A Statistical Account of Bengal.

By W. W. HUNTER, B.A., LL.D.,

DIRECTOR-GENERAL OF STATISTICS TO THE GOVERNMENT OF INDIA;

ONE OF THE COUNCIL OF THE ROYAL ASIATIC SOCIETY; HONORARY OR FOREIGN MEMBER OF THE ROYAL INSTITUTE OF NETHERLANDS INDIA AT THE HAGUE, OF THE INSTITUTO VASCO DA GAMA OF PORTUGUESE INDIA, OF THE DUTCH SOCIETY IN JAVA, AND OF THE ETHNOLOGICAL SOCIETY, LONDON; HONORARY FELLOW OF THE CALCUTTA UNIVERSITY; ORDINARY FELLOW OF THE ROYAL GEOGRAPHICAL SOCIETY, ETC.

VOLUME IV.

DISTRICTS OF BARDWÁN, BÁNKURÁ, AND BÍRBHÚM.

TRÜBNER & CO., LONDON 1876.

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PREFACE

TO VOLUME IV. OF

THE STATISTICAL ACCOUNT OF BENGAL.

THIS Volume treats of the northern half of the Bardwán Division, comprising the three Districts of Bardwán, Bánkurá, and Bírbhúm. Bardwán District and the eastern parts of Bírbhúm exhibit the typical features of an old-formed, richly-cultivated deltaic tract, crowded with villages and thickly peopled. In Bánkurá and the western borders of Bírbhúm, the alluvial flats end in the undulations, isolated peaks, and short, low ranges which form the advanced guard of the hill-system of the central Indian plateau. A poor, ferruginous soil and hard beds of laterite here take the place of the fertile deltaic detritus, with expanses of scrub-jungle and *sál* woods for the closely-tilled village lands of the east. Instead of a wealthy and well-educated population of Hindus and Muhammadans, the western tract is comparatively thinly inhabited by races or castes of a less advanced type, and into whose constitution the aboriginal or semi-Hinduized element strongly enters. On the other hand, these less favoured western parts are rich in iron and coal, and hold out a promise of inexhaustible mineral wealth.

The total area dealt with in this Volume amounts to 6270 square miles, containing a population of 3,258,480 souls. The District Statistics were collected in the years 1870-73, and as regards accuracy are subject to the remarks in my preface to Volume I.

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INTRODUCTORY NOTE.

WEIGHTS AND MEASURES.

THE local weights and measures are given in detail at pp. 75-76 and 250-251. In some instances in the following volume, these weights and measures have been converted into their English equivalents, and the native names have not been added. In such cases the reconversion from the English equivalents may be effected with sufficient accuracy in accordance with the following tables:—

MONEY.

1 pie ($\frac{1}{192}$ of an ánná) = $\frac{1}{2}$ farthing.
1 pice ($\frac{1}{4}$ of an ánná) = 1$\frac{1}{2}$ farthings.
1 ánná ($\frac{1}{16}$ of a rupee) = 1$\frac{1}{2}$ pence.

The rupee is worth, according to the rate of exchange, from 1s. 9d. to 2s.; but for ordinary purposes it is taken at 2s.

WEIGHTS.

The unit of weight is the ser (seer), which varies in different Districts from about 1$\frac{1}{2}$ lbs. to 2·205 lbs. This latter is the standard ser as fixed by Government, and corresponds to the metrical kilogramme. For local calculations in Lower Bengal, the recognised ser may be taken at 2 lbs. The conversion of Indian into English weights would then be as follows:—

1 chaták ($\frac{1}{16}$ of a ser) = 2 oz.
1 ser ($\frac{1}{40}$ of a maund) = 2 lbs.
1 man or maund (say) = 82 lbs.

LAND MEASURE.

The unit of land measure is the bighá, which varies from $\frac{1}{3}$ of an acre to almost 1 acre. The Government standard bighá is 14,400 square feet, or say $\frac{1}{3}$ of an acre; and this bighá has been uniformly adopted throughout the following volume.

ERRATUM.

PAGE 419, line 22, *for* 1860-61 *read* 1861-62.

I shall be grateful for any corrections or suggestions which occur to the reader. They may be addressed to me, care of the Secretary to the Bengal Government, Calcutta.

STATISTICAL ACCOUNT

OF THE

DISTRICT OF BARDWAN.[1]

BARDWAN (*Burdwan*), the principal District in the Division of the same name, is situated between 22° 46′ 0″ and 23° 53′ 0″ north latitude, and between 86° 52′ 0″ and 88° 39′ 0″ east longitude. It contains a population of 2,034,745 souls, as ascertained by the Census of 1872; and a total area, after recent transfers of estates from the neighbouring Districts of Húglí and Bánkurá, of 3523 square miles, exclusive of 65 square miles of river circuits. In October 1871, previous to the transfers, the area of the District was returned by the Surveyor-General at 2825 square miles. The principal Civil Station, which is also the chief town of the District, is Bardwán, situated on the East India Railway, in the centre of the District, near the Dámodar river, in 23° 14′ 10″ north latitude, and 87° 53′ 55″ east longitude.

BOUNDARIES.—Bardwán District is bounded on the north by the Santál Parganás, and by Bírbhúm and Murshidábád Districts, the river Ajai forming a natural boundary-line for a considerable dis-

[1] My account of Bardwán is chiefly derived from the following sources:—(1) Answers to my five series of questions furnished by successive District Officers; (2) Replies of the Collector of Bardwán to a series of questions relating to the fishes of the District; (3) Bengal Census Report, 1872, with subsequent district compilation, by Mr. C. F. Magrath, C.S.; (4) Report on the Indigenous Agency employed in taking the Census; (5) Bábu Bholá Náth Chandra's *Travels of a Hindu*; (6) the Rev. Mr. Long's paper on the 'Banks of the Bhágirathí,' published in the *Calcutta Review*; (7) Collector's Report on the Land Tenures of the District; (8) Famine Commissioners' Reports, 1867; (9) Rent Statistics furnished by the Collector; (10) Return of Area, Latitudes and Longitudes, furnished by the Boundary Commissioner; (11) Selections from the Records of the Government of India, Home Department, No. LXIV., containing

tance; on the east by Nadiyá District, the Bhágirathí or Húglí river forming the boundary-line for the whole distance, with the exception of a small strip of land on the west bank of the river near Nadiyá town and belonging to Nadiyá District; on the south by the Districts of Húglí and Midnapur; and on the west by the Districts of Bánkurá and Mánbhúm, the Barákhar and Dámodar rivers forming the boundary-lines for some distance,—the former separating the District from Mánbhúm, and the latter separating the Ráníganj Subdivision from Bánkurá.

JURISDICTION, AND BRIEF HISTORICAL SKETCH.—Repeated changes have taken place in the jurisdiction and territorial limits of Bardwán. It was one of the first Districts of Bengal which came into our hands. Upon the deposition of Mír Jafar Khán from the Governorship of Bengal by the East Indian Company in 1760, and the accession of his son-in-law Mír Kasím Khán to the viceroyalty, the latter ceded to the Company, as the price of his elevation, the three Districts of Midnapur, Bardwán, and Chittagong, then estimated to yield a third of the whole revenue of Bengal. At that time Bardwán comprised the present Districts of Bardwán, Bánkurá, Húglí, and one-third of Bírbhúm.

The three great houses of Bardwán, Bishnupur, and Bírbhúm had for several centuries ruled over the Districts on the west of the Húglí. Bírbhúm was governed by a Muhammadan family, dating from about 1550 A.D.; the Bishnupur Rájás came of a Hindu stock of great antiquity; the Bardwán House, also Hindus, descend from a north-country merchant who migrated to Lower Bengal about the 17th century, and rose to importance as a financier. The end of the seventeenth century left the Bírbhúm and Bishnupur Rájás at the summit of their fortunes. Their territory lay beyond the direct control of the Musalmán power, and as frontier chiefs they

Reports on the Coal Resources and Productions of India; (12) Paper, entitled 'The Bardwán Ráj,' published in the *Calcutta Review*, No. CVIII., April 1872; (13) Annual Reports of the Inspector-General of Police, particularly that for 1872; (14) Report of the Inspector-General of Jails for 1872, with special Jail Statistics for the years 1857-58, 1860-61, and 1870, compiled in his office; (15) Annual Report of the Director of Public Instruction for 1872, with special Statistics compiled for the years 1856-57, 1860-61, and 1870-71; (16) Postal Statistics for 1861-62, 1865-66, and 1870-71, furnished by the Director-General of Post Office; (17) Medical Report furnished by the Civil Surgeon of Bardwán; (18) Report on Charitable Dispensaries of Bengal for 1872; (19) Dr. French's Report on the Endemic Fever in Bardwán; (20) My forthcoming volumes of Bengal MS. Records.

were of so much importance in keeping the border, that the Muhammadan Viceroys treated them rather as allies than as subjects. The Bardwán Rájás dwelt nearer to the Murshidábád Court, and were from time to time squeezed accordingly. Nevertheless they prospered, from a money point of view, as a clever Hindu family almost always did prosper in contact with indolent Musalmán administrators; and on one conspicuous occasion, to be described when I come to deal with the domestic history of the Rájás, they displayed a loyalty and bravery worthy of the days of old Hindu romance.

But with the beginning of the eighteenth century an entirely new set of conditions came into play in Western Bengal. Year after year the inexhaustible Marhattá horse overflowed upon the border. Under the Muhammadan system, a family was secure in proportion as it was near the frontier and distant from Court; but now safety could be found only in the heart of the Province. The Marhattás fell with their heaviest weight upon the border principalities of Bírbhúm and Bishnupur. Tribute, free quarters, forced services, exactions of a hundred sorts, reduced the once powerful frontier houses to poverty; and their tenantry fled from a country in which the peasant had become a mere machine for growing food for the soldier. Bardwán not only lay farther inland, but its marshy and river-intersected surface afforded a less tempting field for cavalry, and a better shelter for the people. The Marhattás spent their energy in plundering the intervening frontier tracts of Bírbhúm and Bishnupur, where the dry soil and fine undulating surface afforded precisely the riding-ground which their cavalry loved. There they could harry the villages exhaustively, and in detail, by means of small parties. But in Bardwán the nature of the country compelled them to be more circumspect. They could act safely only in considerable bodies; and the cultivators soon became accustomed to fly, as a matter of course, to some swamp-protected village whenever the Marhattá horse appeared, leaving very little to eat, and nothing to destroy, behind them.

Terrible as such a state of things would now seem, the records prove that the permanent injury which it inflicted on a deltaic District in the last century was comparatively slight. The dry, undulating territory on the frontier returned to jungle, and the ancient houses of Bishnupur and Bírbhúm were ruined; but the moist lands of Bardwán yielded their yearly harvests, and, excepting

the tract to the south of Kátwá, which was in a state of chronic devastation, even received an increase of cultivators, by the general flight of the peasantry from the western borders. The Marhattás, however, were not the only scourge which during the last century chronically afflicted Bengal. Famines, floods, and droughts were the lot of each generation. In 1760 Bardwán passed to the Company; and the dearth of 1769 did for the Bardwán Rájás what the Marhattá horse had done under native rule for the frontier families of Bírbhúm and Bishnupur. The Mahárájá died in the midst of the desolation, and his heir had to melt down the household ornaments, and beg a loan from Government, in order to perform the funeral ceremonies. Ten years later, the records of 1782 disclose the house sinking steadily into ruin. The Government forced the Rájá, as zamíndár, to discharge in some fashion his duties towards his people, and many of the earliest documents contain articles of agreement for the repair of the embankments and bridges at his expense. Until after the Permanent Settlement, the family still maintained a bodyguard and the other costly paraphernalia of native pomp, without the income necessary to pay for them. A long series of painful personal degradations followed: imprisonments of the Rájá in his palace, forced sales of his lands, the foreclosures of mortgages, the swooping down of his private creditors, and a hundred miserable evasions and struggles. Our officers were not very patient, and they were constantly provoked. Not only was there a vast mass of 'arrears,' which the Collector was ordered, under pain of high displeasure, to levy, and of which he found it absolutely impossible to recover a single rupee; but four times each year, at the quarterly instalments, the Rájá sank deeper and deeper into our debt. The Company was, moreover, only one of a host of claimants; and what between the stringent demands of the Revenue Committee, the piteous requests for pension by female members of the family, and the clamorous private duns and usurers who thronged the Rájá's palace, the Collector had a very unhappy time of it. Severities did but little good. The Government might summon the impoverished Rájá to Calcutta, imprison him in a wing of his palace, and turn his own bodyguard into his jailors; but such measures produced little money and much popular discontent. Whenever the Board of Revenue had been specially hard upon the Rájá, a thousand annoyances and interruptions somehow took place in the Company's trade. The

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Commercial Resident complained of 'obstructions,' and the Salt Department deplored an outbreak of 'opposition to the business of the *Aurangs*.' While the Revenue authorities could make the Rájá's life miserable, the Rájá could render his territory a very unprofitable one to the British Government.

From this chronic conflict, the Permanent Settlement, and the new order of things which it brought about, rescued Bardwán. Its action was partly direct and partly indirect. It acted directly by substituting a uniform law of sale for arrears for the former mixed procedure of personal imprisonment and partial sale of lands. The ancient houses of Bengal no longer staggered recklessly through life under an incubus of hereditary debt. In the second place, it acted indirectly by giving a new stability to proprietary rights. It became profitable in Bengal to improve estates which the owner and his descendants for ever held by a secure tenure. Each great house had only to wait until the family happened to come under an able and economical head, in order to start on a new lease of prosperity. After half a century of poverty and ruin, the Bardwán family at last found itself under the guidance of a singularly prudent Rájá; and his successor, the present chief, is also a man of wisdom in money affairs. The creation of under-tenures, and the various other machinery for improving an estate which the Permanent Settlement introduced, have now rendered it the most prosperous house in Bengal.

Bánkurá, or West Bardwán, was afterwards separated from Bardwán; and in 1820 Húglí was formed into a Collectorate on its own account, reducing the limits of Bardwán to more moderate dimensions. Numerous minor transfers to and from the District were afterwards made, and finally, in 1872, the District area was increased from 2825 square miles to 3588 square miles, including river circuits, by transfers from Mánbhúm, Bánkurá, and Húglí.

General Aspect of the District.—The greater portion of the District is flat and uninteresting in point of scenery, and covered with rich unvarying rice crops. The soil consists of an alluvial deposit of great depth. Large trees are scarce, but the clumps of bamboos, mango groves, plantain gardens, and the tropical leafage of the date and other palms, which encircle the villages, have a beauty of their own. The eye constantly rests on expanses of green rice-fields, fringed round by villages and foliage. On approaching Ránígánj, in the north-western part of the District, the surface

of the country becomes undulating, and beds of laterite make their appearance. There are no mountains.

River System.—The principal river is the Bhágirathí, which lower down in its course, below Nadiyá, and after its junction with Jalangí, receives the name of Húglí. The other rivers of the District flow all into the Bhágirathí or Húglí, as shown in the following table :—

Tuni khál, Kunur,		Ajai,	Bhágirathí, or Húglí.
Máyá,	Bánká,	Kharí,	
Nuniá, Singáran, Támlá nadí, Kukuí, Little Dhalkisor, or Káná nadí,		Dámodar,	
Dhalkisor (*Dwárkeswar*) or Rúpnáráyan,			

The Bhagirathi or Hugli River nowhere enters the District, but forms its whole eastern boundary with the exception of a short distance, where it enters Nadiyá District, near the town of Nadiyá. The Bhágirathí first touches Bardwán a little south of the site of the battlefield of Plassey, which is situated on the opposite bank. The river thence flows southwards in a tortuous direction as far as Kátwá (Cutwa), where it receives the Ajai, thence flowing by an exceedingly winding course, generally in a south-easterly direction, till a little north of Nadiyá, when it re-enters that District for a short distance, but again forms the eastern boundary of Bardwán from Samudragarh, near which it receives the waters of the Kharí, and continues its southward course past Kálná (Culna), opposite the town of Sántipur, where it leaves Bardwán and forms the eastern boundary of Húglí District. (See my Statistical Account of Húglí District.)

The Ajai first touches upon Bardwán in the extreme north-west corner of the District, and forms its northern boundary as far as Bhediá, where it enters the District and flows eastward through the Kátwá (Cutwa) Subdivision, and falls into the Bhágirathí just north of Kátwá town. Its two principal tributaries are the Tuní and Kunur *nadís*. The former takes its rise in Shergarh Fiscal Division, in the north-west of the District, and flows in a generally easterly course till it falls into the Ajai, in Senpahárí Fiscal Division, a short distance south of the large village of Kendulí,

in Bírbhúm District. The Kunur also takes its rise in Shergarh Fiscal Division, but is a larger river and follows a longer course: it ultimately joins the Ajai in Azmatsháhí Fiscal Division, a short distance north of the police station (*tháná*) of Mangalkot.

THE KHARI OR KHARIA RIVER takes its rise in a paddy-field near the subdivisional town of Búd-búd, in the west of the District, and after a lengthy and very tortuous course, generally in an easterly direction, finally joins the Bhágirathí near the village of Nandái. The principal tributary of the Kharí, the Bánká *nadí*, rises in a paddy-field near Gopálpur, in Champánagarí Fiscal Division, whence it flows an easterly course almost parallel to the Dámodar, passes through the town of Bardwán, from which place it runs parallel to the line of railway as far as Sáktigarh station, after which it flows north-eastwards, and empties itself into the Kharí near the confluence of that river with the Bhágirathí. The Máyá is a little stream which rises and empties itself into the Bánká in Sháhábád Fiscal Division.

THE DAMODAR touches the District on the north-west at the point of its confluence with the Barákhar, near the police station (*tháná*) of Niámatpur. It forms the boundary between the Ráníganj Subdivision of Bardwán and the District of Bánkurá, passing the town of Ráníganj and the large villages of Srírámpur, Bhotrá, Marmarákganj, Chakátul, Káspur, Gohográm, and the towns of Bardwán and Salímábád. Its course runs parallel to the line of railway as far as the small village of Jámdá, when it turns to the south, and finally leaves the District near the little village of Shámpur, in the extreme south-east of Jahánábád Subdivision. The principal offshoot of the Dámodar is the Káná *nadí*, which branches off from the parent stream at Salímábád, but only flows a course south-eastwards for a few miles through the Salímábád Police Circle (*tháná*), when it leaves the District, and finally falls into the Húglí river as the Kuntí *nadí* or Nawá-Sarái *khál*, at the village of Nawá-Sarái in Húglí District. For a detailed account of the Dámodar river, *vide* my Statistical Account of Húglí District. The courses of the five principal tributaries of the Dámodar within Bardwán District are as follow:—The Nuniá enters the District from the north-west in Niámatpur Police Circle, and thence flows a course east, south, and south-east into the Dámodar at the town of Ráníganj, in Shergarh Fiscal Division. The Singáran takes its rise in Shergarh Fiscal Division, and after a short south-easterly course falls into the Dámodar, in the same Fiscal Division, at the village

of Srírámpur. The Támlá *nadí* also rises in Shergarh Fiscal Division, west of the large village of Ukhrá, and flows a south-easterly course into the Dámodar at the village of Bhotrá, near the boundary of the same Fiscal Division. The Kukui rises in Salímpur Fiscal Division south of Káksá police station, and flowing south-south-east, past the town of Kasbá, falls into the Dámodar a few miles north of Káspur, in Champánagarí Fiscal Division. The Little Dhalkisor or Káná *nadí* (not to be confounded either with the Great Dhalkisor or Rúpnáráyan river, or with the Káná *nadí* offshoot of the Dámodar mentioned above) is a cross stream leading from the Great Dhalkisor north of the Subdivisional town of Jahánábád, in Samarsháhí Fiscal Division. It flows a winding southerly course for about fifteen miles through the south-east of the District, and takes its exit near the village of Haiatpur. It finally falls into the Dámodar a few miles north of the large village of Amptá, in Húglí District.

THE DHALKISOR (*Dwárkeswar*) OR RUPNARAYAN enters the District from the west, a few miles east of Bishnupur town, in Bánkurá District. It flows a winding course south-east and south through the Jahánábád Subdivision, and past the town of Jahánábád. It leaves the District at the small village of Berarí, and continues its course, marking the boundary between the Districts of Húglí and Midnapur, till it finally falls into the Húglí river opposite Húglí Point. In its upper reaches, within Bánkurá and Bardwán District, the river is known as the Dhalkisor; it takes the name of Rúpnáráyan after it leaves Bardwán. The Tárájulí and the Amudar are the chief tributaries of the Dhalkisor in Bardwán District.

THE BARAKHAR, although not properly speaking a river of Bardwán District, flows for a short distance along its north-west boundary, and separates it from Mánbhúm District, until it falls into the Dámodar river near the Niámatpur police station.

The foregoing are the principal rivers and streams of the District. The tributaries of the Ajai, Dámodar, and Kunur are all unimportant streams. There are also a large number of small creeks and watercourses interlacing with the larger streams, but which are almost entirely dry during the greater part of the year. Cases of alluvion and diluvion are frequent in the Bhágirathí and Ajai rivers, but no extensive changes in the river courses have recently taken place within the District, with the exception of the case of the Bhágirathí, which at Kálná and Kátwá is said to have receded a distance of a mile from its former course. A more important change

in the course of the river occurred about the beginning of the century. At that time the town of Nadiyá was situated on the east side of the Bhágirathí. But the stream suddenly changed its course, and left the town of Nadiyá, and a considerable strip of land north and south of the city, on the west side of the river. The old channel of the river is now marked by a small branch of the river, called the Gangá Bhárat. The beds of the Bhágirathí, Dámodar, Ajai, and Dhalkisor are of sand, and those of the Kunur, Bánká, and Kharí, of clay. The banks of the rivers are generally low. Cultivation is only carried on along the banks of the larger rivers, where the fields are protected by *bándhs* or embankments. The Bhágirathí is fordable in February and March below Kátwá (Cutwa). The Dámodar and Ajai are not fordable in the rains, but at other seasons are fordable at any part within the District. The Kharí river is never fordable for the last few miles of its course before it falls into the Bhágirathí. The other streams are everywhere fordable at all seasons of the year except immediately after heavy rain. Principal ferries in the District:—On the Bhágirathí—(1) Kálná, (2) Mirzápur, (3) Ghyáspur, (4) Mírtálá, (5) Diwánganj, (6) Kátwá, and (7) Uddhanpur. On the Dámodar—(1) Near Bardwán, on the road from Bardwán to Ekloki, (2) Káshthagolá, on the road from Bardwán to Khandghosh, (3) Kasbá and (4) Salímpur, on different roads to Sonámukhí. On the Ajai—Sankhái, on road from Bardwán to Bírbhúm.

Lines of Drainage.—The Dámodar river drains the Hazáríbágh plateau. The bed of that river, so far as Bardwán is concerned, is higher than the surrounding country, and it drains but a very small portion of the westernmost part of the District. The general line of drainage of Bardwán is from west to east, the Bánká, Kharí, and Kunur being the chief channels. From the Dámodar to the Húglí, the average fall of the ground is four feet per mile.

River Traffic.—The towns on the Bhágirathí, containing a large community, chiefly supported by river traffic, are—Kálná (Culna), Kátwá (Cutwa), Dáinhát, Bháosinh, Millipur, and Uddhánpur, where a large trade is carried on in salt, jute, and cloth. The principal trading villages on the Dámodar are—Salímábád, Bábnábárí, and Kasbá, at which the traffic consists chiefly in coal, rice, and timber. None of the non-navigable rivers or streams are anywhere applied as a motive power for turning machinery, and the Collector reports that none of them have any descents or

rapids sufficient to render it likely that they could be so utilized by the construction of dams or weirs.

FISHERIES.—Fishing provides ample occupation to a great number of fishermen in the Bhágirathí, Dámodar, and Dhalkisor, and in the internal rivers and channels. The names of the Hindú fishing castes are—(1) Kaibartta, (2) Keut, (3) Málá, (4) Tior, (5) Jáliá, (6) Bágdí, (7) Duliá, and (8) Báurí; of which the first five named live principally by fishing, while the last three ply the double occupation of fishermen and palanquin bearers,—the males following the latter pursuit, while the females look to the fishing. Most of the fishing castes also own lands, which they till themselves. The subject of the fish supply of Bengal, and the expediency of putting a stop to the wasteful destruction of breeding-fish and small fry, led to a series of queries being issued to the District Officers on the subject. The following is condensed from the replies of the Collector of Bardwán to the Bengal Government's circular :—

Breeding-fish are largely taken in the District for consumption, but they do not appear to be wastefully destroyed. Young fry are also captured in large quantities, but principally for the purpose of stocking ponds and tanks, as it is generally believed that large fish cannot spawn in tanks. Self-interest teaches the people not to sell the fry as an article of diet, inasmuch as the fry, when sold for rearing purposes, generally fetch twenty times as much as when sold for food. It is only when the young ones die, in being taken from one place to another for stocking tanks, that they are brought to market for food. The Collector is of opinion that the sale of fry as stock fish cannot be well prohibited. The supply of fish is said to be not equal to the demand, and the quality to be bad. A considerable portion of the supply is derived from tanks, the water in which has become bad and poisonous in consequence of the decomposition of rank vegetation. The fish in such tanks become diseased. Although the supply is thought to be not equal to the demand, the Collector does not think that there has been any decrease in the supply of late years. No statistics are available showing the proportion of the fish-eaters to the whole population; but fish is consumed by almost all classes of the people, excepting the widows of high-caste Bráhmans, Baidyas, and Káyasths, and the Collector roughly estimates the fish-eating population at 95 per cent. of the total inhabitants of the District. The practice of salting fish is very little resorted to, owing to the

high duty on salt; but in some parts the Muhammadans are in the habit of drying fish for home consumption, and the lower classes eat it with avidity even in a putrid state. Dried and salted fish, however, are imported from other Districts.

The principal varieties of fish found in the rivers and tanks are the following:—(1) Those found in either rivers or tanks—*Rui, kátlá, mirgal, bátá, kálbosh, boál, chital, áir, báchá, hilsá, pángás, phánsá, ritá, bhángan, gájar, chingrí*, etc. (2) Those found in tanks only—*Khayrá, mágur, kai, saul, tengrá, punthí, mauralá, látá, cheng, bhedá, báin, pábdá, chelá, baliá, golanchá, gángtorá, pákál*, etc. The various forms of fishing followed in Bardwán are as follows:—(1) Fishing by nets (large and small). (2) Fishing by *birtis*, a sort of trap made of split bamboo and placed in a current. (3) Fishing by *polus*, a conical basket-trap made of split bamboo. (4) Fishing by rod and line, or by line alone. (5) Spear fishing. (6) Fishing by *hurí* and *siktí*. The hurí consists simply of small branches of trees and thorns, tied together and thrown into the river, where there is little or no current. Small fish and prawns take shelter therein, and are captured by means of a net called siktí. The following are the different varieties of net used:—For large fish—(1) *Bár* or *mahá-jál*, used in rivers for taking large fish; it stretches from one side of the river to the other, with floats of bamboos at short intervals. (2) *Beoti-jál*, a net cast in the middle of the river, where the water is deep, and fastened to posts on either side. (3) *Donrá-jál*, or drag-net; only used in tanks. (4) *Kheplá*, or cast-net; only used in tanks, but with larger meshes than the foregoing. For small fish—(5) *Sintí-jál*, resembling the kheplá net in shape, but with smaller meshes. (6) *Gántí-jál*, a net stretching from one side of a tank to another; the heads of small fishes get entangled in the meshes. (7) *Phetí-jál*, a net fastened on a triangular bamboo frame, something like a shrimping-net, and worked by one man standing and another man a-head who drives the fish. As soon as the man holding the net feels a fish within it, he suddenly raises it. (8) *Chhánkní-jál*, a small net resembling a strainer, and attached to a circular frame; it is worked by a boy. (9) *Chábi-jál*, a net enclosed in a pyramidal framework of bamboo; worked by the hand, by being placed suddenly over a spot where a fish is supposed to be. (10) *Ghani-jál*, (11) *Pás-jál*, and (12) *Bháshá-jál*, other varieties of nets. The Collector states that there does not appear to be any rule or custom regulating the size of the meshes

of nets. The smallest size of the meshes of nets used for capturing large fish is one inch square; that of nets for taking small fish, about one-sixth of a square inch; while the interstices between the threads of a net used for capturing fry are so close and small that a mustard-seed could scarcely pass through them. With regard to the question of the advisability of regulating the size of the meshes of nets, the Collector states that, so far as he has been able to ascertain, an attempt of this sort would create much discontent among the natives. The fresh-water fish of Bengal are of every conceivable size, and if any restrictions were placed as regards the size of the meshes, the Collector is of opinion that the fresh-water fishing would suffer in a great measure. As already stated, young fry are not as a rule captured here for food, but with a view to their being reared in tanks or ponds. The Collector would therefore allow the existing system to remain undisturbed. In the event, however, of any restriction in the size of the meshes of nets being determined upon, he would fix the smallest size of the meshes at one-third of an inch.

The Collector roughly estimates the number of persons who live by fishing at about twenty thousand, or one per cent. of the total District population. The Census Report returns the number of fishing and boating castes in Bardwán at 25,475, or 1·25 per cent. of the total population. This is exclusive of Muhammadans, who form seventeen per cent. of the population, but who form a very small proportion of the fishing classes. With the exception of the Bhágirathí, there are no large navigable rivers in Bardwán; and the Collector estimates that only one-third of the fishing classes subsist exclusively by fishing, while the remainder are employed in agriculture or other pursuits, as an auxiliary means of livelihood to fishing.

Land Reclamation.—There are no large marshy tracts in Bardwán District requiring reclamation, but it is a very common practice to embank the smaller internal rivers and streams, with a view to cultivation, and for the irrigation of the fields. These embankments and dams form a considerable obstruction to the natural drainage of the District, and are supposed to have largely contributed towards the prevalent sickness among the people. In some of the smaller rivers, a thick variety of reed, called *sar*, grows indigenously, and is largely used in roofing houses, preparatory to the thatch being laid on. Long-stemmed rice is

not grown in Bardwán District, and the Collector reports that there are no marshes or swamps suitable for its cultivation.

THE MINERAL PRODUCTS of the District consist of coal, iron, red limestone, sandstone, and laterite. I shall give a minute description of the coal mines of Ráníganj in a subsequent section of this Statistical Account. Excepting the variety of reeds alluded to above, the District grows no wild vegetable productions of marketable value; nor are there any revenue-yielding forests. The principal jungle product consists of *tasar* silk, found in the Búd-búd Subdivision, and which is collected by Báurís. There are no large uncultivated pasture grounds in the District, all the available land being taken up for tillage.

FERÆ NATURÆ.—The wild animals of the District are tigers, leopards, bears, and wolves; only found, however, in the jungly western portion of Ráníganj Subdivision, adjoining the Santál Parganás. Poisonous snakes are common throughout the District, but no Government reward is paid either for the destruction of wild beasts or of venomous snakes. In 1869, the police reports showed that two deaths were caused during that year by wild beasts, and 51 by snake-bite. These returns, however, are imperfect, and are believed to very inadequately represent the number of deaths from snake-bite. Among small game, wild ducks, peacocks, wild cocks or *lutur*, hares, green pigeons (*haridl*), ordinary pigeons, partridges, and snipe are met with. I have already given a list of the principal varieties of fish found in the rivers and tanks. No trade is carried on in wild-beast skins, and, with the exception of the fisheries, the *ferœ naturœ* are not made in any way to contribute towards the wealth of the District.

THE POPULATION.—After an attempt in 1790, the first organized effort at a census seems to have been made in 1813-14, by Mr. W. B. Bayley, then Judge and Magistrate of the District. That officer obtained returns of the population of 98 towns and villages situated in different parts of the Districts of Bardwán, Húglí, Midnapur, Bírbhúm, and the Jungle Mahals. From these returns, after having satisfied himself of their accuracy, he deduced an average of five and a half inhabitants to each dwelling; and he then proceeded to ascertain the number of houses in each village of the District of Bardwán. The result showed, that in the sixteen Police Circles which then composed the jurisdiction of the District there were 262,634 houses; which, at the rate of five and a half

persons to each house, gave a population of 1,444,487 souls. The then area of the District is computed at about 2400 square miles, giving an average density of just under 602 souls to the square mile. It is difficult to identify the limits of the Bardwán District as then constituted, but it seems that it did not include the Ránígánj Subdivision, or the Police Circles of Sonámukhí, Jahanábád, Goghát, Kátagrám, and half of Ausgrám. Excluding these, the area of the remainder of the present District is 2137 square miles, having a population, as ascertained by the Census of 1871-72, of 1,305,316 souls, or an average of 610 to the square mile. These figures seem to prove that the population of the District, whatever it may have been before the outbreak of the late fever epidemic, is not now much in excess of what it was in 1814.

Not only is the population now about the same as it was sixty years ago, but the average number of inmates per house is actually smaller now than it was in 1814, pointing to a general decrease of the population of late years, owing to the ravages of the fever. On this point I extract the following from the General Report on the Census of Bengal by the Inspector-General of Registration (pp. 93, 94), from which also the foregoing paragraph has been condensed:—'It is worthy of notice that the number of houses in this tract—that corresponding with the area of the District in 1814—is 283,923, as compared with 262,634 in Mr. Bayley's time, and that the average now is only four and a half instead of five and a half persons to a dwelling. No great reliance, perhaps, can be placed upon estimates based upon the number of houses in this country, the term being rarely understood by any two people in the same sense. Mr. Bayley himself says:—"It is scarcely necessary to observe, that many dwellings, especially those of the more opulent classes of inhabitants, include several distinct buildings, huts, or out-offices within an enclosure, and frequently contain distinct families of several brothers, or other near relatives. A dwelling of this description, whatever may be the number of buildings contained in it, is intentionally considered and rated as one building. With reference to these circumstances, the proportion of $5\frac{1}{2}$ inhabitants to a house appears smaller than might have been reasonably expected, and is, in fact, less than the average proportion of inhabitants to each house in England." Mr. Metcalfe, the present Magistrate, however, informs me that this was precisely the definition of a house adopted for the present

Census; and if this is so, we have this result, that while the number of houses has largely increased, the average per house has fallen, so that the total population is not more than it was in Mr. Bayley's time. When we take into account the mortality which has been raging in Bardwán for the past three or four years, this result is probably just what might have been expected. The 300,000 souls by which the population falls short of what it should be if we apply Mr. Bayley's average to the present number of houses, may represent approximately the numbers which have been carried off by the epidemic fever of the past few years. That the mortality has been excessive does not admit of question. The medical officers who have lately been in charge of the District assure me, that in the southern *thánás* it would be no exaggeration to say that two-thirds of the people have fallen victims to the fever. In the census papers a large number of houses were returned as uninhabited, the inmates having either died or migrated between the date of numbering the houses and that of taking the Census.

'In order to test the accuracy of the present figures, I have endeavoured to compare the returns of the 98 villages of which Mr. Bayley procured a detailed census. In 54 villages which I think I have succeeded in identifying, I find that there are at present 16,121 houses, against 16,200 in 1814; but the inhabitants only number 76,510, against 92,725. The average number of persons to a house, therefore, is 4·7 instead of 5·7, or just one inmate per house less than in 1814. This supports the accuracy of the general result for the whole District. At the same time, it should be stated that the size of some of the villages in the list appears to differ so considerably from what it was in Mr. Bayley's time, that, even though we may be satisfied of their identity, there may be room to doubt whether the village boundaries are the same. If the villages have been properly identified, some are five times as large as they were, while others have fallen off to the same extent. In a large majority, however, the number of houses is approximately the same, and in most of these the population has diminished. It would require considerable local knowledge of the District, however, to be able to express any decided opinion as to the completeness of the identification.

'In 1838 Mr. Adam collected certain statistics of the population to illustrate his report on the state of vernacular education in Bengal. The Kálná *thánd* in this District was one of the areas selected for

the purpose. Supposing the *thánd* boundaries to have remained the same, a comparison of his figures with those obtained at the late Census gives the following results:—

	Villages.	Houses.	Males.	Females.	Total.
Adam's Census, 1838, .	288	23,346	59,844	56,581	116,425
Census of 1872, . . .	296	32,452	58,415	63,065	121,480

As the late Census included some 325 boats, these figures seem to show that the resident population is no greater now than it was in 1838. The number of houses has increased, indeed, but the average number of souls to a house has fallen from 5 to 3·7.'

Although the population of the District generally may be taken as approximately the same now as it was in 1814, that of the large town of Bardwán has largely decreased. In 1814 that town contained 53,927 inhabitants; in 1869, according to the experimental Census of that year, the population had decreased to 46,121, and in 1872, according to the general Census, to 32,321 souls. The town was very severely visited by the epidemic fever, and the large decrease in population is due to the mortality which it caused, as well as to emigration of numbers of people who fled from it. The Collector, in a report to me in 1870, stated that this fever was estimated to have carried off at least five thousand of the inhabitants of the town within a period of six months. The town of Kálná has also fallen off in population of late years; but this is stated to be partly due to a diminution of commercial prosperity consequent upon the opening up of the East Indian Railway, which has taken away a large share of its trade.

