the north of Hangal, the Palasige or Halsi Twelve Thousand, the Venugrama or Belgaum Seventy, and the territory of the Silaharas of Kolhapur, do not seem to have formed part of Kuntala. As they lay along the inland slopes of the Sahyadris and were bounded immediately on the west by the Konkan, they seem to have been treated rather as up-country divisions of the Konkan itself. The principal divisions of Knntal were the Banavasi Twelve Thousand, the Panungal or Hangal Five Hundred, the Puligere or Lakhmeshvar Three Hundred, the Belvola Three-hundred, the Kundi Three-thousand, the Toragale Six Thousand, the Kelavádi Three Hundred, the Kısukád Seventy, the Bagadage Seventy, and the Taddevádi Thousand. Fleet's Kánarese Dynasties, 42.

History.
EARLY HISTORY.
Kalachuris,
1161-1184.

the vengeance of Bijjala's son Someshvar, Basava fled to Ulviin North Kánara. He was pursued, and, finding that Ulvi could not stand a siege, he threw himself in despair into a well and was drowned.' Of Bijjala's son and successor Someshvar (1167-1174) inscriptions have been found in Dhárwár at Lakkundi and Narsápur in Gadag, at Annigeri in Navalgund, and at Rattehalli in Kod. The Lakkundi and Narsápur inscriptions are dated 1172 and 1173; the Annigeri inscription is dated 1172, and the Rattehalli inscription 1174. Someshvar's Dhárwár underlords and officers were the Dandnáyak Keshav who in 1168 was governing the Banavási Twelve Thousand, the Pánungal Five Hundred, and the Taddevádi Thousand; the Dandnáyak Tejimayya who was the governor of the Belvola country; and the Mahamandaleshvar Vijayapandya, who in 1171 was governing the Banavási country. About 1175 Someshvar was succeeded by his three brothers Sankama, Ahavamalla, and Singana who seem to have shared the government. Sankama's inscriptions have been found at Ron and Sudi in the Ron sub-division both dated 1180. His chief Dhárwár underlord was the Mahápradhán and Dandnáyak Keshiráj who in 1179 was governing the Banavási country with a subordinate Sampakar of the Gutta family. inscription of Ahavamalla (1180-83), dated 1182, has been found at Anveri twelve miles south-east of Ránebennur. The only known inscription of Singhana is a copperplate found at Behatti eight miles north-east of Hubli. The plate is dated 1183, and records the grant of the village of Kukkanur in the Belvola Three Hundred.

Though usurped for nearly twenty years by the Kalachuris the power of the Western Chálukyas was not destroyed. 1182, taking advantage of the disturbances at Kalyán caused by the struggle between Lingáyats and Jains, with the help of Dandnáyak Barmras, apparently Taila III.'s governor of Banavási, Someshvar IV. son of Taila, established himself in the neighbourhood of Banavási and made Annigeri in Navalgund his capital. As Someshvar's inscriptions have been found only at Annigeri in Navalgund, at Dambal and Lakkundi in Gadag, at Hángal Kallukeri and Naregal in Hángal, and at Abbalur in Kod he probably never ruled any large territory. Someshvar IV.'s Dhárwár underlords were the Mahápradhán and Dandnáyak Tejimayya, who in 1184 was governing at Dharmapur or Dambal in the Masvadi country; the Dandnáyak Barmras who in 1184 was governing at the capital of Annigeri; the Mahapradhan Keshavbhatt who in 1186 was governing the Belvola Three Hundred; and the Kadamba Mahamandaleshvar Kámdev who in 1189 was governing the Banaváse Twelve Thousand, the Panungal Five Hundred, and the Puligere Three Hundred. The last inscription of Someshvar IV. is dated 1189. Shortly after this the Western Chálukya dominions were divided between the Hoysala Balláls of Dvárasamudra or Halebid in West Maisur in the south and the Yádavs of Devgiri now Daulatabad in the north.

¹ The Lingayats deny the truth of this story, and say that Basava was absorbed into a ling in the temple of Sangameshvar at the meeting of the Krishna and the Malprabha in Bijapur, ten miles north of Hungund.

This division ceased when, about 1210, the whole of the Western

Chálukya dominions passed to the Devgiri Yádavs.

Of the Hoysala Ballals of Halebid in West Maisur the first mention in connection with Dhárwár dates as far back as 1137. It occurs in an inscription belonging to the fourth Hoysala king Vishnuvardhan (1117-37), where the excellent Virátkot or Hángal is described as having cried out. Vishnuvardhan's power is said to have extended to Banavási, Pánungal, Halasige, Puligere, and Másvádi in Dhárwár. Vishnuvardhan gained the Halasige district by conquest from Jayakeshi II. (1125) of the Goa Kádambas, and the Banavási and Pánungal districts by the conquest of the Banavási Kadamba Tailap II. (1099-1124). These conquests seem to have been short-lived. The first lasting conquest of Dharwar was by the great Hoysala king Ballal II. or Vir Ballal (1192-1211), also known as the conquerer of Hill Forts. His inscriptions in Dhárwar have been found at Sátenhalli in Kod, at Benkankond in Ránebennur, at Annigeri in Navalgund, at Hángal, and at Alavandi, Gadag, Mevundi, Mulgund, and Nágámve in Gadag. Vir Ballál was the first of his family to assume royal titles, and as commander-inchief of his father's army, and by defeating the Kalachuri general Barma in 1183, established Hoysala power in the Kalachuri dominions north of the Tungbhadra. Vir Ballal seems to have made no lasting conquests north of the Malaprabha. In 1192 he established himself at his capital of Lokkigundi, the modern Lakkundi.2 Before this, besides defeating the Kalachuris, Ballal met and defeated, according to tradition at Lakkundi, the Devgiri Yadav Jaitugi (1183), a victory which gained Ballál the supremacy of the country of Kuntal. An inscription of Ballal's son Narsimh II. describes a battle between Ballal and a certain Seman or Sevun whom Ballál besieged at Soratur near Gadag, defeated, pursued, and slew at the Krishna. In the same campaign besides Soratur, Ballal II. took the hill forts of Erambarge or Yelburga in the Nizám's country, Kurugod near Belári, and Bellitagge, Gutti, Hángal, and Rattehalli in Dhárwár. His first attempt on Pánungal or Hángal was in 1196. An inscription on a hero-stone or virgal at Hangal, carved with a lively battle scene, records that in 1196 the Hoysala king Vir Ballál came and pitched his camp at the large

² Besides at Lakkundi Ballal II, had a capital at Annigeri,

Chapter VII.
History.

EARLY HISTORY.

Hoysala Ballals,
1137-1210.

¹The Hoysalas, who are best known as the Hoysalas of Dvárasamudra in Maisur, ruled from about 1039 to 1312. Their name is also written Hoysana, Poysala and Poysana. They belong to the lineage of Yadu, and seem to be connected with the Yádavs of Devgiri (1189-1312) as they both have the family titles of Yádav-Náráyan and of Dvárávati Puravarádhishvar, supreme lords of Dváravati the best of cities, apparently Dvárasamudra, the modern Halebid in West Maisur. Vinayáditaya (1039) was the first of the family to secure any considerable share of power. The two chief men of the family were Vishnuvardhana from about 1117 to 1138, who was independent except in name, and Ballál II. (1192-1211) who overthrew the Kalachuri successors of the Chálukyas and also defeated the Yádavs of Devgiri. His son Narsimh II. (1233) was defeated by the Yádavs, and his great-grandson Ballála III. by Alá-ud-din's general Malik Kátur in 1310. They sustained a second and final defeat from a general of Muhammad Tughlik's in 1327. The following are the successions: Vinayáditya (1047-1076), Ereyanga, Ballála I. (1103), Vishnuvardhana (1117-1137), Narsimh I., Ballála II. (1191-1211). Narsimh II. (1223), Someshvar (1252), Narsimh III. (1254-1286), and Ballála III. (1310). Fleet's Kánarese Dynasties, 64; compare Wilson's Mackenzie Collection, New Edition, 64.

EARLY HISTORY.

Hoysala Balláls,
1137-1210.

Anikere pond to the west of the city and from it laid siege to the city. The stone tells how Sohani and his son Padmayya or Padmanua, the leaders of the Kádamba garrison dashed out and routed the assailants, though the victory was marred by the death of the Kádamba leader Sohani. Ballál II. returned and about 1200 succeeded in taking Hángal. Still the Kádamba chief Kámdev struggled on and in 1203 held Sátenhalli in Kod. Ballál II.'s leading underlords and officers in Dhárwár were, in 1192, the Mahápradhán and Dandnáyak Ereyana or Eraga governing the Banavási Twelve Thousand and the Santalige Thousand; in 1199 the Mahamandaleshvar Ráydev governing the Belvola country; in 1202 the Mahamandaleshvar Jagadala Bhattamdev governing the Kuntal country; and in 1203 his Dandnáyak Kamathad Mallisetti governing the Sántalige Seventy and the Nágarkhand Seventy in the Banavási country. Ballál's II. son and successor Narsimh II. lost all that his father had won of the old Western Chálukya dominious. Narsimh retired to Dvársamudra and seems never after to have attempted to pass north of the Tungbhadra.

Devgiri Yádavs, 1187 - 1320.

Narsimh's rivals and conquerors were the Yadavs of Devgiri in the North Deccan. The first mention of the Devgiri Yadavs in connection with Dharwar is in the reign of the third Devgiri king Bhillam (1187-1191) whose son Jaitugi I., apparently in Bhillam's lifetime, was defeated by Vir Ballal in a battle fought, according to tradition, at Lakkundi in Gadag. As this victory is said to have secured to Ballál the country of Kuntal, Bhillam must have then held a fairly extensive kingdom including Dhárwár. One of Bhillam's inscriptions, dated 1189, at Annigeri in Navalgund speaks of Annigeri as the capital from which his underlord the Mahámandaleshvar Báchiráj or Báchan was governing the Belvola country. Of Bhillam's grandson Singhan II. (1209-1247) inscriptions have been found in Dhárwár at Gadag, Lakshmeshvar, Chaudadámpur, and Rattehalli, and a copperplate at Haranhalli on the Tungbhadra in Ránebennur. In 1215 Singhan's Mahápradhán Hemmayyanáyak was the manager of the customs duties of the Banavási country; in 1219 Singhana II. held the whole of the Banaváse Twelve Thousand; in 1223 his Dandnáyak Jagadal Purushottam was governing the Torgal Six Thousand; in 1241 his Mahápradhán Lakshmipál was governing the Nágarkhand Seventy; and in 1247 his Mahapradhan and Senapati Bachiraj was governing the Karnátak and other countries from the capital of Pulikarnagar or Lakshmeshvar. Of Singhan's grandson Krishna (1247-1253), inscriptions have been found in Dharwar at Behatti, Chaudadámpur, Gadag, and Nágámve. Of Krishna's successor Mahadev (1260-1270) inscriptions have been found at Chaudadampur, Pura, and Sangur. Of Mahadev's nephew and successor Ram-

¹ The Devgiri Yádavs (1150-1312) were a dynasty of ten powerful kings who held almost the whole of the Deccan before the Musalmán conquest. Their capital was originally at a place called Tenevalage, then at Vijayapur or Bijápur the great Adilsháhi capital, and afterwards at Devgiri the modern Daulatabad in the Nizám's territories. Their greatest king was the ninth Rámchandra or Rámdey (1271-1310), in the latter part of whose reign the Musalmáns first invaded the Deccan.

chandra or Rámdev (1271-1310), the greatest of the Devgiri Yádavs, inscriptions have been found in Dhárwár at Chaudadámpur, Lakshmeshvar, Naregal, and Rattehalli. In 1277 Rámdev's underlord was the Mahámandaleshvar Sáluva Tikkama who had come to Harihar on the Dhárwár-Maisur frontier in the course of a victorious expedition to the south. This expedition had probably been directed against the Hoysalas in consequence of their threatening, or perhaps invading, the southern and south-western part of Rámdev's dominions. In a 1277 inscription Sáluva Tikkama is called the establisher of the Kádamba kings and the overthrower of the Hoysalas. In 1295 Rámdev's Mahápradhán Mallidev was governing the Pulikere or Lakshmeshvar Three Hundred.

Besides of these different overlords inscriptions record the names of two local families the Kádambas and the Sindas. With varying overlords, the Kádambas of Banavási and Hángal (1068-1203) were during the eleventh and twelfth centuries the local rulers of Dhárwár. Their copperplates and inscriptions give about twenty-five names of whom six appear to have actually governed. All that is known of these Kádambas has been given in the account of

their Western Chalukya overlords.2

During the greater part of the twelfth century (1100-1180) the north-east of Dhárwár was held by the Sindas of Erambarge or Yelburga in the Nizám's country about fifteen miles east of Naregal in North-East Dhárwár. Of two of them Achugi II. (1110-1122) and Permádi I. (1104-1144) inscriptions have been found at Kodikop, Naregal, Ron, and Sudi all in the Ron sub-division. Achugi II.'s inscriptions found at Kodikop ten miles south of Ron is dated 1122. He was then governing the Kisukád³ or Pattadkal Seventy and several other towns, the chief of which was Nareyangal-Abbegere4 the chief town of the Nareyangal Twelve and a part of the Belvola Three Hundred. Of Achugi's eldest son and successor Permádi I. (1104-1144) three inscriptions have been found at Naregal and one at Kodikop. Of the Naregal inscriptions two record grants made by village officers before his time. The third is of his own time and bears date 1104. The Kodikop inscription is dated 1144.5 Till 1294 Rámchandra of Devgiri (1271-1310) was supreme in the Karnátak.6

In 1294 Alá-ud-din the nephew of Jelál-ud-din the first Khilji emperor of Delhi (1288-1295) led the first Musalmán army that had ever passed into Southern India, took Devgiri, and compelled Rámchandra or Rámdev to acknowledge the supremacy

The name Kisukad or Ruby forest, though not now known, evidently marked the country round Kisuvolal or Ruby-city that is Pattada Kisuvolal or Pattadakal in South Bijapur.

The modern Naregal about ten miles south-east of Ron.

5 Details of the Sindas are given in the Bijapur Statistical Account

6 Fleet's Kanarese Dynasties, 74.

Chapter VII.

EARLY HISTORY.

Devgiri Yádavs,
1187-1820.

Kádambas, 1068-1203.

Sindas, 1100 - 1180.

¹ The Kádamba successions are Mayurvarma I., Krishnavarma, Nágvarma I., Vishnuvarma, Mrigvarma, Satyavarma, Vijayvarma, Jayvarma I., Nágvarma II., Shantivarma I., Kirttivarma I., Adityavarma, Chattaya Chatta or Chattuga, Jayvarma II. or Jaysinh, Kirttivarma II. or Kirttidev I. (1068-1077), Shantivarma II. Shanta or Shautaya (1088), Talla II. or Tailapa II. (1099-1131), Mayurvarma III. (1131), Mallikárjun I. (1132-1135), Kirttidev II., and Kámdev (1181-1203) Several other Kádamba names, which, though historical, do not fit with this list are given in Mr. Fleet's Kánarese Dynasties, 87-88.

² See above, pp 394-398.

> THE DELHI EMPERORS, 1294-1347.

of the emperors of Delhi. Between 1295 and 1306 Rámchandra remained unharmed and continued the overlord of the south. 1306 Alá-ud-din, who in 1295 had usurped the Delhi throne, again sent an army to the south under his general Malik Káfur and again reduced Rámchandra to submission.2 Rámchandra died in 1310 and his son Shankar was ill-affected to Musalmáns. In the same year (1310) Alá-ud-din's generals Malik Káfur and Khwája Háji passed south, laid waste the Hoysala kingdom, captured Ballala III. (1200-1310), and, after plundering his capital of Dvársamudra, returned to Delhi with rich spoils.³ In 1312 Malik Káfur entered the Deccan for the fourth time, seized and put Shankar the Devgiri king to death, and laid waste the Karnátak and Maháráshtra from Cheul in Kolába and Dábhol in Ratnágiri in the west as far east as Mudgal and Ráichur in the Nizam's territory.4 The country north of a line passing through Belgaum and the meeting of the Krishna and Tungbhadra was brought completely under the sway of the Delhi emperor. During Malik Káfur's absence at Delhi Harpál, the son-in-law of Rámchandra of Devgiri, stirred the Deccan to arms and restored the former Devgiri territories to independence. The troubles at Delhi resulting in Alá-ud-din's and Malik Káfur's assassination left Harpál in undisturbed possession of Devgiri till 1318. In 1318 the emperor Mubárik (1317-1321) marched into the Deccan, captured Harpál, and flayed him alive.⁵ In 1327 the emperor Muhammad Tughlik (1325-1351) subdued the Karnátak even to the shore of the sea of Uman that is the Indian Ocean. Of the forty years between the first Musalmán invasion of the south in 1294 and the establishment of a new Hindu kingdom at Vijayanagar between 1328 and 1335 no record has been traced. It must have been a time of trouble and disorder, favourable to the rise of the petty robber chiefs, who, when the central authority was weak or broken, always divided and harried the Karnátak. Between 1328 and 1335, with the help of the Shankaráchárya of Shringeri in West Maisur, two brothers, Hakka and Bukka, established a new city on the right bank of the Tungbhadra river, opposite the old city of Anegundi and about thirty-six miles north-west of Belári. The new city was first called Vidyanagar or the City of Learning, and afterwards Vijayanagar or the City of Victory. Of the origin of the two brothers Hakka and Bukka accounts vary. According to one story they belonged to the Hoysalas of Dvárasamudra, according to a second they were of the family of the Banavási Kadambas, according to a third they were of the Yádav line, and according to a fourth they were shepherds or Kurubars the treasury guards of the family of Varangal in the Godávari delta which was destroyed by the Musalmans in 1323. Madhav the head of the Shringeri monastery helped the brothers with money, chose for them the site of the new city, and, in 1335, when the fortifications were completed, placed Hakka on the throne with the title of Harihar Ráy (1335-1350). The spread of Vijayanagar

Vijayanagar, 1335 - 1344.

Briggs' Ferishta, I. 307.
 Briggs' Ferishta, I. 375.
 Briggs' Ferishta, I. 389.

² Briggs' Ferishta, I. 369.
⁴ Briggs' Ferishta, I. 379.
⁶ Briggs' Ferishta, I. 413.

power in the Karnátak-was rapid. In 1342 the Arab traveller Ibn Batuta found Hariab, that is Hariappa, the overlord of the chiefs of the Kánara coast. Thus, at this time, Dhárwár seems to have been held by Vijayanagar. While Vijayanagar was building. Muhammad Tughlik (1325-1351), pleased with its central position and the strength of its hill-fort, was trying to make Devgiri, or as he now called it Daulatabad the City of Wealth, the capital of India. He thrice forced the people of Delhi to move to Daulatabad, but all his efforts failed. The Deccan continued hostile to his rule. And in the troubles which embittered the latter part of his reign the Deccan nobles more than once rose in revolt. At last in 1347. under the leadership of an Afghán named Zaffir Khán, afterwards known as Alá-ud-din Hasan Gangu, who took the name Bahmani out of respect to a Bráhman patron, the Deccan freed itself from all connection with Upper India. Hasan moved his capital from Daulatabad about 190 miles south-east to Kulbarga and there founded a dynasty, which, under the name of the Bahmani or Kulbarga kings, ruled the Deccan and great part of the Karnátak for nearly a century and a half (1347-1489).

About 1351 Alá-ud-din Hasan Gangu (1347-1358), the founder of the Bahmani kingdom, sent a large force into the Karnátak or Kánarese-speaking districts, that is the country south of a line drawn between Kolhápurand Bidar. From the Karnátak the Bahmani general returned with much spoil in money and jewels, besides two hundred elephants and one thousand female singers. Very bloody wars continued between the Vijayanagar and the Bahmani kings, the record of which is probably one-sided, as Ferishta dwells on Musalman victories and passes over Musalmán defeats. In the earlier wars between Kulbarga and Vijayanagar, it is recorded that victory was always followed by a general slaughter of prisoners, men women and children. In spite of their reverses the Vijayanagar kings do not seem to have lost their hold on Dhárwár and its neighbourhood, as, from an inscription dated 1354-55 (S. 1276), Harihar, on the right bank of the Tungbhadra about twelve miles south-east of Ránebennur, belonged to Bukka the second Vijayanagar king (1350-1379)3. In 1369, Muhammad Sháh Bahmani (1358-1375) defeated Bukka, king of Vijayanagar, and continued for three months to massacre the people of the Vijayanagar territory.4 Muhammad was more successful than his predecessors in reducing the Karnátak chiefs and landlords. He wrested from them much of the accumulated riches of seven hundred years,5 and so reduced the population that according to Ferishta the Vijayanagar districts did not recover for several ages.6 The scene of these indiscriminate massacres was the Ráichur-Doáb outside Dhárwár limits, though the east of the district can hardly have escaped.

The weakening of Vijayanagar power and the cruelty of the Musalman invaders forced large numbers of the people into outlawry. They Chapter VII. History. THE BAHMANIS.

1347 - 1469.

Wars with Luayanagar, 1369.

¹ Yule's Cathay, II. 416.

² Briggs' Ferishta, II. 294.

³ Jour. Bom. Branch Roy. As. Soc. XII. 338.

⁴ Briggs' Ferishta, II. 316. 6 Briggs' Ferishta, 11, 327. 5 Briggs' Ferishta, IL 327.

Chapter VII. History. THE BAHMANIS, 1347 - 1489. Wars with Vijayanagar,

1375 - 1417.

formed into large bands of brigands, and during Muhammad's reign as many as eight thousand heads are said to have been sent to Kulbarga and piled near the city gates.1 Muhammad Sháh's successor Mujáhid Sháh (1375 - 1378) demanded from Vijayanagar the fort of Bankapur, about thirty-six miles south of Dharwar, together with other places between the Krishna and the Tungbhadra, a country which Ferishta describes as full of fastnesses and woods. Bukka refused and in the war which followed was driven through the forests to Cape Ramas in Goa. Then fortune changed; Bukka regained what he had lost, and forced the Musalmans out of the territories to the south of the Krishna. An inscription dated 1379-80 at Dambal in Gadag shows that at that time Harihar II. (1379-1401) of Vijayanagar held Gadag. The success of the Vijayanagar chief was apparently decisive, as the Musalmán historians record about twenty years of peace during the reigns of Mahmud Shah Bahmani (1378-1397), Gheias-ud-din (1397), and Shams-uddin (1397), from 1378 to 1397. This period of peace was followed by a devastation as complete as that caused by the fiercest Musalmán invasion. The great Durga Devi famine began in 1306 Whole districts were emptied of their and lasted twelve years. people, and the hill forts and strong places previously held by the Muhammadans fell into the hands of petty chiefs and leaders of A second inscription of Haribar II., dated 1399-1400 (S. 1321), is at Makaravalli in Hángal.⁵

War between the Bahmani and Vijayanagar kings again broke out in 1398. In 1406 Feroz Shah Bahmani (1397-1422), halting near Vijayanagar, detached Mir Fazl Ulla Anju with the Berar division to lay siege to Bankapur the most important fortress in the Mir Fazl Ulla succeeded in taking the fortress. He committed the government of the fort and of its valuable dependencies to Mia Saddoh, and himself returned to the royal camp. the treaty which followed Dev Ráya (1401-1451) of Vijayanagar agreed to give his daughter in marriage to Feroz Shah Bahmani, and, to prevent further disputes, to cede the fort of Bankapur as the marriage portion of the Vijayanagar princess.6 The peace between the rival kingdoms did not last long. In 1417 they were again at war. And in 1423, Ahmad Shah Bahmani (1422-1435), the successor of Feroz Shah, overran, the Vijayanagar country, and put to death men women and children without mercy. Whenever the number of the slain amounted to twenty thousand, Ahmad Sháh halted three days and made a festival. He also broke down Hindu temples and destroyed Brahman colleges. Still, in spite of these successes, the Musalmans had no firm hold of the country south of the Krishna. 1423 and 1425 were years of drought and famine.8

In 1443, hearing that Dev Ráya of Vijayanagar had sent his son

¹ Briggs' Ferishta, II. 325.

² Briggs' Ferishta, II. 325.

³ Jour. Bom. Branch Roy. Soc. XII. 338.

⁴ Jour. Bom. Branch Roy. As. Soc. XII. 340. ² Briggs' Ferishta, II. 337. 8. Grant Duff's Maráthás, 26.

⁶ Brigge' Fernahta, II. 384; Scott's Deccan, I. 85 - 86.

Briggs' Ferishta, II. 402. Briggs' Ferishta, Il. 405.

to besiege Bankapur, Ahmad Shah Bahmani despatched Malik-ul-Tujár with the Daulatabad division to oppose him, and the Vijayanagar troops were forced to raise the siege. In 1454. Navalgund, about twenty miles north-east of Dhárwár, which is mentioned as the head-quarters of a sirkar or province, was the scene of an attempted revolt. Jelál Khán the governor of the province and brother-in-law of Alá-ud-din Bahmani II. (1435 - 1457), taking advantage of the king's illness, seized a large tract of country round Navalgund which he gave in charge to his son Shikandar Khán. In spite of his illness Alá-ud-din marched against the rebels who fled before him. Shikandar Khán induced Sultán Mahmud Khilji of Málwa and the ruler of Khándesh to enter the Deccan with a large army. Against this force Alá-ud-din marched in person, but before the armies met Shikandar's allies withdrew as they had moved on the assurance that Alá-ud-din was dead. With two thousand Afgháns and Rajputs Shikandar fled to Navalgund. Khwaja Mahmud Gawan pursued him, besieged Bankapur, and on a promise of pardon persuaded him to surrender. On going to court he was received into favour, and in 1455 Navalgund was restored to him. In 1457, on the accession of the new king Humáyun Sháh (1457-1461); disappointed at not receiving the government of Tailangana, Shikandar and his father began to raise troops at Navalgund, and defeated Khán Jehán the governor of Berár who was sent against them. After Khán Jehán's defeat the king marched against the rebels, in the hope of inducing them to submit. But Shikandar Khán, relying on the attachment and bravery of his troops, with eight thousand Deccanis and Rajputs marched out to offer battle, and by night surprised the king's camp with success. In consideration of their close relationship and former friendship the king sent Shikandar word that in spite of his crime in appearing in arms against his sovereign, if he would surrender, he would grant him a free pardon and confer on him an estate in Daulatabad. To this Shikandar Khán returned an insolent Humáyun ordered the line to attack, and Shikandar repeatedly repulsed the vigorous charges of the royal army. The action remained uncertain, till Mahmud Gawan with the Bijapur division and Khwaja Jehan Turk with the army of Tailangana at the same time charged Shikandar's right and left wings and the rebels began to give way. The king, observing their confusion, supported the attack from the centre with five hundred bowmen and five hundred spearmen, at the head of whom, mounted on an elephant, he charged the enemy. His advance was so stoutly opposed that the king found himself nearly deserted by his followers who retreated in confusion, while Shikandar Khan headed an attack on the king. As Shikandar drew near, the elephant on which Humáyun was mounted seized him with his trunk, dragged him from his horse, and dashed him on the ground. His followers unable to check themselves, in their charge rode over him and crushed him to death. On the loss of their leader the rebel army

Chapter VII.
History.

THE BAHMANIS, 1347-1489. Rebellion at Navalgund, 1455-1457.

¹ Briggs' Ferishta, II. 433; Waring's Maráthás, 20.

THE BAHMANIS, 1347 - 1489. Capture of Goa, 1470.

BIJÁPUR KINGS. 1489-1686,

fled; and the king, rallying his troops, pursued the fugitives with great slaughter. Navalgund, to which Shikandar's father had retired, was besieged. At the end of a week Jelál Khán submitted. His life was spared, but he ended his days in close confinement. About this time, perhaps in the troubles which accompanied Shikandar Khán's revolt, Vijayanagar succeeded in regaining Bankápur.² In 1470 Máhmud Gawán, who held the office of prime minister as well as the government of Bijápur, attacked the seaboard territories of the Vijayanagar king and took Goa. In 1472, at the instigation of the Vijayanagar king, the Hindu chief of Bankápur and Virkam Ráy Rája of Belgaum sent troops to retake The attempt failed, and, in retaliation, the Musalmans besieged and took the fort of Belgaum. In 1472 and 1473 no rain fell, and no grain was sown; many died and many left the country. In the third year, when rain fell, scarcely any farmers remained to till the land.4

The capture of Belgaum and its dependencies brought the whole of the Bombay Karnátak, except the southern portion of Dhárwár. under Musalmán rule. But the ascendancy of the Bahmanis was now at an end. In 1489, Yusuf Adil Shah, one of the leading nobles of Máhmud Sháh Bahmani II.'s court, declared himself in dependent and seized Bijápur and all the Bahmani possessions in Dhárwár. About ten years before the establishment of Bijápur power (1479), perhaps from the want of success of the last of its members, Mallikárjuna (1451-1465) and Virupáksha (1465-1479) the first dynasty of Vijayanagar kings came to an end. Narsingh, who according to one account was the slave of the last king Virupáksha, according to a second account was a chief of Tailingana, and according to a third account was of a Tulav or South Kánara family, established himself at Vijayanagar. In 1508, Narsingh of Vijayanagar was succeeded by his son Krishna Ráya, a most successful and longlived king, who continued to rule probably till 1534. Krishna seems to have owed much of his success to the friendship of the Portuguese, who, arriving on the Malabar coast in 1498, waged a naval war on Arabs, Turks, and all Musalmán Their rivalry with Bijápur induced them to cultivate traders. friendly relations with Vijayanagar whom they supplied with ammunition, horses, and artillerymen. In 1510, Yusuf Adil Shah, the founder of the Bijápur dynasty, died. Acting under the advice of their Hindu ally the chief of Honávar in North Kánara, the Portuguese suddenly attacked Goa and took it with little trouble. It was recovered by Bijápur in May of the same year, but before the close of 1510 (November 25th) was again taken and permanently held by the Portuguese. The success of the Portuguese was most welcome to many of the Hindu chiefs. In 1512 an embassy came to Dalboquerque from Vengápur, that is Bankápur, to congratulate him The ambassadors brought sixty beautifully on his success at Goa.