The first general Census of Bardwán District was commenced in December 1871, and completed on the 25th January 1872. In consequence of the debilitated state of the people from the epidemic of the last few years, the forms were issued as early as September 1871, with instructions to fill in the names of the inhabitants, and then to erase those who might subsequently leave the place. This, the Collector reports, was done. The Census of the large towns was taken on the following dates:—(1) Bardwán, on the night of the 25th January 1872; (2) Ráníganj, on the night of the 15th January; (3) Kálná, between the 15th and 25th January; (4) Kátwá, on the night of the 20th January; (5) Dáin-hát, on the night of the 22d January; and (6) Mánkur, between the 14th November 1871 and 7th January 1872. The Collector reports that the agency

employed in taking the Census consisted generally of 'the heads of the villages or *mandals*. In other cases, the *zamíndárs'* land-stewards or *gumáshtás* were employed.' The total number of enumerators employed was 8616, of whom less than fifty appear to have been remunerated for their work. The results of the Census disclosed a total population of 2,034,745 souls, dwelling in 5191 villages and 435,416 houses; the average pressure of the population on the soil being 578 to the square mile. The Collector is of opinion that the returns are fairly accurate.

Regarding the average density of the population, the Inspector-General of Registration, at page 92 of the Census Report, remarks as follows:—'It is curious to find that one of the most thinly-populated Police Circles (*thánás*) is that of Bardwán itself, in the very heart of the District. Although it contains the chief town and Headquarters Station, the average number of persons to the square mile is only 294; whereas in none of the surrounding *thánás* is it less than 500, and in some it is as high as 725. Taking these figures as they stand, they might *prima facie* be condemned as erroneous; but a knowledge of the local circumstances of the District completely justifies them, and so far affords an unexpected argument in favour of the accuracy of the Census. The Bardwán *thánd* consists mainly of large low-lying rice-fields, with a sparse and scattered population. In the surrounding *thánás*, it will be seen, there are three times as many villages to a given area as in Bardwán itself. In one direction, the nearest village to the Headquarters Station is eight miles distant, and in another three and a half. The *thánás* to the north of the District, which border on Kasbá and Sákulipur, in Bírbhúm, are densely populated, the average being over 650 to the square mile; but as the District trends towards the western country, the pressure of the population sensibly decreases,—an exception being made in favour of Ráníganj *thánd*, which has as many as 600 persons to the square mile. The most populous *thánás* in the District are those which border upon Húglí. These are Kálná, Bháturiá, Salímábád, Jahánábád, Goghát, and Kotalpur, in all of which the average density is something like 700 to the square mile.'

The following paragraphs, from a report by the Collector, further illustrate the comparative density of the population in different parts of the District:—'The physical character of *thánd* Niámatpur, in the extreme west of the District, 278 square miles in extent, is barren and arid, with numerous villages situated wherever patches

of culturable land are found. There has been no sickness here. Ráníganj, which adjoins Niámatpur, is of a precisely similar character. In both *thánás* there are collieries, those at Ráníganj exceeding the number worked about Asansol and Sítárámpur, which lie in Niámatpur. The number of villages inhabited by miners in Ráníganj exceeds those in Asansol; and the population of 132,282 souls for Ráníganj, against 71,453 for Niámatpur, is quite in accordance with local facts. Again, I find from the returns 161 small clumps of villages in Niámatpur with less than two hundred inhabitants. These are the houses around the rice patches. In both *thánás* the number of villages is nearly equal, viz. 289 in Ráníganj and 278 in Niámatpur; but the larger mining operations of Ráníganj account for the villages with the denser population. In Ráníganj, the Census returns show 29 villages containing upwards of two thousand souls, while there are only five in Niámatpur. The other *thánd* of Ráníganj Subdivision, viz. Káksá, contains a purely agricultural population, with a few silk and cloth weavers. Here the villages are very wide apart, and extensive tracts of laterite are met with. The northern portion is one dense jungle, with here and there a village. The population is located chiefly along the banks of the Dámodar.

'In looking over the Búd-búd figures, I am surprised to find the population of Búd-búd so high as 91,301. There are certainly a number of middle-sized villages at considerable distances from each other, but they have always appeared to me very thinly populated. Excluding the town of Bardwán, the rural population of the Bardwán or *sadr thánd* is only 22,098, or 269·4 per village. There are fewer villages in this *thánd* than in any other part of the District. There are only three considerable villages. On every side of the Headquarters there are wide tracts of rice lands and extensive patches of fallow and unculturable lands. Villages are far apart; for instance, not a village is passed on the line of railroad from Bardwán to Kánu, a distance of 8 miles; on the south-east, the nearest village is $3\frac{1}{2}$ miles. All the Medical Officers, for several years past, have remarked on the severity of the fever in and around the *sadr* station. Gopálpur, once a flourishing village, is now reduced to a small population; 2,000 persons have disappeared from Khojánorbear. The deserted remains of ruined houses depict the havoc the fever has committed. I am not surprised, therefore, to find a return of (omitting the town) only 22,098 inhabitants for 82 villages.

Húglí *thánd*, which like Bardwán has severely suffered from fever, has, I find, only a population of 67,538, and yet it is a far more populous place than Bardwán. The average population for villages in the Bardwán *thánd* is 269·4, as compared with 367·7 for villages in other parts of the District, or 100·3 persons per village less. These figures are quite in accordance with my observations of the small population of the villages around Bardwán. The densest population of this District, as far as outward observation would lead me to conclude, is to the north of Memárí railway station. Large numbers of Muhammadans inhabit the villages of Chaughariá, Bahar, Sátgáchhiá; and the figure of 131,200 (far exceeding other *thánás*), of whom 30,584 are Muhammadans, is strictly in accordance with local features.

'In the Kálná Subdivision I had expected lower figures for Bháturiá *thánd*, where there has been great mortality for several years. Dr. Jackson, the Sanitary Commissioner, in his tour in March, remarked on the depopulated condition of this Division. The Kátwá Subdivision, too, has suffered severely from fever; so have the *thánás* of Salímábád, Rainá, Jáhánábád, and Mangalkot. In some of the villages deaths have been noted at 24 per cent. Next to Ganguriá, the most populous part of the District is Salímábád. The villages are large and close to each other, but the mortality from the fever has been frightful. Whole households have been swept away. In other houses, one or two remain out of 20 persons. In one household, one remains out of 17. The population in the whole District is densest in Jahánábád and Goghát. The population ten years ago must have been at least 20,000 more than at present within the Jahánábád Subdivision alone.' In the foregoing extract I have corrected any errors or miscalculations in the percentages.

The following table illustrates the distribution of the population in each Police Circle and Subdivision, with the number of villages, houses, pressure of population per square mile, etc. The Subdivisional figures will be given again when treating of the Administrative Divisions of the District, but they may here be exhibited as a whole. The table is reproduced *verbatim* from the Census Report :—

Abstract of the Area, Population, etc., of each Subdivision and Police Circle of Bardwan District.

Subdivision.	Police Circle (*Thánd*).	Area in Square Miles.	Number of Villages, Mauzás, or Townships.	Number of Houses.	Total Population.	Averages, according to the Census Report.				
						Persons per Sq. Mile.	Villages, Mauzás, or Townships per Sq. Mile.	Persons per Village, Mauzá, or Township.	Houses per Sq. Mile.	Persons per House.
1. Sadr or Head-Quarters,	Bardwán,	185	83	15,447	54,419	294	·44	656	84	3·5
	Khandghosh,	115	180	10,679	67,665	588	1·56	376	93	6·3
	Indás,	124	231	14,298	77,084	622	1·86	334	115	5·4
	Salímábád,	112	240	20,660	84,702	756	2·14	353	184	4·1
	Ganguriá,	181	364	34,591	131,200	725	2·01	360	191	3·8
	Sáhibganj,	124	181	17,954	81,896	660	1·46	452	145	4·5
	Subdivisional Total,	841	1279	113,629	496,966	590	1·52	389	135	4·4
2. Kalna,	Kálná,	144	296	32,452	121,480	843	2·05	410	225	3·7
	Bháturiá,	118	237	19,128	81,677	692	2·01	345	162	4·2
	Mantreswar,	169	248	18,382	83,181	492	1·46	335	109	4·4
	Subdivisional Total,	431	781	69,962	286,338	664	1·81	367	162	4·1
3. Katwa,	Kátwá,	142	157	19,363	83,099	586	1·10	529	136	4·3
	Kátagrám,	145	249	18,608	82,064	566	1·71	329	128	4·4
	Mangalkot,	120	171	17,072	77,655	647	1·42	454	142	4·5
	Subdivisional Total,	407	577	55,043	242,818	596	1·42	421	135	4·4

ABSTRACT OF THE AREA, POPULATION, ETC., OF EACH SUBDIVISION AND POLICE CIRCLE OF BARDWAN DISTRICT—*Continued.*

Subdivision.	Police Circle (*Thánd*).	Area in Square Miles.	Number of Villages, Mauzás, or Townships.	Number of Houses.	Total Population.	Averages, according to the Census Report.				
						Persons per Sq. Mile.	Villages, Mauzás, or Townships per Sq. Mile.	Persons per Village, Mauzá, or Township.	Houses per Sq. Mile.	Persons per House.
4. BUD-BUD,	Búd-búd,	161	224	13,638	91,301	567	1·39	408	85	6·7
	Ausgrám,	174	255	25,178	115,393	663	1·46	453	145	4·5
	Sonámukhí,	197	270	16,432	79,437	403	1·37	294	83	4·8
	Subdivisional Total,	532	749	55,248	286,131	538	1·41	382	104	5·1
5. RANIGANJ,	Ráníganj,	218	289	27,069	132,282	607	1·32	458	124	4·8
	Káksá,	181	111	8,642	41,282	228	·61	372	48	4·8
	Niámatpur,	272	278	12,358	71,453	262	1·02	257	45	5·7
	Subdivisional Total,	671	678	48,069	245,017	365	1·01	361	72	5·0
6. JAHANABAD,	Jahánábád,	143	259	27,488	128,969	902	1·81	498	192	4·6
	Goghát,	143	262	28,307	136,246	953	1·84	520	198	4·8
	Kotalpur,	161	337	22,622	110,255	685	2·09	327	141	4·8
	Rainá,	194	269	15,048	102,005	526	1·38	379	78	6·7
	Subdivisional Total,	641	1127	93,465	477,475	745	1·76	424	146	5·1
	DISTRICT TOTAL,	3,523	5191	435,416	2,034,745	578	1·47	392	124	4·7

POPULATION CLASSIFIED ACCORDING TO SEX, AGE, ETC.—The total population of Bardwán District consists of 2,034,745 souls, viz. 995,818 males and 1,038,927 females. The excess of females over males, in this and other Districts of the Bardwán Division, is mainly accounted for by the fact that a large number of the male inhabitants come to Calcutta for employment in commercial houses or public offices, while their wives and families remain behind. Education has made rapid progress in the District, and its youths find employment under Government, on the railway, and in various capacities throughout Bengal. The proportion of males in the total District population is 48·9 per cent., and the average pressure of the people upon the soil 578 per square mile. Classified according to religion and age, the Census gives the following results:—Hindus —under twelve years of age, males 273,980, and females 218,341; above twelve years of age, males 546,776, and females 640,266. Muhammadans—under twelve years of age, males 59,368, and females 44,518; above twelve years, males 112,046, and females 132,092. Christians—under twelve years of age, males 149, and females 122; above twelve years, males 356, and females 263. Other religious denominations, not separately classified—under twelve years of age, males 1217, and females 1051; above twelve years, males 1926, and females 2274. Population of all religions —under twelve years of age, males 334,714, and females 264,032; above twelve years, males 661,104, and females 774,895. The percentage of children not exceeding twelve years of age in the population of different religions is as follows:—Hindus—proportion of male children 16·3 per cent., and female children 13·0 per cent., of the total Hindu population; total proportion of children of both sexes, 29·3 per cent. of the total Hindu population. Muhammadans —proportion of male children 17·1 per cent., and of female children 12·8 per cent., of the total Muhammadan population; total proportion of children of both sexes, 29·9 per cent. of the total Muhammadan population. Christians—proportion of male children 16·7 per cent., and of female children 13·7 per cent., of the total Christian population; total proportion of children of both sexes, 30·4 per cent. of the total Christian population. Other religious denominations— proportion of male children 18·8 per cent., and of females 16·2 per cent., of the total 'Other' population; total proportion of children of both sexes, 35·0 per cent. of the total 'Other' population. Population of all religions—proportion of male children 16·4 per

cent., and of female children 13·0 per cent., of the total District population; proportion of children of both sexes, 29·4 per cent. of the total District population. As in almost every other District of Bengal, the Census returns show a very small proportion of female as compared with male children; while in the case of persons above twelve years of age, there is an excessive proportion of females to males. This is probably owing to the fact that girls are considered to arrive at womanhood at an earlier age than boys attain manhood, and many are consequently entered as adults, while boys of the same age are returned as children. The proportion of the sexes of all ages, namely, males 48·9 per cent., and females 51·1 per cent., is probably correct. As before explained, the preponderance of the female over the male population is due in a great measure to the fact that a large number of the males belonging to the District obtain employment in Calcutta, and leave their wives and families behind them. The number and proportion of insanes, and of persons otherwise afflicted with infirmities, in Bardwán District, is returned in the Census Report as under:—Insanes, males 301, and females 71—total 372, or ·0183 of the total population; idiots, males 28, and females 13—total 41, or ·0020 of the total population; deaf and dumb, males 581, and females 193—total 774, or ·0380 of the total population; blind, males 1014, and females 566—total 1580, or ·0776 of the total population; lepers, males 3976, and females 628—total 4604, or ·2262 of the total population. It is a curious circumstance, that although the females number 51·1 per cent. of the total population of the District, out of the total number of persons afflicted with the above-mentioned infirmities, less than one-fourth were women. The total number of male infirms amounted to 5900, or ·5924 per cent. of the total male population; while the number of female infirms was only 1471, or ·1416 per cent. of the total female population. The total number of infirms of both sexes was 7371, or ·3622 per cent. of the total District population.

OCCUPATIONS OF THE PEOPLE.—The following paragraphs, relating to the occupations of the people, are taken from the Census statements for Bardwán District, compiled by Mr. C. F. Magrath, C.S. As explained in my other District Accounts, however, they are unavoidably imperfect in many respects, and must be accepted only as the first careful attempt that has been made to ascertain the employments of the people.

OCCUPATION OF MALES—CLASS I.—Persons employed under Government or Municipal or other local authorities:—Government police, 783; rural police, 11,535; covenanted European officers, 4; subordinate judicial and executive officers, 10; Public Works officer, 1; Post-Office clerks, etc., 240; telegraph officers, 77; excise officers, 52; clerks, 27; messengers (*piyádás*), 261. Total of Class I., 12,990.

CLASS II.—Professional persons, including ministers of religion, professors of education, law, medicine, fine arts, surveying and engineering, etc.:—(*a*) Religion—Hindu priests (*purohits*), 9546; astrologers and fortune-tellers (*áchárjyas*), 226; Muhammadan priests (*mullás*), 20; pilgrim guides (*pandás*), 50; priests of family idols (*pujháris*), 346; *khondkárs*, 5; expounders of the *puráns* or Sacred Law (*kathaks*), 55. (*b*) Education—Schoolmasters, 1475 teachers of Sanskrit (*pandits*), 358; village schoolmasters (*guru-mahásays*), 176; Muhammadan schoolmasters and interpreters (*munshis*), 106; students and scholars, 669. (*c*) Law—Pleaders, 210; law agents (*mukhtárs*), 214; stamp vendors, 22. (*d*) Medicine—Surgeon, 1; doctors, 374; Hindu medical practitioners (*kabirájs*), 1868; vaccinators, 51; apothecaries, 8; cow-doctors (*gobaidyas*), 4; men-midwives, 112; compounders, 23. (*e*) Fine arts—Photographers, 5; musicians, 2683; singers, 834; painters, 334; snake-charmers, 232. (*f*) Surveying and engineering—Surveyors (*ámins*), 54; overseers, 5. Total of Class II., 20,066.

CLASS III.—Persons in service, or performing personal offices:—Personal servants, 8688; cooks, 717; barbers, 5153; washermen (*dhobás*), 2244; sweepers (*mihtars*), 180; water-carriers, (*bhistis*), 65; gardeners (*málís*), 1222; marriage registrars and genealogists (*ghataks*), 110; door-keepers (*darwáns*), 811; corpse-bearers (*murdá farásh*), 40; innkeepers, 4; unspecified, 20,099. Total of Class III., 39,333.

CLASS IV.—Persons engaged in agriculture, or with animals:—(*a*) In agriculture—Large landholders (*zamíndárs*), 2265; large leaseholders (*ijárádárs*), 24; holders of rent-free estates (*lákhiráj-dárs*), 1529; holders of rent-free estates on ancient military tenures (*jágírdárs*), 226; holders of rent-free charity lands (*áimádárs*), 1026; subordinate landlords (*tálukdárs*), 1019; permanent leaseholders (*patnídárs*), 370; holders of small estates or villages (*maháldárs*), 183; small landholders (*jotdárs*), 6713; ordinary cultivators, 315,477; *zamíndári* land stewards (*gumáshtás*), 1488; rent-col-

lectors (*tahsíldárs*), 108; village accountants (*pátwáris*), 27; *zamíndári* servants, 3561; managers of estates (*náibs*), 64. (*b*) With animals—Dealers in cattle, 120; dealers in goats, 102; dealers in poultry, 3; cowherds, 2351; swineherds 38; horse-breakers, 25; elephant drivers (*máhuts*), 9; grooms, 491; hunters (*shikáris*), 30: Total of Class IV., 337,249.

Class V.—Persons engaged in commerce and trade:—(*a*) In conveyance of persons and goods—Engineers, 32; engine drivers, 26; guards, 13; pointsmen, 81; telegraph clerks, 24; station-masters, 44; railway clerks, 3; *khalásis*, 357; other railway servants, 13; carters, 1633; bullock drivers, 322; palanquin bearers, 6329; boatmen, 2495; *charandárs*, 166; divers, 2; warehouse keepers (*áraldárs*), 95; weighmen, 329. (*b*) In keeping and lending money, and in the sale of goods—Bankers and *mahájans*, 2078; pawnbrokers (*poddárs*), 13; money changers, 6; produce merchants (*saudágars*), 636; commission agents (*páikárs*), 192; petty dealers (*bepáris*), 391; storekeepers (*goládárs*), 559; shopkeepers, 16,352; grocers and spice dealers (*baniás*), 590; hawkers (*box-wallas*), 5; brokers (*daláls*), 132; clerks, 6; out-door clerks (*sarkárs*), 181; shopmen, 33; vernacular clerks (*muharrirs*), 1366; business managers, 4. Total of Class V., 34,508.

Class VI.—Persons employed in mechanical arts, manufactures, and engineering operations, and in the sale of goods manufactured or prepared for consumption:—(*a*) Manufactures—Indigo manufacturers, 3; coal-workers, 15; lac-workers, 126; silk manufacturers, 68; founders, 14. (*b*) Constructive art—Contractors, 28; bricklayers (*rájmistris*), 2315; lime burners, 230; sawyers, 199; carpenters, 2506; thatchers, 742; painters, 30; brick dealers, 151; cart builders, 634. (*c*) Miscellaneous artisans—Blacksmiths, 3586; dealers in hardware, 201; braziers, 2321; tinmen (*kalaigars*), 6; potters, 4754; glass vendors, 5; comb makers, 8; mat makers, 261; basket makers, 1959; toy makers, 145; hookah makers, 49; musical instrument makers, 5; makers of lacquered ware, 161; makers of garlands, 873; carvers, 12; gilders, 44; shell carvers, 821; cotton weavers, 24,557; wool weavers, 24; jute weavers, 27; fullers, 1; dyers, 45; tailors, 725; shoemakers, 1322; cloth vendors, 1875; ornament makers, 3767; umbrella makers, 2; wax-cloth dealers, 39; net makers, 78; stationers, 13; bookbinders (*daftris*), 86; booksellers, 28. (*d*) Dealers in vegetable food—Oil sellers, 5570; grain dealers, 13; rice dealers, 681; grain huskers, 722;

bakers, 29; grain parchers, 94; costermongers, 356; confectioners, 1239; sellers of molasses (*gur*), 385. (*e*) Dealers in animal food—Butchers, 80; fishermen, 11,517; milkmen, 5058. (*f*) Dealers in drinks—Toddy sellers, 16; liquor shopkeepers, 1000; soda-water sellers, 8. (*g*) Dealers in stimulants—Tobacco sellers, 160; opium sellers, 5; *gaujá* sellers, 88; betel sellers, 1307. (*h*) Dealers in perfumes, drugs, medicines, etc.—Salt sellers, 48; gunpowder sellers, 13. (*i*) Dealers in vegetable substances—Firewood sellers, 717; charcoal sellers, 59; cow-dung sellers, 7; bamboo sellers, 30; thatch sellers, 14; woodcutters, 211. (*j*) Dealers in animal substances—Hide dealers, 1904; skinners and leather dealers (*chámárs*), 647. Total of Class VI., 86,839.

Class VII.—Miscellaneous persons not classed otherwise—Pensioners, 4; beggars and paupers, 14,033; labourers, 102,197; unemployed, 14,560; male children, 334,039. Total of Class VII., 464,833. Grand total of males, 995,818.

Occupations of Females.—The general caution given with regard to the paragraphs on the occupations of the people applies with particular force to this section. Class I., *nil.* Class II., professional females:—Priestesses, 1127; female spiritual guides, 87; schoolmistresses, 62; nurses, 22; midwives (*dáis*), 290; female medical practitioners, 40; female vaccinators, 3; singers, 7; jugglers, 2; painters, 19. Total of Class II., 1659. Class III., females in service or performing personal offices:—Cooks, 122; *zanáná* attendants, 2643; female barbers, 218; washerwomen, 268; female sweepers (*mihtránís*), 43; prostitutes, 531; unspecified, 18. Total of Class III., 3843. Class IV., females employed in agriculture or with animals:—Female landlords (*zamíndárins*), 209; holders of rent-free charity lands (*áimáddárs*), 191; permanent leaseholders (*patnidárs*), 60; holders of rent-free lands (*lákhirájdárs*), 479; subordinate landholders (*tálukdárs*), 77; female cultivators, with rights of occupancy, 589; ordinary female cultivators, 10,537; dealers in pigs, 15; cowherds, 75; grass cutters, 92. Total of Class IV., 12,324. Class V., females engaged in commerce and trade:—Carriage owners, 12; warehouse keepers, 5; money lenders, 268; retail dealers, 24; shopkeepers, 2575; commission agents (*páikárs*), 11; petty dealers (*bepáris*), 2. Total of Class V., 2897. Class VI., females employed in manufactures, and in the sale of goods manufactured or prepared for consumption:—Dealers in hardware, 176; dealers in pottery, 341; dealers in lime, 15;

basket makers, 329; garland sellers, 272; weavers, 552; female tailors, 42; ornament sellers, 11; shoemakers, 24; thread sellers, 4855; makers of lacquered ware, 39; female stationers, 8; grain dealers, 732; costermongers, 289; dealers in spices, 50; dealers in oil, 574; grocers, 23; confectioners, 190; flour sellers, 34; grain parchers, 29; grain huskers, 10,090; fishwomen, 2628; milkwomen, 796; toddy sellers, 2; spirit sellers, 3; tobacconists, 13; *pán* sellers, 208; tooth powder sellers, 29; sellers of cow dung, 92; sellers of firewood, 267; hide dealers, 62. Total of Class VI., 22,775. Class VII., miscellaneous females not classed otherwise:—Female pensioner, 1; beggars and paupers, 4997; labourers, 12,611; unemployed, 714,078; female children, 263,742. Total of Class VII., 995,429. Grand total of females, 1,038,927.

ETHNICAL DIVISION OF THE PEOPLE.—The great majority of the inhabitants of the District are Hindus, who number 1,679,363, or 82·5 per cent. of the total population of the District. The Muhammadans number 348,024, or 17·1 per cent. of the District population. The remaining ·4 per cent. of the population is made up by aboriginal tribes, who are returned in the Census Report, under the head of 'Others,' as numbering 6468; and by a small sprinkling of Christians, European and native, amounting to 890.

Mr. C. F. Magrath's District Census Compilation for Bardwán classifies the ethnical divisions of the people as follow. The list of Hindu castes will be reproduced on a subsequent page, but arranged in a different order from that given here, according to the rank in which the different castes are held in local public esteem:—

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.	NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
I.—NON-ASIATICS.		*Americans*—	
Europeans—		West Indians, . . .	5
Dutch, . . .	1	Others, . . .	2
English, . . .	229	Total, .	7
French, . . .	4		
German, . . .	2	Total of Non-Asiatics,	333
Greek, . . .	3		
Irish, . . .	56		
Italian, . . .	1		
Scotch, . . .	28		
Welsh, . . .	2	II.—MIXED RACES.	
Total, .	326	Eurasians, . . .	198

Name of Nationality, Tribe, or Caste.	Total.
III.—ASIATICS.	
A.—Other than Natives of India and Burmah.	
Armenian,	2
Jew,	8
Total,	10
B.—Natives of India and Burmah.	
1.—*Aboriginal Tribes.*	
Bhumij,	293
Birhor,	1
Khariá,	1,926
Kharwár,	266
Kol,	139
Santál,	4,487
Uráon and Dhángar,	991
Total,	8,103
2.—*Semi-Hinduized Aborigines.*	
Bágdí,	205,074
Báheliá,	32
Báurí,	70,598
Bediyá,	36
Bhuiyá,	1,625
Bind,	76
Buná,	876
Chain,	63
Chámár and Muchí,	53,477
Chandál,	33,326
Dom,	52,327
Turí,	47
Dosadh,	563
Hárí,	27,254
Káorá,	3,274
Karangá,	153
Máhilí,	64
Mál,	3,078
Mihtar,	890
Pásí,	318
Shikárí,	182
Others,	851
Total,	454,184

Name of Nationality, Tribe, or Caste.	Total.
3.—*Hindus.*	
(i). Superior Castes.	
Bráhman,	160,824
Rájput,	12,359
Ghátwál,	331
Total,	173,514
(ii.) Intermediate Castes.	
Baidya,	5,004
Bhát,	369
Káyasth,	53,398
Total,	58,771
(iii.) Trading Castes.	
Agarwálá and Márwárí,	2,674
Gandha Banik,	32,105
Khatrí,	13,630
Suvarna Banik,	13,313
Others,	621
Total,	62,343
(iv.) Pastoral Castes.	
Garerí,	6
Goálá,	99,325
Total,	99,331
(v.) Castes engaged in Preparing Cooked Food.	
Gánrár,	817
Madak,	17,040
Total,	17,857
(vi.) Agricultural Castes.	
Agurí,	59,887
Baruí,	11,502
Támlí,	14,428
Chásádhopá,	1,014
Kaibartta,	56,702
Koerí,	709
Kurmí,	890
Málí,	3,376
Sadgop,	185,804
Others,	115
Total,	334,427

Name of Nationality, Tribe, or Caste.	Total.
(vii.) Castes engaged chiefly in Personal Service.	
Behárá and Duliá,	23,781
Dhanuk,	150
Dháwá,	567
Dhobá,	7,152
Hajjám,	26,092
Káhár,	1,156
Total,	58,898
(viii.) Artisan Castes.	
Bháskár,	2
Kámár,	32,851
Kánsárí,	2,274
Kumár,	19,947
Láherí,	333
Sánkhárí,	1,455
Sonár,	12,735
Sunrí,	22,259
Sutradhar,	15,973
Telí,	93,203
Kalu,	30,072
Total,	231,104
(ix.) Weaver Castes.	
Jogí and Patuá,	7,451
Kapálí,	730
Suklí and Hansí,	310
Tántí,	47,647
Total,	56,138
(x.) Labouring Castes.	
Beldár,	161
Chunárí,	1,607
Korá,	726
Náik,	47
Nuniyá,	25
Total,	2,566
(xi.) Castes engaged in Selling Fish, etc.	
Mátiyá,	19,738
(xii.) Boating and Fishing Castes.	
Jáliá,	10,533
Keut, etc.,	1,627
Málá,	1,663
Mánjhí,	7,670
Pátní,	125
Pod,	226
Tior,	3,631
Total,	25,475
(xiii.) Dancer, Musician, Beggar, and Vagabond Castes.	
Báití,	3,044
Kán,	40
Total,	3,084
(xiv.) Persons Enumerated by Nationality only.	
Hindustání,	5
Madrásí,	6
Uriyá,	17
Total,	28
(xv.) Persons of Unknown or Unspecified Castes,	42,814
Grand Total of Hindus,	1,186,088
4.—Persons of Hindu Origin not recognising Castes.	
Vaishnav,	37,362
Sanyásí,	84
Native Christians,	357
Total,	37,803
5.—Musalmán.	
Juláhá,	48
Mughul,	25
Pathán,	860
Sayyid,	11
Shaikh,	2,869
Unspecified,	344,211
Total,	348,024
6.—Burmese.	
Maghs,	2
Total of Natives of India,	2,034,204
Total of Asiatics,	2,034,214
Grand Total,	2,034,745

IMMIGRATION AND EMIGRATION.—Very little immigration to Bardwán goes on at present. The Dhángars and Santáls, aboriginal tribes from Chhotá (Chutiá) Nágpur, first came to the District about thirty-five years ago, and have settled principally in the Búd-búd Subdivision. At Kálná a considerable number of Bunás, a semi-aboriginal caste from Chhotá Nágpur, work as coolies and day-labourers. The majority of these may be considered as having now settled in the District; but they do not intermix in any way with the general population, and are looked down upon. A few immigrants also come to the District from the Upper Provinces, but do not settle for good, and usually return to their homes after the lapse of three or four years. The emigrants from the District consist of labourers for the sugar plantations in the West India Colonies and Mauritius, and for the Tea Districts of Assam. The emigrants to the tea plantations usually return to their homes after the expiration of the period of their contract. No local statistics exist showing either the number of immigrants to, or emigrants from, the District. They nearly all belong to the low Súdra castes.

HINDU CASTES.—The following is a list of 82 Hindu castes met with in Bardwán District, arranged as far as possible in the order in which they rank in local public esteem, and showing their occupations, etc. . The numbers of each caste are extracted from Mr. C. F. Magrath's District Census Compilation for Bardwán. The following eight rank highest:—(1) Bráhman; the highest caste in the Hindu social system; employed as members of the priesthood, landholders, Government servants, clerks, etc. in private establishments, as merchants and agriculturists. The agricultural Bráhmans are more numerous in Bardwán than in any other District of Bengal. It is considered derogatory, however, for a Bráhman to handle the plough, and this work devolves upon a class of agricultural labourers called *Krisháns*. All other agricultural operations are performed by the Bráhman cultivator, except where his farm is too large for the whole work to be performed by him. The total number of Bráhmans in Bardwán District is returned by the Census of 1871–72 at 160,824. (2) Kshattriyas and Khatrís. The Rájá of Bardwán and his numerous following belong to this caste, and it forms the most important and wealthy class of the community. Accordingly, as promised in my Statistical Account of the 24 Parganás, I here give a description of the so-called Kshattriya caste.

The Kshattriyas originally formed the second or warrior caste of

the Hindus, in the Sanskrit fourfold social organization of the people. An ancient tradition states that in the *Tretá Yug*, or the second great Hindu epoch of the world, Parasurám, the Bráhman incarnation of Vishnu, in revenge for the murder of his father, made war upon the Kshattriyas, and totally exterminated them. Hence, according to the strict letter of the *Sástras*, there are at the present time no pure Kshattriyas, although, according to the popular tradition, many Kshattriyas escaped or were spared, and the present Kshattriyas and Rájputs are their descendants. Moreover, several inferior castes, and even undoubted aboriginal tribes, who in later times made war their profession, lay claim to the rank of Kshattriyahood, and have been admitted into that caste by reason of their wealth or power. For instance, the Kochs, an aboriginal race inhabiting the southern slopes of the Himálayas in North-Eastern Bengal, succeeded in establishing a powerful kingdom of their own. On turning Hindus, they claimed the rank of the warrior caste of the Hindu fourfold social system, upon the ground that they were the descendants of Kshattriyas who had fled to that part of the country to escape from the wrath of Parasurám. Their claim was recognised by the Bráhmans, and the title of Rájbansí, literally 'Descendants of the King,' was bestowed upon the Kochs. In the same way, the people of Manipur claim to be Kshattriyas, as descendants of Arjun, a hero of the Mahábhárata; and the Kácháris, as descendants of Bhím, another hero of the same epic. None of these races are Aryans; they belong to the Mongolian stock, and have within modern time emerged from a half-savage state, and founded powerful kingdoms on the borders of Aryan settlements. As they embraced Hinduism, they laid claim to Kshattriyahood, and their claim being recognised by the Bráhmans, stories were invented to prove their descent from ancient Sanskrit heroes. The Khandáits of Orissa, now a purely agricultural people, are also locally recognised as Kshattriyas.

But of all the castes that claim the dignity of Kshattriyahood, the right of the Rájputs and Khatrís to the rank is most universally acknowledged. There is, indeed, some doubt as to whether the former belonged to the *original* military caste of the fourfold classification of Manu. According to many authorities, they were the immediate predecessors of the Muhammadans, and merely one among the many conquering waves which, from the earliest times, have poured over from Central Asia upon India.

The orthodox natives, however, do not question the Rájputs' title as genuine Kshattriyas, descendants of those who escaped the legendary massacre of Parasurám. This is owing to the fact that the leading Rájputs still follow the profession of arms. The Khatrís have taken to trade, and are sometimes classed with the Vaisyas, the third caste of the ancient fourfold division of the Hindus. There exists a tradition to the effect that the Kshattriyas or Khatrís followed the profession of arms up to the time of Emperor Alamgír, when a large number of them having been slain in the Dakhin wars, the Emperor, out of pity, ordered their widows to be re-married. This command the head of the caste disobeyed, so the Emperor dismissed all Khatrís from his military service, and ordered them to be shopkeepers and brokers for the future. The Khatrís of the present day, in proof of their descent, assert that their forefathers yielded to Parasurám, and were spared by him. The name of the caste, 'Khatrí,' a contraction of 'Kshattriya,' gives popular weight to their claim to descent from the original military class. The term Rájput is a modern appellation, meaning 'Son of a King.'

The country of the Khatrís is essentially the Panjáb. Todar Mall, the Hindu Financial Minister of Akbar, was a Khatrí by caste; and Díwán Siwan Mall, the Governor of Multán, with his notorious successor Mulráj, were among the many Khatrí officers of Ranjít Sinh. They form the principal trading body of the Panjáb; and they have pushed their commerce into Afghánistán, where they are a numerous body—indeed, even into Central Asia, where they alone represent Hindu trade. Several Hindu merchants (Khatrís) were among the prisoners at Khiva, released from captivity by the Russians in 1873. The Khatrís are the religious preceptors of the Sikhs, although a very few of them belong to the Nánaksháhí faith. They are staunch Hindus; and although there are a large body of Muhammadan Rájputs, Muhammadan Játs, and Muhammadan Gujars in the Panjáb and North-Western Provinces, Muhammadan Khatrís are very seldom met with.

The settlement of the Khatrís in Bardwán dates from the middle of the 17th century, when one Abu Rái migrated from the Panjáb and settled in the District. Abu Rái held service as a Faujdár or military governor under the Muhammadan Government; and as his descendants gradually acquired wealth and land, others of his tribesmen followed, and settled down in Bengal. The Khatrís of Bengal are now naturalized Bengalis in their habits and customs, except

that they retain a few slight peculiarities belonging to the up-country caste of Khatrís. The Khatrís of Bardwán are landholders rather than traders. Most of them reside in the town of Bardwán, occasionally visiting their estates in the country. There is also a considerable settlement of Khatrís at Ukhrá, near Ráníganj. Illegitimate descendants of the Khatrís, called Peruáls, are so numerous in Bardwán as to have formed a separate and distinct community of their own. They are not, however, returned as a separate caste in the Census Report, being probably included with the pure Khatrís. The number of Khatrís in Bardwán District, according to the Census of 1872, amounted to 13,660; almost all well-off, if not in wealthy circumstances.

(3) Rájputs, claim to be Kshattriyas, and are generally regarded as such by the people; employed in military or police service, or as doorkeepers (*darwáns*); number in Bardwán District in 1872, 12,359. (4) Ghátwál, another caste claiming Kshattriyahood, which is not, however, usually accorded to them. These men were formerly employed as guards of the hill passes in Western Bengal, to keep the road free from robbers, and to maintain order among the jungle people. At the present day, in Bardwán District, they are employed mostly as cultivators or as messengers; 331 in number. (5) Baidya, physicians by caste occupation, but many of them have now abandoned their hereditary employment, and are landholders, Government servants, etc.; 5004 in number.

(6) Káyasth, the writer caste of Bengal; principally employed in Bardwán District as Government servants, *zamíndárí* revenue collectors, merchants, and holders of land, which they generally cultivate by means of hired labour; 53,398 in number. The Káyasths of Bengal proper, the Karans of Orissa, and the Lálá Káyets of Upper India, are, according to the old caste classification, writers or clerks. In Bengal proper they hold a position higher than the Súdras, but lower than the Bráhmans and Baidyas. They themselves claim to be Kshattriyas, as being the descendants of Chitragupta, the Kshattriya secretary to Yama (the Hindu god of the dead). As a matter of fact, they, and especially the Orissa Karans, probably derived their origin from the upper class of the people. Wealth, influence, and pretension to learning separated them, and formed them into a distinct caste. Even at the present time, in Orissa, wealth gives the rank of Karan (or Káyasth) to a family of the cultivating caste, after two or three generations. The Lálá

Káyets or Káyasths of Behar lost something in the popular esteem on account of their adopting certain customs of the Musalmáns, as the educated Bengalis of the present time follow English ones. The Káyasths of the Bardwán District may be divided into three classes:—(1) The upper class, consisting of landholders and rich men; (2) middle class, consisting of well-to-do agriculturists, who cultivate their lands by Krisháns (or peasants), and are themselves chiefly employed as clerks or in in-door occupations; (3) lowest class, comprising Káyasths who cultivate lands with their own hands. The two upper classes enjoy an equal caste rank. If impoverished, a Káyasth of the first or second class can stoop to inferior sorts of agricultural labour, excepting the actual holding of the plough, without loss of caste. In agricultural Districts like Midnapur, Bardwán, and Bírbhúm, the Bráhmans and Káyasths actually do, as a matter of fact, perform every class of field work except the actual holding of the plough. At seedtime and harvest, when the pressure of field work is great, respectable Káyasths themselves assist their Krisháns in transplanting, reaping, etc. The Káyasths of the third or lowest class differ only in name from the general mass of the cultivating castes. They perform all sorts of agricultural labour, but rarely hold the plough. They are as illiterate as the ordinary Bengali peasants, and their constant exposure in the sun has nearly equally tanned their skin. After the harvest, they themselves take their grain by pack-bullocks to a neighbouring market. The Káyasth women of this class, besides cooking and fetching water and doing other domestic offices, husk the rice, clean and sift the other grain, look after the cattle, and carry out food for the men in the fields. The children of this class of Káyasths seldom go to school, but spend their time in tending cattle or helping their fathers in the field. Such Káyasths are looked down upon by the higher classes of Káyasths, who do not eat with them nor intermarry with them. They are few in number, and poor. It is an exceptional circumstance for a Káyasth cultivator to actually hold the plough, although he may perform all the other operations of tillage.

(7) Bhát, heralds and bards; also bearers of letters to invited guests on occasion of marriage or funeral ceremonies; 369 in number. (8) Agarwálá and Márwárí, two separate castes, but returned together in the Census Report. They are wealthy traders, 2674 in number.

PURE SUDRA CASTES.—Next to the above come the following

twelve Súdra castes, who hold a respectable rank in social estimation. As explained in my Statistical Account of Húglí and Midnapur Districts, these pure Súdra castes were originally only nine in number, called the *nabasáks*, but some of them have split up into two or three subdivisions; in other cases lower castes have, by their wealth and importance, succeeded in forcing themselves into a higher social position than that properly belonging to their caste, and in course of time have come to be considered as belonging to the *nabasáks*, or pure Súdra castes. (9) Nápit, barbers; 26,092 in number. (10) Kámár, blacksmiths; 32,851 in number. (11) Kumár, potters; 19,947 in number. (12) Telí or Tilí, oil pressers and sellers by caste occupation, but many of them have now abandoned their hereditary employment, and are well-off traders, landholders, or cultivators; 93,203 in number. (13) Támlí or Támbulí, *pán* sellers by hereditary occupation, but many of them have abandoned their ancient employments, and are now traders, landholders, cultivators, etc.; 14,428 in number. Neither this nor the foregoing caste were originally *nabasáks*, but by means of their numbers and wealth they have succeeded in pushing themselves forward to a higher position than that originally accorded to their castes. (14) Sadgop, the highest of the cultivating classes, but a few of them have abandoned their class occupation and become traders; 185,804 in number. (15) Bárui, growers and sellers of betel-leaf; 11,502 in number. (16) Málí, gardeners, flower sellers, and cultivators; also makers of the pith hats used on occasions of marriage and other ceremonies; 3376 in number. (17) Gandhbanik or Baniá, an offshoot of the great Baniá or trading caste; grocers and spice dealers; 32,105 in number. (18) Sánkhárí, shell-cutters and makers of shell bracelets; another branch of the ancient Baniá caste; 1455 in number. (19) Kánsárí, braziers and coppersmiths; another branch of the Baniá caste; 2274 in number. (20) Agurí, a respectable mixed caste recently sprung up; cultivators; 59,887 in number.

INTERMEDIATE SUDRA CASTES. — The following fourteen are the intermediate Súdra castes, who are neither esteemed or despised:—(21) Madak, sweetmeat makers; 17,040 in number. (22) Garerí, an up-country pastoral caste; 6 in number. (23) Goálá or Gop, milkmen and cowherds; 99,325 in number. (24) Gánrár, sellers and preparers of parched rice; 817 in number. (25) Kaibarttas, cultivators and silk producers. A separate class

of Kaibarttas, who follow the occupation of fishermen, are known as Jáliá Kaibarttas. The total number of Kaibarttas in the District s returned at 56,702. (26) Chásá Dhopá, cultivators; 1014 in number. (27) Koerí, an up-country class of cultivators; 709 in number. (28) Kurmí, cultivators; 890 in number. (29) Vaishnav; not, properly speaking, a caste, but a class of Hindus professing to be followers of Chaitanya, a religious reformer of the fifteenth century, whose teachings chiefly consisted of the enunciation of the principle of the religious equality of man before his Maker. At the present day, however, caste principles are again being introduced, and the higher classes of Vaishnavs will not eat or intermingle socially with the lower. For a further description of the Vaishnavs, *vide* my Statistical Accounts of the 24 Parganás and Dacca Districts. The total number of Vaishnavs in Bardwán is returned in the Census Report of 1872 at 37,362. (30) Tántí, weavers; 47,647 in number. (31) Dhol, weavers and cultivators; not returned as a separate caste in the Census Report. (32) Sekerá or Swarnakár, goldsmiths and jewellers; a branch of the Baniá or trading caste, traditionally supposed to have become degraded, from their practice of filching from the gold and silver entrusted to them to work up; 12,735 in number. (33) Subarna-banik, dealers in gold and silver, and bankers; also a branch of the Baniá caste, supposed to have been degraded from a similar cause to the foregoing; 13,313 in number. (34) Bháskar, stone masons; 2 in number.

Low Sudra Castes.—The following forty-seven are low Súdra castes, and are despised by their higher-caste co-religionists, but are still looked upon as possessing some claim to respectability:—(35) Suklí and Hansi, two separate castes, but returned as one in the Census Report; cultivators and weavers; 310 in number. (36) Jogí and Patuá, two separate castes, but returned as one in the Census Report; weavers; 7451 in number. (37) Kapálí, weavers; 730 in number. (38) Láherí, makers of lac ornaments; 333 in number. (39) Sunrí (*Surí*), wine makers and sellers by occupation; many have now abandoned their hereditary employment, and taken to trade or cultivation; 22,259 in number. (40) Sutradhar or Chhutár, carpenters; 15,973 in number. (41) Kalu, oil pressers and sellers; 30,072 in number. (42) Dhobá, washermen; 7152 in number. (43) Málá, fishermen and boatmen; 1663 in number. (44) Jáliá, fishermen and boatmen; 10,533 in number.

(45) Pátní, ferrymen; 125 in number. (46) Pod, fishermen and cultivators; 226 in number. (47) Tior, fishermen; 3631 in number. (48) Dhanuk, labourers and domestic servants; 150 in number. (49) Dháwá, fishermen and cultivators; 567 in number. (50) Káhár, an up-country caste, employed as palanquin bearers, water-carriers, and occasionally as domestic servants; 1156 in number. (51) Beldár, labourers; 161 in number. (52) Chunárí, makers of lime from shells; 1607 in number. (53) Keut, fishermen and boatmen; 1627 in number. (54) Mánjhí; not a separate caste, but an upper class of boatmen and steerers; 7670 in number. (55) Mátiá, sellers of fish and vegetables; 19,738 in number. (56) Nuniá; formerly salt-makers, now employed as day-labourers; 25 in number. (57) Korá, labourers, excavators, and occasionally weavers; 726 in number. (58) Náík, cultivators and labourers; 47 in number. (59) Bágdí, cultivators, fishermen, and day-labourers; the most numerous caste in the District, numbering 205,074 in 1872.

SEMI-ABORIGINAL CASTES.—The following twenty-three castes appear to be semi-aborigines who have been brought within the pale of Hinduism. They form the very lowest of the Súdra castes, and are utterly despised:—(60) Behárá and Duliá; two separate castes, but returned as one in the Census Report; employed as palanquin bearers, fishermen, and cultivators; 23,781 in number. (61) Chandál, cultivators and labourers; 33,326 in number. (62) Karangá, labourers; 153 in number. (63) Mál, snake-charmers; 3078 in number. (64) Máhilí, labourers; 64 in number. (65) Pásí, makers of toddy from the juice of the date-tree; 318 in number. (66) Shikárí, hunters; 182 in number. (67) Báití, musicians and mat makers; 3044 in number. (68) Kán, musicians; 40 in number. (69) Báheliá, labourers; 32 in number. (70) Bediyá, jugglers; 36 in number. (71) Bhuiyá, cultivators; 1625 in number. (72) Dom, basket makers and cultivators; 52,327 in number. (73) Káorá, swine-keepers; 3274 in number. (74) Báurí, labourers and cultivators; 70,598 in number. (75) Turí, musicians; 47 in number. (76) Dosadh, labourers and cultivators; 563 in number. (77) Muchí and Chámár; originally two distinct castes, but returned as one in the Census; leather workers and shoemakers. The Chámár is said to be an up-country caste; the Muchí belongs to Bengal. They do not intermarry nor intermingle socially. The number of both castes in Bardwán District, according

to the Census Report of 1872, is 53,477. (78) Bind, labourers and cultivators; 76 in number. (79) Buná, labourers and cultivators; 876 in number. (80) Chain, labourers and cultivators; 63 in number. (81) Hárí, swineherds and sweepers; 27,254 in number. (82) Mihtar, sweepers; 890 in number.

MUHAMMADAN SECTS.—The Muhammadans of the District are divided into the two well-known sects of Sunnís and Shiás, the latter being very few in number. The higher class of Muhammadans here belong to the Sunní sect. These two sects are subdivided into different trades and professions, in the same way as the Hindu castes are subdivided, but they are not recognised as distinct castes, as is the case with the Súdra Subdivisions. They eat and drink together, and intermarry. The Sunní Muhammadans are also divided into several classes, according to their descent. The four principal of these are the following:—Sayyid, claiming descent from Alí, the son-in-law of Muhammad; Shaikh, claiming descent from the Khalifás Abubakr, Oman, and Othman; Mirzá, or those of Mughul extraction; and Khán or Pathán, those claiming Afghán descent.

RELIGIOUS DIVISION OF THE PEOPLE.—The great majority of the inhabitants of the District, or 82·5 per cent., are Hindus, the remainder being made up of Muhammadans, who form 17·1 per cent. of the population, together with a small residue of Christians, and a few hill people professing aboriginal faiths. According to the Census Report of 1872, the Hindus of Bardwán District amounted to 1,679,363, consisting of 820,756 males and 858,607 females, the proportion of males in the total Hindu population being 48·9 per cent. The Census Report includes the Bráhma Samáj followers, or members of the reformed theistic sect of the Hindus, along with the general Hindu population. The Collector, however, in his Report to me in 1870, roughly estimated the total number of Bráhmas at about one-eighth of the whole District population. This estimate seems too high a one. The Muhammadans of Bardwán District number 348,024, consisting of 171,414 males and 176,610 females; the proportion of males in the total Muhammadan population is 49·3 per cent. The existence of a considerable Musalmán population in the District is due to large settlements of Muhammadans from Northern India rather than to forcible conversion of the people to Islám. The Muhammadans of Bardwán are not actively fanatical, although a number of them profess the tenets of the reformed sect known as Faráizís. A new Musalmán

sect, called Sabílís, is said to be springing up, the principal characteristic of the followers of which appears to be that they do not keep the Muharram. The Christian population of the District numbers 890, consisting of 505 males and 385 females, the proportion of males in the total Christian population being 56·7 per cent. Deducting 533 for the European, Eurasian, and Armenian population, there remains a balance of 357, representing the total native Christian population of the District. The native Christian community is mainly settled in the towns of Bardwán, Ráníganj, and Kálná, consisting chiefly of converts from low castes, who are not held in any social repute by the general population. The remainder of the inhabitants of Bardwán District consist of people belonging to other religious denominations, but who are not separately classified according to religion in the Census Report. This class, mainly made up of races adhering to primitive aboriginal faiths, numbers 6468, consisting of 3143 males and 3325 females; proportion of males in the 'other' population, 48·6 per cent. The total number of Jews in the District is returned in the Census Report at 8. There are only a few Jains, and no Buddhists.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—Bardwán has eight large towns returned in the Census Report as containing upwards of five thousand inhabitants, but the general population of the District is almost entirely rural. Even the towns can hardly be considered urban in the strict sense of the word, consisting as they do of blocks of villages grouped together for municipal purposes. The city of Bardwán itself is made up of 93 little villages, lying close to each other and surrounding the town proper: the whole group constitutes the Bardwán Municipality. The towns of Ráníganj and Kálná, as returned in the Census, also include several adjacent villages. The eight towns specified in the Census Report as containing a population of upwards of five thousand are the following:—Bardwán, population in 1872, 32,321; Kálná (*Culna*), 27,336; Syámbázár, 19,635; Ráníganj, 19,578; Jahánábád, 13,409; Báli, 8819; Kátwá, 7963; and Dáin-hát, 7562. The total urban population thus disclosed amounts to 136,623, leaving a balance of 1,898,122 as forming the rural population. The dwellers in the towns, therefore, only amount to 6·71 per cent. of the total District population. The Hindus furnish 83·68 per cent. of the population of the eight towns above mentioned, the proportion of Hindus residing in the towns to the total Hindu

population of the District being 6·80 per cent. The Muhammadans, who form 17·1 per cent. of the total population of the District, only form 14·94 per cent. of the town population; proportion of Musalmáns residing in towns to total Muhammadan population of the District, 5·86 per cent. More than half the Christian population of the District, or 51·01 per cent., reside in the towns, although they only form ·33 per cent. of the total town population. The other denominations not separately classified furnish 1·05 per cent. of the town population; proportion of 'others' residing in towns to the total 'other' population of the District, 22·2 per cent.

The following table, condensed from the District Census Statements of Mr. C. F. Magrath, presents an abstract of the population of the eight large towns. Further details will be given in the short separate account of each town which follows the table:—

Population of Towns in Bardwan District containing upwards of 5000 Inhabitants.

Names of Towns.	Hindus.	Muhammadans.	Christians.	Others.	Total.	Gross Municipal Income.	Gross Municipal Expenditure.	Rate of Taxation per head.	
						£ s. d.	£ s. d.	R. a. p.	s. d.
Bardwán, . .	22,013	9,927	223	158	32,321	5,450 0 0	5,450 0 0	1 10 11	3 $4\frac{3}{8}$
Kálná (*Culna*), .	22,463	3,557	38	1,278	27,336	1,185 0 0	980 2 0	0 6 11	0 $10\frac{3}{8}$
Syámbázár, . .	19,341	294	...	...	19,635	276 8 0	224 8 0	0 2 3	0 $3\frac{1}{8}$
Ráníganj, . .	17,927	1,473	178	...	19,578	871 12 0	871 12 0	0 7 1	0 $10\frac{1}{8}$
Jahánábád, . .	10,222	3,187	...	...	13,409	238 18 0	250 14 0	0 2 10	0 $4\frac{1}{4}$
Báli, . . .	8,150	669	...	...	8,819	173 4 0	214 4 0	0 3 2	0 $4\frac{3}{4}$
Kátwá (*Cutwa*), .	6,817	1,131	15	...	7,963	513 14 0	513 14 0	0 10 4	1 $3\frac{1}{2}$
Dáin-hát, . .	7,389	173	...	...	7,562	398 8 0	386 8 0	0 8 5	1 $0\frac{5}{8}$
Total,	114,322	20,411	454	1,436	136,623	9,107 4 0	8,891 2 0	Av. 0 10 8	Av. 1 4

(1) BARDWAN, the principal town and civil station of the District, and formerly the headquarters of the Commissioner of the Division (now removed to Húglí), is situated on the banks of the Bánká *nadí*, in 23° 14′ 10″ north latitude and 87° 53′ 55″ east longitude. Although the principal town, Bardwán is not so important a seat of trade as either Kálná or Kátwá, on the banks of the Bhágirathí. A considerable trade, however, is carried on in it, and the town has materially advanced in prosperity since the opening of the East Indian Railway through the District. The number of houses has much increased, but the population of the town has suffered a decrease of late years, owing to the mortality caused by the fever, which has been ravaging the District since 1863. In 1814 the number of houses in the town and suburbs was returned at 9805, containing an estimated population of 53,927, calculating according to an average of $5\frac{1}{2}$ inmates per house. In 1869 the results of the experimental Census showed that the number of houses in the town had increased to 14,048, inhabited by a total population of 46,121, or an average of only 3·28 persons to each house. It was in July of this year (1869) that the fever made its appearance with full force in the town; and the Collector of the District, in a report to me in 1870, stated that, 'notwithstanding all the efforts of Government and the Municipality to repress the outbreak, it is estimated to have carried off at least five thousand of the inhabitants within six months.' In 1870 the Collector was of opinion that the population of the town did not exceed 42,000. By 1872 the town had suffered a still further decrease in population, owing to the continuance of the fever and the emigration of many of the inhabitants, who fled from the disease. According to the Census Report, the total population of the town and suburbs which make up the limits of the Bardwán Municipality amounted to only 32,321. The details of the population given in the Census Report are as follow:—Hindus, males 11,225, and females 10,788; total 22,013, or 68·10 per cent. Muhammadans, males 4913, and females 5014; total 9927, or 30·71 per cent. Christians, males 120, and females 103; total 223. Other denominations not separately classified, males 32, and females 126; total 158. Total of all denominations, males 16,290, and females 16,031; grand total 32,321.

The principal places of interest in Bardwán town are the palace and gardens of the Mahárájá; the Siválaya, or collection of 108 temples, arranged in two circles, one within the other; and the

shrine of Pírbaharam. Bardwán town was constituted a Municipality in May 1865. In 1869-70 the total municipal revenue amounted to £5654, 8s. 9d., and the expenditure to £5096, 15s. 10d. In 1871, according to the Census Report, the gross municipal income of Bardwán town amounted to £5450, and the expenditure to the same amount; the average rate of municipal taxation being Rs. 1. 10. 11, or 3s. $4\frac{3}{8}$d. per head of the town population.

(2) KALNA (Culna), the port of Bardwán District and the principal seat of trade, is situated on the bank of the Bhágirathí river, in 23° 13′ 25″ north latitude and 88° 24′ 30″ east longitude. The population of the town is returned at 27,336 in the Census Report of 1872, made up as follows:—Hindus, males 10,781, and females 11,682; total 22,463, or 82·18 per cent. Muhammadans, males 1752, and females 1805; total 3557, or 13·01 per cent. Christians, males 24, and females 14; total 38. Other denominations, males 581, and females 697; total 1278, or 4·68 per cent. Total population of all religions, males 13,138, and females 14,198; grand total 27,336. The town is said to have been a more important seat of commerce in former days, before the opening of the East Indian Railway, and to have contained a larger population than at present. It then carried on a very extensive river trade, as all imports into the District from Calcutta, and all exports to other Districts and to Calcutta, took place through Kálná. The town of Bardwán itself obtained its supplies from Calcutta through Kálná. But the railway has not materially affected the prosperity of the place, or its trade with Calcutta and other Districts, it being found cheaper to import from Calcutta by river than by rail. Large quantities of rice are imported from Dinajpur.

The following account of Kálná is condensed from a paper published some years ago in the *Calcutta Review*, by the Rev. J. Long:—Kálná bázár contains about a thousand shops, chiefly constructed of brick. Great quantities of rice, bought from merchants of Rangpur, Díwánganj, and Jafarganj, are here stowed up. Grain, silk, and cotton also form staple articles of trade. Kálná must have been a place of great importance in Muhammadan times, as the ruins of a large fort which commanded the river are still to be seen. The Bhágirathí formerly flowed behind the town, where old Kálná is at present; several large and deep *jhils* mark the deserted bed of the river. Old Kálná is now deserted as a place of trade, but is the residence of many respectable natives. To the west of Kálná is a

large tank occupying eight *bighás*, or nearly three acres of land, at which a yearly fair is held; near it are two fine ruins of mosques, one of which has layers of stone running through the building, ornamented with tracery. A good road was made between Kálná and Bardwán in 1831, with bungalows, stables, and tanks every eight miles, by the Rájá of Bardwán, chiefly with the design of enabling him to bathe in the Ganges. Kálná now forms a station of the Free Church Mission, and contains an English school.

The Mahárájá of Bardwán has a palace and temples here, and, indeed, the new town is said to be almost entirely the creation of the Mahárájá. Bábu Bholánáth Chandra, in his *Travels of a Hindu*, vol. i. pp. 22-23, thus describes the palace and mausoleum, in which the ashes of the deceased Mahárájás are kept:—'The first thing to see in Kálná is the *rájbárí*, or palace of the Mahárájá of Bardwán. It consists of several noble buildings and lofty temples, the latter ranged in two circles, one within the other, enclosing a large circular paved courtyard, and forming a grand amphitheatre. One of the latest temples is most elaborately carved and ornamented. There is an almshouse here, in which several hundred beggars are daily fed. The next object is the *Samáj bárí*, or House of Sepulchre, in which a bone of every deceased member of the Mahárájá's family is deposited. The Mahárájá belongs to the Khatrí caste, and observes the custom of preserving the ashes of the dead. They show a bone of the late Mahárájá, wrapped up in a rich cloth. It is regarded as if the Mahárájá was living himself, and is placed on a velvet state-cushion, with silver salvers, tumblers, hookahs, rose water, and *atar* holders—just as the late Mahárájá used to sit with all the paraphernalia of state about him.' Kálná town has been constituted a Municipality; and in 1871, according to the Census Report, the gross municipal income amounted to £1185, and the gross expenditure to £980, 2s. 0d.; average rate of municipal taxation, Rs. 0. 6. 11, or 10$\frac{3}{8}$d. per head.

(3) SYAMBAZAR, a considerable town in the Goghát Police Circle of Jahánábád Subdivision, situated a few miles south of the Ajai river, in 23° 35′ 10″ north latitude and 87° 32′ 5″ east longitude. Population, according to the Census of 1872:—Hindus, males 9426, and females 9915; total 19,341, or 98·50 per cent. of the town population. Muhammadans, males 152, and females 142; total 294, or 1·50 per cent. of the town population. Christians and 'others,' *nil*. Total, males 9578, and females 10,057;

total 19,635. Gross municipal income in 1871, £276, 8s. od.; gross municipal expenditure, £224, 8s. od.; average rate of municipal taxation, 2¼ annas, or 3⅜d. per head of the town population. It has an old *Saráí*, dated A.H. 1125.

(4) RANIGANJ, a considerable town situated on the north bank of the Dámodar river, in 23° 36′ 25″ north latitude and 87° 8′ 28″ east longitude, is the headquarters of the Subdivision of the same name. The town, which is the centre of the coal industry of the District, only acquired its present importance within recent years, having taken its rise from the date of the discovery and working of the coal mines, upon which enterprise it is almost solely dependent. The opening out of the East Indian Railway also materially added to the prosperity of the town. The Census Report of 1872 returns the population of Ránígan̐j at 19,578, made up as under:—Hindus, males 9027, and females 8900; total 17,927, or 91·56 per cent. of the town population. Muhammadans, males 827, and females 646; total 1473, or 7·52 per cent. of the town population. Christians, males, 94, and females 84; total 178. 'Others,' *nil*. Total of all denominations, males 9948, and females 9630; grand total 19,578. Gross municipal income in 1871, £871, 12s. od., the gross municipal expenditure being the same; average rate of municipal taxation, 7$\frac{1}{12}$ annas, or 10$\frac{5}{8}$d. per head of the town population. The population returned above includes that of several villages surrounding Ráníganj, but which are included within the municipal limits of the town. In the general introduction to the Tabular Statements (p. 95 of Census Report), the population of Ráníganj town is returned at only 6562 souls. A description of the coal mines around Ráníganj, their working, outturn, etc., will be found in a subsequent section of this Statistical Account.

(5) JAHANABAD, the headquarters of the Subdivision of the same name recently transferred from Húglí District, is situated on the east bank of the Dhalkisor (*Dwárkeswar*) river, in 22° 53′ 0″ north latitude and 87° 49′ 50″ east longitude. The town and Subdivision have been so severely visited by the fever, which is still afflicting the District, as to seriously diminish the population. The population of the town is returned in the Census Report of 1872 at 13,409, made up as follows:—Hindus, males 5285, and females 4937; total 10,222, or 76·23 per cent. of the town population. Muhammadans, males 1554, and females 1633; total 3187, or 23·77

per cent. of the town population. Christians and 'others,' *nil.* Total town population, males 6839, and females 6570; grand total 13,409. Gross municipal income in 1871, £238, 18s. od.; gross municipal expenditure, £250, 14s. od.; average rate of taxation, Rs. 0. 2. 10, or 4¼d. per head of the town population.

(6) BALI, a large village situated on the Dhalkisor (*Dwárkeswar*), in the part of Jahánábád Subdivision recently transferred from Húglí, in 22° 48′ 50″ north latitude and 87° 48′ 46″ east longitude. Its population is returned in the Census Report of 1872 at 8819, made up as follows:—Hindus, males 3944, and females 4206; total 8150, or 92·41 per cent. of the population. Muhammadans, males 284, and females 385; total 669, or 7·59 per cent. of the population. Christians and 'others,' *nil.* Total town population, males 4228, and females 4591; grand total 8819. Gross municipal income in 1871, £173, 4s. od.; gross municipal expenditure, £214, 4s. od.; average rate of municipal taxation, Rs. 0. 3. 2, or 4¾d. per head of the town population.

(7) KATWA (Cutwa), situated at the confluence of the Bhágirathí and Ajai rivers, in 23° 38′ 55″ north latitude and 88° 10′ 40″ east longitude. The town is the headquarters of the Subdivision of the same name, and contains, besides the usual Government Court buildings, an aided English school and a charitable dispensary. The place is also one of the principal seats of District trade, and contains many wealthy native merchants and traders. Now a purely commercial town, it was formerly considered as the key to Murshidábád, the capital of Bengal under the later Muhammadan Governors. In the early part of the eighteenth century, Kátwá and its neighbourhood suffered much from the incursions of the Marhattás, whose yearly raids depopulated the villages along the banks of the river, and converted the country into jungle. The old fort of Kátwá, of which scarcely a vestige now remains, was situated on a tongue of land at the confluence of the Ajai and Bhágirathí, and is noted as the scene of the defeat of the Marhattás by Alí Vardí Khán. It was a mud fort, half a mile in circumference, and mounted fourteen guns. Kátwá is considered sacred by the Vaishnavs, as having been the place where Chaitanya took upon himself the ascetic life.

The population of Kátwá in 1869 was returned in the experimental Census Report at 7951 souls. In 1872 the population was the same, or 7963 souls, according to the Census Returns for that

year. This population is made up as follows:—Hindus, males 3109, and females 3708; total 6817, or 85·60 per cent. of the population. Muhammadans, males 566, and females 565; total 1131, or 14·20 per cent. of the population. Christians, males 6, and females 9; total 15. 'Others,' *nil.* Total town population, males 3681, and females 4282; total 7963. Gross municipal income in 1871, £513, 14s. od.; gross municipal expenditure, £513, 14s. od.; average rate of municipal taxation, Rs. 0. 10. 4, or 1s. 3½d. per head of the population.

(8) DAIN-HAT, a large trading village on the banks of the Bhágirathí, situated in 23° 36′ 24″ north latitude and 88° 13′ 50″ east longitude. Its population is returned in the Census Report of 1872 at 7562, made up as follows:—Hindus, males 3417, and females 3972; total 7389, or 97·71 per cent. of the population. Muhammadans, males 76, and females 97; total 173, or 2·29 per cent. of the population. Christians and 'others,' *nil.* Total town population, males 3493, and females 4069; grand total 7562. Gross municipal income in 1871, £398, 8s. od.; gross municipal expenditure, £386, 8s. od.; average rate of municipal taxation, Rs. 0. 8. 5, or 1s. 0⅝d. per head of the town population.

SMALLER TOWNS AND VILLAGES.—The foregoing are the only eight towns in Bardwán District containing a population of upwards of five thousand souls. Towns with a population below this are not shown separately in the Census Returns. The total number of villages and small towns with less than five thousand inhabitants is returned as follows:—There are 2219 small villages containing less than two hundred inhabitants; 1725 with from two to five hundred inhabitants; 880 with from five hundred to a thousand; 312 small towns with from one to two thousand; 38 with from two to three thousand; 12 with from three to four thousand; and 2 with from four to five thousand inhabitants.

The following twenty-four villages and small towns, although their population is not given separately in the Census Report, are places of importance, and many of them contain a considerable population; all, however, under five thousand:—In the Sadr or headquarters Subdivision—(1) Khandghosh, a village and police station (*tháná*) in the Fiscal Division of the same name, in 23° 12′ 30″ north latitude and 87° 44′ 20″ east longitude. (2) Indás, a village containing a police station in the *parganá* of the same name recently transferred from Bánkurá District, situated

in lat. 23° 8′ 30″ and long. 87° 40′ 25″. (3) Salímábád, a village and police station situated in *parganá* Hávilí, in lat. 23° 4′ 50″ and long. 88° 2′ 45″. (4) Ganguriá, a village and police station situated in *parganá* Nalhi, in lat. 23° 12′ 22″ and long. 88° 8′ 48″. (5) Sáhibganj, a village and police station situated in *parganá* Azmatsháhí, in lat. 23° 26′ 20″ and long. 87° 52′ 45″. In Kálná Subdivision—(6) Bháturiá, a village and police station situated in *parganá* Jahángírábád, in lat. 23° 25′ 30″ and long. 88° 19′ 10″. (7) Mantreswar, a village and police station situated in *parganá* Sháhábád, in lat. 23° 25′ 30″ and long. 88° 9′ 0″. In Kátwá Subdivision—(8) Bháusinh, a market village situated on the banks of the Bhágirathí, in *parganá* Azmatsháhí, in lat. 23° 36′ 24″ and long. 88° 13′ 30″. (9) Bhagabatípur, a village and police station situated in *parganá* Manoharsháhí, in lat. 23° 42′ 0″ and long. 88° 5′ 30″. (10) Mangalkot, a village containing a police station situated in *parganá* Azmatsháhí, in lat. 23° 31′ 50″ and long. 87° 56′ 30″. (11) Uddhanpur, a market village situated on the banks of the Bhágirathí in *parganá* Manoharsháhí, in lat. 23° 41′ 10″ and long. 88° 11′ 0″. In Búd-búd Subdivision—(12) Búd-búd, a large village forming the headquarters of the Subdivision of the same name, and also a police station, situated in *parganá* Champánagarí, in lat. 23° 24′ 10″ and long. 87° 35′ 0″. (13) Ausgrám, a large village containing a police station, situated in *parganá* Gopbhúm, in lat. 23° 31′ 15″ and long. 87° 42′ 35″. (14) Sonámukhí, a considerable village with a police station situated in *parganá* Bishnupur, and recently transferred from Bánkurá District, in lat. 23° 18′ 20″ and long. 87° 27′ 15″. In former times this place formed a large factory of the East India Company, and numbers of weavers were employed in cotton-spinning and cloth-making. One of the earliest notices of Sonámukhí occurs in the Board of Revenue's Records, and consists of a complaint made by the Company's Commercial Resident there regarding obstructions to trade offered by the Rájá of Bardwán; upon which an officer was deputed to inquire into the matter, and the Rájá was forbidden to interfere in any way with the commercial business of the Company's factories. The introduction of English piece goods led to the withdrawal of the Company from the trade, the native cloths not being able to compete with the imported European article, and from that time the prosperity of the place has declined. (15) Kasbá, a large trading village situated

on the bank of the Dámodar in *parganá* Champánagarí, in lat. 23° 21′ 0″ and long. 87° 33′ 30″. (16) Dignagar, a village and police station situated in *parganá* Bardwán, in lat. 23° 26′ 0″ and long. 87° 44′ 10″. (17) Mánkur, a large village and railway station situated in *parganá* Champánagarí, in 23° 25′ 40″ north latitude and 87° 36′ 30″ east longitude. In Ránígánj Subdivision—(18) Ajodhyá, a considerable trading village, situated in lat. 23° 35′ 10″ and long. 87° 32′ 20″. (19) Káksá, a large village and police station; also a station on the Chord Line of the East Indian Railway, situated in *parganá* Salímpur, in lat. 23° 27′ 10″ and long. 87° 30′ 12″. (20) Niámatpur, a village and police station, situated in lat. 23° 43′ 5″ and long. 86° 55′ 0″. In Jahánábád Subdivision—(21) Goghát, a village and police station situated in *parganá* Jahánábád, and recently transferred from Húglí District, in lat. 22° 53′ 15″ and long. 87° 44′ 50″. (22) Kotalpur, a village and police station recently transferred from Bánkurá District, situated in lat. 23° 1′ 15″ and long. 87° 38′ 35″. (23) Rainá, a village and police station situated in *parganá* Samarsháhí, in lat. 23° 4′ 20″ and long. 87° 56′ 40″. (24) Salímpur, a large trading village situated on the bank of the Dámodar, in *parganá* Salímpur, in lat. 23° 24′ 56″ and long. 87° 28′ 40″.

Village Officials.—The principal village official met with in Bardwán District is the *mál gumáshtá*. He is a revenue officer appointed by the *zamíndár* to collect rents and grant receipts, etc., and is paid by a money salary. The *faujdárí gumáshtá* is also a servant of the *zamíndár;* his duties are to report offences to the police, and to assist them in investigating criminal cases. The *mandal*, sometimes called *mukaddam*, is the hereditary headman of the village. His authority is recognised by offerings of betel and sweetmeats at *púját*, and by the present of a piece of cloth from the *zamíndár* at the *punyá*, or first rent-day of the year. Petty local disputes are decided by the *mandal*, and intercourse with the police is carried on through him. He never acts as a *gumáshtá*. He may belong to any caste; and in old Sanskrit writings he is spoken of as the village king. The *mandal* is often a very illiterate man, but the Collector states that without his assistance village inquiries are generally fruitless. In some large villages there exist *chaudhrís*, whose business it is to decide questions of price currents, fix rates of cart-hire, etc., in return for which they receive an allowance from the shopkeepers; in olden times both *mandals* and *chaudhrís* received fees from the *zamíndár*. *Kánúngos*, or revenue

officers in charge of *zamíndárí* and village accounts, seem to have disappeared from the District, although they certainly existed at the time of the Permanent Settlement. In a list of the Bardwán *zamíndárí* charges for 1787, a sum of £950 is included as Kánúngos' fees. Village *símándárs* and *hálshánás* are charged with the protection of the village crops and boundaries; *phárídárs* and *piyádás*, with the watch and guard of roads; *ghátwáls*, with the care of roads and passes in the hills. All these officials are remunerated by grants of rent-free lands. *Sidwáls* and *ghátwáls* are only met with in the jungly western portion of the District transferred from Bánkurá. *Digwárs*, charged with the care of villages, are found in the western portion of Ráníganj Subdivision. Vestiges of various other offices still survive in many proper names borne by the descendants of persons who probably held these offices in ancient times. These are—*Majumdárs*, or treasurers; *sikdárs*, subordinate revenue collectors; *mastangís*, examiners of accounts; *bakhshí*, military paymasters; *hazárás*, probably a corruption of *hazárí*, or commander of a thousand men; *kotwáls*, Muhammadan police magistrates; *khundkars*, valuers of crops, etc. For further particulars regarding the village officials, refer to Babú Bagalá Nand Mukharji's *Fever Report*, chap. vi.