Briggs' Ferishta, II. 447. -456; Scott's Deccan, I. 130-136.
 Compare Briggs' Ferishta, II. 491.
 Briggs' Ferishta, II. 494.
 Briggs' Ferishta, III. 31.

dressed horses and asked that they might have the management of the lands of Goa and that they might have 300 horses a year. Dalboquerque gave them the horses, because their chief was a useful ally as his land was a veritable and safe road to Vijayanagar, and as his people were skilful saddlemakers. About 1520 Krishna Ráya completely defeated Ismáil Adil Sháh (1510-1534) and restored the kingdom of Vijayanagar to its former limits.2 The absence of any Musalmán successes for several years after Krishna Ráya's victory may be gathered from Ferishta's narrative, which passes in silence over the sixteen years between 1520 and 1535. Among the people of Dhárwár the rule of Krishna Ráya and his brother Achyuta Ráya, for the two names always go together, is remembered as a time of happiness and ideal government. Though, as the best known members of the dynasty, Krishna and Achyuta have probably gained a traditional credit for works which were not theirs, the brothers seem to have had a great share in constructing the system of water works for which Dharwar and the neighbouring country are famous. They also seem rightly to have the credit of introducing the Rái Rekha Már survey which formed the basis of all later revenue settlements.3 The only one of Krishna Ráya's inscriptions found in Dhárwár is a copper-plate grant dated 1512-13 (S. 1434), giving over the village of Tirmalapura to Timmanaya the son of Ghatika-Narsingh the astrologer of Rattehalli and Kod.4

After the death of Krishna Ráya which probably happened in 1534, Achyuta Ráya seems to have gone on reigning till 1542. Three inscriptions of Achyuta Ráya have been found within Dhárwár limits, two at Gadag, and one at Annigeri. All are dated 1538-39 (S. 1460). After Achyuta Ráya's death, though he kept representatives of the old family as the nominal heads of the state, the real control was seized by Rám Rája, who is said to have been the son of Krishna Ráya's minister. Rám Rája was an able and a vigorous ruler. In 1547 he made a treaty with Dom João de Castro the Portuguese viceroy, with the object of encouraging trade and of resisting the power of Bijapur. In this treaty Hubli or Obeli is mentioned as a

Chapter VII. History. BIJÁPUR KINGS.

1489-1686. Success of Vijayanagar,

¹ Commentaries of Dalboquerque, III. 246, 247.

² Rice's Mysore, I. 230. Of this great victory the Portuguese historian Faria-y-Souza (Kerr's Voyages, VI. 179), probably from Vijayanagar sources, gives the following details: In 1520, Krishna Ráya, king of Vijayanagar, collected 35,000 horse, 730,000 foot, and 586 elephants with 12,000 water-carriers and 20,000 dancing-girls, to recover the great eastle of Rachol, that is Ráichur, which Bijápur had taken from him. Adil Sháh came to relieve Ráichur, but was defeated and forced to fly, forty Portuguese in his army fighting with great valour. Krishna Ráya pressed the siege but with no success till Christopher de Eugengode and twenty Portuguese arms with but with no success, till Christopher de Fiqueredo and twenty Portuguese came with horses. Fiqueredo asked the king if he might attempt to assault the fort. Krishna Raya agreed, and, the second assault being well backed by the Vijayanagar troops, was Raya agreed, and, the second assault being well backed by the Vijayanagar troops, was successful. Soon after Adul Sháh sent an embassy to Krishna Ráya, asking for the restoration of prisoners and plunder. Krishna Ráya agreed on condition that Adil Sháh would acknowledge his supreme authority as emperor of Kanára and come to kiss his foot. This degrading condition was accepted but its performance was delayed. Meanwhile Ray de Melo, who commanded in Goa, taking advantage of the decline of Bijápur power, took part of the country near the isle of Goa.

**Captain, afterwards Sir G. Wingate in Bom. Gov. Sel. CLV. 74-75.

**Trana. Bom. Branch Roy. As. Soc. XII. 342.

BIJAPUR KINGS, 1489-1686. Overthrow of Vijayanagar, 1665,

Siege of Bankápur, 1575. place of trade in saltpetre and iron for the Bijápur country. Though able and successful, Rám Rája was so overbearing to his Musalmán neighbours that the four Musalman powers, Bijapur Golkonda Ahmadnagar and Bidar, joined in a league against him. In 1565, at the great battle fought on the banks of the Krishna, eighteen miles south of Tálikoti in the Muddebihál sub-division of Bijápur. Rám Rája was defeated and slain, and Vijayanagar taken and sacked.² Jealousy between Ahmadnagar and Bijápur, the two leading Musalman powers, prevented the transfer of the Vijayanagar territories to Musalmán rule. Rám Rája's brother was allowed to hold much of the Karnátak and for some time many Vijavanagar feudatories maintained their independence.3 In 1570 the feeling of rivalry between Ahmadnagar and Bijapur grew less keen. With the Kálikat chief they formed a great alliance against the Portuguese, and agreed that if successful Ahmadnagar should keep the north Portuguese possessions and Bijápur overrun the south The splendid courage of the Portuguese defenders of Cheul and Goa defeated the efforts both of the Ahmadnagar and of the Bijápur armies.4 Still the alliance led to a more friendly feeling between Ahmadnagar and Bijápur, and in 1573 Ali Adil Shah (1557-1579) the Bijápur king was able to arrange that while Ahmadnagar spread its power northwards, he should be left free to In 1573 he marched against Dhárwár, one of conquer the Karnátak. the strongest forts in the Karnátak, which was held by an officer of the late Rám Rája who had assumed independence. The fort fell after a siege of six months and the surrounding country was annexed to Bijápur.5 The Bijápur king next marched against Bankápur, the capital of Velápa Ráya, formerly a servant of the Vijayanagar kings, but now independent. After vain appeals for help to Venkatadry the brother of his former master, Velápa Ráya defended himself with such vigour that he nearly forced the Bijapur troops to raise the siege. The Musalmans were specially annoyed by night attacks from the Karnátak infantry, who, valuing their lives but little, entered the tents at night naked and covered with oil and stabbed the Musalmán soldiers in their sleep. This novel form of attack caused a panic among the Musalmans and their sufferings were increased by the activity of the enemy in cutting off their supplies. But in Mustapha Khán the Bijápur army had a good commander. With the help of his Bergi, that is apparently Badagi or northern that is Marátha-Telugu cavalry, he reopened his lines of communication, and by placing a strong guard of sentries round the camp checked the night attacks. The siege was pressed, and after a year and three months the Musalmans were rewarded by the surrender of Bankápur.6 The Bijápur king ordered a superb temple within the fort to be destroyed, and himself laid the first

¹ Subsidios, II. 255, 257.

² Briggs' Ferishta, III. 126.

³ Briggs' Ferrishta, III. 131. ⁴ Briggs' Ferrishta, III. 521, 523; Faria-y-Souza in Kerr's Voyages, VI. 423; DaCunha's Chaul and Bassein, 49, 54. ⁶ Briggs' Ferishta, III. 147-48; Waring's Maráthás, 40.

stone of a mosque which was built upon the foundation. Many towns and districts were conferred upon Mustapha Khán, and till his assassination in Bankápur in 1579 the whole of the conquered country remained under his management. According to Hindu accounts the power of the Vijayanagar kings continued at least in name till 1584. Though in 1593 the Hindus for a time regained Bankápur,² 1575, the year of the fall of Bankápur, may be taken as the date when Dhárwár came under Bijápur rule. It continued under their sway for about a hundred years, till the capture of Bijápur by the Emperor Aurangzeb in 1686. Of these hundred years almost no details are recorded. But compared with the ten years of no-government before it began and the hundred and twenty years of misrule after it ended, the Bijápur rule seems to have been a time of fair government and of prosperity. latter part of the seventeenth century, before Bijapur was weakened by the attacks of Shiváji, Dhárwár seems to have been full of villages of weavers and Hubli to have been a place of much wealth and of great trade. In 1673, while ravaging Bijápur territory, a Marátha army under Anaji Dattu plundered the rich mercantile town of Hubli, the centre of a number of manufacturing villages. The booty exceeded any previous Marátha plunder. Merchants of all nations were pillaged; and the Bijapur troops, which had been stationed for the defence of the town, destroyed any property which the Maráthás had left. The English factory at Kárwár, which was said to have employed 50,000 weavers in the Dhárwár villages, had a broker at Hubli to sell all kinds of imports and gather the cloth intended for England. The Hubli factory was plundered, and, according to English account, goods were lost worth about £2773 (7894 pagodas). The English claimed compensation, but Shiváji declared that, except some petty damage represented by him at about £70 (200 Ps.), his troops had done them no harm.3 In 1674 Shivaji fortified Nargund thirty miles north of Dharwar, and took Dhárwár. About the same time (1673) Abdul Karim Khán, the ancestor of the present Nawáb of Sávanur, on behalf of Bijápur, was appointed chief captain against the Maráthás and governor of the province or sarkár of Bankápur, which, under Bijápur, included sixteen districts or parganás, the chief among them being Nasrabad or Dhárwár and Gadag.⁵ In 1685, Sultán Muázzim, Aurangzeb's son, marched in the name of the Delhi emperor to regain the southwest portions of the Bijápur kingdom which Shiváji had overrun. He took Hubli and Dhárwár, a place of respectability and strength, and placed garrisons in them. But in spite of this success he had to withdraw towards Ahmadnagar, as his army was greatly reduced by famine and pestilence.6 In (1686, 15th October), on the capture of Bijápur by Aurangzeb, the rest of the Bijápur territories in Dhárwár Chapter VII. History.

Bijápur Kings, 1489 - 1686.

Sack of Hubli, 1673.

Fall of Bijápur, 1686.

Briggs' Ferishta, III. 135-139; West's Southern Marátha Country, 11-12.
 Briggs' Ferishta, III. 180.
 Orme s Historical Fragments, 34-36, 208; Grant Duff's Maráthás, 115.
 Stokes' Belgaum, 42; Bom. Gov. Sel. CXIII. 173

⁵ Orme's Historical Fragments, 286; Stokes' Belgaum, 42. ⁶ Grant Duff's Marathas, 148; Stokes' Belgaum, 43; Orme's Historical Fragments, 144; Moor's Narrative of Captain Little's Detachment, 42.

Chapter VII.

History.

SAVANUR NAWAB,

1700.

passed to the Moghals. The Moghal tenure of the country was purely military and did not last long. Abdul Ráhuf Khán, son of Abdul Karim Khán, the Bijápur governor of Bankápur, entered the emperor's service and received a large share of the Bombay Karnátak. Abdul Ráhuf at first made his head-quarters at Bankápur. but he afterwards moved to Savanur about six miles to the north-east. He left the revenue management of his territories to the hereditary Hindu officers, of whom the chief were the desais of Navalgund, Shirhatti, Havanur, and Dambal. The death of Aurangzeb in 1707 led to the establishment of two Marátha principalities under two of Shiváji's grandsons, Sátára under Sháhu and Kolhápur under Sambháji. In 1719 through the influence of the Syeds who deposed the Emperor Ferokshir (1713-1719) Shahu received three imperial grants for the chauth or one-fourth and the sardeshmukhi or one-tenth of the revenues of the six Deccan provinces, among them Bijapur which included Dhárwár. The third grant was the svaráj or house rule of sixteen districts, the only one of which within Dhárwár limits was Gadag.² After this great cession of territory Fatesing Bhonsle, Rája of Akalkot about twenty-three miles south-east of Sholápur, was appointed to collect the tribute and revenue due from the Karnátak. In 1723 the Nizám was created viceroy of the Deccan and assumed independence. In those parts of the Bombay Karnátak which were not included in the Marátha home-rule or svaráj, or had not been wholly ceded in grant, the Nizám divided the revenue with the Maráthás. As viceroy of the Deccan he interfered to suppress disturbances in the Bijápur Karnátak, and appointed a new governor or subhedár to that district.3 Though Shahu had received the imperial grant of a large share of the Karnátak, and though his claims to levy a fourth and a tenth of the revenues of all lands formerly held by the Moghals had been admitted, so great was the local power of the chiefs of Kolhápur and Sávanur that Fatesing Bhonsle, the Marátha general, scarcely ventured to cross the Krishna. In 1726, on the pretext of levying his one-fourth and one-tenth shares of the revenue, Peshwa Bájiráv (1720-1740), with a large army under Fatesing Bhonsle, marched into the Karnátak. They plundered as far as Seringápatam, but made no attempt to establish their power.4 1730, under a treaty between the chiefs of Sátára and Kolhápur, though Shahu and the Peshwa continued to exercise sovereignty over it except some forts, the country between the Krishna and the Tungbhadra was assigned to Kolhápur. During these changes the Sávanur Nawáb, who, though no longer dependent on the Moghals, was subordinate to the Nizám, acquired so large a territory that in 1746 he ventured to resist the authority of the farmer of the Marátha dues from the country between the Krishna and the Tungbhadra. This brought on him a Marátha invasion against which he was unable to cope. In 1747 he had to agree to a treaty by which he yielded to the Peshwa the whole of the present sub-divisions of Dhárwár, Navalgund, and Gadag, and parts of Ránebennur and

¹ Stokes' Belgaum, 44.

⁸ Grant Duff's Maráthás, 210, 250.

² Grant Duff's Maráthás, 200.

⁴ Grant Duff's Maráthás, 218.

Kod. He was allowed to keep Hubli, Bankápur, Hángal, and other districts together with his family possession the fort of Bankapur.1 It is doubtful whether the terms of this treaty were fully carried In 1755, while Peshwa Báláji's army was encamped on the north bank of the Krishna on its march to the South Karnátak, an officer of the Peshwa, formerly in M. Bussy's service, deserted the Peshwa and joined Abdul Hakim Khán the Nawáb of Sávanur, who had about this time thrown off his allegiance to the Nizám. The Peshwa demianded the deserter's surrender, and as the Nawáb refused to give him up, the Marátha army crossed the Krishna, and attacked Sávanur. The prime minister of Haidarabad, who was at this time in league with the Peshwa, observing soformidable an advance of Marátha troops, gathered an army of observation. The Peshwa sent agents to declare that he had no intention to make war on the Nizám, that the object of his advance was to reduce the Nawáb of Sávanur their common enemy whose power, he said, was formidable both to the Nizám and to the Maráthás, and if not crushed would spread over the whole Karnátak.2 Accordingly a force from Haidarabad joined the Maráthás, and, under Bussy's directions, the artillery opened so heavy a fire on Savanur that after a siege of three months the Nawab was obliged to yield.3 secure the withdrawal of the Marátha troops, the Nawáb, in addition to a large cash payment, to raise which he was forced to pledge Bankápur fort to Holkar, was compelled to cede eleven more districts, among them Hubli and Misrikota. In return he received some districts in Panebennur and the sub-division of Parasgad in Belgaum. The Peshwa seems not to have taken the newly acquired territory under his direct management, but to have left most of it to the local desáis whom he made responsible for the revenue.4

In 1762 Haidar Ali deposed the Hindu king of Maisur and usurped the sole authority. By 1763 Haidar's conquests had spread far north of the Tungbhadra. The friendship of Sávanur became of importance to Haidar, and, through his general Fazl Ulláh, he suggested to the Sávanur chief Abdul Hakim Khán the advantages of an alliance. Next year (1764), as the Sávanur chief refused to separate from the Maráthás, Haidar marched against Sávanur, and, after some resistance, reduced the Nawabto submission. while Fazl Ulláh Khán took Dhárwár and overran the country as far north as the Krishna.⁵ In Poona great preparations were made to repel Haidar's invasion. An army under Peshwa Mádhavráo (1762-1773) marched towards the Krishna. Gopálráo Patvardhan. who was sent in advance, crossed the Krishna but was defeated by In May 1764, when the Peshwa approached with an Fazl Ulláh. army of 30,000 horse and as many foot, Fazl Ulláh, leaving a strong garrison in Dhárwár, fell back on Haidar's army, which, quitting its

Chapter VII, History. THE PESHWAS, 1752 - 1776.

War with Haidar. 1764-65.

Grant Duff's Maráthas, 330; Wilks' South of India, I. 459.

¹ Stokes' Belgaum, 46, West's Southern Marátha Country, 22.

² Grant Duff's Maráthas, 287, 292; Orme's Military Transactions of the British in India, I. 425-427; Transactions in the Marátha Empire (1803), 87.