The other conspicuous personages in village life are:—(1) *Purohit*, or priest, paid by gifts of money, called *dakshiná*, for each ceremony performed by him, and also by a portion of the offerings made to the idols. (2) *Achárjyá*, or fortune-teller, who likewise prepares horoscopes, and predicts the destiny of infants according to the planets under whose influence they were born. He is remunerated in money. (3) *Nápit*, or barber, who also performs certain ceremonies at births, marriages, etc. (4) *Mahájan*, or village usurer and grain merchant: (5) *Kámár*, or blacksmith; (6) *chhutár*, or carpenter; and (7) *máli*, or gardener, who prepares garlands for festivals, are all generally paid in money by the job, according to the services rendered by them. (8) The *dhobá*, or village washerman, is remunerated either in money or in kind. All these persons, however, ceased to exist as village officials long ago, and are now merely artisans or servants, carrying on their caste occupations, and remunerated by those who employ them. In the old Hindu village they had lands assigned for their maintenance by the community.

THE PANCHAYAT, or village tribunal for the punishment of

offences, etc., has almost entirely disappeared from the District. Occasionally, however, a *panchâyat* or council, consisting of the *mandal*, *gumáshtá*, and two or three other leading villagers, is held to settle disputes, or to determine any local or social question. The tribunal has no legal binding authority, but its fiat is generally respected in the village.

FAIRS on occasions of religious ceremonies are held at Bághnápárá, attended by a large concourse of pilgrims; at the *Sadr ghát* on the Dámodar river, near Bardwán; at Gopálpur, Dignagar, Dáinhát, and Mohanpur. Minor fairs are held at Mánkur, in January; at Keográm, in February; at Bairágítalá, in February; and at Mainápur, in May. Kátwá is much frequented by worshippers, chiefly Vishnuvites, for the purpose of bathing in the Bhágirathí.

MATERIAL CONDITION OF THE PEOPLE.—The mercantile part of the community are well off, but these form only a small proportion of the population. The famine of 1866 told severely upon the prosperity of the poorer agricultural and labouring classes; and the Collector of the District reported to me in June 1870 that the people had scarcely recovered from the effects of that calamity, and that they had suffered in addition from a deficiency of rain during certain seasons since 1866. The famine of the present year, 1874, has also made itself severely felt in Bardwán. Another desolating cause is the fever epidemic, which during several years has ravaged the District, and which has not yet disappeared. The Collector, in his report to me in 1870, estimated that about one-fourth of the population, in the most severely affected tracts, had perished. The condition of the people in the fever-stricken localities is conspicuously inferior to that of the population in other parts of the District. Many of the small villages were almost entirely depopulated in 1867-69, but by 1870 the virulence of the outbreak had abated, and the Collector reported that the people were recovering from its effects. Fuller particulars of the fever epidemic will be found in the Medical Section of this Statistical Account.

The wealth of the District may be said to centre in the Mahárájá of Bardwán, whose net income is estimated by the Collector to amount to about £100,000 per annum. The Mahárájá is the proprietor of the greater portion of the land in the District, and also owns extensive estates in other parts of Bengal. Among the other *zamíndárs*, out of 4860 estates which the District comprised in 1870, only

488 estates paid a revenue to Government of over £10 a year. The under tenure holders, such as *patnídárs* and *darpatnídárs*, who hold their lands under a perpetual lease and without liability to enhancement of rent, are, as a body, far wealthier than their superior landlords, the *zamíndárs*. All the Mahárájá's estates are let out in *patní*, and many are again sublet in *darpatní*, *sepatní*, and *chaharam patní*. These *patní* tenures will be fully described in the Agricultural Section of this Account. There are no really wealthy traders or *mahájans* in the town of Bardwán; and the Collector reports that the income of the richest does not come up to £1000 a year. At Kálná and Kátwá, however, the case is different. These two towns, and particularly Kálná, contain several very wealthy merchants, who carry on an extensive river trade with neighbouring Districts, and especially with Calcutta.

CLOTHING, DWELLINGS, FOOD, ETC.—The ordinary clothing of a shopkeeper consists of a *dhutí*, or waistcloth of cotton; a *chádar*, or cotton shawl; and a pair of shoes or slippers. The dress of an average husbandman consists simply of a coarse *dhutí*, and a scarf (*gámchá*) thrown over the shoulders, and also sometimes worn as a turban when working in the fields. The building materials used in most cultivators' houses consist chiefly of bamboos, straw, and mud. The dwelling of a shopkeeper is generally constructed more substantially of planks and beams, and in the towns and larger villages with brick walls. The principal articles of furniture in the house of a well-to-do shopkeeper are a cotton carpet, a mat, plank bedstead, one or two stools, a strong wooden chest, a closed cane basket, brass lamp, looking-glass, hookah, blanket and bedding; brass plates and cups, and other domestic and cooking utensils; pictures and images, etc. The furniture found in the house of an ordinary peasant consists of a mat, wooden box, blanket, looking-glass, stone plate, a few brass and earthenware vessels, hookah, and his implements of agriculture. The ordinary food of all classes of the people consists principally of rice, pulses (*dál*), fish, milk, and vegetables. The monthly cost of living in the household of a well-to-do shopkeeper, consisting of five members, was returned by the Collector in 1870 as under:—Rice, $7\frac{1}{2}$ lbs. or $3\frac{3}{4}$ seers per day, at Rs. 1. 8 per maund or 4s. 1d. per hundredweight, Rs. 4. 3. 6, or 8s. $5\frac{1}{4}$d.; pulses (*dál*), 1 rupee, or 2s.; salt, 5 annas, or $7\frac{1}{2}$d.; oil, 13 annas, or 1s. $7\frac{1}{2}$d.; vegetables, 8 annas, or 1s.; fish, 1 rupee, or 2s.; milk, Rs. 1. 8. 0, or 3s.; betel-nut, etc., 4 annas, or 6d.; spices for

culinary purposes, 4 annas, or 6d.; tamarind, 4 annas, or 6d.; *muri* (fried rice eaten with molasses), 1 rupee, or 2s.; firewood, Rs. 1. 8, or 3s.; tobacco, 12 annas, or 1s. 6d.; cloth, Rs. 2, or 4s.; wages of a servant (who receives food in addition), Rs. 2. 0. 0, or 4s.; barber, 2 annas, or 3d.; washerman, 4 annas, or 6d.; extras, 8 annas, or 1s.; total, Rs. 18. 4. 0, or £1, 16s. 6d. per month. The monthly household expenses of the family of a husbandman, consisting of five members, are returned as follows:—Rice, 10 lbs. per day, at Rs. 1¼ per maund or 3s. 5d. a hundredweight, Rs. 4. 11. 0, or 9s. 4½d.; pulses (*dál*), 8 annas, or 1s.; salt, 5 annas, or 7½d.; oil, 10 annas, or 1s. 3d.; vegetables, 4 annas, or 6d.; fish, 4 annas, or 6d.; milk, 12 annas, or 1s. 6d.; betel-nut, 2 annas, or 3d.; spices for cooking, 2 annas, or 3d.; tamarind, 2 annas, or 3d.; *muri*, 8 annas, or 1s.; firewood, 8 annas, or 1s.; tobacco, 8 annas, or 1s.; cloth, 1 rupee, or 2s.; barber, 1 anna, or 1½d.; washerman, 2 annas, or 3d.; total, Rs. 10. 7. 0, or £1, 0s. 10½d. per month. This estimate is a high one. The Collector, in 1874, returned the consumpt of an ordinary peasant family at nearer 5 than 10 lbs. of rice per diem.

AGRICULTURAL: RICE CULTIVATION.—The rice grown in the District consists of two great species,—*Aus*, or autumn rice, and *Aman*, or winter rice. *Aus* rice is divided into three varieties, viz. *Aus* proper, *Kálesh*, and *Niálí*, and which are further subdivided into different species. *Aus* rice proper requires but little water for its cultivation. It is sown on *soná* lands, or high lands situated in the vicinity of villages, about the end of the Hindu month of Baisákh, corresponding to about the middle of May, and reaped about the beginning of Bhádra, corresponding to the middle of August. If sown on *do-soná* lands, *i.e.* lands which have the advantage of natural or artificial irrigation, the crop is transplanted. The second variety of *Aus*, called *Kálesh*, requires more water than *Aus* proper. It is sown about the middle of Jaishtha, corresponding to the end of May, and reaped about the beginning of Aswin, corresponding to the middle of September. The third variety of *Aus*, called *Niálí*, is sown at the same time as *Kálesh*, and reaped a fortnight after it. Both these varieties are sown in the same manner and in the same kinds of soil as *Aus* proper, but they are not so commonly cultivated. *Aus* rice proper is further subdivided into species, of which the six following are the most important:—(1) *Kálá-kándí*, (2) *Bháshá*, (3) *Madhu-málatí*, (4) *Sáljatí*, (5) *Nayá Rámsál*, and (6) *Kayá*.

The *Aman* or *Haimantik* rice is the cold-weather crop, and, indeed, forms the great harvest of the year. It is sown in Ashár and Srában, corresponding to June and July, and reaped at the end of Agraháyan and beginning of Paush, or from the middle of November to the middle of December. This crop is always sown on *sálí* lands, *i.e.* fields lying lower than *soná* lands, and which retain more or less water all the time the crop is on the ground. *Aman* rice requires a great deal of moisture; and in order to its proper cultivation, it requires to be grown in a depth of water reaching at least to the height of three-fourths of the stem. *Aman* rice is always transplanted. Its thirty-four principal varieties are the following:—(1) *Kanakchur*, (2) *Rám-sál*, (3) *Báns-gajál*, (4) *Bádsháh-bhog*, (5) *Chinsankar*, (6) *Gopál-bhog*, (7) *Parmánna-bhog*, (8) *Draupadí-sál*, (9) *Mánik Kalmá*, (10) *Lál Kalmá*, (11) *Gauránga-sál*, (12) *Jhingá-sál*, (13) *Krishna-sál*, (14) *Bánkchur*, (15) *Bánsmatí*, (16) *Benáphulí*, (17) *Khás Khámání*, (18) *Kási-phul*, (19) *Chatui-nakhí*, (20) *Rádhaní págal*, (21) *Donár-gurí*, (22) *Halud-gurí*, (23) *Khejur-jhalká*, (24) *Khejur-thubí*, (25) *Jirá-sál*, (26) *Láu-sál*, (27) *Rában-sál*, (28) *Darmá-sál*, (29) *Jhátá Kalmá*, (30) *Káli Kalmá*, (31) *Noná*, (32) *Harkalí*, (33) *Chhách maul*, and (34) *Grihiní págal*.

No improvement seems to have taken place within the last twenty years regarding the quality of the rice grown in the District. The various names by which rice is known in the different stages of its growth are as follow:—The seed is called *bíj;* the young seedlings, *báoálí*; the seedlings when old enough to be transplanted, *bíj-dhán;* the plant a little older, *bákrá*; the mature plant, *gáchh-dhán*; unhusked rice, *dhán;* husked rice, *chául*. The solid preparations made from rice are *anna* or *bhát* (ordinary boiled rice), and *khai, muri, chirá, hurum*, etc. These latter are all preparations of parched rice or paddy, and are described at length in previous Statistical Accounts. *Pithá* are cakes made from rice flour. The liquid preparations made from rice are *pachwai*, or rice beer; *mad*, or rice spirits; and *parmánna*, rice boiled with milk and sugar.

Other Cereal Crops.—Besides rice, the only other cereal crops reported in the District are wheat (*gam*), sown on high lands in October, and reaped in February; and barley (*jab*), sown on high lands in October, and reaped in March. Also a little Indian corn.

Green Crops.—The principal varieties of pulses cultivated in Bardwán are the following:—(1) Gram or *chholá* (cicer arietinum),

sown on high lands in September, and cut in January and February. (2) *Birikalái*, sown in September and October, and cut in January. (3) Peas or *matar* (pisum sativum), sown in October, and gathered in February. (4) *Musurí* (ervum hirsutum and cicer lens), sown on high lands in Septemper, and cut in February. (5) *Mug* (phaseolus mungo); this pulse is of two varieties, *soná mug* and *ghosar mug*, the latter being an inferior kind. Both varieties are sown on high lands in September, and cut in February or March. (6) *Arhar* (cytisus cajan), (7) *Khesárí* or *teorá*, and (8) *Ramá*,—all sown on dry land in September, and cut in February or March. (9) Beans or *sim*, sown in July, and gathered in October.

Oil Seeds.—(1) Mustard or *sarishá* (sinapis dichotoma); (2) Linseed or *masiná* (linum usitatissimum); (3) Sesamum or *til* (sesamum orientale); Castor-oil seed or *bherándá phal* (ricinus communis); and *Sukargujá*,—all sown on dry land in the month of October, and cut in February or March.

Miscellaneous Crops.—(1) Sugar-cane or *ákh* (saccharum officinarum), sown in April in lands well manured, and requiring to be continually irrigated: the canes are cut in January. (2) Indigo or *níl* (indigofera tinctoria). There are two seasons for sowing indigo, the spring and autumn. The spring sowings take place about March, after the first fall of rain, and the crop is cut about June. The autumn crop is sown in October, and reaped in April or May. The spring indigo is considered to give the best outturn, but it is a very precarious crop, and depends almost entirely upon a continuance of alternate sunny and showery weather during the time the plant is on the ground. Much rainfall, especially towards the time of cutting, destroys the crop. A more detailed account of indigo cultivation will be found in my Statistical Accounts of Nadiyá and Jessor Districts. (3) Mulberry or *tut*; the plants once sown are cultivated continuously throughout the year; no particular time is fixed for sowing. (4) *Pán* or betel leaf (piper betel); when once sown, the plants are cultivated continuously throughout the year. The plant is usually sown in June, and the leaves become fit for plucking about July or August of the succeeding year. (5) Turmeric or *haridrá* (curcuma longa) is sown in May, and cut in the following March.

Vegetable Crops.—(1) Potato or *álu* (solanum tuberosum), sown in October, and gathered in February. (2) Sweet potato or *sakarkand álu* (convolvulus battatas), sown in October, and gathered

in January. (3) *Sánk álu*, sown in September, and gathered in January. (4) *Bádigun* (solanum melongena), sown in June or July, afterwards transplanted, and gathered from October to March. (5) Radish or *múlá* (raphanus sativus), sown on dry lands in September, and gathered in December. (6) Onion or *piyáj*, sown in October, and gathered in December. (7) Ginger or *áddá*, sown in May, and gathered in October. (8) Cucumber or *sashá*, sown in October, and gathered in March.

FIBRES.—The fibre crops cultivated in Bardwán consist of—(1) hemp or *pát;* (2) flax or *son*; and (3) *dhanichá* (a very coarse hemp),—all sown in June, and cut in August or September. (4) Cotton or *kápás* is sown in October, and gathered in May or June.

AREA; OUTTURN OF CROPS, ETC.—The present area of Bardwán, after recent transfers, is 3523 square miles, exclusive of 64·95 square miles of river circuits. Previous to the transfers in October 1871, the Surveyor-General returned the area of the District at 2825 square miles. The Collector, in his report to me of 1870, stated the area to be 3158 square miles. Of this area, 2697 square miles were said to be under cultivation, but the Collector was unable to furnish any estimate of the area or proportion of the uncultivated to the uncultivable land. For further particulars from an independent source, received too late for incorporation in this work, see Babu Bagalá Nand Mukharji's *Fever Report*, chap. ii. The Collector estimates a fair outturn from lands paying a rent of Rs. 3 per *bighá*, or 18s. an acre, would be from ten to sixteen maunds of unhusked paddy per *bighá*, worth from Rs. 5 to Rs. 8, or from twenty-two to thirty-five hundredweights per acre, worth from £1, 10s. od. to £2, 8s. od. From lands paying half the above rent, *i.e.* Rs. 1. 8 per *bighá*, or 9s. per acre, the Collector estimates the crop outturn of paddy to be exactly one-half. It appears, therefore, that from lands growing paddy only, the value of the produce is double the amount of the rent assessed on the land. From some lands on which *áus* or autumn rice is cultivated, a second crop of pulses or oil-seeds is raised, and for these lands the rent is naturally higher than for those which only produce one crop. The *sálí* lands, on which the *áman* or winter rice is grown, ordinarily yield only one crop every year; but in some exceptional instances the *áman* rice is followed by a second crop of *khesárí* or pulses. The lands of Bardwán District are divided into

soná, or high, and *sáli*, or low moist lands, each being subdivided into four minor classes. *Soná*, or high land, generally yielding two crops in the year, rents from Rs. 1. 8 a *bighá*, or 9s. an acre, for fourth-class, to Rs. 6 per *bighá*, or £1, 16s. 0d. an acre, for first-class land. *Sáli*, or one-crop land, on which the *áman* or winter rice is grown, rents from 12 *ánás* a *bighá*, or 4s. 6d. an acre, for fourth-class, to Rs. 3 a *bighá*, or 18s. an acre, for first-class land. The rates of rent for different varieties of land will be given at greater length on subsequent pages.

CONDITION OF THE CULTIVATORS.—A cultivator's holding exceeding a hundred *bighás*, or, say, thirty-five acres in extent, would be considered as a large-sized farm; and anything below ten *bighás*, or about three and a half acres, would be looked upon as a very small one. A holding consisting of thirty *bighás* or ten acres of land of all descriptions, and paying a total rent of £6 per annum, would be considered a fair-sized, comfortable holding for a husbandman. A single pair of oxen can cultivate from five to seven acres of land; but the Collector reports that a peasant holding a small farm of five acres would not be so well off as a retail shopkeeper, nor would he be able to live so well as a man drawing a pay of 16s. a month. The Collector estimates that Rs. 4 per *bighá*, or £1, 4s. 0d. per acre, may be taken as the average profit from all descriptions of land, making a total income of Rs. 5 or 10s. a month, or £6 per annum, from a holding of fifteen *bighás* or five acres. A respectable retail shopkeeper makes an average profit of about Rs. 10 or £1 per month. As a class, the peasantry are generally in debt; but the Collector reported in 1870 that they were at that time becoming more independent of the money-lender. Nearly two-thirds of the husbandmen of Bardwán District hold their lands with a right of occupancy, the remaining one-third being simple tenants at will. There are not many cases in this District of small proprietors who own, occupy, and cultivate their hereditary lands without either a *zamíndár* or superior holder above them, or a subholder or labourer of any sort below them. The Collector reports that a husbandman can comfortably support a middling-sized household on an income of Rs. 8 or 16s. a month.

THE DOMESTIC ANIMALS OF THE DISTRICT consist chiefly of oxen, buffaloes, and bulls, used in agriculture; and sheep, goats, geese, ducks, and fowls, reared for food or as articles of trade. Cows and goats and a very few donkeys are reared for milking

purposes. The price of a cow varies from £1 to £2, 4s. od.; of a pair of oxen, from £4 to £8; a pair of buffaloes, from £4 to £6; a score of sheep, £6; a score of kids six months old, from £1, 10s. od. to £2; a score of full-grown pigs, £12.

THE AGRICULTURAL IMPLEMENTS in common use are the following:—(1) *Nángal* or plough; (2) *mai* or harrow, made of bamboo, and dragged over the field by a pair of bullocks, to break the clods and level the soil; (3) *kodáli* or spade; (4) *pháor* or hoe; (5) *káste* or reaping hook; (6) *bidá*, a weeder with iron teeth, dragged over the field to clear it of weeds and thin the plants where they are too thick; (7) an *árá* or hand weeder; and (8) *pasáni* or small spade. The above implements, together with a pair of oxen, are necessary to cultivate what is technically known as 'a plough' of land, or five or six acres. The cost of a pair of oxen is about Rs. 40 or £4, and of the implements, etc., from Rs. 8 to 10, or 16s. to £1; representing a total capital required for the cultivation of a small farm of five or six acres, of from Rs. 48 or £4, 16s. od., to about Rs. 50 or £5.

WAGES AND PRICES.—The rate of wages ruling in the District was returned by the Collector in 1870 as follows:—Coolies and ordinary day-labourers, $3\frac{1}{2}$ annas or $5\frac{1}{4}$d. per diem; agricultural labourers, $2\frac{1}{2}$ annas or $3\frac{3}{4}$d. per day; smiths and carpenters, 4 annas or 6d. a day; bricklayers, $2\frac{1}{2}$ annas or $3\frac{3}{4}$d. a day. Before the railway construction began, coolies' wages are said to have been $1\frac{1}{4}$ annas or $1\frac{7}{8}$d. per day; when that work was commenced, they rose to $2\frac{1}{2}$ annas or $3\frac{3}{4}$d., or exactly double what they were before, and remained at this figure till the famine of 1866, when they rose to their present rate of $3\frac{1}{2}$ annas or $5\frac{1}{4}$d. a day in towns. The demand which has sprung up within the last few years for labour on the railway and public works has also increased the wages of agricultural labourers from $1\frac{1}{4}$ annas or $1\frac{7}{8}$d., to $2\frac{1}{2}$ annas or $3\frac{3}{4}$d. a day. The wages of smiths and carpenters before the commencement of the railway works amounted to 2 annas or 3d. per day, or just half the present rates. Cheapness of food does not seem to result in any corresponding fluctuation in the rates of wages. In 1871–72, food was generally cheap throughout the year, but the price of labour did not fall. The Collector, judging from the difficulty of procuring labour in the Municipality of Bardwán, thinks there is no regular influx of workmen into the District, and that the only available labourers in the market are local residents. The rates of wages

which he gives apply to the towns rather than to rural labourers, whose earnings are less.

In 1870 and 1871 the price of the best cleaned rice was returned at Rs. 3. 4. 0 a *maund*, or 8s. 10d. a hundredweight, and coarse rice, such as that used by coolies, Rs. 1. 10. 0 a *maund*, or 4s. 5d. a hundredweight. The best unshelled rice was selling at Rs. 1. 4. 0, or 3s. 5d., and coarse unshelled rice at 13 annas a *maund*, or 2s. 2d. a hundredweight. Shelled barley was selling at Rs. 3 per *maund*, or 8s. 2d. a hundredweight; and unshelled barley, Rs. 2 per *maund*, or 5s. 4d. a hundredweight. The extracted juice of the sugar-cane (*gur*) usually sells at Rs. 3. 4 a *maund*, or 8s. 10d. a hundredweight, and the common distilled liquor produced from it at Rs. 2. 4. 0, or 4s. 6d. a gallon. Indian corn and wheat are grown to a very small extent in Bardwán District. I have not been able to obtain any trustworthy prices current of the rate of food grains in ordinary years prior to 1870, except those given in the tabular statements appended to vol. ii. of the Famine Commissioners' Report, which returns the average monthly price of coarse rice in 1862 to have been as follows:—January, $30\frac{9}{16}$ seers per rupee, or 3s. 8d. per hundredweight; February, 36 seers per rupee, or 3s. $1\frac{1}{4}$d. per hundredweight; March, $37\frac{5}{8}$ seers per rupee, or 2s. $11\frac{3}{4}$d. a hundredweight; April, 37 seers per rupee, or 3s. a hundredweight; May, $35\frac{1}{2}$ seers per rupee, or 3s. $1\frac{3}{4}$d. a hundredweight; June, $33\frac{1}{4}$ seers per rupee, or 3s. $4\frac{1}{4}$d. a hundredweight; July, $30\frac{1}{2}$ seers per rupee, or 3s. 8d. a hundredweight; August, $33\frac{11}{16}$ seers per rupee, or 3s. 4d. a hundredweight; September, $33\frac{11}{16}$ seers per rupee, or 3s. 4d. a hundredweight; October, $33\frac{11}{16}$ seers per rupee, or 3s. 4d. a hundredweight; November, $35\frac{1}{2}$ seers per rupee, or 3s. $1\frac{3}{4}$d. a hundredweight; December, $35\frac{1}{2}$ seers per rupee, or 3s. $1\frac{3}{4}$d. a hundredweight. The average rate for the whole year was $34\frac{1}{3}$ seers per rupee, or 3s. $3\frac{1}{8}$d. a hundredweight. In 1870 the Collector returned the price of coarse rice at 4s. 5d. a hundredweight, showing an increase of 1s. 2d. a hundredweight. The real increase in price, however, is probably greater, as the figures given in the Famine Commissioners' Report refer only to the town of Bardwán, where the rates are always somewhat higher than in the rural parts, while the Collector's figures refer to the District generally. The highest price reached for coarse rice in Bardwán town in 1866 was $7\frac{9}{16}$ seers per rupee, or 14s. $9\frac{3}{4}$d. a hundredweight.

WEIGHTS AND MEASURES.—The standard weight used in buying

and selling grain and other produce is as follows:—5 *tolá* = 1 *chhátak*; 4 *chhaták* = 1 *pod*; 4 *pod* = 1 *ser* or *seer*; 40 *ser* = 1 *man* or *maund*, equal to 82 lbs. avoirdupois. Jewellers' weight:—4 *dhán* = 1 *rati*; 8 *rati* = 1 *máshá*; 6 *rati* = 1 *ánná*; 16 *ánná* or 96 *rati* = 1 *tolá*, equal to 180 grains troy. Time is measured as follows:—60 *bipal* = 1 *pal*; 60 *pal* = 1 *danda*, or 24 minutes; $7\frac{1}{2}$ *danda* = 1 *prahar*, or 3 hours; 8 *prahar* = 1 *dibas*, or day and night from sunrise to sunrise; 30 days = 1 *más*, or month; 12 months = 1 *batsar*, or year.

Agricultural Labourers.—Near the large towns many day-labourers are found, who subsist solely by hired labour, and neither rent nor possess any land of their own. In the interior of the District, where the demand for labour is not so great, the case is different, and most of the labourers either possess or rent a patch of land, by the produce of which they eke out their wages. When day-labourers are employed to cultivate the fields of others, they are either paid daily in money or by its equivalent in kind, or by a fixed share of the crop. The rate of wages at busy seasons is about 4d. per day; and when paid in kind, the value of the produce given is about 4d., the quantity varying according to fluctuations in the price of grain. When paid by a share of the crop, the labourer obtains either a one-half or a one-third share. In the first case, he is called *bhág jotdár*, and has to find seed and cattle and all other attendant expenses, except the rent, which is borne by the holder of the land who employs him. In the latter case, the labourers are termed *krishán*, and give merely their labour and the seed necessary for the cultivation. The holder of the land generally advances the quantity of seed required, and recoups himself at harvest time with interest, by taking one and a half times the quantity originally advanced. Children are very rarely employed in agricultural operations, and women only at the time of transplanting the young rice-crops, and sometimes at harvest to husk the rice.

Spare Land.—Very little spare land exists in Bardwán District, and it is only met with in the jungly western portion of Ráníganj Subdivision. The tenures are not favourable to husbandmen when they have to engage labourers to till their fields, but only when they do the actual work of cultivation with their own hands.

Land Tenures.—The following description of the different varieties of land tenures in Bardwán is condensed from a report

of the Collector, dated the 29th April 1873. These tenures are divided into five classes:—(1) Ordinary revenue-paying estates; (2) revenue-free and rent-free estates; (3) intermediate holdings; (4) cultivators' holdings; and (5) rent-free service holdings.

ORDINARY REVENUE-PAYING ESTATES.—This class consists of four different tenures, returned by the Collector as follow:—

Zamíndárís.—The number of *zamíndárís* in Bardwán District, including recent transfers from Húglí and Bánkurá, is 5596.

Thánádárí Lands.—These consist of 105 estates now held on *zamíndárí* tenure, but formerly set apart as service tenures for the maintenance of the old *zamíndárí thánd* police. Such lands were resumed under the provisions of Regulation xxii. of 1793, and brought upon the rent-roll of the District. The area of these resumed lands is 3110 acres, and the revenue assessed upon them Rs. 2794 or £279, 8s. od. This area is considerably less than that actually held by the *thánádárs* in 1790; the real area was concealed at the time of resumption, and the subsequent farming of these lands up to 1817 rendered detection impossible.

Ghátwálí Lands, held by a class of police officers whose duty in former times was to keep the hill passes and roads free from robbers, and to protect travellers. Some of these lands have been resumed, and pay a quit-rent to Government, but the majority are still held rent-free, and will be further described under the head of service tenures.

Aimá Lands.—The number of these estates in Bardwán paying a revenue to Government is 1705, and are practically the same as *zamíndárís*. They appear to be of the class described in section 9, Regulation viii. of 1793, as *málguzárí áimás*, which were originally granted for the purpose of bringing waste lands under cultivation. Some of these estates are now very profitable. In one instance, an *áimá* estate with a rental of £44, 4s. od. a year pays a revenue to Government of only 14s. a year.

REVENUE-FREE TENURES.—The number of these tenures entered in the *parganá* register of the District as *lákhiráj*, or lands free of revenue, is 1343, comprising an area of 75,343 acres. Such lands are termed *debottar*, the profits of which are supposed to be spent on the worship of idols; *pírottar*, or lands granted for the proper maintenance of the tombs of Muhammadan saints; *brahmottar*, lands held by Bráhmans; and *nazrát*, lands for the endowment of mosques, etc. Besides the foregoing, it appears

that there are no less than 170,240 rent-free holdings of small plots of land included within the limits of permanently settled estates. These are held rent-free of the *zamíndárs;* but a Government revenue is derived from them, which is paid by the proprietors of the estates within which these small tenures are situated. The total of the *jágír*, or lands assigned for the support of *zamíndárí* service and police, and for various uses, charitable, religious, and otherwise, in Bardwán District in 1763, is stated to have been 5758 acres. Between 1765 and 1788, grants to hold 6600 acres revenue-free, under the names of *debottar*, *brahmottar*, *mahattrán*, *khairát*, etc., were given to 408 persons, with a view to bringing waste lands under cultivation.

RENT-PAYING INTERMEDIATE TENURES.—The rent-paying tenures intermediate between the *zamíndárs* and actual cultivators are of three classes,—*patní táluks*, *mukarraris*, and *ijárás*.

Patní táluks.—This tenure first originated on the estates of the Mahárájá of Bardwán, shortly after the Permanent Settlement. The earliest record on the subject in the Bardwán Collectorate is a letter from the Collector to the Board of Revenue, dated 17th May 1786, regarding the Mahárájá's failure to pay his revenue. There is much subsequent correspondence of the same tenor. A letter of the Collector, dated the 9th January 1794, shows that the Mahárájá complained of his inability to realize his rents with the same punctuality with which he was compelled to pay his Government revenue. The first paragraph of the Collector's letter states the Mahárájá's complaint as follows :—'The difficulty I found in realizing the instalment (*kist*) of revenue for Agraháyan from the Mahárájá induces me to listen to his earnest request of representing to you the hardship he sustains from one of his renters, who, destitute of good faith, and availing himself of the delay that necessarily attends the institution of law process for the recovery of arrears of rent, is encouraged to withhold from him his just dues. The Mahárájá begs leave to submit for your consideration, whether or no it can be possible for him to discharge his engagements to Government with the punctuality which the Regulations require, unless he is armed with powers as prompt to enforce payment from his renters as Government has been pleased to authorize the use of in regard to its claims on him. He seems to think that it must have proceeded from oversight rather than from any just and avowed principle, that there should be established two methods of judicial process under

the same Government,—the one summary, and efficient for the satisfaction of its own claims; the other tardy, and uncertain in regard to the satisfaction of claims due to its subjects,—more especially in a case like the present, where the ability to discharge the one demand necessarily depends on the other demand being previously realized.'

The difficulty experienced by the Mahárájá in paying his revenue suggested to him the advisability of binding his tenants to the same conditions to which he himself was bound by Government. The result was the creation of *patní* tenures, by giving away the land in perpetual leases, by Mahárájá Tej Chánd, in 1799. The main conditions of this tenure are the hypothecation of the land as security for the punctual payment of the rent, and the liability of the tenure to summary sale in the event of default. The *patní* system gradually extended, and in 1825 nearly the whole estate of the Mahárájá was leased out in this manner. The *patnídárs*, finding how much trouble this mode of settlement took off their shoulders, created *dar-patnís*, or *patnís* of the second degree, upon the same terms and with the same rights over the land as they themselves had; the *dar-patnídárs* created *se-patnís*, or *patnís* of the third degree; and in a few cases the *se-patnídárs* have created *chaharam-patnís*, or *patnís* of the fourth degree. The subordinate tenure-holders possess their land upon the same terms and subject to the same liabilities as the original *patnídár*. When the *patní* system was first introduced, the Mahárájá used to let the lands to the highest bidders at public auction, held in his Revenue Court (*Kachárí*). In case of arrears, the lands were publicly sold in the Court, and as much of the arrears was recovered as their sale fetched. These transactions were sometimes recognised and confirmed by the Board of Revenue, and sometimes ignored and set aside. Great irregularities and confusion ensued.

Ultimately, in 1819, upon a suggestion by the Mahárájá, the Board of Revenue recognised all *patní* tenures by a regular legal enactment, and Regulation viii. of 1819 was passed with this object. The preamble to the Regulation describes the history, incidents, and peculiarities of this tenure as follows:—'By the rules of the Perpetual Settlement, proprietors of estates paying revenue to Government, that is, the individuals answerable to Government for the revenue then assessed on the different estates (*mahals*), were declared to be entitled to make any arrangements for the leasing of

their lands, in *táluk* or otherwise, that they might deem most conducive to their interests. By the rules of Regulation xliv. of 1793, however, all such arrangements were subjected to two limitations,—first, that the *jamá* or rent should not be fixed for a period exceeding ten years; and, secondly, that in case of a sale for Government arrears, such leases or arrangements should stand cancelled from the day of sale. The provisions of section 2, Regulation xliv. of 1793, by which the period of all fixed engagements for rent was limited to ten years, were rescinded by section 2, Regulation v. of 1812; and in Regulation xviii. of the same year, it is more distinctly declared that *zamíndárs* are at liberty to grant *táluks* or other leases of their lands, fixing the rent in perpetuity, at their discretion; subject, however, to the liability of being dissolved on sale of the granter's estate for arrears of the Government revenue, in the same manner as heretofore. In practice, the grant of *táluks* and other leases at a rent fixed in perpetuity had been common with the *zamíndárs* of Bengal for some time before the passing of the two Regulations last mentioned; but notwithstanding the abrogation of the rule which declared such arrangements null and void, and the abandonment of all intention or desire to have it enforced as a security to the Government revenue in the manner originally contemplated, it was omitted to declare, in the rules of Regulations v. and xviii. of 1812, or in any other Regulations, whether tenures at the time in existence and held under covenants or engagements entered into by the parties in violation of the rule of section 2, Regulation xliv. of 1793, should, if called in question, be deemed invalid and void as heretofore. This point it has been deemed necessary to set at rest by a general declaration of the validity of any tenures that may be now in existence, notwithstanding that they may have been granted at a rent fixed in perpetuity, or for a longer term than ten years, while the rule fixing this limitation to the term of all such engagements, and declaring null and void any granted in contravention thereto, was in force.

'Furthermore, in the exercise of the privilege thus conceded to *zamíndárs* under direct engagements with Government, there has been created a tenure which had its origin on the estates of the Mahárájá of Bardwán, but has since been extended to other *zamíndáris*. The character of this tenure is that it is a *táluk* created by the *zamíndár*, to be held at a rent fixed in perpetuity by the lessee and his heirs for ever; the tenant is called upon to furnish collateral

security for the rent, and for his conduct generally, or he is excused from this obligation at the *zamíndár's* discretion; but even if the original tenant be excused, still, in case of sale for arrears, or other operation leading to the introduction of another tenant, such new incumbent has always in practice been liable to be so called upon at the option of the *zamíndár*. By the terms, also, of the engagements interchanged, it is, amongst other stipulations, provided that in case of an arrear occurring, the tenure may be brought to sale by the *zamíndár*. And if the sale do not yield a sufficient amount to make good the balance of rent at the time due, the remaining property of the defaulter shall be further answerable for the demand. These tenures have usually been denominated *patní táluks;* and it has been a common practice of the holders of them to underlet on precisely similar terms to other persons, who on taking such leases went by the name of *dar-patní tálukdárs;* these, again, sometimes similarly underlet to *se-patnídárs*. The conditions of all the title-deeds vary in nothing material from the original engagements executed by the first holder. In these engagements, however, it is not stipulated whether the sale thus reserved to himself by the granter is for his own benefit or for that of the tenant, that is, whether in case the proceeds of sale should exceed the *zamíndár's* demand of rent, the tenant would be entitled to such excess; neither is the manner of sale specified; nor do the usages of the country nor the Regulations of Government afford any distinct rules, by the application of which to the specific cases the defects above alluded to could be supplied, or the points of doubt and difficulty involved in the omission be brought to determination in a consistent and uniform manner. The tenures in question have extended through several Districts of Bengal, and the mischiefs which have arisen from the want of a consistent rule of action for the guidance of the Courts of Civil Judicature in regard to them have been productive of such confusion as to demand the interference of the Legislature. It has accordingly been deemed necessary to regulate and define the nature of the property given and acquired on the creation of a *patní táluk* as above described; also to declare the legality of the practice of underletting in the manner in which it has been exercised by *patnídárs* and others; establishing at the same time such provisions as have appeared calculated to protect the under-lessee from any collusion of his immediate superior with the *zamíndár*, or other, for his ruin, as well as to

secure the just rights of the *zamíndár* on the sale of any tenure under the stipulations of the original engagements entered into with him. It has further been deemed indispensable to fix the process by which the said tenures are to be brought to sale, and the form and manner of conducting such sale; and whereas the estates of *zamíndárs* under engagements with Government are liable to be brought to sale at any time for an arrear in the revenue payable by monthly instalments (*kists*) to Government, it has seemed just to allow any *zamíndár* who may have granted tenures with a stipulation of the right to sell for arrears, the opportunity of availing himself of this means of realizing his dues in the middle of the year as well as at the close, instead of only at the end of the Bengal year, as heretofore allowed by the Regulations in force. It has further been deemed equitable to extend this rule to all cases in which the right of sale may have been reserved, even though, in conformity with the Regulations heretofore in force, the stipulation for sale contained in the engagements interchanged may have restricted such sale to the case of a demand of rent remaining unpaid at the close of the Bengal year. It has been likewise deemed advisable to explain and modify some of the existing rules for the collection of rents, with a view to render them more efficacious than at present, as well as to provide against sundry means of evasion now resorted to by defaulters.' Section 3 of Regulation viii. of 1819 accordingly declared that 'the tenures known by the name of *patní táluks*, as described in the preamble to this Regulation, shall be deemed to be valid tenures in perpetuity, according to the terms of the engagements under which they are held. They are heritable by their conditions; and it is hereby further declared that they are capable of being transferred by sale, gift, or otherwise, at the discretion of the holder, as well as answerable for his personal debts, and subject to the process of the Courts of Judicature, in the same manner as other real property.' The Regulation also vested *patní tálukdárs* with the right of letting out their *táluks* in any manner they might deem most conducive to their interest, and the engagements so entered into by them are declared legal and binding.

The total number of *patnís* ascertained to exist in Bardwán District up to the date of the Collector's report (April 1873) is 2446; of *dar-patnís*, 827; of *se-patnís*, 44; and of *chaharam-patnís*, 5. The Collector states that the exact number of these tenures cannot be given till the road-cess returns are finished, but he thinks that

his figures are fairly complete. There seem to be now no *táluks* of the ordinary description in this District, and the Collector states that they have probably been all converted into *patní táluks*.

Mukarrarís.—These are tenures held at a low rent fixed in perpetuity, said to be chiefly granted by *lákhirájdárs*. Many of them have been created by the operation of section 9, Regulation xix. of 1793, which prescribes that resumed *lákhiráj* plots of less than 100 *bighás* or 33 acres in extent, existing before 1790, are to be settled in perpetuity at a fixed rent. The Collector states that the road-cess inquiries revealed the existence of 1547 of these tenures, and of 42 *dar-mukarrarís*, or subordinate tenures of the same class.

Ijárás.—There appear to be 281 *ijárás* or farms in the District. An *ijárá* is a lease of the collections of a village or estate granted to a farmer at a rent fixed for a term of years. Sometimes the farmer pays a premium as well, in which case he is practically an usufructory mortgagee.

CULTIVATING TENURES.—The number of rent-paying cultivators' holdings disclosed by the road-cess inquiries in 1873 is returned at 615,126, but the Collector is unable to give the numbers of each class. The cultivators are divided into three classes,—(1) cultivators holding their lands with a right of occupancy in perpetuity, and free from any liability to enhancement of rent; (2) cultivators holding their lands with a right of occupancy in perpetuity, subject to a fair and equitable progressive rent; and (3) tenants at will. The rights and liabilities of each class of cultivators are set forth in Act x. of 1859.

Tenants at will are only entitled to receive leases at such rates as may be agreed on between them and the persons to whom the rent is payable. *Nij-jot* or *khámár* lands, or home-farms of the *zamíndár*, are in some cases cultivated by tenants at will, who receive a share of the produce for their trouble. This mode of holding is also termed *bhág-jot*, and corresponds to the *bhaolí* tenancies of Behar. In some cases the arrangement is that the cultivator shall deliver a certain quantity of produce, even although the crops should fail. Lands thus held are called *dhán-thiká* lands; but the payment of rent in kind in this manner is rare in Bardwán.

SERVICE TENURES.—When the *chaklah* or Muhammadan Fiscal Circle of Bardwán was ceded to the E. I. Company, there were four bodies of men employed in the protection of the country and in the collection of revenue. These were, first, a military force

called *nagdís*, paid in cash, but since abolished, and of whom nothing more need be said here; second, the *thánádárí* police; third, a body termed *grám saranjamí páiks*, who were at once village watchmen and collectors of rent; fourth, *ghátwáls*, to keep the hill passes and roads free from robbers, and to protect travellers. These three latter classes were paid by assignments of land. The following is a brief account of each:—

Thánádárí Police.—In 1790 the total strength of this force was 3079 men, holding 14,491 acres of land. Under the provisions of Regulation xxii. of 1793, a portion of it, called the *sadr thánádárí*, and consisting of 801 *thánádárs* and *thánd páiks* and peons, holding 4652 acres of land, was abolished, and the lands resumed; while the remainder, consisting of about 2200 '*chaukídárs*,' or *phárídárs* in charge of '*chaukís*,' and *páiks* and peons subordinate to them, and holding in round numbers 10,000 acres of land, was retained. The existing representatives of the retained portion of this old *thánádárí* police are the *phárídárs* (*chaukídárs*), of whom there are 59, with their 166 peons and 71 *páiks*. But it should be added that Bardwán District in 1790 included a much larger area than it does now. By 1837 this force had sunk to the level of the *grám saranjamí páiks*, and performed *zamíndárí* as well as police services.

Grám Saranjamí Páiks.—In 1794 the total number of these men was reported to be 17,284, holding 46,236 acres of land. Their duties were 'to assist the farmer in collecting the rents, guarding the Mufassal treasuries, conveying public money to the treasury of the District, and serving as guides to passengers.' In addition to these functions, 'they were considered as dependent on the authority of the *thánádárs*, and had to apprehend offenders, etc., and sometimes received a gratuity called *dwár mushárará* for this service' (Magistrate's letter, 22d February 1793) from the cultivators; engagements were also taken from them at that date to report offences. Under these circumstances, the title *chaukídár* was naturally extended to them. The numbers of such village police existing in Bardwán District at the date of the Collector's report (April 1873) were as follow:—*Chaukídárs*, 8978, of whom 66 are now paid in cash; *símándárs* (originally keepers of village boundaries), 2138; *hálshánás* (originally *zamíndárí* servants who kept the measurements of the cultivators' holdings), 36; *mirdahás* (originally peons who carried a measuring chain for surveyors), 2; *sardárs*, 5; *nagarchís* (originally drummers), 3; *ashtapraharís* (originally watchers

of crops), 2: total, 11,164, all of whom now perform police as well as *zamíndárí* duties. The Report of the Inspector-General of Police for 1872 gives the total number of village police at 11,647. These village police hold on an average $3\frac{1}{4}$ acres of land. The total quantity of *chákrán* or service land shown in the registers for the fifteen *thánás* which constituted the District before the recent changes is 36,576 acres; but the amount of *chákrán* land in these parts has always been thought large. An hereditary right of succession to these lands is sometimes claimed, but not admitted. The District Superintendent of Police, on 2d May 1867, remarked that the landed police are irregular in attendance at the police station, give little or no information of crime, are generally inefficient, and are under the impression that they have no official duties. They are mostly of low castes—Bágdís and Doms, etc. They are nominated by the *zamíndárs*.

Ghátwáls.—From the *chákrán* registers of 1836-40 for the fifteen *thánás* then comprising Bardwán, it appears that there were at that time 71 *ghátwáli* tenures; and over 100 others have been recently transferred to the District. The nominal duty of the *ghátwáls* was to protect the *ghát*s or hill passes, to keep open the roads, and protect travellers, etc. Some of these *ghátwáls* still hold their lands rent-free; others pay a quit-rent called *panchaki* to Government, and others to the *zamíndár*. A fuller description of the *ghátwáls* will be found in my Statistical Account of Bánkurá, in which District they form an important class of tenure-holders.

Rates of Rent.—The lands of this District are divided into two great classes, *soná* and *sáli*. *Soná* lands are those which are situated in near proximity to, and *sáli* those remote from, the village. The villages being built on the highest levels possible, the *soná* lands are necessarily high, and will not ordinarily retain water; whereas *sáli* lands are comparatively low, and retain more or less water throughout the greater part of the year. Two crops a year are generally grown on *soná* lands, viz. an autumn crop of *áus* paddy, and a cold-weather crop of pulses, vegetables, or oil-seeds; *sáli* lands, as a general rule, produce only one crop in the year, viz. the winter or *áman* rice crop. Occasionally, however, a second crop is also raised from exceptionally good *sáli* lands situated on comparatively high land. Both *soná* and *sáli* lands are divided into four classes, renting according to the quality of the soil and the importance of the crop grown. *Soná* land rents highest, in consequence of its

generally producing two crops in the year, as well as because the more valuable crops, such as jute, sugar-cane, cotton, mulberry, etc., are grown on it. The rate of rent for this variety of land, excluding unusually high or unusually low rates, varies from 9s. per acre for fourth-class, to £1, 16s. 0d. per acre for first-class land; the rate of rent paid for *sálí* lands varies from 4s. 6d. per acre for fourth-class, to 18s. per acre for first-class land. No means exist of ascertaining the rates of rent for the different varieties of land prevailing in Bardwán previous to or at the time of the Permanent Settlement. A general enhancement of rents has taken place since the passing of Act x. of 1859, the Land Law of Bengal, especially in the more common descriptions of land growing rice and ordinary crops.

The rates of rent current in Bardwán vary also in different Subdivisions, and even in different *parganás* of a Subdivision, sometimes to a considerable extent. In August 1872 the Collector submitted a return to the Government of Bengal, showing the rates of rent paid by the cultivators in each Subdivision and *parganá* for the ordinary descriptions of land on which the commonest crops are grown. I reproduce the figures below. In forwarding the statements, the Collector mentions that he has spared no pains to obtain accurate returns, and that he has every reason to think that the information is trustworthy. Regarding the apparent discrepancy between the rates prevailing in the Ráníganj Subdivision and that paid for the same kind of land and the same crops in other parts of the District, the Collector states that this is due to the fact that the soil in Ráníganj is, generally speaking, strong clay and hard laterite, producing very poor crops, and consequently the land is let out at a lower rate of rent than in other Subdivisions. Crops other than common rice are grown only to a very limited extent in Ráníganj. Regarding the rates in the Kálná Subdivision, the Collector observes that they are so low as to raise a suspicion that they are inaccurate; but the information was gathered from *zamíndárs* and actual cultivators, as well as from an indigo-planter, whose figures corroborate those obtained from other sources. Reference was also made to the Collectorate registry books to test the accuracy of the rates furnished.

Before passing to the Subdivisional rent statements, it may be well to exhibit at a glance the ordinary average rates of rent for the whole District which are paid for the cultivation of certain

follows:—(1) *Aus* or *soná* land, producing also a second or cold-weather crop of pulses, oil-seeds, or vegetables; rent from Re. 1/8 to Rs. 6 per *bighá*, or from 9s. to £1, 16s. 0d. per acre. (2) *Aman* or *sálí* lands, producing only one crop generally, but under favourable circumstances a second crop of *til* seed or *khesárí* is also obtained; rent from 12 *ánás* to Rs. 3 per *bighá*, or from 4s. 6d. to 18s. per acre. (3) Sugar-cane lands; rent from Rs. 3 to Rs. 5 per *bighá*, or from 18s. to £1, 10s. 0d. an acre. (4) Cotton land, from Rs. 2 to Rs. 5 per *bighá*, or from 12s. to £1, 10s. 0d. per acre. (5) Potato land, from Rs. 3 to Rs. 5 per *bighá*, or from 18s. to £1, 10s. 0d. an acre. (6) Mulberry land, from Rs. 4 to Rs. 8 per *bighá*, or from £1, 4s. 0d. to £2, 8s. 0d. per acre. (7) Jute land, from Rs. 3 to Rs. 5 per *bighá*, or from 18s. to £1, 10s. 0d. per acre. (8) Hemp land, from Rs. 3 to Rs. 5 per *bighá*, or from 18s. to £1, 10s. 0d. per acre. (9) Pulses, vegetables, and oil-seeds are grown as a second crop upon *áus* lands, and no separate rent is charged for these crops. (10) *Pán* land; rent, Rs. 10 per *bighá*, or £3 per acre. *Pán* is cultivated only to a very limited extent in Bardwán. (11) Garden lands, from 12 *ánás* to Rs. 2 per *bighá*, or from 4s. 6d. to 12s. an acre. (12) Grass land, used as a pasturage for cattle, from 4 to 8 *ánás* per *bighá*, or from 1s. 6d. to 3s. per acre.

The following statement exhibits the prevailing rates of rent per acre paid by the actual cultivators for ordinary descriptions of land in the different *parganás* of each Subdivision of Bardwán District (1872):—

Sadr or Headquarters Subdivision.—(1) *Parganá* Bágha: *áus* rice land, on which a second crop of pulses is also grown, rent from Rs. 6 to Rs. 10/8, or 12s. to £1, 1s. 0d. an acre; *áman* rice land, Rs. 4½, or 9s.; sugar-cane, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. 0d.; cotton, from Rs. 6 to Rs. 10/8, or 12s. to £1, 1s. 0d.; oil-seeds and vegetables, Rs. 10/8, or £1, 1s. 0d. an acre. (2) *Parganá* Sháhábád: *áus* or two-crop land, rent from Rs. 6 to Rs. 10/8, or 12s. to £1, 1s. 0d. an acre; *áman* rice land, Rs. 5/4, or 10s. 6d. an acre; sugar-cane, from Rs. 7/8 to Rs. 14/4, or 15s. to £1, 8s. 6d.; cotton, from Rs. 6 to Rs. 11/4, or 12s. to £1, 2s. 6d.; oil-seeds and vegetables, Rs. 11/4, or £1, 2s. 6d. (3) *Parganás* Samarsháhí, Hávilí, Khandghosh, and Bardwán: *áus* or two-crop land, rent from Rs. 6 to Rs. 12, or 12s. to £1, 4s. 0d. an acre; *áman* land, Rs. 6, or 12s. an acre; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. 0d.; cotton, from

Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; potatoes (only grown in Hávilí), Rs. 18, or £1, 16s. od.; oil-seeds and vegetables, Rs. 12, or £1, 4s. od. an acre. (4) *Parganá* Muzaffarsháhí: *áus* or two-crop land, Rs. 6 to Rs. 12, or 12s. to £1, 4s. od. an acre; *áman* land, Rs. 6/12, or 13s. 6d.; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; oil-seeds and vegetables, Rs. 12, or £1, 4s. od. an acre. (5) *Parganá* Amírábád: *áus* or two-crop land, Rs. 6 to Rs. 13/8, or 12s. to £1, 7s. od. an acre; *áman* land, Rs. 6, or 12s.; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 13/8, or 12s. to £1, 7s. od.; oil-seeds, Rs. 13/8, or £1, 7s. od.; vegetables, Rs. 12, or £1, 4s. od.; and potatoes, Rs. 18, or £1, 16s. od. an acre. (6) *Parganá* Azmatsháhí: *áus* or two-crop land, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; *áman* land, Rs. 6, or 12s.; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; oil-seeds and vegetables, Rs. 12, or £1, 4s. od. an acre. (7) *Parganás* Chhutipur, Nalhí, Chaumáhá, and Mazkurí: *áus* or two-crop land, from Rs. 6 to Rs. 13/8, or 12s. to £1, 7s. od.; *áman* land, Rs. 6, or 12s.; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 13/8, or 12s. to £1, 7s. od.; oil-seeds and vegetables, Rs. 13/8, or £1, 7s. od.; and potatoes, Rs. 18, or £1, 16s. od. an acre. (8) *Parganá* Dheyá: *áus* or two-crop land, Rs. 6 to Rs. 10/8, or 12s. to £1, 1s. od.; *áman* land, Rs. 6, or 12s.; sugar-cane, from Rs. 6 to Rs. 14/4, or 12s. to £1, 8s. 6d.; cotton, from Rs. 6 to Rs. 11/4, or 12s. to £1, 2s. 6d.; and oil-seeds, Rs. 11/4, or £1, 2s. 6d. an acre. (9) *Parganás* Bára-hazárí, Bishnupur, and Karisundá: *áus* or two-crop land, Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; *áman* land, Rs. 5/4, or 10s. 6d.; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; and oil-seeds and vegetables, Rs. 12, or £1, 4s. od. an acre. (10) *Parganá* Arshá: *áus* or two-crop land, Rs. 7/8 to Rs. 13/8, or 15s. to £1, 7s. od.; *áman* land, Rs. 6, or 12s.; sugar-cane, cotton, oil-seeds, and vegetables, Rs. 13/8, or £1, 7s. od. an acre. (11) *Parganás* Ráníhátí, Sátsikká, and Kásipur: *áus* or two-crop land, from Rs. 6 to Rs. 13/8, or 12s. to £1, 7s. od. an acre; *áman* land, Rs. 6, or 12s. an acre; sugar-cane, from Rs. 6 to Rs. 15, or 12s. to £1, 10s. od.; cotton, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. od.; oil-seeds and vegetables,

Rs. 13/8, or £1, 7s. 0d.; and potatoes, Rs. 18, or £1, 16s. 0d. an acre. Mulberry, jute, indigo, and tobacco are hardly grown in this Subdivision.

KALNA SUBDIVISION.—(1) *Parganá* Jahángírábád: *áus* or two-crop land, rent from Re. 1/8 to Rs. 3/12, or 3s. to 7s. 6d. an acre; *áman* land, Rs. 2/4 to Rs. 4/8, or 4s. 6d. to 9s.; sugar-cane, Rs. 4/8 to Rs. 6, or 9s. to 12s.; cotton, Rs. 4/8 to Rs. 6, or 9s. to 12s.; mulberry, Rs. 6 to Rs. 12, or 12s. to £1, 4s. 0d.; indigo, Rs. 2/4 to Rs. 3/12, or 4s. 6d. to 7s. 6d.; and vegetables, Rs. 3/12, or 7s. 6d. an acre. (2) *Parganá* Sátsikká; *áus* or two-crop land, from Rs. 3 to Rs. 6, or 6s. to 12s.; *áman* land, Rs. 3 to Rs. 7/8, or 6s. to 15s.; sugar-cane and cotton, Rs. 6 to Rs. 9, or 12s. to 18s.; mulberry, Rs. 9 to Rs. 15, or 18s. to £1, 10s. 0d.; indigo, Rs. 3, or 6s.; and vegetables, Rs. 6, or 12s. an acre. (3) *Parganás* Ráníhátí and Ambiká Ráipur: *áus* or two-crop land, from Rs. 6 to Rs. 12, or 12s. to £1, 4s. 0d.; *áman* land, Rs. 3 to Rs. 10/8, or 6s. to £1, 1s. 0d.; sugar-cane, Rs. 12, or £1, 4s. 0d.; cotton, Rs. 6 to Rs. 9, or 12s. to 18s.; and vegetables, Rs. 12, or £1, 4s. 0d. an acre. (4) *Parganá* Sháhábád: *áus* or two-crop land, from Rs. 3 to Rs. 9, or 6s. to 18s.; *áman* land, Rs. 3 to Rs. 12, or 6s. to £1, 4s. 0d.; sugar-cane, Rs. 9, or 18s.; cotton, Rs. 3 to Rs. 9, or 6s. to 18s.; and vegetables, Rs. 9, or 18s. an acre.

KATWA SUBDIVISION.—The average rents paid for each separate description of land are uniform throughout all the *parganás* of the Subdivision. They are returned as follows:—*Aus* or two-crop land, rent from Rs. 4/8 to Rs. 6, or 9s. to 12s. an acre; *áman* land, Rs. 4/8 to Rs. 6, or 9s. to 12s.; sugar-cane, Rs. 7/8 to Rs. 9, or 15s. to 18s.; cotton, Rs. 4/8 to Rs. 6, or 9s. to 12s.; oil-seeds, Rs. 4/8 to Rs. 6, or 9s. to 12s.; potatoes, Rs. 4/8 to Rs. 6, or 9s. to 12s.; mulberries, Rs. 9, or 18s.; jute, Rs. 4/8 to Rs. 6, or 9s. to 12s.; indigo, Rs. 2/4, or 4s. 6d.; tobacco, Rs. 4/8 to Rs. 6, or 9s. to 12s.; and vegetables, Rs. 3, or 6s. an acre. Potatoes, mulberries, and tobacco are only cultivated in a few *parganás*.

BUD-BUD SUBDIVISION.—(1) *Parganás* Gopbhúm, Bágha, and Champánagarí: *áus* or two-crop land, rent from Rs. 9 to Rs. 15, or 18s. to £1, 10s. 0d.; *áman*, Rs. 3 to Rs. 7/8, or 6s. to 15s. an acre; sugar-cane, cotton, oil-seeds, and jute, Rs. 9 to Rs. 15, or 18s. to £1, 10s. 0d.; *pán* or betel, Rs. 30, or £3; indigo,

Re. 1/8 to Rs. 9, or 3s. to 18s.; tobacco, Rs. 15, or £1, 10s. 0d.; and vegetables, Rs. 3/12 to Rs. 9, or 7s. 6d. to 18s. an acre. (2) *Parganá* Bara-hazárí: *áus* or two-crop land, rent from Rs. 4/8 to Rs. 7/8, or 9s. to 15s. an acre; *áman* land, Rs. 3 to Rs. 7/8, or 6s. to 15s.; sugar-cane, Rs. 6 to Rs. 12, or 12s. to £1, 4s.; cotton, Rs. 6 to Rs. 9, or 12s. to 18s.; oil-seeds and jute, Rs. 9 to Rs. 15, or 18s. to £1, 10s. 0d.; *pán* or betel, Rs. 30, or £3; indigo, Re. 1/8 to Rs. 9, or 3s. to 18s.; and vegetables, Rs. 3/12 to Rs. 9, or 7s. 6d. to 18s. an acre. Potatoes are not grown in this Subdivision.

Raniganj Subdivision.—(1) *Parganá* Shergarh: *áus* or two-crop land, rent from Rs. 3/12 to Rs. 7/8, or 7s. 6d. to 15s. an acre; *áman* land, from Rs. 3 to Rs. 10/8, or 6s. to £1, 1s. 0d.; sugar-cane, Rs. 7/8 to Rs. 12, or 15s. to £1, 4s. 0d.; cotton, Rs. 6 to Rs. 10/8, or 12s. to £1, 1s. 0d.; indigo, *ánás* 12 to Rs. 3, or 1s. 6d. to 6s.; tobacco, Rs. 3/12 to Rs. 12, or 7s. 6d. to £1, 4s. 0d.; and vegetables, Rs. 3/12 to Rs. 7/8, or 7s. 6d. to 15s. an acre. (2) *Parganá* Silámpur: *áus* or two-crop land, rent from Rs. 2/7 to Rs. 6, or 4s. 10½d. to 12s. an acre; *áman* land, Rs. 2/7 to Rs. 6, or 4s. 10½d. to 12s.; sugar-cane, Rs. 6/6 to Rs. 10/8, or 12s. 9d. to £1, 1s. 0d.; cotton, Rs. 4/8 to Rs. 9, or 9s. to 18s.; indigo, Rs. 4/8, or 9s.; tobacco, Rs. 4/8 to Rs. 12, or 9s. to £1, 4s. 0d.; and vegetables, Rs. 3/12 to Rs. 7/8, or 7s. 6d. to 15s. an acre. (3) *Parganá* Senpahárí: *aus* or two-crop land, from Rs. 2/4 to Rs. 7/8, or 4s. 6d. to 15s. an acre; *áman* land, Rs. 2/4 to Rs. 7/8, or 4s. 6d. to 15s.; sugar-cane and cotton, Rs. 9 to Rs. 12, or 18s. to £1, 4s. 0d.; indigo, Rs. 4/8, or 9s.; tobacco, Rs. 9 to Rs. 12, or 18s. to £1, 4s. 0d.; and vegetables, Rs. 6 to Rs. 7/8, or 12s. to 15s. an acre. (4) *Parganá* Kántanagar: *áus* or two-crop land, rent from Rs. 7/8 to Rs. 9, or 15s. to 18s. an acre; *áman* land, Rs. 6 to Rs. 7/8, or 12s. to 15s.; sugar-cane, Rs. 9 to Rs. 12, or 18s. to £1, 4s. 0d.; and cotton, Rs. 9 to Rs. 12, or 18s. to £1, 4s. 0d. No rates given for indigo, tobacco, or vegetable lands. (5) *Parganá* Pánrá: *áus* or two-crop land, rent from Rs. 3 to Rs. 7/8, or 6s. to 15s. per acre; *áman* land, Rs. 3 to Rs. 7/8, or 6s. to 15s.; sugar-cane, Rs. 6 to Rs. 12, or 12s. to £1, 4s. 0d.; cotton, Rs. 4/8 to Rs. 12, or 9s. to £1, 4s. 0d.; indigo, tobacco, and vegetable land, Rs. 3, or 6s. an acre. Potatoes, mulberry, and jute are not grown in Ráníganj Subdivision.

Jahanabad Subdivision.—(1) *Parganá* Jahánábád: *áus* or two-

crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; sugar-cane, Rs. 15, or £1, 10s. od.; cotton, Rs. 12, or £1, 4s. od.; oil-seeds, Rs. 12, or £1, 4s. od.; mulberry, Rs. 24, or £2, 8s. od.; jute or hemp, Rs. 12, or £1, 4s. od.; indigo, Rs. 6, or 12s.; and vegetables, Rs. 12, or £1, 4s. od. an acre. (2) *Parganá* Mandalghat: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; sugar-cane, Rs. 15, or £1, 10s. od.; cotton, Rs. 12, or £1, 4s. od.; oil-seeds, Rs. 12, or £1, 4s. od.; mulberry, Rs. 24, or £2, 8s. od.; jute or hemp, Rs. 12, or £1, 4s. od.; indigo, Rs. 6, or 12s.; and vegetables, Rs. 12, or £1, 4s. od. an acre. (3) *Parganá* Samarsháhí: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s. an acre; sugar-cane, Rs. 15, or £1, 10s. od.; cotton and oil-seeds, Rs. 12, or £1, 4s. od.; mulberry, Rs. 24, or £2, 8s. od.; jute or hemp, Rs. 12, or £1, 4s. od.; indigo, Rs. 6, or 12s.; and vegetables, Rs. 10/8, or £1, 1s. od. an acre. (4) *Parganá* Balágarh: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; sugar-cane, Rs. 15, or £1, 10s. od.; cotton and oil-seeds, Rs. 12, or £1, 4s. od.; mulberry, Rs. 24, or £2, 8s. od.; jute or hemp, Rs. 12, or £1, 4s. od.; indigo, Rs. 6, or 12s.; and vegetables, Rs. 12, or £1, 4s. od. an acre. (5) *Parganá* Hávilí: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; sugar-cane, Rs. 15, or £1, 10s. od.; cotton and oil-seeds, Rs. 12, or £1, 4s. od. an acre. (6) *Parganá* Khandghosh: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; and sugar-cane, Rs. 15, or £1, 10s. od. per acre. (7) *Parganá* Bairá: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; and sugar-cane and cotton land, Rs. 15, or £1, 10s. od. an acre. (8) *Parganá* Bhursut: *áus* or two-crop land, Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; sugar-cane, Rs. 18, or £1, 16s. od.; cotton, Rs. 12, or £1, 4s. od.; potatoes, Rs. 12, or £1, 4s. od.; mulberry, Rs. 18, or £1, 16s. od.; tobacco, Rs. 18, or £1, 16s. od.; and vegetables, Rs. 6, or 12s. an acre. (9) *Parganá* Chitwá: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 9, or 18s.; and cotton, Rs. 18, or £1, 16s. od. an acre. (10) *Parganá* Bishnupur: *áus* or two-crop land, rent Rs. 12, or £1, 4s. od. an acre; *áman* land, Rs. 6, or 12s.; sugar-cane, Rs. 15, or £1, 10s. od.; cotton, Rs. 24, or £2, 8s. od.; oil-seeds, Rs. 24, or £2, 8s. od.; jute or hemp, Rs. 12, or £1, 4s. od.; and vegetables, Rs. 12, or £1,

4s. 0d. an acre. (11) *Parganá* Bára-hazárí: *áus* or two-crop land, Rs. 12, or £1, 4s. 0d.; *áman* land, Rs. 6, or 12s.; sugar-cane, Rs. 15, or £1, 10s. 0d.; cotton, Rs. 24, or £2, 8s. 0d.; oil-seeds, Rs. 24, or £2, 8s. 0d.; jute or hemp, Rs. 12, or £1, 4s. 0d.; and vegetables, Rs. 12, or £1, 4s. 0d. an acre.

MANURE is largely used in Bardwán District, and consists principally of cow-dung, muddy earth containing a quantity of decayed vegetable matter, and dug up from old lands or the bottoms and sides of tanks, and *khol* or oil-cake, the refuse of oil-seeds after the oil has been extracted. For low-lying rice-lands (*sálí*), about 22 cwts. of cow-dung per acre, or 30 *maunds* per *bighá*, are deemed liberal. *Khol* or oil-cake is chiefly used as manure for land growing sugar-cane and potatoes, about 22 cwts. per acre, or 30 *maunds* per *bighá*, being required.

IRRIGATION as a scientific system is almost unknown in Bardwán District, although tanks, and in some instances small *kháls* and natural watercourses, are used to supplement the rainfall. It is a common custom to dam up the lesser streams, with a view to the irrigation of the neighbouring fields; and the systematic obstruction of the drainage channels by this practice is said to be one of the causes of the prevalence of epidemic fever. The cost of irrigating good rice land is estimated at Re. 1 per *bighá*, or 6s. per acre, and of good sugar-cane land, which requires continual moisture, Rs. 5 per *bighá*, or £1, 10s. 0d. per acre. Wells are not used in Bardwán for irrigation purposes. Rotation of crops is not practised in the District.

NATURAL CALAMITIES: BLIGHTS.—Blights are of very rare occurrence. The Collector states that there are only two instances on record of blight having occurred to any serious extent. On one of these occasions the destruction of crops was caused by locusts; and on the other, by a description of worm, said to be probably of the same species as the wire-worm, which sometimes proves so destructive to the crops in England. No remedial measures appear to have been adopted on either of these occasions.

FLOODS.—Before the construction of the railway and the Dámodar embankment, floods were common in Bardwán District. They extended along the left bank of the Dámodar river, and frequently caused great damage to property and loss of life. The Dámodar embankment now protects the whole country northwards of that river; and the damage caused by inundations of the river on its

opposite bank is comparatively slight and insignificant. The Ajai and Bhágirathí frequently overflow their banks, causing more or less damage to the crops on the neighbouring lands. In the last century, a serious flood of the Dámodar, in 1770, caused great temporary, although not permanent, damage to the country. The injury to the winter rice-crop of that year caused by this flood, following on a previous season of scarcity owing to drought, intensified the famine of 1770. The inundation was first observed on the 29th September 1770, when the waters of the Dámodar rose to a level with the top of the embankment, and near the western extremity of the town of Bardwán the embankment gradually gave way. The damage was repaired, but only temporarily; as, four or five days afterwards, a second rising of the river took place, and resulted in the entire destruction of the embankment. The rising of the water was so rapid, that every effort to check the violence of the torrent proved in vain. The town of Bardwán was almost totally destroyed; not a mud house remained, and even the brick houses suffered considerably. The line of country from Mandalghát to Salímábád and Champánagarí suffered incalculable loss; and as the Ajai also had flooded its banks, the whole tract between that river and the Dámodar became submerged to a depth of from three to four feet. On the 9th October the water abated. The *parganás* which suffered most in loss of human life and cattle, and damage done to crops and dwellings, were Mandalghát Kismat, Bardá, Chitwá, Bághá, Báliá, Bairá, Chaumáhá, Ráníhátí, Salímábád, Gopbhúm, Muzaffarsháhí, and Champánagarí. The sugar-cane and cotton crops suffered severely; and both these crops appear to have been cultivated to a much larger extent than at present. The whole of the embankment was in a state of ruin; and a sum of £8000 was remitted from the land revenue payable by the Mahárájá, in consideration of his undertaking the necessary repairs, the cost of which, however, is said to have far exceeded the sum remitted. It was not till a period of two years had elapsed that the cultivators began to recover from their distress. They had to pay their rent to the Mahárájá and other *zamíndárs*, in spite of the ruin to which they were reduced owing to the loss of their crops, cattle, and homesteads. The Collector cannot find, however, that any abatement was made in the Government demand for land revenue on account of the calamity.

Two other floods have occurred within the experience of the present generation on such a scale as to seriously affect the pro-

sperity of the District, viz. in 1823 and 1855. The inundation of 1823 is said to have been the most serious of any on record. In a paper entitled 'The Bardwan Ráj,' published in the *Calcutta Review* of April 1872, this flood and the destruction occasioned by it is described as follows:—'At Bardwán, it (the flood) commenced on the night of the 26th September 1823. Incalculable mischief was caused by the bursting of the embankments of the Dámodar, Bhágirathí or Húglí, and minor streams. A correspondent of the *Calcutta Monthly Journal* thus describes the inundation:—"Picture to yourself a flat country *completely* under water, running with a force apparently irresistible, and carrying with it dead bodies, roofs of houses, palanquins, and wreck of every description." It lasted for three days; communication was cut off, and the owners of masonry houses took refuge on the roofs. For many miles the thatched and mud houses, as well as thousands of trees, were prostrated. Such trees as had withstood the ravages of the flood formed the resting-places of men. The area embraced by the flood commenced from Báli, and extended for twenty-five miles. The villages on both banks of the Bhágirathí or Húglí, especially on the west bank, were submerged. The height of the water in these villages was at first about three feet; they were navigable by boats during the continuance of the flood. On the 29th September, a boat, which had started across country from Calcutta, and gone all the way under full sail, arrived at Bardwán. The loss of life was immense. The inundation rose, and at its height, on the 2d October, the water was about seven feet deep. The crops were destroyed; the houses were submerged and ultimately carried away by the flood; the people were destitute of food, insomuch that parents sold their offspring for a mouthful of rice. The landmarks distinguishing the *jots* or holdings of the cultivators being swept away, gave rise to great confusion and endless litigation. The owners of properties were converted into claimants for land which had been in their possession and that of their forefathers for generations.'

The inundation of 1855 resulted in the destruction of the embankment on the right side of the Dámodar. Previous to this, the embankments had been in charge of the *zamíndárs* or landholders within whose estates they lay; but the neglect of certain proprietors having caused the periodical breaching of the embankments,

embankments itself, and debiting the landholders with a portion of the cost. After the destruction of the embankments on the right side of the Dámodar in 1855, it was resolved to abandon them, and only keep up those on the left bank. New embankments have been accordingly constructed along the whole of the left bank of the Dámodar,—a measure which has resulted in the comparative immunity of the country north of it from flood. On the opposite bank, the tract of country between the Dámodar and Rúpnáráyan or Dhalkisor rivers bordering on Midnapur District is occasionally submerged, but the damage done is seldom of a very serious character.

THE EMBANKMENTS, now under the control of Government, and constructed and maintained for the prevention of inundation, are mainly situated along the Dámodar, Dhalkisor, and Ajai rivers. The principal ten of them are set forth in Schedule D of the new Embankment Act (No. VI. of 1873, B. C.), which has recently passed through the Bengal Council, as follow:

(1) *Left Embankment of the Dámodar River.*—A continuous line of embankment on the left bank of the Dámodar river, 107 miles in length. It commences in the village of Siliá, *parganá* Champánagarí, in Bardwán, and terminates in the village of Alípur, *parganá* Mandalghát, in Húglí District.

(2) *Left Embankment of the Dhalkisor and Sankrá Rivers.*—A continuous line of embankments, 5 miles 250 feet in length, commencing in the village of Rámnagar, *parganá* Bairá, and terminating in the village of Gasná, *parganá* Jahánábád.

(3) *Right Embankment of the Dhalkisor and Jhumí Rivers.*—A continuous line of embankment, 6 miles 3200 feet in length, commencing in the village of Digrá, *parganá* Bairá, and terminating in the village of Saui, *parganá* Bardá.

(4) *Shaikhpur Embankment.*—A circuit embankment, 18 miles 5108 feet in length. It commences at the bifurcation of the rivers Sankrá and Jhumí, in the village of Shaikhpur, *parganá* Bairá, and passing along the left bank of the Jhumí river through the villages of Srímantpur, Anandpur, and Thákuráníchak, and thence along the right bank of the Sankrá river through the villages of Narsinhchak, Kulát, Gújrát, and others, finally terminates at its starting-point.

(5) *Khasbar Embankment.*—A circuit embankment, 5 miles 5240 feet in length. It commences at the point of bifurcation of the

and passing along the right bank of the Jhumí river through the villages of Párbatíchak, Prasádchak, and Jaibágh, and thence along the left bank of the Amadá river through the villages of Khasbar, Saui, and Lálchak, finally terminates at its starting-point.

(6) *Dhángariá Embankment.*—An embankment 2 miles 2520 feet in length. It commences in the village of Dhángariá, *parganá* Jahánábád, and, running along the left bank of the Rúpnáráyan river, finally terminates at another place in the same village.