^{.3} The artillery practice during this siege so astonished the people that the year when one and a quarter lalks of balls were fired against Savanur is still a local era. Bom. Gov Sel. CXIII. 210.

West's Southern Marátha Country, 23.

THE PESHWAS, 1752-1776. War with Haidar, 1764-65.

entrenched camp at Annavati in Maisur about twenty-five miles south of Bankápur, and advancing towards Sávanur, took a strong position near Rattehalli about thirty-six miles south of Sávanur. Here, when joined by Fazl Ullah, the whole force under Haidar's command amounted to about 20,000 horse and 40,000 foot, of which one-half were disciplined infantry. The Peshwa gaining through his cavalry correct information of the strength of Haidar's position, determined not to attack it, and instead employed his troops in driving out Haidar's garrisons from the towns and villages north of the Varda. In the hope of bringing on a general engagement, Haidar moved with 20,000 men intending to retire and draw the Maráthás towards the strong position which Fazl Ulláh held with the main body of the army. The Maráthás threw out a few bodies of skirmishers, who retiring as he advanced drew Haidar forward, until their parties, always retiring but gradually thickening, at last formed solid masses of horse, which gradually moved round between Haidar and his camp, and forced him, not without heavy loss, to change his feigned retirement into a real retreat. He then fell back on his entrenched position at Annavati. The Peshwa followed; and after a few days appeared to be moving columns to invest his Haidar, fancying he saw a chance of cutting off one of the Marátha columns, moved out with 2000 infantry, 1000 horse, and four light guns. He was again entited to advance too far and was completely surrounded. The speed of their horses saved Haidar and about fifty of his cavalry; the rest of the corps was destroyed. The approach of the south-west monsoon (June) put a stop to further hostilities. The Peshwa cantoned for the rains at Narindra, about five miles north of Dhárwár, billetting his horsemen among all the villages within a radius of twenty miles. As soon as the season allowed (October), the Peshwa laid siege to Dhárwár. He succeeded in breaching the wall and the town capitulated. The whole country north of the Varda was now in his possession, except Mundgod in North Kánara, and this, when the weather cleared, he speedily reduced. Mádhavráo Peshwa made over the command of the army to his uncle Raghunáthráo or Rághoba, who, in 1765, pursued Haidar across the Tungbhadra and forced him to agree to a treaty under which, besides paying £320,000 (Rs. 32 lákhs), he gave up all claims on Sávanur. Dhárwar remained under the Maráthas till 1773, when, taking advantage of the troubles at Poona caused by the death of Mádhavráo Peshwa (1762-1773), Haidar sent a strong detachment under his son Tipu to recover the districts conquered by the Maráthás in 1764.2 Haidar entered into close relations with Raghunáthráo the uncle of the murdered Peshwa Náráyanráo, acknowledged him head of the Maráthás, and agreed to support him. In 1776, according to Maisur accounts, in return for the gift of £160,000 (Rs. 16 lákhs), Rághoba agreed that Haidar should take and hold the country to the south of the Krishna.3

Grant Duff's Marathas, 330-332; Wilks' South of India, I. 461-464.

² Grant Duff's Maráthás, 363.

³ Wilks' South of India, II. 173; Grant Duff (History, 400) doubts if Raghoba ever gave such an invitation.

Haidar crossed the Tungbhadra, took Bankápur and Sávanur, and continued to push northwards till the rains (June 1776) stopped active operations. He returned to the south, leaving a chosen body of troops in Bankápur with directions to watch, and as far as possible prevent supplies passing to the Dhárwar garrison which had not been reduced. Meanwhile the Poona ministers opposed to Raghunáthráo obtained from the Nizám a promise to act with them against Haidar. Before the joint Márátha and Nizám armies could march, a small force under Konherráo Patvardhan and Pándurang, was (1776) sent to drive Haidar's troops out of Sávanur. Muhammad Ali, the Maisur general and Rághoba's agent in command of a body of auxiliary Maráthás, came up with the troops under the Patvardhan at Sansi about twenty-five miles south-east of Dhárwár. Finding the Poona force drawn up in order of battle, Muhammad Ali began the action with his cavalry. He feigned a check, and, retiring in apparent disorder, was thoughtlessly followed by the Maráthás, who, confident of victory, pursued in headlong haste till the fugitive Musalmáns suddenly disappeared through openings in a powerful reserve. At the same time a body of men in ambush poured into the flanks of the Maráthás a tremendous fire of grape and musketry. The slaughter was serious and the confusion hopeless. Muhammad Ali made a determined charge at the head of his cavalry, and, completing the rout, continued the pursuit for nine miles, and captured many of the Maráthás, among them their leader Pándurang. After this defeat, in 1777, the main body of the Marátha army of about 30,000 men under Parashurám Bháu, the most distinguished member of the Patvardhan family, and the Nizám's army about 40,000 strong under Ibráhim Khán, marched against Haidar. The Nizam's forces were bought off and the Maráthás recrossed the Krishna without risking an action. This left the field open to Haidar, who in 1778 took Dhárwár after a protracted siege. After the fall of Dhárwár, Bádámi and Jalihál in South Bijápur were taken, and Haidar was master of the whole country south of the Krishna.2 He left Nargund, Navalgund, Dambal, and Shirhatti, and other strong places in the hands of their estateholders or desáis on their acknowledging his supremacy and agreeing to pay tribute.3 The Poona ministers were too fully occupied with the war against Raghunáthráo and the English to allow them to make a serious attempt to recover the Karnátak. Haidar used this interval to strengthen his hold on the country by a close alliance with Hakim Khan the Nawab of Savanur. In 1779, the eldest son of the Nawab was married to Haidar's eldest daughter, and Haidar's second son was married to the Nawab's daughter.4 These alliances led Haidar to support the Nawab in nominally recovering almost all the possessions which his father had in 1756 ceded to the Maráthás. From this time till Haidar's death in 1782 Hakim Khán prospered.⁵

Chapter VII. History. MAISUR, 1776-1792. Maratha Defeat.

1776.

Wilks' South of India, II. 179; Grant Duff's Maráthás, 400.
 Wilks' South of India, II. 186.
 Wilks' South of India, II. 200.
 Transactions in the Marátha Empire (1803), 88.

Chapter VII. History. MAISUR, 1776-1792.

Siege of Nargund, 1785.

In 1779, as the Poona ministers were anxious to secure his aid in driving the English out of India, Haidar's right to the Maratha territories south of the Krishna was admitted on payment of a yearly sum of £110,000 (Rs. 11,00,000) to represent the Marátha share of the revenue. Afterwards, when the war with the English was nearly over and when the treaty of Sálbái (1782) was in progress, Nána Phadnavis, the Peshwa's minister at Poona, tried to persuade Haidar to restore the territory north of the Tungbhadra, threatening, if Haidar refused, to join the English in attacking Maisur. But the rivalry between Nána and Mahádáji Sindia and the death of Haidar in 1782 prevented Nána from gaining his object.¹ Haidar's death, Nána Phadnavis called on Tipu to make good the arrears of tribute. Tipu acknowledged that tribute was due, but evaded paying it.2 A conference was arranged between Nana and the Nizam to form plans for recovering the territory to the south of the Krishna. But they failed to come to an agreement and Tipu remained in possession. The Savanur Nawab, who after Haidar's death (1782) had gone over to the Maráthás, incurred Tipu's wrath, who drove his family out and forced him to take refuge at Poona.3 In 1785, by demanding a higher tribute, Tipu estranged Venkatráo, the chief of Nargund who had been his tributary since 1778. As by himself he was unable to withstand Tipu, Venkatráo sought the help of the Bombay Government, and, as they were unable to assist him. he turned to the court of Poona. When Tipu pressed Venkatráo. Nána Phadnavis interfered. He declared that Tipu had no right to exact more than the former tribute, that landholders on the transfer of districts were liable to no additional payments, and that the rights of Bráhman landholders except when guilty of treason were always respected. Tipu replied by sending two bodies of troops to demand more tribute than the Nargund chief could pay, and so give him a pretext for reducing the fort. In March 1785, when news reached Poona that the siege of Nargund was begun, a body of Maráthás was sent from Poona to relieve Venkatráo. Before the Poona detachment arrived, want of water had forced the Maisur troops to raise the siege. They were still in the neighbourhood, and after some skirmishing compelled the Maráthás to retire, took the fort of Rámdurg about seventeen miles north of Nargund, and resumed the siege of Nargund. On Tipu's assurance that only the regular tribute would be exacted, the Marátha army recrossed the Krishna. The siege was pressed with redoubled vigour, and, on the strength of terms promised by Tipu, the Nargund chief capitulated. In spite of Tipu's promises, when the fort was taken, the chief was seized, he and his family were sent into captivity, and his daughter was taken into Tipu's harem. Kittur, a fort in Belgaum about forty miles west of Nargund, was also seized, and both Kitturand Nargund were garrisoned by Maisur troops. Tipu forcibly circumcised many Hindus of the territory south of the Krishna, and 2000 Brahman disciples of Shankaráchárya destroyed themselves to avoid the disgrace.4

³ Transactions in the Maratha Empire (1,803), 88.

Grant Duff's Maráthás, 466-67.

¹ Grant Duff's Maráthás, 457. ² Grant Duff's Maráthás, 458.

1786 the Maráthás and the Nizám formed an offensive alliance against Tipu, and agreed to begin operations by taking from him the country between the Krishna and the Tungbhadra. A detachment of 25,000 troops, chiefly horse under Tukáji Holkar and Gaueshpant Beheri another Marátha commander, was sent to drive Tipu's garrisons from the neighbourhood of Kittur and to act against the Maisur general Burhan-ud-din at Kittur. At the same time the confederate army under Haripant advanced and laid siege to Bádámi in South Bijapur, which, after a furious and persevering attack, they succeeded in taking. Holkar's detachment drove all Tipu's posts from the open country in the neighbourhood of Kittur, but failed in their attack on Kittur fort. Holkar then made one march of upwards of sixty miles to Savanur with the object of seizing Tipu's chief banker Rágvendra Náik. Rágvendra succeeded in escaping, but two or three other smaller bankers fell into Holkar's hands from whom he exacted a ransom of £20,000 (Rs. 2 lákhs). At Sávanur Holkar was joined by Hakim Khán the Nawáb, who, though closely related to Tipu, had been so badly treated by him that he willingly sided with the Maráthás. Holkar's and the Nawab's combined force repulsed an attack by Tipu's general Burhán-ud-din, who was forced to retire to Jerianvatti on the Varda. The confederate army under Haripant, after the fall of Bádámi and the seizure of the other forts, found itself opposed in the Nizam's territory by Tipu himself, who, with the greater part of his army, had crossed the Tangbhadra in As grain and forage were extremely scarce, to basket boats. procure supplies as well as to draw Tipu into the plain country, the Marátha general marched to Sávanur. Tipu followed and encamped in a strong position within six miles of the confederates, keeping the town of Sávanur between the camps.² In this situation both parties remained for fifteen days. On the first of October Tipu made preparations for a serious attack. He divided his force into four columns, the left centre commanded by himself; and, after the evening meal, moved off making a considerable detour with the object of delivering a combined attack on the enemy's left and centre. It was arranged that about an hour after midnight, when the head of his own column reached the point chosen for attack, he should fire a signal gun, which was to be answered by the heads of the three other divisions, and the attack was at once to begin. The night was dark and rainy. On reaching a small outpost Tipu's column was challenged; and Tipu, as if bent on letting the enemy know of his approach, ordered the outpost to be fired at. He again advanced, and when near the camp fired the signal gun, but listened in vain for a reply. After much delay and anxiety he fired another signal, which was answered by only He moved on, and entering the camp a little before dawn, found himself with no more than three hundred men. In the dark and wet the heads of all the columns except his own had lost their way, and from the same cause each column had broken into several divisions, which were all wandering at random in the dark.

Chapter VII.

MAISUR, 1776-1792. War with the Marathas, 1786-87.

MAISUR, 1776-1792. War with the Maráthás. 1786-87.

As the light strengthened, all were within view, and Tipu collected and arranged his troops. He found the Marátha camp empty and their army drawn up on a height. They began to cannonade Tipu's force, and he, according to his own account, ordered no guns of any size to fire in return. The confederates, thinking their assailants were without large guns, advanced carelessly against them and were repulsed with heavy loss. The accuracy of this account is doubtful, but there is no question that the day ended in Tipu's favour as the confederates fell back on a position whose left rested on the fort of

The scarcity of forage and the weakness of their position induced Haripant to leave Savanur and the Nawab fell back, with him ten Tipu took Sávanur, but lay inactive till the Muharram when he retired to Bankapur to hold the festival. In his absence Haripant without opposition breached, stormed, and took Shirhatti, a fortified town twenty miles north-east of Savanur. While at Sávanur Tipu sent a messenger, nominally to treat of peace, but, according to his own statement and as the event showed, with the object of throwing the enemy off their guard.2 On pretence of forage Tipu moved and made a successful night attack on the confederate camp and secured the splendid equipage of the Nizám's general and 500 camels which carried it.8 In 1787, fearing that the English were about to take part against him, Tipu made a treaty with the Maráthás ceding them Nargund and in return receiving back the other towns and districts which the Maráthás had taken. Tipu also agreed to pay the Marátha share of the revenue and to restore to the Nawab of Savanur the territory which he held before his son's marriage with Haidar's daughter. The Nawab dreading Tipu's treachery accompanied the Maráthás to Poona.4

Tipu never meant to fulfil these engagements. As soon as the Maráthás had recrossed the Krishna, the Maisur troops retook Kittur. The Maráthás were much annoyed by Tipu's faithlessness, and, as both the English and the Nizam were interested in preventing the increase of Tipu's power, in 1790, when his

Wilks' South of India, II. 551-552.

The herald was charged to deliver to Tukáji Holkar in the absence of Nizám Ali a speech to the following effect: 'You have obtained experience in feats of arms and are distinguished among the chiefs for superior valour. Now that war has begun its destructive career and thousands are doomet to fall, why should we longer witness the causeless effusion of human blood? It is better that you and I should interest the fold of combat let the Alminhet determinant singly descend into the field of combat, let the Almighty determine who is the conqueror and who the vanquished, and let that result terminate the contest. Or, if you have not sufficient confidence in your own single arm, take to your aid from if you have not sufficient confidence in your own single arm, take to your aid from one to ten men of your own selection, and I will meet you with equal numbers. Such was the practice in the days of our Prophet, and, though long discontinued, I desire to renew that species of warfare. But if prudence should dictate your declining the second proposition also, let the two armies be drawn out, select your weapons, and let us chief opposed to chief, horseman to horseman, and foot-soldier to foot-soldier engage in pitched battle, and let the vanquished become the subjects to the victors.' To this Holkar is said to have replied that, 'The passion for fighting had not descended to him from his ancestors, but rather the hereditary trade of flying, plundering, burning, and destroying, and the petty warfare which involves little danger.' Wilks' South of India. II. 555-556. 4 Grant Duff's Maráthás, 472. ⁸ Wilks South of India, II. 556.

attacks on Travankor gave the English grounds for acting against Tipu, an offensive alliance was formed against him by the English, the Maráthás, and the Nizám. After preliminaries were settled the Marátha force was placed under Parashurám Bháu Patvardhan whom the English engaged to supply with a detachment of British troops. The 8th and 11th battalions of Native Infantry, one company of European and two companies of Native Artillery, with six field pieces, which was the force named to act with the Maráthás, sailed from Bombay under the command of Captain Little about the 20th of May 1790. They disembarked at Sangameshvar in Ratnágiri on the 29th of May, reached the top of the Amba pass by the 10th June, and arrived at a village not far from Tasgaon. about fifty miles east of the Amba pass on the 18th, where they joined Parashurám's army. The combined force did not cross the Krishna till the 11th of August. As they advanced they found no difficulty in driving out Tipu's soldiery, and the country was rapidly occupied until they came to the village of Narindra, about five miles north of Dhárwár. When they reduced Narindra the Marátha force was daily joined by small parties till the whole amounted to 25,000 horse, 15,000 foot, and fifteen pieces of heavy cannon twenty-four pounders and upwards. There was a retinue of women, including every sort of dancing and singing girls, who numbered as many as the fighting men, and there were ten times as many followers and fifteen times as many animals. The Maratha camp was full of traders and craftsmen as busily employed as if they were at Poona and at peace. The fort of Dhárwár was held for Tipu by Badr-ul-Zamán Khán, one of his most trusted generals, with a garrison of seven thousand regulars and three thousand irregulars armed with matchlocks and swords. The combined English and Marátha army appeared before the fort on the 18th of September. Till the 30th of October nothing of importance was done. On the 30th of October the English detachment attacked a body of the enemy who were posted outside the walls of the town. The enemy were driven back with the loss of three guns and a large number of killed and wound-The loss on the side of the English was ten men killed and fifty-nine wounded. After this attack nothing further took place till the 13th of December when the British force attacked and took the town with a loss of sixty-two English and several hundred Maráthás killed and wounded. The town was re-occupied by the enemy but they were driven out and the town was plundered by the Marathas. As the siege made little progress, on the 28th of December, the British contingent was strengthened by the 2nd Bombay Regiment and the ninth battalion of Native Infantry from Bombay under Lieutenant-Colonel Frederick and afterwards by a corps about 300 strong, fifty of them Europeans of all nations and the rest natives. commanded by Mr. Yvons, an English gentleman in the Peshwa's service. In spite of these reinforcements, the siege languished chiefly on account of the backwardness of the Maráthás. On the

History.