(7) *Right Embankment on the Ajai River.*—A continuous line of embankment, 4 miles in length. It commences at a masonry sluice near the junction of the Tuní and Balpahárí *kháls*, in the village of Bishnupur, *parganá* Senpahárí, and terminates in the village of Arjunbárí in the same *parganá*.

(8) *Right Embankment of the Ajai River.*—A continuous line of embankment, 7 miles 3980 feet in length. It commences in the village of Gaurbázár, *parganá* Shergarh, and terminates at the junction of the Tuní *khál* with the Ajai river, in the village of Kajládihi, *parganá* Senpahárí.

(9) *Right Embankment of the Ajai River.*—A continuous line of embankment, 11 miles in length. It commences in the village of Sátkoniá, *parganá* Senpahárí, and terminates in the village of Ságarpostá, *parganá* Gopbhúm.

(10) *Left Embankment of the Ajai River.*—A continuous embankment, 3 miles in length. It commences in the village of Singhí, *parganá* Azmatsháhí, and terminates in the village of Bámuniá in the same *parganá*.

DROUGHT.—Bardwán is not more liable to droughts than other Districts of Lower Bengal; and when they do occur, they are occasioned by insufficient rainfall, and not by the failure of the rivers before they enter the District. Only two instances of drought have taken place within the memory of the present generation sufficiently serious to affect the general prosperity of the District. The most important was that which occurred in 1865. No special safeguards against drought are adopted by the people. In seasons of scanty rainfall, they seek to obtain water for the fields most in need of it from the nearest tanks and streams; but these soon dry up. The District wholly depends on its rainfall, and if that fails, the people have no artificial means of irrigation.

COMPENSATING INFLUENCES in the case of droughts or floods exist only in a very small degree in this District. The damage caused to

ying lands by floods far exceeds the benefits derived from the eased fertility of the high lands in such a season. On the other d, in case of drought, both high and low lands suffer; and there ut little marsh land in the District capable of being brought into ivation in such a year, as a partial compensation for the loss ewhere. There are, therefore, hardly any circumstances in the ndition of the District which would tend to compensate for losses the crops caused either by floods or droughts.

AMINE WARNINGS.—During the famine of 1866, the maximum mon husked rice was $7\frac{9}{16}$ seers per rupee, or 14s. $9\frac{5}{8}$d. unhusked rice selling at about half this rate. reported that prices had fallen nearly to ng before the famine of 1866. In the Government relief operations become common rice rises to as high as from rupee, or from 14s. to 16s. a hundred- rates the majority of the people hase sufficient rice to keep them in be apprehended in case of the failure followed by drought. As soon as it nity is likely to occur, prices rise imme- classes are reluctant to part with their stores general panic spreads abroad. The Collector s... that, if common rice were selling at the rate of sixteen seers per rupee, or 6s. 9d. a hundredweight, in the months of January or February, or soon after the harvesting of the winter rice crop, it should be regarded as a warning of approaching scarcity amounting to famine. Partial scarcities occur occasionally in particular tracts, but the distress caused by them can be either avoided or met by importations from other parts. The people of Bardwán depend almost entirely upon the *áman*, or winter rice crop, for their means of subsistence; and a failure of this crop could not be compensated for by the *áus*, or autumn rice crop, which is only cultivated on a comparatively small scale. The Collector states that facility of communication is the only protection against famine. In Bardwán such facilities are, on the whole, sufficient to avert the extremity of famine from the greater part of the District; but in certain tracts in the south and south-west of the District, bordering on Húglí and Bánkurá, such as *thánás* Indás, Khandghosh, and Rainá, the means of communication are imperfect. Portions

of Bháturiá and Mantreswar *thánás*, too, are very inaccessible, particularly so in the rainy season, the time of the year in w help would be most urgently required in case of famine.

THE FAMINE OF 1866.—Bardwán was one of the Distric Lower Bengal in which the famine of 1866 was severely although not to anything like the same degree as in Nadiyá Midnapur Districts. The following brief history of the famine Bardwán is compiled from the 'District Narrative' in the 1 port of the Commissioners appointed to inquire into the f in Bengal and Orissa in 1866, and from the state at the end of volume ii. of their Report :—Th crop of 1865 was a full one, and the wi the whole District, probably did not a of a full outturn. By March 1866, make itself felt, and coarse rice, which to Rs. 2 per *maund*, or 3s. 5d. to 5s. time of the year, was then selling at R hundredweight. In June the price rose a hundredweight, against Rs. 2/2 a *m* weight, the usual rate in that month. there was a sudden influx of paupers in principally from the weaving towns of Cha (then in Húglí), and Bishnupur in Bánkurá; also f of Bánkurá, and from Bírbhúm District. This appears to have resulted from the rise of prices consequent on the injury done to the *áus*, or early rice crop, by heavy rain in June. The attraction to the town was caused by the customary distributions of rice made by the Mahárájá, and by the trustees (*mahants*) of various religious endowments. The Mahárájá increased his daily charitable distributions of rice, but the increasing number of applicants soon made it impossible for all to gain access to the existing relief-houses. On the 11th July a meeting of native gentlemen was held, who formed themselves into a committee, raised subscriptions, and on the 15th July opened a relief-house, in which they distributed cooked rice to the distressed. The number of applicants for relief rapidly increased; and on the 27th July the committee were obliged to seek assistance from Government, representing that they were feeding about six thousand persons daily. On the 23d July the Mahárájá opened a special *annachhatra*, or feeding-house, for the purpose of supplying the

amine paupers: it was at first attended by about 1200 persons. In August, the Board of Revenue granted a sum of £300 for the relief of distress, which was soon after followed up by a further grant of £200. Upon receipt of these funds, the Commissioner of the Division formed a committee, consisting partly of official and partly of private gentlemen, the previous committee of native gentlemen being amalgamated with the new one.

At the first meeting of the committee, a letter was read from the Mahárájá of Bardwán, offering to provide for all the destitute paupers in Bardwán town entirely at his own expense, the arrangements being subject to the supervision and approval of the Commissioner. This munificent offer was at once accepted, and from he 6th September the work of gratuitous relief in the town was made over to the Mahárájá. The Mahárájá's representative at first appeared to be unwilling to make labour a condition of relief. He eventually found, however, that the number of applicants could never be expected to decrease as long as all who asked were fed gratuitously. Out of the six thousand daily applicants who were being fed by the Mahárájá, three thousand were selected as deserving of gratuitous relief; the remainder were required to work, the remuneration being $2\frac{1}{4}$d. (6 pice) a day for each adult. At first the labourers were few, but the number soon rose to three hundred, who were employed in repairing roads, clearing out tanks, and cutting jungle. Clothes were distributed gratuitously to 2183 persons in all; and subsistence money was given to enable the paupers to return to their homes, as the distress began to subside. In October the number of applicants fell gradually, and on the 31st of that month the returns showed only 1206 as being fed daily. The total expenditure of the Mahárájá up to the 4th November amounted to £1455. On the 21st November the Mahárájá's relief depôt was visited by Mr. Dampier, one of the Famine Commissioners. The labour test was never fully carried out here, and it was practically optional rather than compulsory. The following description of the relief depôt, at the time of Mr. Dampier's visit, is quoted from page 321 of vol. i. of the Famine Commissioners' Report:—

'According to the returns made by those in charge of the operations, only five hundred or six hundred were then receiving gratuitous relief there; but Mr. Dampier saw above a thousand people being fed. The women and children were far more numerous than the men, but there were many men. The people did not as a body

show any signs of emaciation or starvation. Men and women wer stout and in good case. There appeared to be no limit to then rations. Several of them had been for months subsisting on this charity, and, though probably stronger and haler than they ever were in their lives before, had not done a day's work. Not a man was being employed in the labour yard. In fact, it seemed that labour had been almost optional, and not compulsory. It was explained that the returns of persons receiving gratuitous relief did not show the entire number fed, because six hundred only were "ticket-holders," and the remaining four or five hundred wer admitted at the discretion of the managers when they "cried ou very much." The numbers who were being fed daily were doubtles decreasing rapidly, but entirely at their own desire. They receive subsistence money to take them home when they chose to go; bu the Mahárájá's agents were inclined to feed all who chose to apply as long as they wished to be fed.'

The Commissioner, as soon as he was relieved of the charge c the destitute poor in the Municipality, started a pauper hospital fc the sick; and the municipal carts were set apart for the conveyanc of the sick to hospital and the removal of the dead from the towr During the two months from September 6th to November 6th 232 persons were treated in this famine hospital, of whom 101 died, the majority of the deaths resulting from starvation or dysentery caused by want of food. A few cases of cholera, and 35 of small-pox (of which 10 terminated fatally), also occurred. On the 2d October a second pauper hospital was established by the Mahárájá, in which 141 persons were treated, of whom 40 died.

Outside the town the distress was not very serious throughout the headquarters Subdivision. Inundations had ravaged the country on the opposite side of the Dámodar, which is unprotected by embankments, and destroyed 3065 houses, the inhabitants of which left their homes for the towns in search of food. A relief centre was accordingly established at Khandghosh, and another at Memárí, at both of which relief was given in the shape of money, at the rate of three pice or one penny a day to each adult, there being no facilities for the distribution of cooked food. The amount of relief thus given was only supplementary to the charity of private individuals. A sum of money was also placed at the disposal of the Rev. Mr. Neile for relief purposes at Ichhápur, near Memárí,

labour yard for basket and rope making, cutting jungle, ened on the 14th October.

d-búd Subdivision, from 60 to 100 men were fed daily uarters station by the Assistant Magistrate at his own om 300 to 400 people were fed daily at Mánkur for a om two to three months, by the liberality of a native Bábu Hírálál Misra. In October, an application was lice assistance to keep the Mánkur station premises free who congregated there, and pressed around the railway n the arrival of the trains. Upon this, funds were the Bardwán Committee to the Assistant Magistrate of or the distribution of relief in the shape of money.

Kátwá (Cutwa) Subdivision, distress seems to have first d itself in July; and on the 28th of that month the Deputy e reported that he had convened a meeting and raised ions. He now applied for a Government grant of £200, g that several public works should be put in hand at once. istrate replied that the able-bodied should be referred to utive Engineer for w[illegible]; and on the 4th August the Com- wrote, statin[illegible] it was unlikely that Government would assist Kátwá, o[illegible]y of the rich Sub-Districts along the Bhágirathí. According to the Deputy Magistrate's report, the Bágdís, Háris, and other low castes who own no land, were the principal sufferers, the wages which they earned as labourers being quite insufficient for the support of their families. The poorer cultivators with a few *bighás* of land were also suffering, as they had consumed all their little stock of rice, and were without money; but as the prospects of the next crop were good, the *mahájans* were advancing rice to them. The *mahájans* would not, however, advance to those who held no land. Petty traders, and those living on small fixed incomes, were also much straitened, and had nothing left which they could sell or mortgage. The Deputy Magistrate estimated that thirty-five per cent. of the population were suffering from the effects of the famine to the extent of not getting regular and full meals, but the people were not in a starving condition. Labourers had flocked to the special work on the road between Nadiyá and Plassey, which is only ten miles distant from Kátwá; four hundred others had taken employment on ordinary work. No further application was made for Government aid at Kátwá, where a relief centre was established and maintained by

private funds, the subscriptions raised amounting to ₹ daily number fed at the Kátwá centre reached a maxi on the 26th August, from which date it gradually Relief operations were closed on the 13th October. I of October and November, the price of coarse rice fell *maund*, or 11s. a hundredweight; afterwards to Rs. 3/ or 9s. 6d. a hundredweight; and finally to Rs. 2/8 a 6s. 9d. a hundredweight.

No external aid was granted for Kálná (Culna) where private subscriptions amounting to £150 were c the Deputy Magistrate, and relief was given in the shape food and clothing to about 30,000 persons. Besides the d at the special relief-house, some hundreds of poor people v fed at the Mahárájá's temples at Kálná, at which distrib uncooked food to the poor are made at all times.

Ráníganj Subdivision probably suffered most severely famine; but at that time it was included within the m jurisdiction of Bánkurá District, only the revenue jurisdicti attached to Bardwán. The town Ráníganj contain depôts, at which the emigration ag collect the cooli they have recruited; and in the first fo months of 1866 no fewer than seventeen thousand emigrant coolies left Ráníganj by rail. In the middle of June, coolie recruiting had to be stopped, as small-pox had broken out among the coolies, and was being imported into the town. Severe distress was manifested in June, when the Assistant Collector reported that, in consequence of the drain on the male population owing to emigration, Ráníganj was full of women and children, who were following carts laden with rice, and picking up the grains which fell. Soon afterwards, numbers of destitute people began to flock in from Mánbhúm District; and on the 30th June a sum of £50, out of the £500 which had been assigned to Bánkurá District, was forwarded to Ráníganj. A public meeting was held in the middle of July, and subscriptions were raised amounting to £130, besides promised contributions of £40 a month as long as the distress lasted. Relief distributions began on the 20th July, when uncooked rice was given gratuitously to the destitute, and sold at the rate of $1\frac{3}{4}$d. a lb. or $2\frac{1}{4}$ *ánás* a seer (which was below the market rate) to all-comers, but not more than $1\frac{1}{2}$d. (1 *aná*) worth was sold to each applicant. As soon as the distributions and sales began, people from the neighbourhood flocked into Ráníganj in such numbers,

hat the committee were obliged to limit the quantity of rice to be istributed daily, and cooked rations were substituted for uncooked ice for gratuitous distribution. Early in August the Assistant ollector reported that the state of things was most distressing. he miners and others employed about the collieries were deserting heir families and leaving them to starve. The owners of the collieries, and notably the Bengal Coal Company, were relieving their workmen by selling rice to them below the market rate. A wealthy Hindu widow lady, a *zamíndár* and owner of collieries, was doing the same, and was also gratuitously feeding a number of destitute persons, who at one time amounted to two thousand at Siársol. Notwithstanding all these measures, the corpses of thirty stranger paupers were found in villages belonging to the Bengal Coal Company. The means at the disposal of the committee were inadequate, and a further grant of £200 was made by the Board of Revenue on the 23d August; a sum of £100 was also received from a fund subscribed by the servants of the East Indian Railway Company; and also £50 more from the Bánkurá Central Committee. Centres of relief were thereupon opened at four places in the interior of the Subdivision, where gratuitous distributions as well as cheap sales of rice were made. The mortality in the town from diseases induced by privation of food was very considerable, and a pauper hospital, and afterwards a small-pox hospital, were established. The number of deaths in the streets and hospital is estimated at an average of fifteen a day during the months of July, August, and September. Employment on the roads was found for 1500 paupers in September. The mortality, however, still continued very great, the paupers flocking in from Bánkurá, Mánbhúm, and Deogarh, in a state of utter prostration, and dying soon after they arrived, from the effects of starvation, dysentery, and diarrhœa. Numbers of children were deserted, and were sent to the orphanage of the Rev. Mr. Stern at Bardwán, to whom the committee made a grant of £10. In October a second instalment of £100 was received from the East Indian Railway Fund, and distributions and sales were carried on till the 19th November, when operations were discontinued, the price of rice having fallen to fourteen seers per rupee, or 8s. a hundredweight. The pauper and small-pox hospitals, however, were kept open for some time longer. The total amount expended on relief in Ránígánj Subdivision was as follows:—Granted direct from the Board of Revenue, and from the

general allowance to Bánkurá District, £300; private subscriptions £256, 16s. od.; East Indian Railway Fund, £200: total, £756, 16s. od. The aggregate of the daily total of persons who received relief is returned by the committee at 348,296, or a daily average of 2902 for the four months, from the middle of July to the middle of November, during which the operations were in progress. These numbers include all who purchased at the cheap sales, as well as those who received food gratuitously, or in payment for such light labour as the committee required.

In Jahánábád Subdivision, where there is a large weaving non-agricultural population, there was also very severe distress. The greater part of the Subdivision, however, then belonged to Húglí, and an account of the local distress will be found in my Statistical Account of that District, given in a previous volume.

In Bardwán generally (excluding the Ráníganj and Jahánábád Subdivisions, which did not then belong to the District), the total amount expended on relief by the Bardwán, Kátwá, and Kálná Relief Committees was as follows:—From the Board of Revenue, £300; from the Calcutta Central Relief Committee, £200; private subscriptions, £955, 16s. od.: total, £1455, 16s. od. The Kátwá and Kálná relief centres were maintained solely by private subscriptions. This sum, however, does not include the expenditure incurred by the Mahárájá and other private individuals in giving relief, besides £483 granted and £421 advanced for special works. The average daily total number of paupers relieved in Bardwán (exclusive of Ráníganj and Jahánábád Subdivisions, and also of the town paupers who were supported by the liberality of the Mahárájá), from July to November, is returned as follows:—July, 845; August, 1490; September, 327; October, 90; and November, 158.

In concluding the District narrative of the famine in Bardwán (which, it must be remembered, did not then include Ráníganj and the greater part of Jahánábád Subdivision, where the distress was severest), the Famine Commissioners remark as follows:—'Speaking comparatively, the people of this District did not suffer severely. The generally prosperous condition of the cultivating classes, caused by their proximity to the Calcutta markets, enabled them to oppose a greater power of resistance to famine than that which could be offered by the cultivators of the less advanced Districts to the west and south-west, and they also received much

upport from their landlords. The day-labourers were driven into the towns to seek for subsistence, and there swelled the crowds of paupers who had come in from Districts which had suffered more severely. In these centres disease and death were unavoidable. Although the external relief granted to this District was small, we think that it probably did not fall short of the requirements. It would, however, have been well if the organized relief at the different points in the interior of the District had been begun earlier in the season.'

FOREIGN AND ABSENTEE PROPRIETORS.—In 1871 four European landholders were registered as proprietors on the District rent-roll. In the same year there were 1800 Musalmán proprietors out of a total of 6352: the amount of Government land revenue paid by them in that year was £5500, out of a total land revenue derived from the District in that year of £303,970, or only 1·7 per cent. of the whole, while the Muhammadans form upwards of seventeen per cent. of the total District population. Nearly all the proprietors of land reside on their estates, or in the District. In 1871 the Collector reported that only 20 out of 6352 landed proprietors in the District were absentees.

ROADS AND MEANS OF COMMUNICATION.—The roads in Bardwán District are as follow (the information being collected from the Annual Report of the Commissioner of the Division for 1871-72):—(1) The Grand Trunk Road, traversing the whole length of the District from south-east to north-west, parallel to the line of railway, and passing through the Headquarters Subdivision and the town of Bardwán and the Búd-búd and Ráníganj Subdivisions, finally leaves the District at Barákhar, in its extreme north-west corner. There are no ferries on this road. The state of the road at Asansol, in the Ráníganj Subdivision, is reported to be indifferent, and the attempts to restore it to be ineffectual. (2) The road from Surí in Bírbhúm District to the town of Midnapur passes through the Ráníganj Subdivision. There are no ferries on this road within the jurisdiction of Bardwán District. (3) The road from Sonámukhí to Surí in Bírbhúm District passes through the Búd-búd Subdivision; it has no ferries on the part passing through Bardwán District. (4) Road from Bardwán town to Surí in Bírbhúm; no ferry. (5) Road from Sonámukhí to Khandghosh. This road is in fair order

pleted, the amount apportioned for the work being then insufficient. The bridge, however, was to have been made passable by the rainy season of 1872. The Commissioner reported that two other large bridges—one over the Sítaljor, and the other to the west of Dhán-Simlá—were urgently required. The road becomes impassable when the small streams are flooded during the rains. (6) Old Military Grand Trunk Road from Calcutta to Benares. This road enters Bardwán District from Húglí at the point where it crosses the Dámodar river, and after passing the towns of Jahánábád and Kotalpur, enters Bánkurá District. (7) Road from Bánkurá to Sonámukhí, part in Bánkurá and part in Bardwán; is in fair order, but the Commissioner reported in 1872 that the timber bridge over the Báhulájor required thorough change in its woodwork, and that the necessary repairs were about to be undertaken. (8) Road from Kúlgrám Chatí to Kánu junction, 1 mile 5 furlongs in length; a railway feeder. (9) Road from Búd-búd Subdivisional town to Mánkur; a railway feeder. (10) Road from Dignagar to Gushkhará; also a railway feeder. (11) Road from Bardwán to Kátwá, 34 miles in length; only eight miles of this road are metalled, the remainder being in a wretched condition; no ferry on the road. (12) Road from Kátwá to Surí in Bírbhúm, sixteen miles of which lie within Bardwán District; the Sankhai ferry over the river Ajai is on this road. (13) Road from Sosundihi to Gushkhará railway station; metalled throughout. (14) Road from Dáin-hát to Kátwá, 4 miles in length. (15) The old Bádsháhí or Muhammadan Imperial Road, running from Murágrám, in the extreme north of the Kátagrám Police Circle, and passing through the length of the District from north to south. (16) Old road from Kátwá to Ilámbázár. (17) Old road from Kátwá to Kálná, 36 miles in length. (18) Road from Memárí to Sátgáchhiá, 7½ miles; a railway feeder. (19) Road from Memárí to Jamálpur, 11 miles; also a railway feeder. (20) Road from Bardwán to Akloká (the Midnápur road), 19 miles; ferry on the Dámodar at the *sadr ghát* of Bardwán, a short distance to the south of the town. (21) Road from Bardwán to Khandghosh; ferry at Kásh-tagolá on the Dámodar.

RAILWAYS.—The East Indian Railway has two main lines running through the District. The railway enters the District from Húglí, a few miles beyond Bainchí, the stations in Bardwán District being as follow:—Memárí, Sáktigarh, Bardwán town, Kánu

unction, Mánkur, Pánágarh, Durgápur, Andál, Ráníganj, Siársol, Nimchá, Asansol, and Sítárámpur, after which the railway enters he Santál Parganás. From this line of railway two small branches un off,—one at Andál to the large coal mines of Tapasí, a short distance north of Ráníganj; and another at Sítárámpur, to Barákhar. The second principal line of railway branches off from Kánu junction, running north past the stations of Gushkhará and Bhediá till it enters Bírbhúm District; this was the original line. No large markets have lately sprung up upon the principal routes of traffic, except at Ráníganj, Mánkur, and Gushkhará, which have risen from small villages into busy towns since the opening of the railway, about twenty years ago. A new market has also lately sprung up at Naihátí, on the road from Kátwá (Cutwa) to Surí in Bírbhúm.

The rivers form another means of communication, but they are comparatively small streams, only navigable during a portion of the year. A list of the principal of the District rivers and streams, together with the facilities which they afford for navigation and intercommunication, will be found in the earlier pages of this Statistical Account. There are no canals in the District. One was commenced some years ago, with a view to connect the Dámodar river at Ráníganj with the Húglí river at Baidyabátí in Húglí District, but the work has since been suspended (1874).

Coal Mines.—The Ráníganj Subdivision is noted for its coal mines, of which the principal are at Egerá, Harishpur, Bábusol, Nimchá, Pari-hazárí, Siársol, Tapasí, Dhosál, Chaukídángá, Jujáhokí, Banbáhál, Sibpur, Banálí, Mangalpur, Bánsrá, Raghunáthchak, Jenrá, Nijá, and Sankarpur. The principal coal mines belong to the Bengal Coal Company, whose head office in the District is at Egerá; the Equitable Coal Company, at Chaukídángá; the Ráníganj Coal Association (formerly the East India Coal Company), at Bánsrá; the Bírbhúm Coal Company, at Mangalpur; and the Siársol Collieries, which belong to a native of the District. With the exception of the last, all these Coal Companies have their principal offices at Calcutta.

The coal tract known as the 'Ráníganj field' is situated at a distance of from 120 to 160 miles north-west of Calcutta. It extends from a few miles east of the town of Ráníganj to several miles west of the Barákhar river, the greatest length from east to west being about thirty miles, and the greatest breadth from north to south

about eighteen miles. The area included by the coal-bearing strata is estimated at about five hundred square miles. Dr. T. Oldham, Superintendent of the Geological Survey of India, described this field as follows, in his 'Report on the Coal Resources and Production of India,' dated January 1867:—'The field consists simply of a series of beds, divisible into three groups, which have a general dip from the northern boundary to the south, at angles varying from 5° to 20°. Along the southern boundary the beds are turned up and all cut off by a great fault. There is a total thickness exhibited by the series of rocks of more than eight thousand feet; and in this series there is a thickness of workable seams of coal of from 100 to 120 feet. Towards the centre of the field, and forming also the hills of Beháriináth, Pánchet, etc., there rests unconformably on the coal rocks a series of beds of a more recent geological age, and not containing coal. They entirely conceal the coal rocks which are under them, and form a thickness of non-productive beds through which it would be impracticable to work the coal profitably at present. To this series the name of Pánchet rocks has been applied. They contain some very interesting reptilian remains, and are probably of fresh-water origin and of the general geological age of the Triassic or Rhætic rocks of Europe. The Pánchet rocks cover, say, one-fifth of the entire area of the field, leaving approximately four hundred square miles over which the coal rocks are seen.

'The coal of the Ráníganj field, like most Indian coals, is a non-coking bituminous coal, composed of distinct laminæ of a bright jetty coal and of a dull more earthy rock. The average amount of ash is from 14 to 15 per cent., varying from 8 to 25 per cent. The Ráníganj field has the advantage of two branches of the East Indian Railway, which traverse its richest portions, and afford great facilities for the removal of the coal. Until the railway was constructed, the coal was all despatched by boats down the river Dámodar. This was a very tedious and very uncertain mode of transport: the river is only navigable during freshets for a considerable part of the distance, and boats were often months before they reached their destination, while numbers were lost. Unusual facilities exist for the construction of a navigation canal from this river to the Húglí river above Calcutta; and there can be no question that this coalfield, and others lying higher up the Dámodar valley, would yield a very large amount of traffic for such a canal.'

A Geological Survey of the District w undertaken in 1845, d a thorough examination of the Rán coalfield was made the Geological Department during -60. The result of his examination is published in vol. iii. of the *Memoirs of the Geological Survey of India*, by Mr. W. T. Blanford, and the following brief account of the discovery of coal, etc., and of the history of the principal collieries in the District, is condensed from his report:—Coal was known to exist in the District as early as 1774, and was actually worked in 1777. In 1830, with very imperfect information regarding the geology of the coal tract, several collieries of considerable extent were flourishing. The earliest account of the field was in a paper by a Mr. Jones, who first opened mines at Ráníganj itself in 1815. Other collieries had previously existed in various places more to the west, one at Dámuliá being not more than a mile distant from Ráníganj. Mr. Jones' paper was written about 1817, but was first published in 1829 in the *Asiatic Researches* of the Asiatic Society of Bengal. In 1831 the Rev. M. R. Everest, in the 3d volume of *Gleanings in Science*, describes the coalpits then existing, and alludes to the burnt-coal crop of the Ráníganj seam. The first report of the 'Committee for Investigating the Coal and Mineral resources of India' appeared in 1838; the account is little more than a repetition of Mr. Jones' paper, but states incidentally that coal was then, or had been, worked at Mangalpur, Dámuliá, Jezirágarh, Náráyanpur, Barákhar, etc. The earliest detailed account of the Ráníganj coalfield is contained in a report by Mr. Homfray, manager of Messrs. Jessop and Co.'s colliery at Náráyankurí, and published in the 11th volume of the *Journal of the Asiatic Society of Bengal*. In 1845-46 the Ráníganj coalfield was carefully examined, mapped, and reported upon by Mr. D. H. Williams, whom the East India Company sent to Bengal for that purpose. In 1845 the only collieries at work in the District were those at Dhosál and Chaukídángá.

The Geological Survey of 1858-60 gives the following sci details of the formation and extent of the Ráníganj coalf The area of coal-bearing rocks known as the Dámodar field lies between 23° 35′ and 23° 45′ north latit 86° 40′ and 87° 15′ east longitude, being situat from about 120 to 160 miles north-west from length of the field, from Gairá *dák* bungalow

Road, and from Girwá ill on the west, to the extreme point on east at which coal ... own to occur, viz. the neighbourhood Harishpur, is 39 mil... t there is no doubt that the field exten much farther to the eastward, although it is concealed by overlyir laterite and alluvium. The greatest breadth of the field, on a lin at right angles to the above, is from the neighbourhood of the Aja river, north of Churuliá, Madanpur, Domohání, and Pánurí, t Behárináth hill, or from Afzalpur to near Ghusrá and Kasturá; the distance in each case being eighteen miles. The area of this bel is about five hundred square miles. The greater portion of th field is enclosed between the Dámodar and the Ajai rivers.

The principal drainage of this small area is into the Dámodar the watershed between which and the Ajai runs in most places only four or five miles south of the latter river, and consists of a rang of high ground, composed of a band of carbonaceous shale contain ing ironstone. Within the boundaries of the field, the Dámoda receives the waters of the Barákhar, Nuniá, and Singáran rivers. The surface of the field is undulating, and was formerly covered with jungle, which has now been cleared nearly throughout. It i generally covered with clay, in some parts alluvial, but in othe formed from the decomposition of rocks. Mr. Blanford in report divides the area of the Ráníganj field into seven sections under:—(1) The country east of the Singáran river; (2) the val of the Singáran; (3) Ráníganj and its neighbourhood; (4) vall of the main stream of the Nuniá, and of its eastern and centr branches north of the Grand Trunk Road; (5) valley of the we branch of the Nuniá; (6) Chinákurí and its neighbourhood, w the country to the west as far as the Barákhar; and (7) the cour to the south of the Dámodar, commencing from the west.

(1) *Country East of the Singáran River.*—The rocks in this tr forming a high ridge west of Khairásol, and which are well see he railway cutting near Kálípur, form no part of the Dámo ...s. The whole tract to the west of these rocks for eight or te ... is concealed by laterite and alluvium. The coal at Harishp ..., in the extreme east of the field, is of excellent quality.

...ran Valley.—About a mile and a half west of th ...seam of coal crops out in a tank just east of the ...rpur. The owner of the land sunk two pits ...ater has stopped the workings. Near this th ...th laterite. The section of the coal-seam a

ıukídángá consists of alternate layers of coal and shale, covered
ı white sandstone and shale. Under the sandstone covering
e layers occur as follows :—(1) Coal, 3 feet; (2) shale, 6 inches;
) coal, 6 feet 6 inches; (4) shale, 3 inches; (5) coal, 5 feet; (6)
ale, 6 inches. Total thickness of seam, 15 feet 9 inches; thick-
ess of coal in seam, 14 feet 6 inches. At Mahmúdpur, where, after
top covering of sandstone and shale, blue shale and coal occur
lternately, the seam is 14 feet 7 inches thick, the total thickness
of coal in the seam being 12 feet. Mahmúdpur coal has been
worked from an open quarry. Within the boundary of the village
of Dhosá' is an old coal quarry, now full of water. The next seam
met with is 22 feet in thickness, and is worked from a quarry at
Dhosál, east of the Singáran river; and from a mine at Tapasí, to
he west of the stream. The seam is about four or five hundred
eet above that at Chaukídángá. About a quarter of a mile south
of the Tapasí seam, the intervening rocks being of coarse sandstone
150 feet thick, another small seam occurs, containing about 5 feet
3 inches' thickness of coal, and which is largely worked at Jor-jánkí.
The coal is of inferior quality, and only used for brick-burning.
The mine at Parasiá, close to the left bank of the Singáran, is 110
t deep, and the seam has been dug into for a depth of 13 feet.
pposite Parasiá is the village of Bánsrá, where coal is also found.
mile south of Parasiá is the village of Mangalpur, where the seam
es below more than a hundred feet of sandstone, and contains
fteen feet of coal. South of Mangalpur are the mines of Harish-
ur and Bábusol, where the seam is twenty-five feet thick, with
teen feet of coal.

(3) *Ráníganj and its Neighbourhood.*—The small area of this por-
ı of the field, comprising not more than twenty square miles,
oduced at the time of Mr. Blanford's report one-half of the total
ıntity of coal raised from the Ráníganj field. It contained the
nes of Gopínáthpur, Bhángábánd, Siársol, Ráníganj, Raghunáth-
ak, Dámuliá, Hárabhángá, Nimchá, Jemerí, and Banálí. The
eam at Gopínáthpur was 8 feet 8 inches thick, and contains 8 feet
f coal; at Bhángábánd, the seam was 17 feet 10 inches thick,
ith 17 feet 6 inches of coal. At Ráníganj, one shaft gave the
llowing section :—(1) White felspathic sandstone, 130 feet; (2)
lue shale, with fossil plants, 21 feet; (3) bituminous black shale,
1 feet; (4) coal, 9 feet; (5) shale, 3 inches; (6) coal, 9 inches;
7) shale, 2 inches; and (8) coal, 3 feet. Total thickness of seam,

13 feet 2 inches; total thickness of coal in seam, 12 feet 9 inc
At Raghunáthchak, the seam was 11 feet 6 inches thick, with
feet of coal; at Dámuliá, the seam was 16 feet 2 inches thick, w
15 feet 9 inches of coal; at Jemerí, the seam was 25 feet 8 inc
thick, with 20 feet 5 inches of coal.

(4) *Nuniá Valley; East Division.*—This area comprises but fe
mines of importance, and has hitherto received little attention, bu
it contains valuable coal-seams. The seam at Charanpur an
Syámsundarpur was 13 feet thick, with 12 feet of fair coal; at
Mainánagar, near Madhusudanpur, the seam was 10 feet 3 inches
thick, with 9 feet 6 inches of coal, the seam being situated below
hard blue shale, with nodules of clay ironstone.

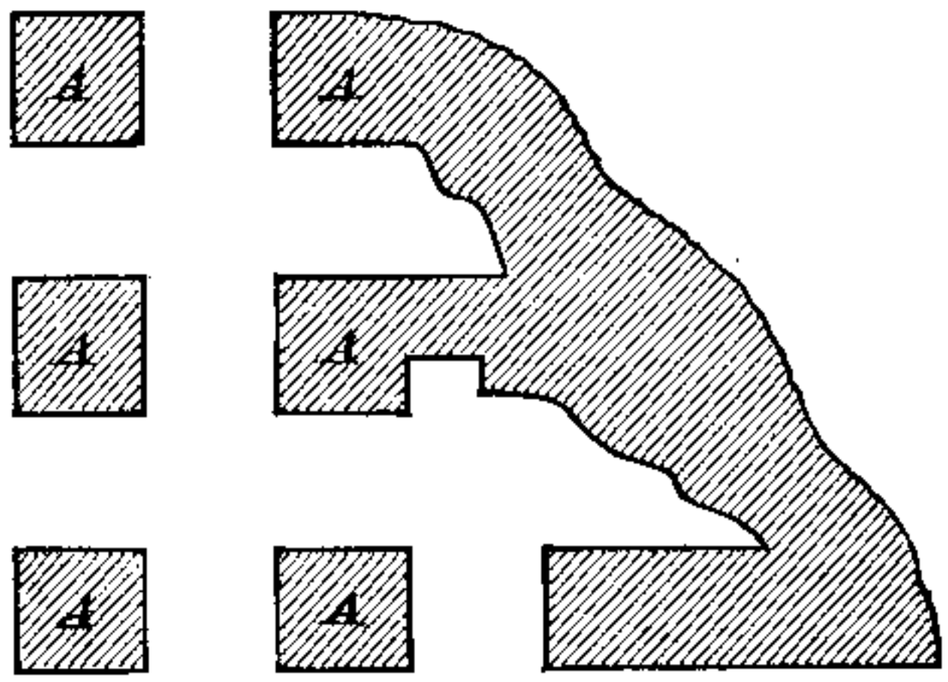
(5) *Nuniá Valley; West Division.*—This small area comprises the
mines of Sítárámpur, Dámodar, Fathipur, and Gharwí.

(6) *Chinákurí (near the Dámodar) as far as the Barákhar River.*
—The shafts at Sálunchí or Chinákurí showed a seam 10 feet 10
inches in thickness, with 10 feet 6 inches of coal.

(7) *The Country South of the Dámodar.*—These coalfields belong
to Pánchet, and do not lie within Bardwán District.

Methods of Working Coal Mines.—Mr. Blanford, in his repor
states that in 1858-60, within the coal-producing area of about f
hundred square miles, there were nearly fifty collieries in ope
tion, belonging to fourteen proprietors or proprietary compani
European and native. Fifteen years previously, in 1845, the on
collieries at work in the District were those at Dhosál an
Chaukídángá. The collieries vary in size, from large concer
with numerous pits worked by steam-engines, and producing
annual outturn of from eighteen to twenty lákhs of maunds (fr
60,000 to 70,000 tons), to small quarries a few feet square, wh
half a dozen coolies extract perhaps twenty thousand maunds,
750 tons of coal per annum. In the smaller collieries, whet
worked by pits or by quarries, the water is raised by the sa
primitive contrivances as are commonly employed in Bengal t
irrigation purposes. Of these the principal one is the *ter*
consisting of a long pole or bamboo, working on the top of
two vertical poles, and having a bucket or earthen pot attached
to its further end, while its shorter end, bearing a heavy stone as a
counterpoise, is hauled down by ropes. The majority of pits do
not exceed a hundred feet in depth; and up to 1860, no pit had
been sunk to a greater depth than two hundred and thirty feet.

ese may seem insignificant figures by the side of the deep ıfts in the collieries in the north of England. The pits are ırcular in shape, and are usually sunk in pairs, from eight to ten eet in diameter. 'Double pits,' in which two buckets are used, are 'sually twelve feet across. In the larger collieries the seams are ⁄orked according to the system known in England as 'post and tall,' or 'pillar and board.' The coal is extracted in galleries cross- ng each other at right angles, square posts or pillars of coal being eft to support the roof. The pillars vary from twelve to eighteen feet square, and the galleries have a breadth of from twelve to fifteen feet. The following diagram will show the method adopted —'.e Ráníganj coalfield :—



A A are posts left to support the roof.