Maisur,
1786-1792

Siege of Dhdrwir, 1790.

¹ Grant Duff's Maráthás, 485.

Chapter VII.
History.
MAISUR,

1776 - 1792.

13th of March (1790) Colonel Frederick died worn out by delays and disappointments. The siege was kept up till the 4th of April, or twenty-nine weeks in all, when the garrison, reduced by descrtion and death from 10,000 to 3000, capitulated. During the siege the loss of the English detachment was 500 killed and wounded, of whom one hundred were Europeans; the Marátha loss was estimated at 3000. After the fall of Dhárwár, several places, among them Kushgal fort about twelve miles to the south-east of Dhárwár and the rich trading town of Hubli, surrendered to the Maráthás. The scene of war between the confederates and Tipu was transferred to the country south of the Tungbhadra; and the whole of the Bombay Karnátak passed to the Maráthás.

Condition, 1790,

In spite of the frequent wars, when it passed from Tipu to the Maráthás the district was fairly prosperous. For about sixteen miles north of Dhárwár the country was very rich; no garden mould could be richer.2 The lands near Dhárwár were in the highest state of tillage, affording the cattle luxuriant pasturage and the army plentiful supplies. About ten miles south-east of Dhárwár, the country round Hubli was well wooded and watered, and allowing for the time of the year (April) was in the highest tillage. Though there were no ornamental buildings, the town of Hubli was a rich centre of trade sending sandalwood and ivory to the western coast chiefly through Goa, and receiving silk cotton goods and rice. Many rich bankers negotiated bills on distant places and had such weight in the money market that the exchange and the currency of a great part of the neighbouring country was controlled by Hubli.3 Though the town of Savanur, about thirty-six miles south-east of Dhárwár, had lately (1786) been ruined, the country round it was rich and well tilled.4 About ten miles south of Savanur near Devgiri the country was well wooded, watered, and tilled. At Haveri and Motabennur about ten miles south-east of Devgiri, the country had the same rich appearance. Motabennur, a market town, was particularly flourishing with stone houses and a brisk traffic with Maisur, chiefly in sandalwood.6 Birgi, about four miles further south, was almost surrounded with groves and gardens.7 Ránebennur in the extreme south-east of the district was a market town of some extent and importance with large gardens and groves to the east and north.8 In times of peace the country was full of oxen and sheep; the sheep for food, the oxen for work. Sheep were very cheap, selling at 6d. apiece (4 to the rupee). Fowls were abundant, about 11d. apiece (20 to the rupee); there were no geese, turkies, or The forests had tigers, bears, and leopards, a few lynx, tame ducks. and no lions. There were wolves, hyænas, jackals, and foxes on every hill, and in the open country endless herds of antelope and other deer. There were peafowl, partridges, quail, snipe, doves,

¹ Moor's Narrative of Captain Little's Detachment, 1-41; Grant Duff's Maráthas, 485-87. A detailed account of the siege is given under Dhárwár in Places.

Moor's Narrative 42, 250, 3 Marative 252, 254, 4 Moor's Narrative 242, 250.

² Moor's Narrative, 42, 259. ³ Moor's Narrative, 253-254. ⁴ Moor's Narrative 242,250. ⁵ Moor's Narrative, 51. ⁶ Moor's Narrative, 41-42. ⁷ Moor's Narrative, 51. ⁸ Moor's Narrative, 51.

plover, junglecock, florican, and bustard. The ponds were full of duck, teal, and widgeons. Fish were seldom eaten; the necessaries of life were so abundant that there was no need to drain the pools. In times of plenty grain was very cheap. A bullock-load or 160 pounds (80 pakka shers) of millet, enough to last a family of six for a month, could be bought for 2s. (Re.1). Fruit and vegetables were less plentiful than grain, fowls, and mutton. Plantains, were the chief fruit, and mangoes were abundant though inferior to Bombay, Goa, and other coast mangoes. Palm-juice was drunk fresh and formented. The fermented juice was drunk to excess by most of the lower classes. The other fruits were melons, pomegranates, grapes, pineapples, limes, custardapples, jacks, and Cocoanuts and dates were abundant and were sent to the Though it was supposed that the cocoa-palm did not flourish away from the sea, there were groves or forests of cocoa-palms 150 miles from the coast. Neither rice nor gram was common; millet took the place of rice or wheat and kulthi of gram.1 About this time (1792) the district or sarkar of Bankapur, of the province or subha of Bijápur, contained sixteen sub-divisions or parganás yielding a yearly revenue of £254,299 (Rs. 25,42,990).2

By the treaty of Scringápatam (February 1792) at the end of the third Maisur War (1790-1792) the Maráthás were confirmed in their possession of the Bombay Karnátak. Most of Dhárwár and Sávanur was made over to Parashurám Bháu not as a grant or júgir, but in payment of the expenses he had incurred in the late war with Tipu. The parts not ceded to Parashurám Bháu's family were assigned for the support of certain garrisons and for the payment of the Marátha army under the command of Dhondu Pant Gokhale an officer of the Peshwa, whom, during his absence to Seringápatam, Parashurám Bháu had left behind, and who before Parashurám's return, had by raising money and troops, become so strong that Parashurám Bháu had to temporise with him.3

While Parashuram Bhau was in the country south of the Tungbhadra, a Marátha named Dhundhia Vágh, whose daring and unscrupulousness had raised him to high rank in the Maisur army, left Tipu's service, and in 1790 with a few followers settled as a freebooter in the country near Dhárwár. On his return from Maisur in 1793 Parashurám Bháu was too busily engaged in disputes with the Kolhápur chief to leave him time to attempt to suppress Dhundhia. In 1794 Dhondhu Pant whom the Poons government had directed to act against Dhundhia, attacked him with great vigour. Dhundhia Vágh was totally defeated and forced to take refuge with his late master Tipu with whom he had been negotiating for the

Chapter VII. History.

> MAISUR, 1776 - 1792. Condition. 1790,

¹ Moor's Narrative, 277-280.

² The details are Haveli Rs. 2,57,456, Másur Rs. 15,000, Kundgol Rs. 9,09,037, Karajgi Rs 1,20,000, Kumdaran Rs 41,250, Dhárwár or Nasarabad Rs. 1,20,129, Nargal Rs.54,377 Gadmi Rs.3,13,105, Misrikota Rs.97,500, Lakhmeshvar Rs.2,59,529, Rynabeli Rs. 82,500, Hahyál Rs. 24,581, Bajgal Rs. 37,500, Banehali Rs. 68,761, Harihar Rs. 10,368, and Risihali Rs. 13,1903. The Navalgund and Nargund subdivisions belonged to the district of Torgal. Navalgund yielded a yearly revenue of Rs. 75,420, and Nargund of Rs. 75,000. Waring's Maiathás, 243,246.

³ Stokes' Belgaum, 60.

THE PESHWAS, 1792 - 1817. Disorders.1795 - 1800.

recovery of Sávanur. From 1795 to 1800 the district was full of disturbances owing to Parashurám's absence at Poona and Kolhápur, to the self-aggrandizement of Dhondu Pant Gokhale, who in 1796, through the last Peshwa Bájiráo's (1796-1817) friendship had been appointed the Peshwa's governor or sar-subhedár of the Bombay Karnátak, and to the lax system of administration. In 1797 one Bhimráo, who had possessed himself of Dambal in Gadag, gathered an army and with Dhondhu Pant Gokhale's aid or counivance ravaged the rich and hitherto untouched country south of the Malprabha, and for twelve years carried on unceasing pillage and murder, until at last Dhondhu Pant's nephew Bápu Gokhale was forced to disown and seize him. This was not done until one-half of the population of the tract was destroyed and tillage was confined to little circles round villages from which the people on the approach of the enemy had to betake themselves to the village These towers, with which the villages however small were furnished, were the only security the people had for their lives, though occasionally even the towers were set fire to and all within died of suffocation.² While the north was thus disturbed the other parts of the district were not at rest. Contests were continually going on between the Kolbápur chief, Parashurám Bháu, and Dhondu Pant Gokhale, sometimes jointly sometimes each for himself. In the course of these struggles (1799) Dhondu Pant appropriated Navalgund and Gadag which belonged to an hereditary desdi, 3 a great portion of the Bhau's territory was ravaged and usurped by the Kolhápur chief; and in 1799 Parashuram was killed.4 In 1799 the fourth Maisur War ended on the 4th of May by the victory of the confederate British and Nizám's armies, the fall of Seringapatam, and the death of Tipu. The descriptions of the country seem to show that it had fallen off considerably between 1790 and 1800. In 1790 and 1791 the ravages of Parashurám's army had caused ruin and famine, and between 1790 and 1794 the uncontrolled brigandage of Dhundhia Vágh had impoverished the people.⁵ In a private letter, dated the 20th of May 1800, Major Munro wrote: Savanur and Dharwar belong to the Peshwa and to Appa Sáheb, the son of Parashurám Bhau. Neither of them have much authority. Their deputies plunder each other, and are seldom able to collect the revenue as their districts are full of a rebellious or rather of a thieving set of petty landlords.

6 Gleig's Life of Munro, I. 247.

¹ Gleig's Life of Munro, I. 254.

¹ Gleig's Life of Munro, I. 254.

² Marshall's Statistical Report of Belgaum (1820), 134.

³ Stokes' Belgaum, 63.

⁴ Stokes' Belgaum, 61-64.

⁵ Gleig's Life of Munro, I. 260. When in 1791 Parashuram Bhan accompanied the English and the Nizam in their wars against Tipu he spread havoc and dismay wherever he went. The country about Sashivhally in Maisur before Parashuram's invasion (1791) was in a very good state. After his destructive march not above one-fourth of the people remained alive and these were left destitute of everything which the Marathas could either carry away or destroy. The wretched remnants of the inhabitants had again begun to recover, when Dhundhia Vágh came among them (1790-1794). He did not put any one to death; but he plundered the houses and even burned some of the villages, the inhabitants of which he suspected of hiding their property. Buchanan's Mysore. III. 305. their property. Buchanan's Mysore, III. 305.

Colonel A. Wellesley, afterwards the Duke of Wellington, while in pursuit of Dhundhia Vágh, wrote in a letter to Government dated the 7th of July 1800: 'Whether from a recollection of former oppressions or from a sense of their inability to protect them, it is clear that the people are averse to the government of the Bhau's family and desire a change.' In a letter to Major Munro on the 7th of August 1800, Colonel Wellesley wrote, 'I hope that before we shall have done in this country, if we do not take it for ourselves, we shall establish in it a strong government, one which can keep the relations of amity and peace. At all events, we have established a respect for ourselves; we have gained a knowledge of and have had friendly intercourse with the principal people; and it is not probable that they will hereafter be very forward to encourage any disturbance in our country. They see plainly that it is in our power to retaliate, and from what I have seen of their country and their mode of management, I am of opinion, that at present our robbers would get more than theirs. or in other words that they have more to lose than we have." According to Buchanan, the territory south of the Varda, though fertile, was greatly inferior to the Savanur district; but both were fast becoming desert.2 Near Harihar and as far at least as Sávanur most of the husbandmen were Lingáyats. There were scarcely any Maráthás among them. Very few of the poorer people married, as the expense of the marriage ceremony was considered too great. They pleased their mistresses by a piece of cloth after which they lived as husband and wife; and both the woman and her children were as much respected as if she had There were very few spinsters. been married with due ceremonies. Few of the men were in the habit of going to foreign countries, and the rich had more wives than one, which made up for the men who lived as bachelors. The people on the banks of the Tungbhadra were remarkably fickle, constantly changing from one side of the river to the other and at each time changing their masters. Buchanan found them remarkably stupid, though they prided themselves on being superior to their northern neighbours, who, according to them, were no better than beasts. The Bráhmans also were stupid and illiterate.3

After his defeat in 1794 Dhundhia Vágh re-entered Tipu's service and was offered speedy preferment if he would turn Muhammadan. Dhundhia refused, was forcibly circumcised, and was cast into prison. He was kept in irons till he was set free by the English on the taking of Seringapatam in May 1799. began to plunder and with 300 men was driven from Maisur by a British force under Colonel Stevenson and Colonel Dalrymple. 4 He then entered Dhárwar, but was attacked by Dhondu Pant Gokhale into whose hands his family and effects fell. He next fled towards the territories of the Nawab of Savanur pursued by a

Chapter vil. History. The Peshwas, 1792-1817. Condition,

1800.

Dhundhia Vágh, 1800.

Gleig's Lafe of Munro, L 261.
 Buchanan's Mysore, III. 314-315. ² Buchanan's Mysore, III. 313.

⁴ Wellington's Supplementary Despatches, I. 295.

THE PESHWÁS, 1792-1817. Dhundha Vágh, 1800.

detachment of Marátha horse. He offered to enter into Gokhalo's service, but Gokhale refused to receive him unless he gave houself up.1 He left Sávanur and in August or September 1799 entered the Kolhápur service, the chief readily receiving him into his army. He became too strong for the Kolhapur chief, quarrelled with him, set up for himself, gathered the disaffected and discontented of all parts of India, and, taking advantage of the absence of Appa Saheb and Gokhale at the siege of Kolhapur, re-entered the district, and established himself so firmly that no force which they could bring could ever drive him from it.2 He assumed the title of the King of the two Worlds, and in the early months of 1800 plundered several places near Kittur in Belgaum on the Dharwar frontur and to the north of Dhárwár. He then established himself in the Savanur country, and, on the first of May 1800, laid siege to Dambal, twelve miles south-east of Gadag. While Dhundha was engaged at the siege of Dambal, Appa Saheb Patvardhan detached a force of 5000 cavalry and a large body of infantry to stop his Against Appa's force Dhundhia despatched one of equal Appa's force was attacked, beaten, and dispersed, and about 300 horse were taken to Dhundhia's camp. Dhundhia got possession of Dambal, advanced to Havanur then in the Savanur country, and was joined by all kinds of people chiefly Musalmans from Aurangabad, Haidarabad, Kadappa, and almost the whole of Tipu's cavalry.4 He sent small detachments across the Varda to take the forts in that country and to make collections, and, by the 18th of June 1800, except Havanur on the left bank of the Tungbhadra about sixteen miles north of Ráncbennur, there was no fort of any consequence which had not fallen into Dhundhia's hands. Colonel Wellesley, who was in command of the troops in Maisur, represented that so long as Dhundhia remained at large it was impossible to settle the Marátha frontier, or to restore peace and order in Sunda in North Kánara which had been ceded to the English on the death of Tipu. He was ordered to march with a large force against Dhundia and was authorized to enter Maratha territory. He arrived at Harihar on the right bank of the Tungbhadra on the 16th of June, and on the 20th of June sent a patrol to reconnoitre the fort of Airani on the left bank of the Tungbhadra, about six miles below Harihar. The fort was left by the garrison during the night and the English troops took possession on the morning of the 21st. By the 24th of June Colonel Wellesley had passed the Tungbhadra and on the 27th arrived with cavalry and advanced picquets before Ránebennur about twelve miles west of Airani. The fort fired on the cavalry and an attack was instantly ordered The assault was made by advanced picquets of fifty Europeans and 150 Natives under the command of Lieutenant-Colonel Monypenny and the leading battalion. Colonel

Wellington's Supplementary Despatches, I. 302; and Grant Duff's Marathas, 543.

Wellington's Supplementary Despatches, II. 78.

Wellington's Supplementary Despatches, I. 558-560. Wellington's Supplementary Despatches, I. 560.

Wellington's Supplementary Despatches, I. 28.

Stevenson posted cavalry round the fort to cut off the garrison's retreat and Lieutenant-Colonel Monypenny led the attack with such dash that the place was escaladed without the loss of a man. Most of the garrison of 500 men were killed. Like the fort of Airáni Ránebennur was given to Áppa Sáheb. Shortly after the capture of Ránebennur a detachment under Colonel Stevenson drove Dhundhia's people out of the country between the Varda and the Tung bhadra.

Meanwhile Dhondu Pant Gokhale was moving south from Kolhápur ostensibly to co-operate with Colonel Wellesley against Dhundhia who had removed (19th June) to Hubli about ten miles south of Dhárwár. It was arranged that Gokhale should not cross the Malprabha until Colonel Wellesley had passed the Varda and had advanced to Sávanur. But before Colonel Wellesley had passed the Varda, Gokhale crossed the Malprabha and went into the Kittur district with the intention of making peace with Dhundhia. He restored to Dhundhia his family and everything that was taken from him in his defeat in 1799, and sent an agent to his camp to negotiate. Hearing that after leaving him the same agent had gone to Colonel Wellesley's camp, Dhundhia suspected Gokhale of treachery and moved against him. Gokhale endeavoured to draw off into the forest country north-west of Kittur, but on the 30th of June between Dharwár and Haliyál in Kánara Dhundhia attacked his rear guard of 250 horse and cut it to pieces. Gokhale, who was in command, was slain, and, in fulfilment of a yow which he had taken on his defeat in 1799, Dhundhia dyed his moustaches in Gokhale's heart's-blood. Four of the guns fell into Dhundhia's hands who pursued the main body of the army. The horse escaped, some to Dharwar and others to Haliyal where they were welcomed and protected by a British detachment.2 News of Gokhale's defeat and death reached Colonel Wellesley at Ránebennur on the 2nd of July. He left Ránebennur and arrived at Haveri on the Poona-Harihar road on the 3rd, he reached Devgiri on the 6th, and the right bank of the Varda on the 7th. After building a redoubt to guard the boats and secure communication with the rear, he crossed to the left bank of the Varda: On the 11th Colonel Wellesley heard that Dhundhia, who had been in the Kittur country till the 7th, had advanced to Kundgol, about twenty miles north of Savanur, with the intention of giving him battle. Colonel Wellesley marched to Sávanur on the 12th to place his baggage in safety. On the evening of the 13th he heard that Dhundhia had come to within six miles of his camp, and then returned to Kundgol. Leaving his baggage in Sávanur, on the morning of the 14th, Colonel Wellesley marched to Kundgol, but on the night of the 13th Dhundhia had fled about eighteen miles east to Kanveh. Thus between the morning of the 13th and of the 14th Dhundhia marched about fifty-four miles. Dhundhia had left a garrison of 600 men in Kundgol, which the British troops attacked after a march of over twenty-two miles and when they had been under arms more

Chapter VII.

History.

THE PESHWAS,
1792-1817.

Colonel Wellesley,

1800.

Wellington's Supplementary Despatches, II. 34-39.

² Wellington's Supplementary Despatches, II. 47, 51, 53, 54; Grant Duff's Maráthás, 551.

THE PESHWAS, 1792-1817. Colonel Wellesley, 1800. than twelve hours. The cavalry under Colonel Stevenson surrounded the place; the gateway was attacked by the 1st battalion of the 12th Regiment and an endeavour was made to blow it open, while the grenadiers of the 73rd Regiment under Captain Todd, supported by those of the 1st battalion of the 8th Regiment, escaladed the curtain on the opposite side with a spirit which overcame every The place was carried with small loss on the evening of the 14th. The officers who distinguished themselves on this occasion were Colonel Stevenson, Lieutenant-Colonel Torin, Lieutenant-Colonel Tolfrey, Major Powis, Captain Balfour of the Artillery, and Captain Todd, and the grenadiers of the 73rd. As Dhundha's people had begun to desert him at Kundgol, Colonel Wellesley issued a proclamation offering a reward of £3000 (Rs. 30,000) for his person. On the 15th Colonel Wellesley marched to Lakhmeshvar, a large and rich town about sixteen miles south-east of Kundgol. which was evacuated. On the 16th he marched twelve miles north to Shirhatti which before his arrival had been undergoing a siege for three weeks. Colonel Wellesley spent the 17th and 18th in retracing his steps to Sávanur to get his baggage and provisions. Meanwhile Dhundhia had fled from Kanveh on the 15th to the forests behind Dambal, and thence on the 17th to Annigeri about thirty miles east of Dhárwár. On the night of the 19th Colonel Wellesley was joined at Sávanur by part of Gokhale's beaten army under the command of his nephew Bápu Gokhale, which had remained at Haliyal from the day of their defeat (30th June). With the intention of joining Colonel Bowser, who was coming from the Doáb, Colonel Wellesley left Sávanur, arrived at Kalasa about ten miles north on the 22nd, at Lakhmeshvar about five miles further north on the 23rd where he received supplies of cattle, and at Shirhatti about ten miles further north on the 25th, where he was joined by about 1500 Marátha horse the remaining portion of Gokhale's beaten army. On the 26th he went to Dambal, about fifteen miles north-east, and appeared before the fort which contained about 1000 men. To them he offered a promise of safety, and gave them an hour to consider till the line would come up. They declined to accept the terms offered and the fort was surrounded by the cavalry under Colonel Stevenson and by the Maráthás under Gokhale. It was attacked in three places. At the gateway by Major Desse, with the picquets, supported by two companies of the 2nd battalion of the 2nd Regiment; on one face by Lieutenant-Colonel Capper with the grenadiers and light infantry of the 73rd and the 2nd battalion of the 4th Regiment; and on the other by Captain Macpherson with the grenadiers and light infantry of the 77th and the remainder of the 2nd battalion of the 2nd Bombay Regiment. It was impossible to force the gateway. But the party under Ensign Hooper, of the 73rd Regiment, entered the fort by escalade, and the other two attacks succeeded nearly at the same time. Almost the only loss to the assailants was caused by the breaking of a ladder.² The commandant of the fort fell into the

¹ Wellington's Supplementary Despatches, II. 56, 59, 61, 65-67, ² Wellington's Supplementary Despatches, II. 73.

hands of the British troops and was hanged.\(^1\) The fort was handed to the Peshwa's commandant who had been confined in irons in the fort since Dhundhia took it on the 4th of May. On the 27th Colonel Wellesley arrived at Gadag, about fifteen miles north, but found it empty. The fall of Dambal was a severe blow to Dhundhia, who moved from Annigeri to Saundatti in Belgaum with the object of crossing the Malprabha. By the 27th of July the whole district was cleared of Dhundhia and his people; not a single stronghold was left in his hands. Colonel Wellesley arrived at Alagvadi, about five miles north of Navalgund, on the 29th. From Alagvadi he marched into Belgaum, plundered and destroyed Dhundhia's camp on the Malprabha, pursued him through Belgaum, Bijápur, and the Nizam's territories, until on the 10th of September he was surprised and killed at the Nizám's village of Konágal. The destruction of Dhundhia's power did not free the district from disturbance. So bitter was the feeling between Peshwa Băjiráo and the Patvardhans, that the Peshwa instructed Bapu Gokhale his governor, or sar-subhedár, of the Bombay Karnátak to harass and annoy Appa Sáheb, and in November 1801 Bápu Gokhale brought an army, and took and plundered Sávanur and Háveri about six miles south of Karajgi.2

In October 1802 Peshwa Bájiráo was driven by Holkar from Poona, and took refuge with the English with whom he entered into the treaty of Bassein (31st December). Under the terms of this treaty, in return for the British guarantee of protection, to meet the expenses of the subsidiary force, along with other territory Bájiráo ceded the Savanur country with twenty-six sub-divisions and with a yearly revenue of £102,284 (Rs. 10,22,840) and the sub-division of Bankapur with a yearly revenue of £55,676 (Rs. 5,56,760). At the close of 1803, this territory was restored to the Peshwa in exchange for land in Bundelkhand. To reinstate Bájiráo at Poona General Wellesley, who had returned to Maisur after Dhundhia's death, again entered (1803) Dhárwár on his way to Poona. During the campaign against Sindia and the Berar Raja (1803) the district, though torn by internal dissensions, remained fairly quiet, as General Wellesley had made it clearly understood that he would not have his communication with the south disturbed.8

Chapter VII.

THE PESHWAS, 1792-1817. Colonel Wellesley,

Wellington's Despatches, I. 69. The commandant seems to have been hanged because he did not give up the fort (Gov. Gen. to Secret Com. of the Board of Directors, 31st August 1880, Wellington's Despatches, I. 69). Colonel Wellesley seems to have afterwards regretted that the commandant was hanged. In 1801, Colonel Stevenson, who was second in command at Dambal, wrote to General Wellesley to use his influence to get him the same summary powers which General Wellesley had at Dambal. General Wellesley (1st July 1801, Sup. Despatches, II. 484) disapproved of Colonel Stevenson's proposal, saying, such extraordinary powers ought never to be exercised. According to a correspondent in the Bombay Gazette (27th April 1881), before he left India, General Wellesley induced the Government of Bombay to allow the widow of the commandant to adopt a son and the son to bear the hereditary title of Bahádur Desái of Dambal. According to Ráo Bahádur Tirmalráo the commandant's name was Shrinivas Venkatádri, a Smárt Bráhman whose grandson joined the rebellion in 1858 and forfeited his life and estates. A correspondent of the Bombay Gazette (10th March 1881) notices that the people of the country have not forgotten the hanging of the commandant.

Wellington's Supplementary Despatches, II. 623. Wellington's Despatches, I. 124; West's Southern Maratha Country, 29.

Chapter VII. History. THE PESHWAS. 1792 - 1817. Disorders. 1800 - 1803.

1800 and 1803 the struggle for power and plunder among the local estate-holders and officers of the Peshwa government continued without intermission. The two chief estate-holders within Dharwarlimits were Appa Sáheb Patvardhan who enjoyed a yearly revenue of £40,000 (Rs. 4 lákhs) and who kept 500 horse and 1000 foot, and Venkatráo of Nargund and Ramdurg, a near relative of both Appa Saheb and Bápu Gokhale, who enjoyed a revenue of £12,500 (Rs. 1,25,000) and who kept 500 men to garrison Nargund fort. Among the officers of the Peshwa were Bápu Gokhale who commanded a force of 2000 horse, 1000 infantry with two or three guns, and 1000 Pendháris. He held Navalgund and Gadag yielding a revenue of £50,000 (Rs. 5 lákhs), and added much to his income by plundering the country near his districts. Ganpatráv Pense, besides holding his own estate in South Bijapur, managed Ranebennur and Hangal which were the estates of a Poona officer named Ruprám Chaudri; these estates together yielded a yearly revenue of £12,000 (Rs. 1,20,000). Bápuji Sindia, who had commanded Dhárwar fort since 1791. maintained a garrison of 800 peons and 120 horse out of the revenues of the districts of Betigeri and Mardagi yielding a yearly revenue of £12,000 (Rs. 1,20,000). Amratrav, the adoptive brother of Peshwa Bájiráo held the town and districts of Annigeri and Parasgad in Belgaum yielding a yearly revenue of £5000 (Rs. 50,000). Besides these there was Kheir Khan the Nawab of Savanur the only Musalmán of note. He had been so ill-used by Tipu and was so harassed by the Brahman estateholders and chiefs, that in 1800 he placed himself under the protection of Colonel Wellesley. Colonel Wellesley had arranged to secure his revenues to the Nawab but nothing was done. He was a pensioner on the Maráthás, but his pension of £500 (Rs. 5000) a year was seldom paid. In 1806 his palace was in ruins, and himself and his family in rags. Towards the close of Bájiráo's reign (1813-17), as they knew he was bent on their ruin, most of the Southern Marátha chiefs, though not actively turbulent, maintained an attitude of semi-independence of the Peshwa. To this want of harmony among the rulers were added the poverty of the country and the misery of the peasantry brought about by the Peshwa's system of farming the revenue. Independently of the distrust which Bájiráo's character and aims excited the power wielded by the notorious Trimbakji Denglia caused general disgust. The temper of the country was shown in 1814 by the refusal of the commandant of Dhárwár to give up the fort to Trimbakji in accordance with the orders of the Peshwa who had to send a force to invest it. On the 13th of June 1817, under the treaty of Poona, the Peshwa agreed to cede territory in lieu of the contingent he was bound by the treaty of Bassein to maintain. Dhárwár and Kusvugal about fifteen miles east of Dhárwár, together with the districts south of the Varda, were among the cessions. The early occupation of these districts was considered of great import-

¹ Transactions in the Marátha Empire (1803), 85-88.