It is thus evident that where 'pillars' and 'boards' or galleries are equal in breadth, three-quarters of the coal is removed in the first instance. This is the most favourable case, and exists in the Ráníganj and Tapasí collieries. But of this coal not more than two-thirds are in a marketable state; in fact, in most collieries, not more than one-half. Again, it is preferred to have the roof of the mine of coal, as being finer and safer than either sandstone or shale. Thus at Tapasí, where the seam is twenty-two feet in thickness, only twelve feet are mined. This mode of working is best adapted for seams of moderate thickness; and Mr. Blanford states that ınless improvements are introduced, a large proportion of the coal n the field will be irretrievably lost and wasted.

The tools employed by the workmen are crowbars, hammers of ıarge size, ard wedges. At the time of Mr. Blanford's report, picks ere only used in the Chinákurí mine; but the working is said to

have been bad. The coal, instead of being 'holed under,' cut away at the bottom, and then wedged down from above, cut out above, and broken away from below by crowbars an wedges. In all the other mines the miners followed the metho taught them by Mr. R. Jones. This consists in chipping out small hollow near the face of coal to be cut away, by means of crowbar, and then bringing down the coal from above, in block of no great size, by means of wedges and hammers. An openin at the side of the end of the gallery being thus made, wedges anc crowbars driven into the joints bring down the coal from the side cut into. In mines under native management, the galleries are very irregular. Although sixty years ago coal-mining was unkn in India, Mr. Blanford in his report states that the miners have become so attached to their particular method of working, that an attempt at teaching the Ráníganj miners the use of the pick, by importing a number of workmen from the Chinákurí mine, utterly failed. The Ráníganj men rose upon the others, drove them out of the place, and burned down their houses.

The coal, when cut, is usually carried to the buckets at the bottom of the pits by boys, but trucks are used underground in the Ráníganj colliery. The raising is invariably effected by iron buckets, or 'kibbles,' holding from three and a half to five hundredweights, and the miners are paid according to the number of buckets raised. Access to the mines is generally obtained by an inclined plane cut into the overlying rock. In some mines the buckets are raised by steam power, but in most of them by common 'gins.'

The 'gins' consist of a rope passing round a circular wooden drum, to which, at the lower portion of the vertical axis, four arms are attached, each of which is driven or pulled by from six to nine women, generally the wives or daughters of the miners. They keep up a peculiar chant while at work. Usually two buckets, one ascending while the other descends, are worked, either in the same or in adjacent pits, by one gin. At the pit head the bucket is emptied upon a wooden platform, running on wheels upon rails, and the coal is then loaded by hand into bullock trucks, for conveyance to the nearest railway station or river side.

In the open quarries, where coal can be cut out from above, there is naturally much less small coal produced. Quarries are also often combined with underground workings. All quarries lie idle from June until October, as more water accumulates during the rain

n can be removed, either from natural rain-water, or because
.e neighbouring rivers rise and fill the quarries. In these quarries
ıe miners are generally also agricultural labourers, and do not
ɔmmence to work at coal until after the rice-crop is cut. The
.bourers on the coal mines are chiefly semi-aboriginal or abori-
inal castes, such as Báurís or Santáls; but low-caste Hindus and
ıe poorer classes of Muhammadans also work in the collieries.
he owners and proprietors of each colliery possess, either as
dárs, *patnídárs*, or as lessees for a term of years, certain vil-
from which the labour required to work the mines is chiefly
:d. Santáls are preferred to other workmen, but they rarely
n long in regular employment. During the time when the
ogical Survey was in progress, 1858-60, the partial failure of
:rops in the Ránìganj Subdivision, and the consequent high
of food, drove many to the mines, and a larger quantity of
than usual was raised.

ıe miner's pay is high. In 1859-60, 5 pice or $1\frac{7}{8}$d. were paid per
et of six *maunds*, or about four and a half hundredweights, of
coal; and this rate has since been increased. A good work-
'an ordinarily turn out about three buckets a day; but in some
.ases miners are able to earn as much as 9 ánás or 1s. $1\frac{1}{2}$d. per
liem. Workmen are not paid for the rubble or dust coal produced.
Boys and girls working above ground receive from 3 to 5 pice or
from $1\frac{1}{8}$d. to $1\frac{7}{8}$d. per day; and the 'gin' women from 5 to 6 pice
or from $1\frac{7}{8}$d. to $2\frac{1}{4}$d. a day. The miners keep a large number of
holidays, and on an average they only work for about twenty-three
days in a month. Allowing for these absences from work, a
miner's family, consisting of a man and his wife with three children,
earned even in 1860 nine rupees or even more per month, or
about double the pay of an ordinary peasant or day-labourer at
the present day (1874). They all look well fed; but in spite of
their prosperous condition, they have none of the thrifty habits of
the Bengali peasant, and dissipate their surplus earnings in feast-
g or at the grog-shop, which is an invariable appendage to a
ılliery.

Fire-damp being almost unknown, common earthen oil lamps, in
e shape of a lipped saucer, similar to those commonly used in
tive houses throughout Bengal, are employed in the mines, or
'ches when more light is required. An explosion of fire-damp
:e occurred in Mangalpur colliery, when two men were so severely

burnt that they died from its effects; another instance occurred Parasiá colliery in 1861, in which two or three men were severe burnt. In both of these cases the accident was traceable to unusu carelessness. The ventilation of the mines is entirely natural, an from the shallowness of the pits it is good and sufficient; but wit a greater depth of shaft, especially if fire-damp occurs, there will b a necessity for improved ventilation.

The liability of the coal of Ráníganj to spontaneous combusti is a serious drawback to its employment in India. For many it was the practice at all the collieries round Ráníganj to lea small coal, which was formerly quite unsaleable, in the mine several fires resulted. The Chaukídángá colliery took fire in 1861, and continued burning till May, causing a great de damage. Last year (1873) a large fire occurred in one of the cipal collieries, and resulted in great loss of property. At pre a great deal of the small coal and coal dust, which was form allowed to remain in the mine, finds a local market for the poses of brick and lime burning, but large quantities of it are thrown away and wasted.

OUTTURN OF COAL.—Calculating the ton at $27\frac{1}{3}$ *maund* Blanford's report of the operations of the Geological Survey give the following as the outturn of coal from the different coal tracts, in the years 1858, 1859, and 1860. In the Singáran valley, eleven collieries, worked by eight steam-engines, yielded 32,150 tons of coal in 1858; 86,780 tons in 1859; and 80,600 tons in 1860. In the vicinity of Ráníganj, ten collieries, worked by eleven steam-engines, yielded 130,800 tons of coal in 1858; 172,270 tons in 1859; and 170,840 tons in 1860. In the eastern division of the Nuniá valley, thirteen collieries, two of which were worked by steam power, yielded 17,000 tons of coal in 1858; 24,890 tons in 1859; and 17,300 tons in 1860. In the western division of the Nuniá valley, five collieries, with three steam-engines, yielded 9880 tons of coal in 1858; 11,700 tons in 1859; and 10,600 tons in 1860. In the western part of the Ráníganj field, ten collieries, with three steam engines, yielded 26,750 tons of coal in 1858; 31,950 tons in 1859 and 33,960 tons in 1860. Total, forty-nine collieries, with twenty seven steam-engines, yielding 216,580 tons of coal in 1858; 327,50 tons in 1859; and 313,300 tons in 1860.

The following table, compiled from Dr. T. Oldham's report

[*Sentence continued on p.* 1

Number.	Name of Colliery.	Method of Working.	No. of Pits or Quarries worked.	Date of opening Colliery.	1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	Thickness of Seam in feet.	Remarks.
1	Newcastle Coy.,	Pits, . . .	...	1863	...	...	...	...	...	...	200,000	300,000	150,000	...	Outturn only estimated.
2	Banbáhál, . .	Shafts, . .	2	1864	...	...	...	...	...	...	11,570	106,689	138,954	10-12	...
3	Chaukídángá, .	Shafts, . .	7	1834	330,000	485,000	264,584	264,571	369,626	338,430	523,288	884,782	1,428,307	14-26	Exclusive of rubble.
4	Muhammadpur,	Quarry, .	1	1857	40,000	40,000	40,000	...	...	2,208	...	...	7,020	...	Mine abandoned; roof dangerous.
		Shafts, . .	1												
5	Dhosál, (1) .	Quarry, .	1	1834	...	14,000	...	...	...	...	...	...	...	22	...
6	do. (2) .	Pits, . . .	3	...	...	...	No certain record.			...	2,500	150,000	418,900	26	...
7	Jotjánakí, (1) .	Quarry, .	1	1858	...	25,000	...	...	...	...	...	...	...	5½	No return since 1860.
8	Do. (2) .	Do. .	1	1858	...	30,000	...	...	...	...	...	...	...	5½	
9	Do. (3) .	Do. .	1	1859	...	...	10,000	...	...	...	...	...	...	5½	
10	Do. (4) .	Pit, . . .	1	1866	...	...	...	...	...	...	...	...	117,000	...	...
11	Tapasí, (1) .	Shaft, . .	4	1848	...	480,000	300,000	470,656	651,543	681,574	...	...	...	24	Destroyed by fire, 1863.
12	Do. (2) .	Do. . .	4	1863	...	...	...	...	...	102,660	521,416	525,927	206,154	24	...
13	Bánsrá, (1) .	Do. . .	2	1859	...	180,000	70,000	85,098	39,306	...	...	...	...	7	Abandoned, coal bad.
14	Do. (2) .	Do. . .	1	1862	...	...	...	...	69,508	149,975	106,509	18,876	45,342	8	...
15	Parasiá, . . .	Do. . .	2	1859-60	...	...	30,000	23,777	...	...	...	...	...	...	Abandoned, coal bad.
16	Mangalpur, (1) .	Quarries, .	...	1840	450,000	850,000	1,000,000	367,476	380,880	440,568	538,410	577,021	633,954	25	...
		Pits, . .													
17	Do. (2) .	Quarry, .	...	1859	...	3,600	33,000	...	16,824	182,592	19,086	...	152,736	13	...
18	Harishpur (Mádhabpur),	Pits, . . .	5	1857	58,000	443,000	440,000	467,772	366,684	407,169	486,129	578,764	664,373	17	...
19	Bábusol, . . .	Do. . . .	3	1858-59	...	...	84,000	130,311	181,534	221,231	240,984	149,723	215,223	17	...
20	Raghunáthchak,	...	...	1840	100,000	175,000	300,000	82,974	264,270	47,610	246,702	60,618	393,495	14	...
21	Dámuliá, . .	Quarries, .	2	1774? 1824	223,000	391,000	355,000	350,000	500,000	240,000	176,568	...	...	16	...
22	Harabhángá, .	Do. .	1	1859	...	...	150,000	...	...	...	...	...	...	16	...
23	Ráníganj, (1) .	Pits, . . .	...	1816	1,800,000	1,900,000	1,600,000	1,383,510	1,327,020	1,501,980	1,120,152	1,075,014	1,339,535	13	...
24	Do. (2) .	Quarry, .	...	1866	...	...	...	...	...	...	...	...	32,438	...	...
25	Siársol, . . .	Quarries, .	2	1846	1,200,000	1,600,000	1,477,789	1,276,303	1,281,113	1,285,403	1,275,331	1,280,290	1,281,202	12	Rubble included.
		Pits, . .	6												
26	Nimchá, . . .	Pits, . . .	5	1859	...	...	70,000	178,436	334,330	435,336	373,068	646,594	885,552	20	A quarry opened, 1865.
27	Jemeri, . . .	Pits, . . .	4	1854	250,000	400,000	364,095	1,071,002	1,067,039	1,091,395	1,083,290	1,053,001	1,050,670	12	Rubble included.
		Quarries, .	2												
28	Banáli, . . .	...	...	1860	...	...	30,000	57,700	66,537	239,825	54,993	83,061	188,311	13	...
29	Bhángábándh, .	Pits, . . .	4	1840?	...	60,000	250,000	318,870	358,656	339,192	114,738	...	...	7	Not worked since 1864
30	Sátgrám, . . .	Quarry, .	1	1859	...	...	...	69,012	59,378	87,369	332,232	341,030	357,320	10	...
		Pits, . . .	2	1863											

List of Principal Raniganj Collieries worked in 1858-66—*continued.*

Number.	Name of Colliery.	Method of Working.	No. of Pits or Quarries worked.	Date of opening Colliery.	Outturn of Coal in *maunds* for the years 1858.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	Thickness of Seam in feet.	Remarks.
31	Ningá, (1) . .	Quarry, .	1	1852	225,000	210,000	76,138	...	...	...	...	...	...	...	No returns since 1861.
32	Do. (2) . .	Shafts, . .	2	1862	...	...	...	...	7,569	8,421	69,839	71,198	15,660	...	...
33	Puránádihí, .	Do. . .	2	1863	...	...	...	...	...	2,394	141,717	159,608	158,398	10	...
34	Charanpur, . .	Do. . .	2	1865	80,000	80,000	...	...	...	47,800	85,530	55,836	191,177	19	...
		Quarries, .	2	1862											
35	Syámsundarpur,	Pits, . . .	2	1856	10,000	50,000	50,000	...	...	...	...	...	...	13	No returns since 1860.
36	Baraban, . . .	Quarry, .	1	1859	...	...	10,000	...	...	...	...	...	...	17	Do.
37	Paríharpur, . .	Do. .	1	1858	...	160,000	80,500	...	37,782	57,984	...	...	...	9	...
38	Mainánagar, .	Do. .	1	1848	110,000	90,000	100,000	...	...	...	...	...	...	9½	...
39	Dhadkiá, . .	Pit, . . .	1	1859	...	...	100,000	12,618	63,098	83,697	87,284	168,420	118,764	11	...
40	Asansol, . . .	Quarry, .	1	1857	20,000	20,000	10,000	...	...	...	...	...	...	8	...
41	Sripur, . . .	Do. .	1	1859	...	10,000	4,000	...	...	...	...	...	...	7	...
42	Gushik, (1) . .	Do. .	1	?	...	50,000	17,099	...	...	...	...	...	...	8	...
43	Do. (2) . .	Do. .	1	1856	20,000	10,000	...	...	...	...	...	...	...	8	...
44	Beldángá, . .	Do. .	1	?	...	...	25,000	...	...	...	...	...	...	9	Not worked.
45	Ghároí, . . .	Do. .	3	1855	60,000	60,000	50,000	...	...	...	27,150	...	...	...	Abandoned, coal bad.
46	Boráchak, . .	Do. .	4	1855	60,000	60,000	70,000	...	...	133,113	135,499	...	...	8	Do.
		Shafts, . .	2	1858											
47	Fathipur, . .	Do. .	4	1858	...	200,000	150,000	...	...	154,986	217,968	31,767	...	...	...
48	Sítárámpur, . .	Quarry, .	1	1847	150,000	...	...	...	...	...	...	57,112	78,490	12	...
		Shafts, . .	4	1864											
49	Dhamwá, . .	Quarry, .	1	1855	...	...	20,000	...	...	...	...	...	...	12	...
50	Raghunáthbátí,	Do. .	2	1865	...	...	...	...	...	...	...	5,418	120,710	8	...
		Shafts, . .	2	1864											
51	Sanktoriá, . .	Do. . .	2	1860	...	...	...	...	...	72,450	170,654	163,468	111,338	10	...
52	Chinákurí, . .	Pits, . . .	2	1834	350,000	273,000	329,000	317,502	299,328	328,842	221,562	195,438	289,012	10½	...
53	Hátiná, . . .	Do. . .	3	1857	75,000	75,000	200,000	185,137	213,290	298,748	227,910	70,770	...	12½	...
54	Lálbázár, . .	Do. . .	2	1857	75,000	75,000	...	...	...	...	...	...	...	18½	...
55	Chánch, . . .	Quarry, .	1	1830	141,000	260,000								10	...
56	Nuchibád, . .	Do. .	1	1830	...									10	...
57	Dumarkunda, .	Quarry and Pit, . .	2								220,326		...	10	Not worked since 1864.
	[illegible] . . .	Quarry.												4½	...
													...	1	Discontinued from [illegible]

Sentence continued from p. 116.]
the 'Coal Resources and Production of India,' gives more detailed information as to the outturn of coal, showing the yearly outturn of each mine, and carrying the information down to the beginning of 1867. The table gives the names of the principal mines, the method of working followed in each, the year in which the mine was opened, and the outturn of coal for each of the years from 1858 to 1866 inclusive, etc.

In 1872 there were altogether 44 coal mines at work, principally in the Ráníganj Subdivision of Bardwán, but a few in the neighbouring Districts of the Chutiá Nágpur Division. Nineteen of them turn out upwards of ten thousand tons each per annum. The greatest outturn of coal was in 1868, when 564,933 tons were raised; in 1872 the outturn was 322,443 tons.

Dr. Oldham, in his report on the 'Coal Resources and Production of India' (1867), states that he is unable to give anything nearer than an approximate estimate of the quantity of coal existing in the Ráníganj field. 'Taking the area of the field (omitting the portion covered by the Pánchet rocks, which entirely conceal the coal-beds underneath them) at four hundred square miles, and the thickness of the coal at, on the average, thirty yards, we would have an estimated thickness of $400 \times 1760 \times 1760 \times 30 = 37,171,200,000$ cubic yards, or roughly, tons of coal. From this estimate it will be safe, owing to the inconstancy and irregularity of the beds, to exclude one-half, leaving 18,585,600,000; and deducting from this for waste, loss, small coal, etc., say one-fourth, we would have about fourteen thousand millions of tons of coal.'

Quality of Raniganj Coal.—Mr. Blanford, in his report on the Geological Survey, 1858-60, states that in the Ráníganj bed, nine seams (perhaps eleven), with an aggregate thickness of 120 feet, are worked in the eastern portion; in the western portion of the field, eleven seams (perhaps thirteen), with an aggregate thickness of about 100 feet; and in the Lower Dámodar section of the field, four seams, with an aggregate thickness of 69 feet. More extensive underground explorations are necessary in order to fix the absolute thickness of the coal-seams in the Ráníganj field.

The coal itself is a variety of the non-coking bituminous coal, with a large proportion of volatile matter and ash. The brighter portions consist of a very pure coal, a sample of which from Siársol mine gave the following results:—Volatile, 40 per

cent.; fixed carbon, 57·5 per cent.; ash, 2·5 per cent. This is the composition of some of the bituminous coal, but it contains rather more volatile gases than do those kinds best adapted for the preparation of coke. An inferior coke may be made from picked specimens of coal from some mines where the proportion of the bright jetty-black layers is large. These bright streaks, however, seldom exceed an inch in thickness, and thin out towards both ends thus appearing as flattened masses of irregular shape, in a matri of a dull black colour. The latter was not separately assayed;

[*Sentence continued on next page.*

COMPOSITION OF COAL FROM THE RANIGANJ COALFIELD.

Locality.	Fixed Carbon.	Volatile Matter.	Ash.
Ráníganj,	50·8	36·0	13·2
Do.	50·3	36·3	13·4
Siársol,	51·1	38·5	10·4
Do.	57·25	41·0	1·75[1]
Nimchá,	47·0	31·5	21·5
Bánsrá,	47·0	40·0	13·0
Mangalpur,	43·9	38·4	17·7
Do.	44·75	37·00	18·25
Bábusol,	46·00	35·40	18·60
Mádhabpur (Harishpur),	51·10	35·40	13·50
Parasiá,	44·00	32·00	24·00
Tapasí,	49·20	35·40	15·40
Do.	53·75	31·50	14·75
Chaukídángá,	56·50	35·00	8·50
Do.	56·80	34·00	9·20
Dhosál,	55·26	34·00	10·74
Jot-jánakí,	48·50	30·50	21·00
Gopináthpur,	53·25	35·25	11·50
Banbáhál,	48·40	38·70	12·90
Kastá,	61·40	28·00	10·60
Do.	43·50	32·80	23·70
Jemerí,	55·60	34·00	10·40
Fathipur,	63·80	25·00	11·20
Mainánagar,	54·35	35·52	10·13
Raghunáthchak,	50·50	36·00	13·50
Do.	46·90	35·00	18·10
Banálí,	42·60	44·20	13·20
Bhángábánd,	40·30	28·40	31·30
Chinákurí,	53·20	35·50	11·30
Hátinál,	61·00	27·50	11·50
Mahaldabar,	39·20	25·60	35·20
Average,	50·55	34·31	15·14

[1] Selected rich layers only.

but the whole mass, in two good samples from the Ráníganj and Siársol mines, gave the following results :—(1) Ráníganj—volatile, 36·5 per cent.; fixed carbon, 52·5 per cent.; and ash, 11·0 per ent. (2) Siársol—volatile, 38·5 per cent.; fixed carbon, 51·1 per ent.; and ash, 10·4 per cent. The quantity of ash in the duller portions is often as much as from twenty to thirty per cent., so that they cannot rank much above a carbonaceous shale. Hence the value of the coal from Ráníganj, or from any of the Dámodar rocks, depends mainly upon the proportion of the brighter laminæ in it. This is more or less the case with all coal, but the laminæ are far more marked in the beds of India than in those of Europe. The preceding table shows the result of assays of thirty-one fair average specimens of coal from the Ráníganj field, made by Dr. T. Oldham, and quoted in his report on the 'Coal Resources and Production of India,' from whose paper I have taken or condensed these and the following paragraphs :—

The principal drawbacks to the more universal employment of Ráníganj coal in the country, and the reason why the expensive English coal is still generally employed, especially by sea-going steamers on long voyages, are the following :—1st, The non-coking property of Ráníganj coal. 2d, The small proportion of fixed carbon, upon which the value of coal for heating purposes depends. 3d, The large proportion of ash. A larger quantity of Ráníganj coal is therefore required to perform the same 'duty' as good English coal. 4th, Its liability to spontaneous ignition, which is mainly due to the large quantity of iron pyrites in the coal. This disadvantage may to a certain extent be avoided by shipping direct from the mine, without exposing the coal to any lengthened action of moisture.

However, for ordinary railway purposes, and even for steam-vessels, with the important exception of sea-going steamers making long voyages, the coal has been proved by experience to be adequate, as well as for the use of stationary steam-engines. Nor does there seem to be any sound theoretical reason for doubting that, with the better qualities of Ráníganj coal, iron can be manufactured in any quantity. The proportion of ash, although large, is said to be not greater than that of some kinds of Welsh coal which are used in iron-smelting. One great drawback, however, to the quality of the iron produced would be the quantity of iron pyrites present in much of the Dámodar and Ráníganj coal. The chief

peculiarity of the ash of Ránígánj coal, to judge from careful analyses, lies in the great proportion of phosphoric acid, which in coal from the Siársol mines was found to be 3·8 per cent., and in coal from Ránígánj to be 2·9 per cent.; whilst in Welsh coa phosphoric acid varies from 0·40 to 0·88 only. If Ránígánj coa were used in a blast furnace, a considerable portion of phosphorus would combine with the iron produced. The effect o phosphorus upon iron is to make the pig or cast iron very fluid which may be well adapted for castings, but for bar iron it is injurious, as it renders the iron what is technically called 'cold short.' In summing up a comparison between the quality of the Indian coal as compared with English, Dr. Oldham shows by analysis that, according to the proportion of fixed carbon or heating power contained in Indian coal, *the very best coal of Indian fields only touches the average of English coal.* On the other hand, comparing the relative amount of ash, matter which does not contribute to the heating power of the coals, it is found that the *average* of Indian coals gives no less than $15\frac{1}{2}$ per cent. of ash, as against $2\frac{3}{4}$ per cent. in English coals. 'These figures,' says Dr. Oldham, 'show how very seriously inferior to ordinary English coals are the Indian. Analysis thus fully confirms the general idea. Practical trials on a large scale show the same result. The two most heavily-worked lines of railway in India, namely, the East Indian (Bengal) and the Great Indian Peninsula (Bombay), use respectively Indian and English coal, and their relative consumption is 150 tons per mile in the former, as compared with 75 tons in the latter. It is therefore certain that Indian coals are not capable of more than two-thirds, in many cases not more than one-half, the duty of English coals.'

History of Coal Discoveries and Collieries.—In August 1774, Messrs. S. G. Heatly and J. Sumner, of the Company's Civil Service, applied to Government for the right of working coal mines, the discovery of which they announced in 'Pachete and Beerbhoom.' Mr. Heatly was at that time Collector of Chutiá Nágpur and Palámau, and he was probably the first Englishman who discovered the existence of coal in Bengal. A Mr. Redferne subsequently joined the firm, which, as Sumner, Heatly, and Redferne, applied for and obtained the exclusive right, for a period of eighteen years, to work and sell coal in Bengal and its dependencies. The partners agreed to pay a royalty to Government of one-fifth of the total value

he coal raised by them, and also to supply to Government, for eriod of five years, ten thousand maunds or 366 tons of coal per num, at a price of *sikká* Rs. 2. 12. 0 per maund, or £8, 3s. 6d. a , which was probably equal to the value of English coal in India the time. The present price of Ráníganj coal varies from 6½ to *ánás* a maund, equal to from £1, 2s. 3d. to £1, 5s. 7d. a ton in Calcutta. In 1775 Messrs. Sumner and Co. announced to Government the arrival of 2500 maunds or 91½ tons of Pánchet coal, and requested it might be taken delivery of according to the terms of the agreement. This, however, does not appear to have been done till 1777, when, upon a second application being made by Messrs. Sumner, Heatly, and Redferne, Government directed the Commissary of Stores to examine and report upon the coal. A series of experiments were undertaken, and the Commissary of Stores came to the conclusion that the coal was only half as good as English. It was consequently returned to the firm, with an intimation that Government would still give them every assistance, provided they produced coal of a better quality, and recommended a further search being made, and deeper excavations carried out. The mines first worked by Sumner, Heatly, and Redferne, and subsequently by Mr. Heatly alone, are said to have been six in number, three of which were at Aituriá, Chinákurí, and Dámuliá; the others were probably farther to the west, near the Barákhar. It is stated that Mr. Heatly imported a number of miners from England in order to properly work the mines, but that they were carried off by fever. Mr. Heatly was subsequently removed to a different part of the country, and it is doubtful whether any of the coal was actually brought into he market.

Nothing further was done in the way of working the coal mines for thirty years. In 1808, the Government, in consequence of the difficulty experienced in procuring English coal, made inquiries regarding the Dámodar coal, but apparently without any practical result. In 1814, however, Mr. Rupert Jones was deputed to examine the District. That gentleman re-discovered Mr. Heatly's workings, and also found the seam at Ráníganj, which in 1815 or 1816 he began to work on his own account, a sum of £4000 being advanced to him at a low rate of interest, to enable him to carry out the experiment. He seems to have been the first speculator who brought Indian coal into the market; but, failing in other undertakings, he was unable to repay the Government loan, and

his securities, Messrs. Alexander and Co., an agency house, w called upon to make it good. They accordingly paid the mand, the leases of the ground on which the mine was situa were placed in their hands, and in 1820 they became the own of the colliery.

The history of the Ráníganj colliery for several years followi presents a continued succession of lawsuits, as the proprietors o the colliery, Messrs. Alexander and Co. and their successors, wished to prevent others from establishing themselves in the District. In 1823 Chinákurí colliery was opened by Mr. Betts, upon the site of Mr. Heatly's previous workings. In the following year, 1824, Messrs. Jessop and Co. opened the Dámuliá mine, but lost it by a lawsuit, and subsequently, in 1830, opened the Náráyankurí mine. The Chánch and Nuchibád mines were also opened in 1830 by Mr. Homfray, of the firm of Jessop and Co.; Chaukídángá and Mahmúdpur were first worked by Dr. Rogers in 1834, and Dhosá by Mr. Blake about the same time. The year 1835 was a bad one for commercial men. Messrs. Alexander and Co. failed, and the Ráníganj mine, with all buildings on it, the steam-engines, 250,000 maunds of coal, or upwards of 9150 tons, together with the valuable *patní* leases of the ground, was purchased by Bábu Dwárkánáth Tagore for the sum of £7000, or less than the market value of the coal alone. The mine was then worked by the firm of Carr, Tagore, and Co., who in 1837 purchased Chinákurí mine from Mr. Betts, junior. In the same year, Náráyankurí, Chánch, and Nuchibád passed into the hands of Messrs. Gilmore, Homfray, and Co. Mangalpur and Raghunáthchak were opened in 1840 by Mr. Erskine, and a number of new quarries were commenced at the same time by Messrs. Carr, Tagore, and Co., and by several natives. In 1843, the concerns of Carr, Tagore, and Co., and of Gilmore, Homfray, and Co., were amalgamated into the Bengal Coal Company. This company has retained the property ever since, and is now the proprietor of the most extensive collieries in the Ráníganj field. According to Mr. Homfray, the coal imports into Calcutta from Ráníganj amounted in 1839 to 1,000,000 maunds, or 36,600 tons, and in 1846 to 2,500,000 maunds, or 91,500 tons. In 1846 several new mines were opened,—among them, Siársol by Bábu Gobind Prasád Pandit; Nimchá, Sangámahal, Gopínáthpur, and Kastá by Messrs. Grob, Dürrschmidt, and Co.; Sítárámpur by Messrs. Apcar and Co., etc. From 1847 the Ráníganj mines have

nade steady progress, and, with the opening of the railway, the quantity of coal rose in 1860 to treble what it was in 1847. In 858–60 forty-nine collieries produced an average annual outturn of 7,808,566 maunds, or 285,850 tons of coal. Several most promising mines, as Harishpur, Bábusol, Tapasí, Parasiá, and Nimchá, which had previously been languishing and indeed temporarily closed, were reopened, and other new collieries commenced. In 872, the last year for which I have returns, the 44 collieries of Bardwán and a few in the neighbouring Districts yielded a total outturn of 322,443 tons of coal.

IRON FIELDS OF RANIGANJ.—Closely connected with the prosperity and increased development of the collieries of Ráníganj is he question of its suitability for blast furnaces, for the manufacture f iron from the rich clay iron and deposits of magnetic iron which bound in the neighbourhood. There can be little doubt that, ere the manufacture of iron successfully introduced, Ráníganj would become one of the richest and most important Districts in Bengal. The iron ores occur, interlaminated with quartzite and gneiss, in bands varying in thickness from three inches to two feet. They contain from 60 to 70 per cent. of iron. The clay iron ores of the Ráníganj field give the following percentages of iron:—North of Bádul, 53·96 per cent.; Ráníganj, 46·66 per cent.; Khairásol, 40·81 per cent.; Churaliá, 23·00 per cent. Ores yielding 38 or 40 per cent. of iron are considered fair and productive. It is a matter of doubt, however, whether a sufficient quantity of limestone exists in the District to be available as flux for large works for any length of time; in which case limestone from the neighbourhood of Rohtás and the Son valley would have to be imported, and this would materially increase the cost of manufacture.

The question as to the suitability of Ráníganj coal for the manufacture of iron and the utilization of the valuable beds of iron ore in the District has been long before Government; and, as early as 1855, Mr. David Smith, the Government Iron and Coal Viewer, was deputed to report on the iron deposits in the District, together with the suitability or otherwise of the local coal for the manufacture of iron. The following paragraphs are quoted *in extenso* from Mr. Smith's valuable report on the subject, dated 30th June 1856:—

'I commenced my investigations in the Dámodar valley, and, with the view to acquaint myself with the general features of the country, did not at first confine my attention to any one particular

locality, making as extensive a tour over the whole as I could, visiting the collieries from Ráníganj to Chinákurí and Chánch on my way. As no doubt can exist that the supply of coal to be obtained from the extensive field of the Dámodar valley is almost without limit and inexhaustible, and as its features and genera conditions are so well known from reports already published and by the developments at the many collieries in operation, it would be superfluous for me to offer observations in regard thereto. The quality of the coal has been tested for a variety of purposes, so that its capabilities thus far are well understood. I was interested to learn whether it would be suited for the manufacture of iron on the European system.

'My attention was therefore directed to this point, and, after the best consideration I could devote to it, I came to the conclusion that, although inferior to the English and Welsh coals, it is a safe fuel for reduction of ores in blast furnaces with the aid of hot blast. With the "lange" of the Ráníganj seam an imperfect coke may be produced, but from the great amount of "wastage" or bad yield in the operation, it would be too costly a fuel for profitable application. It would consequently have to be introduced in its raw or natural condition, in which form, with the blast heated to 600° Fahr., a temperature easily obtained, I should apprehend no danger for a satisfactory result, so far as concerned the quantity of pig or crude iron produced.

'The fuel is a most important element in the working of a blast furnace. This is illustrated more clearly in the iron districts of Wales than in either Staffordshire or Scotland, inasmuch as in the two latter the coal throughout is of nearly uniform quality, whereas in the former there are three distinct kinds of coal used for the manufacture. On the eastern end of Glamorganshire, and extending into Monmouth, the coal is highly bituminous, very durable, performing a high "duty," or, in technical terms, capable of bearing a heavy pillar of blast, and carrying a heavy burthen of ore; that is, a given quantity of coal will reduce an unusually large proportion of ore. In East Glamorganshire it is common for one furnace, with hot blast, to turn out 160 to 180 and even 200 tons of pig iron in a week. Of course the iron is of low quality, but nevertheless it is all worked up into rails and merchant bars. Westward from the locality now referred to, and near the centre of Glamorganshire, a coal of a totally different character is found, having no bitumen whatever; it burns freely, with abundance of flame, but no smoke. This is the

ell-known "steam coal" of Merthyr Tydvil and Aberdare. In
is locality are also important iron-works dependent on the coal
ow described—a fuel peculiarly pure, although incapable of per-
rming equal duty in the blast furnace to that worked to the east-
ard. The difference in the produce is very great; for with furnaces
f equal size and the aid of hot blast, and iron ore of equal if not
uperior quality, the make per week in this tract will not average
ore than 100 tons,—a great falling off when compared with the
roduce of the Monmouthshire furnaces and those established at
ie bituminous coalfield of the South Wales Basin.

'The third description of coal used in Wales for the manufacture
f iron is the anthracite or stone coal, found still farther to the
estward, extending through Caermarthenshire into Pembrokeshire.
nthracite coal is hard and dense, the fracture brilliant; it is a
efractory fuel, difficult for that reason to deal with, but when
airly ignited gives great heat, and is very durable; it burns without
moke or flame. Many attempts were made to apply this coal to
he reduction of ore, but uniformly without success, till the iron-
naking community were startled by the Scotch ironmasters, who,
y simply heating the air before its introduction to their furnaces,
uite quadrupled the make. The wonderful effects produced
uggested to the mind of a spirited proprietor of iron furnaces
ituated in the anthracite districts, but worked with imported
ituminous coal, the possibility of using this hitherto condemned
uel' by aid of the then new application. After encountering and
vercoming many and unexpected obstacles, by altering the size
nd form of his furnaces, and by the erection of an efficient heating
pparatus for the air, his energy and perseverance conquered, and
ie was fully rewarded for his expenses and his trouble by complete
uccess. The fuel, till then looked upon as utterly intractable, is
ow used with the same facility and certainty as the others.

'The coal worked at the several collieries in the neighbourhood
f Ráníganj is of a very peculiar kind, the seam being composed
f the three qualities referred to—bituminous, free-burning or steam
coal, and anthracite—in repeatedly alternating thin layers. In this
espect it is different to any seam that has come under my observa-
ion at home; nevertheless it ignites readily, burns freely, and,
although not so durable as the best of the Welsh and English coals,
gives out a great amount of heat. After mature consideration, I
am led to the conclusion, which I feel I can state with much con-

fidence, that this coal will be found very manageable in the blast furnace under the conditions I have already stated; and that with a properly constructed furnace, efficient blast power and heating apparatus, a weekly produce of from 65 to 70 tons might safely be calculated on, with no other ores than those to be obtained from the neighbourhood, and of a quality well suited for railway and merchant bars for all ordinary purposes. For the several processes at the forge and mill the coal is admirably adapted, inasmuch as for each the great essentials are a fuel that burns freely and with a clear flame, characteristics possessed by this coal.