² Grant Duff's Maráthas, 623-624. When asked by Bájiráo to surrender the fort to Trimbakji the commandant replied: 'If your Highness will send a gentleman to relieve me in the command, or if you will send a clerk in your own name, to whom I can commit my charge, your servant will present the keys to him; but I will never give over the fort of Dharwar to such a person as Trimbakji Denglia.'

ance to the British interests as it would facilitate the extensive operations at that time in course of preparation against the Pendháris, and, in the case of rupture with the Peshwa, the possession of Dharwar would be of infinite value to any force advancing from the south.1 Colonel, afterwards Sir Thomas, Munro was appointed Commissioner with both civil and military command of the newly acquired territory. Taking with him a force, already on the Tungbhadra under Brigadier General Pritzler, he marched to Dhárwár. Major Newall at the head of a battalion of Native Infantry was sent in advance, and he conducted matters with so much address that he prevailed on the garrison, though in a state of mutiny, to yield. In July 1817; when Colonel Munro and his party arrived, they found the fort in the hands of the Company's troops.2 Shortly after his arrival and before hostilities with the Peshwa had begun Munro was ordered to reduce Sundur, a principality beyond the Tungbhadra, whose chief had defied the authority of the Peshwa, and for whose reduction the Company had long before given a pledge. On the 11th of October, leaving the second battalion of the 4th Regiment of Native Infantry and two six-pounder field-pieces under the command of Major Newall to occupy Dhárwár, Kusvugal, and Ranebennur, Colonel Munro and Lieutenant-Colonel Dalrymple crossed the Tungbhadra with the remainder of the force and reduced Sundur. After this service, on the 7th of November, in obedience to instructions, Colonel Munro made over command to Colonel Hewett, C.B., with directions to move the brigade to the point where Brigadier-General Pritzler was appointed to join.8 Colonel Munro returned to Dharwar on the 14th of November, and there heard of the outbreak of the war with the Peshwa and of the battle of Kirkee (5th November). On the 28th of November he wrote to the Governor-General: 'The hostile conduct of the Peshwa and my present situation in the middle of the Southern Maráthás, where I have an opportunity of seeing a good deal of their civil and military government, will, I hope, in some degree excuse my addressing your Lordship. The local situation of the Poona territories and the still remaining influence of the Peshwa, as the nominal head of the Marátha states, make the overthrow of his government perhaps the most important of all the measures that can be adopted for the safety of our own The Marátha government from its foundation has been one of the most destructive that ever existed in India. It never relinquished the predatory spirit of its founder Shivaji. That spirit grew with its power, and, when its empire extended from the Ganges to the Kaveri, this nation was little better than a horde of imperial. thieves. All other Hindu states took a pride in the improvement of the country and in the construction of temples, ponds, canals, and other public works. The Marathas have done nothing of this kind: their work has been chiefly desolation. They did not seek their revenue in the improvement of the country, but in the exaction of an established tribute from their neighbours and in predatory incursions to levy more tribute. Though new fortunately obliged to relinquish their claims,

Chapter VII. History.

The Peshwas, 1792-1817.

Defects of the Maratha Government.

¹ Stokes' Belgaum, 73.

Blacker's Maratha War, 59.60.

² Glerg's Life of Munro, I. 460.

Gleig's Life of Munro, I. 471-473.

the wish to revive them will never cease but with the extinction

of their power. A government so hostile in its principles to improve-

Chapter VII. History.

THE PESHWAS, 1792-1817.

ment and tranquillity ought, if possible, to be completely overthrown. It may be a matter of some difficulty to decide what ought to be established in its room, and whether the chief of the government should be taken from among the relations of the Peshwa or the descendants of Shivaji. Before the establishment of the new state it might be expedient to require the cession to the British Government of the provinces south of the Krishna. The provinces between the Varda and the Krishna are not properly Marátha; though there is a considerable mixture of Maráthás, the Kánarese form the body of the people. The Marátha estate-holders or jágirdars and their principal servants are in some measure considered as strangers and conquerors. The best of the horse are in general Maráthás and are no doubt attached to their chiefs; but the miantry in the forts and villages are mostly Kánarese and are ready to join any power that will pay them. All the trading classes are anxious for the expulsion of the Maráthás because they interrupt their trade by arbitrary exactions and often plunder them of their whole property. The heads of villages, a much more powerful body than the commercial class, are likewise very generally desirous of being relieved from the Marátha dominion. When Colonel Munro heard that war had broken out, he began

Colonel Munro's Conquest, 1817.

to make preparations to act against the Peshwa's troops and to take the country. For these purposes his means were of the slenderest. The force at his disposal consisted of five companies of Native Infantry, one gun, and one mortar. He had not even the help of a staff officer. But he had a most able second in Lieutenant-Colonel Newall, who, after being appointed by the Madras Government to the special command of the fortress of Dhárwár, was allowed to leave it for more active and important service in the field. Just before the outbreak of the war the Peshwa had directed the Southern Marátha chiefs to reoccupy the district ceded by the treaty of Poona and had ordered Kásiráo Gokhale, his civil and military governor, to support The country was studded with forts, all of which though not of a superior order were secure against hasty assault and required to be breached in order to be reduced. These, together with other posts capable of embarrassing the movements of an enemy, were also filled with the Peshwa's adherents. With these difficulties Munro, who was promoted to be General on the 29th of November, had to deal. He wrote several times to the Madras Government for regular troops, but no troops were sent. Availing himself of the confidence and goodwill of the people he took the bold step of using the inhabitants of the ceded country to subdue it for him. He appointed military officers or amildárs to most of the enemy's districts with orders to enlist armed constables or peons and take as much territory as possible. He had soon as many as twenty-five officers or amildárs, with about seven thousand Among the officers one Rámráo of Maisur constables or peons.2

2 Gleig's Life of Munro, I. 479; Stokes' Belgaum, 74.

¹ Blacker's Marátha War, 286; Gleig's Life of Munro, I. 475-76.

was appointed to Navalgund about twenty miles north-east of Dhárwár. He very quickly took possession of more than half the district, and on the 19th of December (1817) advanced from a village about two miles from Navalgand with 500 men to attack Kásiráo Gokhale's son who was at that place with a body of seven hundred horse. About 600 of the horse were picquetted in the streets and in the open space between the town and the fort. The rest were mounted and watching Rámráo who advanced at noon so rapidly that he entered the town before the horsemen could mount and leave. The panic was so great that the Marátha horse fled in every direction without attempting to offer resistance. Nineteen horses were taken alive and twenty were found dead. A large number of the enemy were killed, Kásiráo's son escaped with difficulty, and of the two officers under him one was killed and the other wounded and taken. On hearing of the defeat of his son, Kásiráo, who was then at Bádámi in South Bijápur, marched to join him with 550 horse and 200 foot, and after gathering the fugitives reached Navalgund on the 22nd of December. Rámráo retired into the old fort, and, on the 23rd, with his ammunition nearly exhausted, he was very hard pressed by Kásiráo. On hearing that Kásiráo had reached Navalgund, on the morning of the 23rd, General Munro marched from Dhárwár with two flank companies, one of the battalion guns, and a five and a half inch mortar under the command of Major Newall. Within two miles of Navalgund some small parties of horse were seen; and about a mile further the main body was discovered moving slowly along the side of a rising ground at a distance of about a thousand yards. As the enemy seemed to intend to come round on General Munro's baggage two shells were thrown and two horsemen were killed. On this the whole body moved off attended by about two hundred foot, and were soon out of sight leaving about ten dead in the streets.1 After the blockade of Navalgund was raised General Munro and Major Newall returned to Dharwar. In the beginning of 1818 (3rd January), escorted by Lieutenaut-Colonel Newall at the head of a detachment of three companies, a reinforcement of two iron eighteen-pounders, two iron and two brass twelve-pounders, and two mortars, was received from the garrison at Belári. With these came six fresh companies, two of the 2nd battalion of the 12th Native Infantry and four of the 2nd battalion ot Pioneers, and three troops of the 5th Native Infantry under the command of Captain Garton. The last were furnished on his own responsibility by Major-General Lang who commanded in the ceded With these reinforcements General Munro considered himself strong enough to take the offensive. On the 5th of January he invested Gadag, about forty miles east of Dhárwár, and, after a few shells had been thrown and a battery erected, the place surrendered on the 6th. On the 7th he moved on Dambal, about twelve miles south-east of Gadag, which after sustaining a four hours' fire from two batteries capitulated on the morning of the 8th. From Dambal he marched on Hubli, forty miles west, where he arrived on the 13th, having received by the way an accession to his force of two hundred Maisur regular

Chapter VII.

History.

The Peshwas,
1792-1817.

General Munro's
Conquests,

1817.

THE PESHWAS, 1792-1817. General Munro's Conquests,

1817.

infantry. The commandant of Hubli fort on being summoned promised to surrender on the following morning and kept his word marching out with 300 men, the remains of a more numerous garrison, of whom a large portion had deserted from want of pay. On the following day (15th) Misrikota, about eight miles south-west of Hubli, was admitted to the same terms. All these places General Munro immediately occupied by corps of constables or peons without crippling his little army of regulars. He returned to Dhárwár on the 16th without the loss of a man, though threatened at every step by Kásiráo Gokhale's cavalry. The system of securing the districts by the help of irregular troops was attended with extraordinary success. These armed constables in separate parties under their officers, not only drove the enemy from the open country, but from several forts and many walled villages. To enlist the sympathy of the husbandmen and the people in general, General Munro caused it to be proclaimed that the British Government would treat as enemies all who in future paid tribute to the Peshwa or his officers. The people who were ground down by the Maráthás gladly obeyed so pleasing an order. They not only refused to satisfy the demands of their old masters, but acted everywhere in aid of the irregulars. Before the 18th of January the whole of the country south of the Malprabha was completely in the hands of General Munro.2 General Munro remained at Dhárwár till the 4th of February organizing his force and bringing the conquered country to order. His troops were in the interval actively employed partly in escorting treasure partly in opposing the Pendháris. A band of these marauders passing the flank of the British troops beyond the Narbada and ascending the Berár hills, had marched south and spread havor in the Company's territories beyond the One of these marauding companies recrossed the Tungbhadra. Tungbhadra on the 18th of January and marched north leaving the Sunda forests in Kánara about six miles on their left. On the 20th General Munro heard of them and at eight o'clock that night detached Captain Garton with three troops of the 5th Light Cavalry to intercept them passing between Dhárwár and Haliyál. Captain Garton came by surprise upon the enemy's bivouac at three in the following morning (21st) and within an hour they were driven beyond the frontier with a loss of twenty men and forty horses.³ On the 5th of February General Munro started for Bádámi on the Malprahba in South Bijápur. His force included three troops of Cavalry, twelve companies of Native Infantry, four companies of Pioneers, four heavy guns, four field pieces, and a howitzer. He marched first to Navalgund and then to Hullur seven miles north-west of Ron, where he encamped on the 8th. The Pioneers, who were employed this day in opening a road in advance, were driven in by a party of horse. To reconnoitre the strength and designs of the enemy a picquet of thirty native cavalry were ordered out accompanied by Captain Middleton, the officer on duty for the day. This picquet was entired

Blacker's Marátha War, 287; Gleig's Life of Munro, I. 483-84.
 Gleig's Life of Munro, I. 482, 485.
 Blacker's Marátha War, 288-89; Gleig's Life of Munro, I. 485-86.

to follow small parties of the enemy until they found themselves exposed to the attack of an overwhelming force. Though very closely pressed they retreated in good order and gained the camp with the loss of nine men and eight horses killed and wounded. troop of the 5th Cavalry was immediately ordered out to repel the enemy who retired, and Captain Munro, who commanded, after pursuing till nightfall made no more impression on them than the destruction of a few of the worst mounted.1 About this time (10th February) the English took possession of Sátára and by proclamation issued on the 11th of February the Peshwa was formally deposed and with certain specified exceptions his territory was annexed to the British dominions.2 From this date the lands included in the present district of Dhárwar, which were already in the hands of General Munro, may be said to have passed to the The scene of General Muuro's exploits was shifted first to Bijápur, then to Belgaum, and then to Sholápur until his triumphantly successful campaign ended on the 15th of May with the reduction of the strong fortress of Sholapur.3 The approach of the monsoon forced General Munro to bring back from Sholapur his as well as General Pritzler's divisions of the grand army of the Deccan and they reached Hubli on the 15th of June 1818. Lieutenant-Colonel Newall with the second battalion of the fourth Regiment resumed possession of Dhárwár into which were thrown the heavy guns and ordnance stores; and the head-quarters and remaining corps cantoned at Hubli in preparation for the approaching raing.4

On General Munro devolved not merely the conduct of the war but · the civil administration of all the provinces which he had obtained by conquest or cession. Every question connected with the settlement of claims, the adjustment of the revenue, and the administration of justice was referred to him; his tent was not more the head-quarters of an army than the chief civil court in the Bombay Karnatak.) How great an impression General Munro's success made on those of his contemporaries who were best able to estimate his services is shown by the following letter from Sir John Malcolm to Mr. Adams, the Secretary to the Government of India (13th February 1818): 'I send you a copy of a public letter from Tom Munro Sáheb, written for the information of Sir Thomas Hislop. If this letter makes the same impression upon you that it did upon me, we shall all recede. as this extraordinary man comes forward. We use common vulgar means, and go on zealously and actively and courageously enough; but how different is his part in the drama! Insulated in an enemy's country with no military means whatever (five disposable companies of sepoys were nothing), he forms the plan of subduing the country, expelling the army by which it is occupied, and collecting the revenues that are due to the enemy through the means of the inhabitants themselves aided and

Chapter VII.

History.

THE PESHWAS,
1792-1817.

General Munro's
Conquests,

1817-18.

THE BRITISH, 1818-1883.

¹ Blacker's Marátha War, 299. ² Grant Duff's Maráthás, 660. ³ Details of General Munro's successes in each of these districts are given in their Statistical Accounts.

⁴ Blacker's Marátha War, 314.

Chapter VII. History. THE BRITISH. 1818-1883. General Munro. 1818.

supported by a few irregular infantry, whom he invites, from the neighbouring provinces for that purpose. His plan, which is at once simple and great, is successful in a degree that a mind like his could alone have anticipated. The country comes into his hands by the most legitimate of all modes, the zealous and spirited efforts of the natives to place themselves under his rule, and to enjoy the benefits of a government, which, when administered by a man like him, is one of the best in the world. Munro, they say, has been aided in this great work by his local reputation, but that adds to his title to praise. His popularity, in the quarter where he is placed, is the result of long experience of his talents and virtues, and rests exactly upon that basis of which an able and good man may be proud. In the British House of Commons, on the occasion of a vote of thanks being passed to the Indian army, Mr. Canning spoke of General Munro's service in the following terms: 'At the southern extremity of this long line of operations, and in a part of the campaign carried on in a district far from public gaze, and without the opportunities of early special notice, was employed a man whose name I should indeed have been sorry to have passed over in silence. I allude to Colonel Thomas Munro, a gentleman of whose rare qualifications the late House of Commons had opportunities of judging at their bar, on the renewal of the l'ast India Company's charter, and than whom Europe never produced a more accomplished statesman, nor India, so fertile in heroes, a more skilful soldier. This gentleman, whose occupations for some years must have been rather of a civil and administrative than of a military nature, was called early in the war to exercise abilities which, though dormant, had not rusted from disuse. He went into the field with not more than five or six hundred men, of whom a very small proportion were Europeans, and marched into the Marátha territories to take possession of the country which had been ceded to us by the treaty of Poona. The population which he subjugated by arms he managed with such address, equity, and wisdom, that he established an empire over their hearts and feelings. Nine forts were surrendered to him or taken by assault on his way; and at the end of a silent and scarcely observed progress, he emerged from a territory heretofore hostile to the British interest, with an accession instead of a diminution of force leaving everything secure and tranquil behind him. This result speaks more than could be told by any minute and extended commentary.'2 The shattered state of his health compelled General Munro to leave his appointments, both civil and military, in the Southern Marátha country and in the autumn of 1818 he returned to Madras. On his recommendation, Mr. Chaplin, of the Madras Civil Service, who was Collector of Belári, was appointed under Mr. Mountstuart Elphinstone, Principal Collector of the Marátha Country south of the Krishna and Political Agent with the Raja of Kolhapur and

Gleig's Life of Munro, I. 503.
 Gleig's Life of Munro, I. 505. Mr. Canning was mistaken regarding the number of fortresses taken. More than nine were reduced directly by General Munro, and more than twenty-seven by his officers.

the southern Jágirdárs.¹ It has been stated above that after the reduction of Sholápur (15th May) General Munro's army returned for the rains, part under Lieutenant-Colonel Newall to Dhárwár and part under General Pritzler to Hubli. In the latter half (July-December) of the year (1818) cholera prevailed to a frightful degree in this part of the country causing immense mortality in the army and among the people generally. At Hubli, in General Pritzler's camp, in three days two officers and upwards of one hundred Europeans were carried off by cholera² Between 1819 and 1824 the district seems to have been quiet.³ In October 1824 Mr. Thackeray, the Political Agent and Principal Collector, was shot dead in a disturbance at Kittur, the chief of which had in July died childless. In 1826 the question arose whether the district of Dhárwár and the states under it should continue under Bombay or be transferred to the Madras Presidency. Much correspondence passed between the two Governments, each claiming the territory as most fitly belonging to them.⁴ When the question of the transfer was referred to them,

History.
THE BRITISH,

1818 - 1883. Cholera, 1818.

¹ Grant Duff's Maráthás, 679.

² Bombay Courier, 19th December 1818.

³ Mr. F. L. Charles, C. S.

⁴ The reasons in favour of the districts continuing under the Government which ruled the Deccan and the west coast were: That of the Marátha chiefs whose head-quarters were in Poona or Satara, some held a large part of the Karnatak districts; that some of the Patvardhans whose possessions lay chiefly to the south of the Krishna lived to the north of the river and some had possessions scattered over districts near Poona and Sholapur, which must keep them connected with Bombay and make them look to Bombay for redress; that the difficulty of managing these chiefs would increase as the seat of government was more remote; that the distance of the Madras Government must render it in some degree liable to be guided by the representations of the local authorities in measures connected with these chiefs and tend to diminish their security; and that the facility which Bombay possesses of throwing in reinforcements by sea at a week's warning would give her the best means of putting down insurrection in these provinces and made Bombay the government best suited for their administration. The reasons in favour of their transfer to Madras were thus set forth by Sir Thomas Munro, then Governor of Madras: That from its geographical position Bombay was unfit to render military aid at all seasons of the year, but that Madras was in every way fit to render without delay such aid in cases of emergency; that the management of Maratha chiefs had ceased to be a difficulty to the Madras Government; that the transfer would have the effect of putting out of memory the existence of the old Maratha confederacy; that the estate-holders or jagirdars were strangers from the Konkan and from the countries beyond the Krishna and had no influence over the bulk of the people; that mere distance could never be the rule for the annexation of territory to any particular presidency; that the residence of the Marátha chiefs to the north of the Krishna would vary with the fancies of the chiefs and with the seat of government; that their detached possessions under different Governments would not be attended with any administrative difficulty; that much administrative inconvenience would follow if the civil and military power were in the hands of different governments, and, as the country was already in the hands of Madras troops, its civil administration should be in the hands of the Madras Government; that the Dharwar district was bounded on the east and west by Madras districts and therefore its transfer to Madras was advisable on administrative grounds; that the district, though it had been overrun by Marathas, was not a Maratha district; that it formed part of the Karnatak which was already under Madras and that the people were a portion of the same Kanarese nation who lived in Belari, Sunda, and Maisur, speaking the same language, and differing from them in no respect; that it would give more satisfaction to the people to be united to their own nation than to be transferred to a country of Marathas with whom they had no natural connection; and that this reunion of their nation as a permanent measure was entitled to more weight than the convenience of the Marátha chiefs who should continue to look to Poona and Bombay for redress; that as a rule the people

THE BRITISH, 1818-1883.

the Court of Directors decided in 1830 that the Karnátak districts should continue to form part of the Bombay Presidency.

In 1830 (17th March) Regulation VII. of the Government of Bombay was passed bringing the Southern Marátha Country under the Regulations. The territories were formed into one collectorate, called the Dhárwár district or zilla. This included, besides the present district, parts of the present Belgaum, Bijápur, and Sholápur collectorates. In 1836 (28th April) Belgaum was formed into a separate collectorate, the Collector of Dhárwár continuing to be styled Principal Collector. In 1839 (28th June), on the death of the chief of Nipáni now in Belgaum, his estate was resumed by Government and thirteen villages in Annigeri were added to the Dhárwár district. In 1844-45 an insurrection broke out in Kolhápur and spread so rapidly that fears were entertained lest the Dhárwár fort might be seized. A force of militia or shetsandis was raised and by March 1845 quiet was restored without any serious disturbance. Between 1845 and 1856 public peace remained unbroken.

Disturbances, 1857-58.

On the outbreak of the Mutiny in 1857-58 the source of danger was entirely from the north and the east. In the north, Bháskarráo, or as he was more commonly called Bába Sáheb. the Brahman chief of Nargund, who was the most intelligent of the Southern Marátha chiefs and who had a library reputed to contain between three and four thousand Sanskrit volumes, conceived himself wronged by the British Government because he was not allowed to adopt a son. (His estate, said to be one of the oldest possessions in the Bombay Karnátak (1560) and not like many held on service tenure, would, he knew be absorbed by the British Government, and his widows be left to depend on their bounty.7) In the east, Bhimrao Nadgir, hereditary district officer of Mundárgi, about ten miles south-east of Dambal, and the deshmukh of Surtur, about twelve miles south-west of Dambal, were known to be close friends and to have great influence in all the east and south of the present sub-division of Gadag; they also had grievances real or fancied. Between Nargund and Mundárgi, where Bhimráo's influence lay, the belt of patches of territory belonging to Rámdurg, Jamkhandi, Sángli, and Miraj, might at any time have become the gathering-ground for bodies of disaffected men belonging to these states. The Nargund chief and Bhimrao had

of the country above the Sahyadris greatly disliked going to the Malsbar or western coast, but had no objection to go to the Coromandel or eastern coast, and as a consequence a native of Dharwar would much rather come to Madras thin go to Bombay; and lastly that as neither Madras nor Bombay could pay its charges without aid from Bengal, the Madras Presidency would, if Dharwar were transferred to it, be able to answer all its demands without aid from Bengal, while if the transfer were made to Bombay, its resources would still be far below its expenditure and both presidencies instead of one would still be dependent on Bengal. Sir Thomas Munro's Minutes dated 5th May 1826, 27th June 1826, and August 1826, in Sir H. Arbuthnot's Life of Munro, II. 89-99.

Munro, II. 89-99.

Stokes' Belgaum, 85.

Stokes' Belgaum, 87.

Stokes' Belgaum, 89.

⁵ The account of the mutinies in Dharwar is contributed by Mr. F. L. Charles, C.S. ⁸ LeGrand Jacob's Western India, 226-227.

concerted a plan for a rising of the chiefs of Nargund, Rámdurg. the chief of Anegundi in Madras, and several smaller desais whose influence lay in the territory adjoining this part of the country. Their plans were greatly wanting in boldness and fixity of purpose. and, in spite of disquieting rumours, the whole of 1857 and the first five months of 1858 passed without any open act of treason. At this time the Collector was Mr. Ogilhy and the Political Agent of the Southern Marátha Country was Mr. Manson. Mr. Manson was in the prime of life, intelligent, energetic, and decided. He had incurred much ill-will from his connection with the Inam Commission. but his frank and kindly disposition gave him considerable influence.1 The policy of these two officers seems to have been, while maintaining a watch over their movements, to conciliate and refrain from alarming the dangerous chieftains. As the Nargund fort was strong and stood on the top of a steep hill, it was deemed politic to ask the chief to send his heavy guns and stores of powder to Dhárwár, on the plea that in the unsettled state of the country it was advisable to prevent the possibility of their falling into the hands of insurgents. The chief could not refuse this request without giving proof of disloyalty, and on the 7th of May 1858 all but three of his large guns and a large store of gunpowder and saltpetre were received in Dhárwar. The three guns were kept on the plea that heavy rain prevented the carts crossing the black soil between Nargund and Dhárwár. This attachment of his arms alarmed the chief and led him to suppose that his meditated treason had been discovered. Meanwhile, as it was known that Bhimráo of Mundárgi, Kenchangauda of Shirhatti and Hámgi, and the desái of Surtur had been concerting measures, the chief constable of Dambal was ordered to search Kanchangauda's house or fortified enclosure at Hámgi, a village on the Tungbhadra, twelve miles south of Mundargi. The chief constable found a . large quantity of arms and warlike stores, sealed the house and set a guard over it, and reported the matter to head-quarters. On this Bhimrao, thinking further concealment useless, gathered about seventy men, attacked the guard, murdered the informant, and taking the stores marched with Kanchangauda and attacked the treasury at Dambal. Fortunately all the money had been sent to Gadag the day before and the insurgents gained but little. Their numbers increased to 300 or 400, and, though pursued by the superintendent of police, they made their escape towards Kopal in the Nizám's territories, where Bhimráo's family lived. They gained Kopal fort on the 30th of May. But word that they had left Dhárwár had been telegraphed to Belari, and, by the first of June, Major Hugles with the deputy commissioner of Raichur had collected a small force, and, after a rapid march, attacked and took Kopal, killing Bhimráo, Kenchangauda, and 100 men. put an end to the insurrection in the east of the district. afterwards became known that the attack on Kopal was part of Chapter VII

History.

The British,
1818-1883.

Disturbances.

1857-58.

Chapter VII.

History.

THE BRITISH,
1818-1883.

Disturbances,
1857-58.

a programme according to which the chief of Nargund was to attack Dhárwár and the west, while Bhimráo was to establish himself at Kopal where his family had influence. The news of Bhimráo's revolt was known almost immediately at Nargund, and the chief placed guns in position on his fort. On the 26th of May, after an interview with Brigadier-General LeGrand Jacob at Kolhapur, Mr. Manson when he heard of the threatening attitude of the Nargund chief went to Kurundvad twenty-five miles east of Kolhapur. In the hope of preventing further mischief, he moved with speed from Kurundvád to the threatened quarter, leaving his infantry escort and establishment behind, and taking with him only a dozen troopers of the Southern Marátha Horse. A letter which he had sent to Colonel G. Malcolm. commanding at Kaládgi, asking him to meet him at Rámdurg with a large body of the Southern Marátha Horse, did not reach Kaládgi till Colonel Malcolm had taken the field with 250 horse to attack the insurgents who had plundered the Dambal treasury. When Mr. Manson reached Ramdurg he had no protection but his own troopers.1 The chief of Ramdurg was cordial, supplied him with food, and showed him letters from Nargund urging him to rebellion. Death, wrote the Nargund chief, is better than dishonour. The chief advised Mr. Manson not to go to Nargund as the country was unsafe. In spite of remonstrances, on the afternoon of the 29th May. Mr. Manson set off in a palanquin to Dhárwár to join Colonel Malcolm.² As the road from Rámdurg to Dhárwár passed close to Nargund, and, as in addition to his small escort he had only a couple of horsemen, Mr. Manson's position was perilous. That night (29th May) he pressed forward about ten miles to Suriabund. At Suriabund he laid down in his palanquin which had been placed on the raised platform of a rest-house. Meanwhile the Nargund chief, who was greatly incensed by a letter which Mr. Manson had sent from Ramdurg and who feared that the Political Agent had full knowledge of his treasonable intentions, went towards Ramdurg with seven or eight hundred horse and foot. Hearing that Mr. Manson was at Suriabund, he turned aside and entered the village about midnight. He surrounded the village, approached close to the spot where Mr. Manson and his party were asleep, poured on them a volley which killed the sentry, and rushed in to finish the work with the sword. Mr. Manson, roused from sleep in his palanquin, fired his revolver at his assailants and wounded one, but was immediately overpowered, his head cut off, and his body thrown into the fire that had been kindled by his party. Besides Puransing, one of the best officers of the Southern Maratha Horse, several attendants and bearers were killed, only half a dozen escaped in the dark. The chief returned to Nargund with Mr. Manson's head which he stuck on one of the gates of the town.8 As it is only thirty miles from Nargund,

Mr. Manson Murdered.

LeGrand Jacob's Western India, 223.
 LeGrand Jacob's Western India, 224.
 Bom. Gov. Sel. CXIII. 192; LeGrand Jacob's Western India, 224.

the news of Mr. Manson's murder reached Dhárwár on the 30th of May. On the same day a small force sent from Dhárwár encamped at Amargol about four miles south of Nargund. detachment was joined by Lieutenant-Colonel Malcolm's force of one nine-pounder gun, one howitzer, two companies of the 74th Highlanders, one company of the 28th Regiment of Native Infantry, and 150 of the Southern Marátha Horse. With these troops Colonel Malcolm appeared before the walls of Nargund on the morning of the 1st of June, and immediately proceeded with 100 horse to reconnoitre the fort. After reconnoitring the party retired. This movement was misunderstood by the seven hundred armed rabble which the chief had collected, and shortly afterwards they came pouring out towards the British camp. They were attacked and pursued by the cavalry who sabred them to within 500 vards of the town, inflicting a loss of apwards of sixty killed. Skirmishers were afterwards thrown forward under cover of the artillery, and by evening the town was taken with little loss and the troops were moved to the chief's palace. Early next morning a storming party wound up the steep path to the fort gates prepared to blow them open. They met with no resistance. The place was almost deserted, as many of the defenders had leaped over the precipice rather than face the storming party. The chief himself had fled as soon as his men began to retreat. Mr., row Sir Frank Souter, the superintendent of police in Belgaum, with a few horsemen followed his tract with extraordinary energy, perseverance, and skill, and, on the 2nd of June, found the chief with six of his leading followers, in the Torgal forest, disguised as pilgrims on their way to Pandharpur. He was taken to Belgaum, and was confined in the main guard of Belgaum fort. He was tried and sentenced to death. On the 12th of June he was carried on a cart drawn by Mhárs through the town to Haystack Hill on which the gallows was raised, and was hanged before an immense crowd of spectators.3 His widows, unable to bear the disgrace, drowned themselves.4

Thus the disturbance was quelled. In addition to the two hundred men killed in action at Nargund and Kopal, forty persons of influence were hanged after trial, and about a hundred were sentenced to various terms of imprisonment and transportation. About a hundred of the armed rabble captured at Kopal and Nargund were shot by court-matial. Several pleaders in the Dhárwár Judge's Court and the názar or sheriff of the Court were suspected of having favoured the rebellion. The názar was convicted by the first court that tried him. Government ordered a second trial, and this court, consisting of two Europeans, was unable to find the complicity of the accused proved and all were discharged. Government pensions were granted to the widows and children of Bhimráo of Mundárgi and other persons of note who had been killed and whose estates were confiscated. A proclamation issued

Bom. Gov. Sel. CXIII. 193.

History.
The British,

Chapter VII.

1818 · 1883.

Disturbances, 1857-58.

LeGrand Jacob's Western India, 222-26; Bom. Gov. Sel. CXIII. 192-93.
 Stokes' Belgaum, 94.
 LeGrand Jacob's Western India, 226.

DISTRICTS.

Chapter VII
History.

THE BRITISH, 1818-1883.

on the 3rd of June declared the state of Nargund forfeited to the British Government. When it lapsed to the British the state had forty-one villages of which seventeen were alienated, a population of about 22,700, and a gross yearly revenue of about £5000 (Rs. 50,000). Yearly allowances amounting to £130 (Rc. 1300) were bestowed on two of the nearest surviving relations of the rebel chief.1 The fort was garrisoned for a time by a few British troops which were soon withdrawn. It is now uninhabited. As the fort has an excellent supply of water, soon after the confiscation, a proposal was made that the water cistern and a few buildings should be kept in repair and the fort used as a sanitarium for Dhárwár With this object the destruction of the cistern was countermanded. After confiscation the state remained for some time under the charge of the Political Agent of the Southern Marátha States, but was afterwards transferred to the Collector of Dhárwár. Since 1858 the public peace has been unbroken.

Bom, Gov. Sel, CXIII. 194.