'I do not think I can profitably add further observations in regard to the coal; I therefore proceed to detail my investigations of the iron-ore fields. I will first remark on a somewhat peculiar kind of iron ore, distributed pretty well all over the surface covering the coal. It has been very properly designated ferruginous gravel, a term which conveys a correct description of its appearance. It is argillaceous, and, singular enough, is precisely like the ore used in France, on which the iron-works in the neighbourhood of Boulogne and others to the south are entirely dependent. In France it lies near the surface, the covering generally not exceeding three or four feet, being found in "beds," or rather "lodes," for they are not continuous, varying in depth from three to twelve and even fifteen feet. During my survey in this country, I have only met with similar deposits of this ore in two or three places, and there the thickness did not exceed three feet; but that it is to be obtained in considerable quantity is shown by the large heaps collected for the repair of so many miles of the Grand Trunk Road It is a valuable ore, and would be advantageously used with the other clay ores of the Districts in the manufacture of iron, a purpose to which it would be more properly applied than to its present uses. It is to be hoped that the day is not distant when this ore will be too fully appreciated to admit of its use as a material for making and mending roads.

'The iron-ore field of Bárul is situated about eight miles to the north of Ráníganj, and was the first the investigation of which occupied my attention. In styling it "Bárul," I do not mean that the district examined is comprised within its limits, properly speaking; for Bárul, like other localities in the neighbourhood, is a village with a certain amount of land attached. The fact of its being, perhaps, rather more important and better known than any

, induces me to adopt it for convenience, thereby avoiding repeated introduction of names of places known only to those g on the spot ; therefore, by giving the title of Bárul to this field, ish to be understood as referring to a tract of country bounded follows :—

hurulié on the north, approaching the Ajai river ; Jámsol, east ; ., west and south, to within half a mile or thereabouts of the ge of Rájpur ; the extent from north to south being 4 miles and n east to west nearly 5 miles. The southern boundary, approach- the village of Rájpur, is distinctly defined by a sudden and upt alteration of the angle of inclination in the strata. I do mean that the *direction* of the "dip" is changed, but that, m being comparatively flat, the inclination at this point suddenly mes a very steep angle,—a feature which holds its course from to west across the entire field, and beyond its limits. To this cumstance is due the appearance of the iron ore at Bárul, as but m the "upheaving" described, the coal measures would have ld their course to the north with the same easy rise, and thus ve occupied the ground at Bárul where now are presented the eply (geologically) underlying seams of iron ore.

Traversing the tract in question, and going northward, the first ication of iron ore observed is from the surface being thickly ewn with lumps of it. A section, not a deep one, of the iron- uring strata is exposed in a stream or rivulet less than half a e west of the village of Bárul, where are shown two seams of ore, upper eight inches, and the lower nine inches thick, with a urse of nodular ore averaging three inches. These I traced for a onsiderable distance down the stream towards the north-east. I und the same near Jámsol, the extreme eastern boundary of my earch ; and afterwards in the west, not far from Satur. These ams have likewise been exposed at a variety of intermediate aces, by the operations of the natives digging tanks and shallow ells. In all and every one the ore was found, so I had no diffi- lty in feeling satisfied that it extended over the whole of the act of country comprised within the limits of the tract I have set own.

'These seams alone would not be of sufficient importance to arrant mining operations ; I consequently applied for and obtained e sanction of Government to sink a trail shaft. The site fixed for is shaft was on the bank of the small stream already referred to,

about half a mile to the west of Bárul village. While I remained the neighbourhood, it was sunk to a depth of thirty-two feet, inte secting at that depth four seams of iron ore, of the aggregate thic ness of eighteen inches, which, with the seams before known, makes a total of thirty-eight inches of clay iron ore of very superior quality. In addition to these, a vein of carboniferous iron ore, known home as "blackband," was passed through, three feet six inch thick. It is not by any means so rich an iron as the Scotc "blackband," as I estimate it to yield no more than from twenty tc twenty-three per cent. in its raw state; but when calcined,—a proces which this ore as well as all the clay ores found here must go through before introduction to the blast furnace,—I believe it will yield over forty per cent. of iron. It is not all equally good, the lower two feet of the seam being the best. The great advantage of thes "blackband" ores is the comparatively small cost at which they are worked, and their great fusibility. Mixed in fair proportion with the clay ores, the process of smelting is facilitated, and the "make" consequently increased.

'When the trail shaft had reached the depth of thirty-two feet, I was ordered to proceed to other districts assigned for examination, and to place the pit under superintendence during my absence, as I should be at too great a distance to exercise supervision over it. Mr. H. Biddle of Ráníganj was good enough, on my application to him, sanctioned by Government, to undertake the charge. Under his superintendence, the pit has been continued to a depth, as reported to me by Mr. Biddle, of 51 feet 11 inches. Another seam of ore, 2 feet 4 inches thick, and by analysis containing forty-two per cent. of iron ore, was discovered; so that in a shallow section of 52 feet we have 38 inches in separate beds of excellent clay iron ore, and 52 inches of carboniferous or blackband iron ore. I do not now take into account the upper and inferior portion of the first seam of blackband met with. No doubt can exist that where the upper beds lie, those below as found in the pit will be co-extensive. It follows, as a matter of course, that all the beds of ore discovered, as above described, both argillaceous and carboniferous, must extend under the whole of the wide field now under notice, affording a supply of ore almost inconceivable in quantity.

'The clay ores, 38 inches thick, would give rather more than 1 ton for each superficial yard of surface; and the carboniferous, 52 inches thick, at least 1½ ton under a like space. Now, taking only

ɔo yards to the acre, allowing the 840 yards—a most liberal allow-
ce—to go for loss and waste in working, and for some portions
the field blank, as always happens, we have, as the produce of one
e, 4000 tons of the first, and 6000 tons of the second, equal to
ɔoo tons of ore; and per square mile, 6,400,000 tons.

Assuming 4 tons of ore to be required to make one ton of iron,—a larger quantity than would be used (but I wish the statement to be over rather than under the mark), as $3\frac{1}{4}$ tons would be fair quantity to calculate upon,—the ore to be obtained from each quare mile shows a product in pig iron of no less than 1,600,000 ns,—equal to the make of eight furnaces, at 70 tons per week, for period, in round numbers, of rather more than fifty-nine years.

'I believe an opinion is prevalent in this country, that beds of varying from three to eight or nine inches thick cannot be ɔfitably worked, from the amount of labour required to make head room" for the miner, in removing so much of the unproıctive shales as would enable him to carry on his operations for e extraction of the ore. Opposed to this is the fact that all the ɔn-works of Shropshire, Staffordshire, and Wales obtain their pply of what is termed native ores from similar beds. It would rtainly not pay so to operate on one thin seam; but when three four of an aggregate thickness of from fifteen to eighteen inches e associated in the same range, it is found to answer well. The iners of the country would have no greater difficulty to contend th in penetrating the strata which contain the ore than they have in iving passages through the coal-seams, for the shales holding the on ore are soft and easily worked. Undoubtedly the iron would ost more per ton than the coal; that happens everywhere almost ithout exception. It is by comparison only that a conclusion of igh or low cost is to be arrived at. At the present time the ores f Staffordshire do not cost less than 20s. per ton; the average of Vales will be 13s.; compared with such prices, the ores of Bárul ould stand very low. Taking a working over a series of years,—ɔr at the early operations the cost would be less,—the cost of these res would not, in my opinion, exceed 5s. This would be due to ne cheapness of labour and the facilities offered to mining operaons in this District.

'The frequent undulations of the surface present opportunities ɔr mining by "patch" or open work,—a very ready mode, and, hen practicable, always adopted in preference to the more costly

system of pits and adits. Skilled miners are not required for th system of work; and another advantage is, that all the ore is got ou whereas in underground mining a portion must be left to form th sides of the passages and to support the roof.

'Supposing no other seams and beds of ore to exist under t lands of Bárul and those adjoining than have been already d covered, there is, even in that case, a valuable iron-ore field; b the great probability is, that if the search be prosecuted beyond th present superficial depth, additional deposits will be found. I dc not recommend Government to continue the search any further: enough has been done to show the existence of ore in abundance the further development may now be left to private enterprise.'

The serious drawback to the profitable manufacture of iron at Ránígan j, viz. the great scarcity of flux, is alluded to by Mr. Smi as follows:—'*Kankar* lime is distributed, in often recurring patche over the surface here, as it is everywhere over the plains, but in quantity so deficient, as far as my observation led me to conclude, as to be altogether unreliable as the source for the supply of even one furnace. Limestone would therefore have to be imported in large quantities, but still not to the full extent of flux required, for all the *kankar* that could be obtained would of course be collected, to go in diminution of the quantity used of the highly expensive article to be imported. This would be still further reduced by using ove again the scoriæ or cinders of the blast furnace. This is not a speculative opinion, inasmuch as I have commonly applied the scoriæ to the same purpose at home. The practice is not generally adopted there, owing to the trifling cost at which nearly all the works obtain a supply of limestone. Here, however, it would be different. The imported flux, instead of being the cheapest, becomes the most costly material in the manufacture; and it cannot be unfair to assume that in practice other means than these alluded to would be brought into use, by which the consumption of so costly an article might be greatly economized.

'The first attempt to establish the manufacture in India would certainly be a very spirited undertaking, and would most likely be looked upon by those entering upon it as an experiment. It is, however, to be hoped those who engage in the speculation will not treat it as "experiments" too commonly are, by trying to produce satisfactory results from temporary, and therefore deficient, erections and patchwork contrivances. Such a proceeding is to

troduce at the commencement the elements of failure, in the end aving all in as much doubt and uncertainty as surrounded the uestion before a large sum of money, so injudiciously spent, has been wasted in its attempted solution ; spreading abroad, in addition, he mischievous impression, to last, in all probability, over many years, that other attempts would be attended with like consequences ; whereas, had the spirit which prompted the undertaking not shrunk from the somewhat larger figures demanded by the provision of efficient means, it is most likely a nucleus would be formed, round which would gradually grow an establishment capable of meeting to an important degree the requirements of the country, at some time returning fair remuneration for capital invested. Let the trial be conducted on as small a scale as practicable,—that certainly will be prudent ; but even for that, whatever buildings and machinery are equisite should be of the best construction.'

BUILDING STONE.—Many of the sandstones of the Dámodar country might be used to some extent for building purposes. The best are the peculiar hard bands that occur in the Ráníganj series. Some beds near the top of the Lower Dámodar group, as at Belgoniá on the Grand Trunk Road, close to the Barákhar river, have yielded excellent building stone.

MANUFACTURES.—Silk *sáris* and *dhutís* are largely manufactured at Memárí and Rádhákántpur in the Bardwán Subdivision, and also in the Búd-búd and Kátwá Subdivisions. Weavers are numerous throughout the District, who, besides meeting local wants, supply cloth to other parts of the country. The gold and silver work carried on consists of personal ornaments, and occasionally plates and drinking cups, etc. Brass work is carried on in Dignagar, Banpás, Dáinhát, Díwánganj, and Jabaí. A special variety of pottery is made in the Kálná Subdivision. Fibres and jungle products are not utilized for manufacturing purposes. Manufacturing operations are usually carried on by the people on their own account and in their own houses. The system of advancing money for manufacturing purposes is not prevalent, and is only practised in rare cases, in which money is advanced by a merchant to an artisan to make certain articles, which he agrees to buy at a stated rate, and which are intended for export to the Calcutta market. Trades and professions are hereditary, and the name of a man's caste is usually sufficient to designate the occupation he follows. Many persons, however, have abandoned their hereditary

occupation, retaining their old nomenclature for the sake of disti tion among the community. Manufactures are carried on partly people on their own account and with their own hands, and par by means of hired labour. In the latter case, the wages of th labourers vary from Rs. 7 to Rs. 12, or 14s. to £1, 4s. od. pe month, according to the degree of skill required in the work. Ther are no cases of manufactures having died out in Bardwán District or legends of any ancient processes which are now no longer mad use of.

The following table shows the number of skilled workers mechanics, and artisans, arranged under their respective trades making a total of 52,506 men, according to the Census of 1872 :—

MANUFACTURING CLASSES AND ARTISANS OF BARDWAN DISTRICT, 1872.

	Male Adults.		Male Adults.		Male Adults.
Indigo manufacturers, . .	3	Tinmen, . .	6	Cotton-weavers, .	24,557
Lac-workers, .	126	Potters, . .	4754	Wool-weavers, .	2
Silk manufacturers,	68	Comb-makers, .	8	Jute-weavers, .	2
Founders, . .	14	Mat-makers, .	261	Fuller, . .	
Brick-masons (*Rájmistris*), . .	2315	Basket-makers, .	1959	Dyers, . .	4
Lime-burners, .	230	Toy-makers, .	145	Tailors, . .	72
Sawyers, . .	199	Hookah-makers, .	49	Shoemakers, .	132
Carpenters, . .	2506	Musical Instrument		Ornament-makers,	376
Thatchers, . .	742	makers, . .	5	Umbrella-makers,	
Painters, . .	30	Lacquered Ware		Net-makers, .	7
Cart-builders, .	634	makers, . .	161	Bookbinders (*daftris*) . . .	8
Blacksmiths, .	3586	Garland-makers, .	873		
Braziers, . .	2321	Carvers, . .	12	Grand total, .	52,50
		Gilders, . .	44		
		Shell-carvers, .	821		

COMMERCE AND TRADE.—The chief articles of District trade are rice, tobacco, pulses of all descriptions, wheat, rape seed, oil-cake, jute, sugar, salt, English and country-made cloth, cotton, molasses, etc. The principal seats of commerce are Bardwán, Jamálpur, and Kánchannagar, in the *Sadr* or Headquarters Subdivision ; Mánkur, Dignagar, and Patná, in Búd-búd Subdivision ; Ráníganj and Domohání, in Ráníganj Subdivision ; Kalná, Nádanghát, Singárkon, and Goárá, in Kálná Subdivision ; and Kátwá, Dáinhát, Díwánganj, Banwáríganj, and Nabpur, in Kátwá Subdivision. Besides these, annual fairs or *melás* are held in the cold weather in Dádiá, Rasiárá, and Ud-dhanpur, at which also a con-

principally conducted by means of permanent markets. The local manufactures are more than sufficient to meet the full demand of the local markets, and are largely exported to other parts of the country. Similarly, the crops, such as rice, pulses, sugar, vegetables, etc., are more than sufficient to meet local requirements, and are exported to Calcutta and other Districts. The principal imports consist of English piece goods, manufactured iron, salt, spices, cocoa-nut oil, castor oil, etc. The Collector is of opinion that on the whole the balance of trade is about equal, and that consequently accumulation of coin is not going on to any large extent.

CAPITAL AND INTEREST, ETC.—The current rate of interest harged by money-lenders upon small loans, in which the borrower dges trinkets or household utensils as security, is usually at the ıte of one pice per rupee per mensem, or 18¾ per cent. per annum. In large loan transactions, where the lender is secured y a mortgage upon immoveable property, the rate of interest aries from six to twelve per cent.; when a mortgage is given upon her than immoveable property, eighteen per cent. is usually charged as interest. In cases of small unsecured loans to the cultivators, interest is charged at the rate of two pice in the rupee ıer mensem, or 37½ per cent. per annum. Agricultural advances seed paddy or rice to the cultivators are repaid in kind at harvestne, with the addition of twenty-five per cent. as interest. Landed tates are generally valued at about twenty times the annual ɔfit accruing from them. There are two native banking establishnts in the District, one in the town of Bardwán, and the er at Kátwá. Loans, however, are for the most part conducted *private persons who have saved a little capital, and also by* ılage merchants, who combine rice-dealing with money-lending. his combination of occupations is known as the *mahájaní* system, nd is appreciated by agriculturists and other persons with limited means.

IMPORTED CAPITAL.—The Collector in 1871 reported that there vere three indigo factories in the District conducted by European capital and by means of European agency, viz. two at Kálná and ɔne a Kátwá, but that they did not appear to be very flourishing. The factory at Kátwá is owned by a Mr. Eddis, and was reported to be then inactive. The other two factories are carried on by Messrs. Erskine & Co. At one of these, constant employment is given to about sixteen natives, at a monthly charge of about

£9, with an extra establishment of about fifty men maintained for two or three months in the year, which form the working season. The average total income was in 1871 estimated at about £400 or £500 a year; but the factory was reported to be in a declining state. The coal mines of Ráníganj are also mainly worked by European capital, with the exception of the Siársol collieries, which belong to the estate of the late Bábu Gobind Prasád Pandit. An account of the Ráníganj collieries is given at a previous page; but I have not been able to obtain a return of the capital expended on their working and maintenance, or of the profits derived from them

INSTITUTIONS.—There are six charitable dispensaries and hospitals in Bardwán District,—one entirely supported by the Mahárájá and the others maintained by local subscriptions supplemented by Government aid. Besides these, there are also temporary fever hospitals at places where the fever epidemic is or has been severe. These medical charities will be alluded to further, in the medical section of this Account, at a subsequent page. The education institutions will be also alluded to subsequently. Among the private schools, the most important is that maintained by the Mahárájá of Bardwán, at which English, Bengali, Sanskrit, and Persian are taught. The education is free; and free board also is provided for those pupils who attend the Sanskrit class. There are also numerous *tols*, or institutions for teaching Sanskrit, in which, according to ancient custom, free education in Sanskrit is given by the village pandits. At Baha or Srí Krishnagar, nearly west of Memárí, there is a Muhammadan Madrasah called the Madrasah-i-Jaláliyah, maintained from lands formerly attached to the shrine of a renowned Muhammadan saint, Sayyid Jalál-ud-dín Tabrízí, at Great Panduah, who died in 642 A.H., or 1244-45. A weekly newspaper is published in the Bengali character at the town of Bardwán, called *The Bardwán Advertiser*, which in 1871 had an estimated circulation of about five hundred copies a week. Apart from the newspaper, there is one other printing press in the District,—that belonging to the Bardwán municipality, which besides printing its own proceedings, also undertakes private work in English and Bengali.

INCOME OF THE DISTRICT.—The estimated income of Bardwán District, as calculated for the purposes of the Income Tax Act of 1870, viz. the total of all incomes over £50 a year, is about £560,000. The net amount of tax actually realized in Bardwán

ct in 1870-71 was £17,205. In the following year, 1871-72, te of the tax was reduced to one-third of what it had been , or to 1$\frac{1}{24}$ per cent., and the minimum of incomes liable to ment raised to £75 per annum. The net amount of income alized in that year was £4372, 18s. 0d.

MINISTRATIVE HISTORY OF THE DISTRICT: ANTIQUITIES.—iaps mark the sites of several old forts in the District,—one Kulingrám, in *parganá* Chhútipur, a few miles south of Memárí y station; a second, called Rámchandragarh, near the village átá Kul, in *parganá* Azmatsháhí; and two others north of anj, in *parganá* Shergarh, near the Ajai river. Of old temples, aps show a 'Deser-mohan temple' south of the village of , near the Ajai river. At Kálná is a remarkable collection of Sivaite temples, 108 in number, arranged in two concentric . Near Kálná is the *astanah* or tomb of Sháh Majlís, a re-d Muhammadan saint, which is much frequented by pilgrims. rdwán town is another collection of Sivaite temples, also 108 mber; and the fortress-like tomb of the celebrated Persian Bahram Sakká, who died in 1574 A.D. in Bardwán, while on y from Agra to Ceylon. Near his tomb are shown two other , said to be those of Sher Afghán, the first husband of Nur , and of Kutab-ud-dín, Governor of Bengal in 1616, who was in fight by Sher Afghán, because the Emperor Jahángír had Kutab-ud-dín secret orders to bring Núr Jahán to the imperial . The scene of the encounter is still pointed out at Sádhin-ast of Bardwán railway station. The great mosque of Bard-was built by Prince Azímus-shán, grandson of the Emperor gzeb, when Governor of Bengal from 1697 to 1704.

RLY HISTORY.—Bardwán is first mentioned in Muhammadan ies in 1574, in which year, after Dáúd Khán's defeat and death jmahal, his family was captured in the town of Bardwán by 's troops. Mangalkot is also mentioned about 1583 as the where several engagements took place between Kutlu, the f the Afghán Dáúd Khán, and the Imperialists. Bardwán is entioned in history in the year 1624 A.D., when Prince a.., afterwards the Emperor Sháh Jahán, in his rebellion t his father, the Emperor Jahángír, after passing through l India, seized upon Orissa, and subsequently captured án. Sálih, the commander of the fort of Bardwán, offered a esistance and then surrendered.

In the *Ain-i-Akbari* (1590 A.D.), Bardwán is mentioned as a
or *parganá* of *Sarkár* Sharífábád, and was, as then cons.
assessed at 1,876,142 *dáms*, or 46,903½ Akbársháhí rupees
grains troy of silver each. The greater part of the present I
belonged to *sarkárs* Sharífábád, Sulaimánábád, and Madáran.
name of *sarkár* Sulaimánábád, after Sulaimán, King of Beng
1563 to 1573, is often corrupted into Salímábád. The
Salímábád, to the south of Bardwán, was the chief town
sarkár. The *sarkár* itself extended from Salímábád towards
and included the *parganás* of Chhutipur, Sátsikká, etc.
Madáran included the western or Ráníganj Subdivision of
sent District, or, as it was then called, Sikharbhúm; and *p*
Champánagarí, Samarsháhí, etc. *Parganás* Azmatsháhí,
Manoharsháhí, Khandghosh, and Bágha formed a portion of
Sharífábád.

Of the revised rent-roll, or *asl jamá tumárí*, made in
Prince Sháh Shujá, the son of the Emperor Sháh Jahán,
ticulars are not known; but it is supposed that it did no
differ in its geographical details from the subsequent revise
roll of Murshid Kulí Khán, better known as the Nawáb Jafar
in 1722. In this statement Bardwán is mentioned as a '*c*
formed of the *sarkárs* of Sharífábád, Madáran, the greater
Salímábád or Sulaimánábád, and a portion of Sátgáon or
This territory comprised the rich *zamíndárí* of Bardwán, on
of Bírbhúm, and the whole of Bánkurá and Pánchet. The
contained 61 *parganás*, and was assessed at a rent of 2,2
sikká rupees, or £243,187, 19s. 0d. On the 27th Septembe
A.D., Bardwán, which then contained an area of 5174
miles, and is described as having been the most productive I
within the whole Province or *Subah* of Bengal, was ce
the East India Company, together with the Districts of Mi
and Chittagong, by Nawáb Mír Muhammad Kasím Khán, G
of Bengal. According to the tenor of the Imperial *farmá*
firmatory of the Bengal Governor's grant for Bardwán, the C
acquired the right of free perpetual tenure in the land, as ex
by the terms *inám* and *altamghá*. These rights extende
whole *chaklá* of Bardwán, including the *zamíndárí* of Bardv
more ancient limits, as fixed by Jafar Khán, the whole of
and Pánchet, together with nearly one-third of Bírbhúm. T
Government revenue or *málguzárí* amounted to 3,175,40

£344,002, 6s. 0d., of which 2,251,306 *sikká* rupees, or
1, formed the land rent, the remainder being derived from
of *abwábs* or cesses. Mr. Johnstone, Mr. Bolts, and, later,
lst, were appointed 'Superintendents,' and above five and
's of *bighás*, or about three hundred square miles of land,
vered to have been alienated from the rent-roll under the
nt-free grants, which were held for the most part by the
himself and his favourites. After this area had been
the rent-paying lands of the District, the gross revenue in
increased to 4,328,509 *sikká* rupees, or £468,921; and in
,358,026 *sikká* rupees, or £472,119,—the charges for the
r amounting to 622,271 *sikká* rupees, or £67,412. These
ncluded the *salanah musháhará*, or proprietary allowance
the Mahárájá while the estate was held *khás*, or under
ent management, which was reckoned at ten per cent. on
revenue. In 1789 the Mahárájá executed an agreement,
g to pay Government a land revenue of 4,015,109 *sikká*
or £434,970, besides 193,721 *sikká* rupees, or £20,986,
ndí or repairs of embankments, making a total of 4,208,830
pees, or £455,956. The present land revenue derived
Mahárájá's *zamíndárí* is £304,000.

ollowing paragraphs regarding the history of the family of
wán Rájás are quoted as nearly as possible verbatim, but
condensed, from an article in the *Calcutta Review* for 1872,
'The Bardwán Ráj:'—

Ráí, by caste a Kapur Kshattriya, was the founder of the
family. He migrated to Bengal from the Panjáb, and
Bardwán. In the year 1068 of the Muhammadan era, or
., he was appointed Chaudhrí and Kotwál of Pekabe Bágán,
he town of Bardwán, under the Faujdár of Chaklá Bardwán.
Bábu Rái, who owned *parganá* Bardwán and three other
was succeeded in his turn by his son Ghanasyám Rái.
e death of Ghanasyám Rái, his son Krishna Rám Rái suc-
o the *zamíndárí*, acquired new estates, and was honoured
rmán from the Emperor Aurangzeb. It was in the reign
emperor, in 1696 A.D., that Subhá Sinh, *tálukdár* of Chitwá
lá, then a part of Bardwán, raised the standard of rebellion
the empire. Rahim Khán, an Afghán chief, co-operated
in the expedition. In a stand-up fight they slew the
of Bardwán, and captured all the members of his family

except his son Jagat Rái, who escaped to Dacca, to seek from the Governor in expelling the rebels. Subhá Sinh, of the insurrection, was stabbed and slain by a daugh Mahárájá of Bardwán, one of his captives, whose pers attempted to The insurgents afterwards capt but were finally forced to retire by the Governor of Ch may be here mentioned, that in the rebellion of Subhá nated the formation of the towns of Calcutta, Chanda Chinsurah. The English at Sutánutí, the French at Ch. and the Dutch at Chinsurah, alarmed at the progress of applied to the Nawáb Názim to be allowed to put the into a state of defence. The Nawáb granted their applic they accordingly fortified their settlements.

Jagat Rám Rái succeeded his father, Krishna Rám also made additions to the family estates, and was hon a *farmán* by the Emperor Aurangzeb. He was slain b in 1702 A.D. He left two sons, Kirtti Chandra Rái and Rái. The elder brother, Kirtti Chandra Rái, inherited the *zamíndárí*, and added to it the *parganás* of Chitwá, Bhurs and Manoharsháhí. Kirtti Chandra was a bold and ac spirit. He fought with the Rájás of Chandrakoná and B Ghátál, and dispossessed them of their petty kingdoms. seized and took possession of the estates of the Rájá of situated near the celebrated shrine of Tárakeswar in Húgl These estates were consolidated into the Bardwán Rá Chandra then proceeded to Murshidábád, and got his n tered as proprietor of the new properties. But the boldes ment of Kirtti Chandra was his attacking and defeating B the powerful Rájá of Bishnupur, and the chief of the Bágdís of Bengal. He was, however, afterwards rec Badyajama, and co-operated with him in assisting the repel the Marhattás, who had encamped in Kátwá after p the Western Districts. Kirtti Chandra died in the year was succeeded by his son Chitra Sen Rái, who added the of Mandalghát, Arshá, and Chandrakoná to the paternal e was invested with the title of Rájá by the Dehli Emperor. in the year 1744 without issue, and was succeeded by h Tilak Chandra Rái. In 1753 Tilak Chandra Rái was hor the Emperor Ahmad Sháh with a *farmán* recognising an ing his right to the *ráj*, and a few years afterwards wa

Mahárájá Dhíráj Bahádur, and *Panj hazárí*, or housand.

f this Mahárájá, Bardwán was plundered by ollowing letter from him to the English autho- w can I relate to you the present deplorable Three months the Marhattás remained here, id laying waste the whole country; but now, all gone, but the inhabitants are not yet re- tants have lost almost all they were worth.' ome time to recover from the effects of this alamity was thus pleaded by the Mahárájá for ney due from him to the Company: 'You are h the bad situation of this place at present, but n be able to pay you the money in the time that been my bad fortune to have my country burned, estroyed by the Marhattás, which is the reason that alance due to the Company; and to reinstate my ust be attended with great difficulties, which give ness.' He died in 1771, and was succeeded by his a. In 1776 the administration of the District and estates was taken out of the hands of Tej Chandra, se of his mother, the Maháráni Bishnu Kumárí, ájá Tilak Chandra. She retained control over ict till 1779, after which Mahárájá Tej Chandra ement.

of Bardwán were brought within the operation 1793, the basis of the Permanent Settlement. Chandra entered into an agreement with Go- g to pay regularly the revenue, amounting to nd also S. Rs. 193,721 for *pulbandí* or repairs of t the benefits of the Permanent Settlement were not *ráj*, owing to careless management. It fell into isorganized,—so much so, that Maháráni Bishnu er of Mahárájá Tej Chandra, compelled him to r deed of sale, assigning over the estate to her. he disorganization of the estate was its being par- large number of *ijárádárs*, or farmers,—the *ijárás* to ten years. Most of these *ijárádárs* withheld put in jail; but they were liberated after a certain ir rents by instalments. The in-

evitable result of this sub-infeudation was the accum in the Government demand. The Mahárájá attend the Board of Revenue, and was threa feiture of his *zamíndárí*, but to no purpose. Rájá, Naba Krishna Deb, was appointed *kru* ing officer, but he could do nothing. The G suggested the sale of the *zamíndárí* in lots, recovering the arrears of revenue; and in 17 menced selling portions of the estate. Each lot villages. The principal purchasers of the lots were Dwárkánáth Sinh of Singur, Chhaku Sinh Mukharjís of Janái, and the Bánarjís of Telinípárá

Thus was laid the foundation of the landed aristo and Húglí. While these sales were going on from q the Bardwán family got alarmed at the dismemberme and Mahárájá Tej Chandra bought up several lots i his officials and dependents. About this time Mal Kumárí died. She was an energetic woman, endowe capacity for business, and she might ultimately have saving the whole estate if her life had been prolong death, Mahárájá Tej Chandra resumed the manage One of his first acts was to endeavour to arrest *zamíndárí*, by giving away the land in perpetual I have already described the growth of the *patn* nature of the tenure, on a previous page, in co land tenures of the District.

The Bardwán *ráj* has always been famous for invariably for a discriminating charity. Money u on *nách*s, *púják*s, *srádd*hs, and other ceremonies. Chandra was the first to realize the true nature and u He opened out, at an immense cost, the road fi Kálná, extending over thirty miles. He also bor pense of building a bridge at Magrah, about five m of Húglí, and made several improvements in the t and other places. Mahárájá Tej Chandra had Chandra, but he died during the lifetime of his years afterwards a pretender appeared, claiming claim, after a searching investigation, was dismiss Court. Several persons of the highest respectabili subpœnaed to identify him, swore

832 Mahárájá Tej Chandra died, leaving to his adopted son, Chandra, the present Mahárájá, his enormous landed and tates. On the latter succeeding to the *ráj* in 1833, the vernment honoured him with a *khillat* in due form. He m nlightened representative of the landed aristo-

One of his first acts was the establishment school in Bardwán, where five hundred ceive the benefits of free education in English and Persian. It is a first-class institution, cted by a teaching staff of educated Hindus. lso established hospitals and dispensaries for dwán and Kálná. These institutions, as well s established and maintained by him, attest his fford an example of enlightened liberality. I ıtioned the munificence of the relief measures Mahárájá for the support of his tenantry during 6.

antál rebellion in 1855, the Mahárájá aided the ies by forwarding and supplying stores and means He also kept up a line of communication by troopers. e important and terrible outbreak of the Sepoy Mutiny ahárájá did everything in his power to strengthen the ernment, and to give every aid that was considered e placed elephants and bullock-carts at the disposal es, kept open the roads between Bardwán and Bír- tween Bardwán and Kátwá, so that there was no intelligence between the seat of Government and watched stations of Bírbhúm and Barhampur. In rájá was appointed an additional member of the lative Council, being the first native gentleman was so honoured. He continued in that post for

EXPENDITURE.—The many changes which have the constitution of the District since it was first mpany in 1760, render it impossible to present a parison of the revenue and expenditure at different e year 1762-63, or two years after the District ands of the East India Company, an old account the total revenue of the District to have amounted *kachárí*) rupees' 4,352,552. It must be remembered,

however, that the District or *chaklá* of Bardwán, as then constit
comprised, besides the present District, the whole of B
and Pánchet, together with parts of Húglí and Bírbhú
1783 the gross revenue amounted to *sikká* rupees 4,35,
£472,119, the charges for the same year bein urn
rupees 622,271, or £67,412. The value of t
and elsewhere is taken at 2s. 2d., and of the C
In the year 1790, the total revenue of the Dis
is returned at *sikká* rupees 4,690,084, or £50
expenditure at *sikká* rupees 103,510, or £11,
the return, the Collector states that it is very d
figures for that year are correct, there being no co
on the subject in his office. In 1820 the total
District is returned at *sikká* rupees 4,533,214, or £
net civil expenditure at *sikká* rupees 173,383, or
1820, the area of Bardwán was much diminished, by
of Húglí and Bánkurá, and their formation into sep
consequently there was a considerable falling off in
1850-51 the total net revenue of the District amou
pany's Rs. 3,222,181, or £322,218, and the total net
ture to Company's Rs. 162,412, or £16,241. In 1
was a further slight falling off in revenue, owing to oth
but a considerable increase in expenditure. In that y
net revenue of the District amounted to £319,233, ar
net civil expenditure to £23,351, 12s. 0d. During t
years the area of the District remained stationary, and
and expenditure rapidly increased. In 1870-71 th
revenue of the District from all sources amounted to
19s. 6d., and the net civil expenditure to £64,435, 6s.

The following three tables show the balance shee
District in 1790, prior to the separation of Húglí anc
1850-51, subsequent to those transfers; and in 1
figures, however, for the first two years, must be a
caution, and looked upon as only approximating to
they contain several omissions on both sides of the a
table for 1870-71 may be accepted as correct, the f
been compiled with care, and made as complete as
that year the figures under the heads of land revenue, ed
post office, and jail have been taken from the respective
Reports. The remaining figures were furnished by the C

BALANCE SHEET OF BARDWAN DISTRICT FOR 1790.[1]

	Revenue.			Expenditure.		
	£	s.	d.	£	s.	d.
Land Revenue,	503,272	5	0	10,789	11	0
Abkarí,	354	13	0	261	10	0
Salt Revenue,	2,840	10	0	...		
Stamp Revenue,[2]	1,625	0	0	162	10	0
Total,	508,092	8	0	11,213	11	0

BALANCE SHEET OF BARDWAN DISTRICT FOR 1850–51.

	Revenue.			Expenditure.		
	£	s.	d.	£	s.	d.
Land Revenue,	309,618	2	0	15,451	12	0
Abkari,	7,400	0	0	339	4	0
Stamps,	5,200	0	0	160	0	0
Education,	...			290	8	0
Total,	322,218	2	0	16,241	4	0

BALANCE SHEET OF BARDWAN DISTRICT FOR 1870–71.

	Revenue.			Expenditure.		
	£	s.	d.	£	s.	d.
Land Revenue (current collections),	303,970	2	0	12,593	14	0
Stamps,	21,454	8	0	9	7	2
Excise,	14,415	6	0	916	12	0
Education,	5,735	10	4[3]	10,630	3	4
Police,	...			9,333	0	0[4]
Post Office,	3,068	5	2	4,993	2	10
Income Tax,	17,447	2	2	544	12	0
Civil Justice,	1,864	4	1	12,322	0	3
Criminal Justice,	1,403	4	0	246	6	0
Pounds,	338	10	0	161	18	11
Ferries,	936	18	0	7	10	0
Tolls,	608	2	0	...		
Zamíndárí dák,	175	5	3	184	2	1
Medical,	1,515	0	0	1,515	0	0
Jail,	481	17	10	1,300	12	0
Registry,	1,853	14	0	2,124	0	0
Town Tax,	7,732	0	8	7,553	5	4
Miscellaneous,	5,773	10	0	...		
Total,	388,772	19	6	64,435	5	11

[1] In this table I have converted *sikká* rupees into pounds sterling, at the rate of 2s. 2d. per rupee.

[2] This item is for the year 1801.

[3] Schooling fees and subscriptions.

[4] Regular police only, exclusive of municipal police and village watch.

Since 1871, the area of the District has been again increased by transfers from Húglí and Bánkurá, and the present (1874) revenue and expenditure is probably largely in excess of that of 1871. I have not been able, however, to obtain any later balance sheet than that for 1870-71.

THE LAND TAX.—When Bardwán was made over to the East India Company in 1760, the total Government land rent was returned at *sikká* Rs. 2,251,306, or £243,891. The earlier English officers who were put in charge of the District, however, discovered that about three hundred square miles of land had been alienated from the rent-paying area of the District. These were restored to the rent-roll; and in 1789 the Mahárájá entered into an agreement, promising to pay Government a total land revenue of £434,970, besides £20,986 for *pulbandí* or embankment repairs, making a total of £455,956. In the following year (1790), however, the total land revenue of the District is returned at £503,272. In 1850, after the constitution of Húglí and Bánkurá into separate Districts, the land revenue of Bardwán fell to £309,618. In 1870-71 the 'current collections' of land revenue for Bardwán District amounted to £303,970, the 'current demand' for the same year being £305,064. Subdivision of estates has gone on rapidly under British rule; and, notwithstanding the present greatly diminished area of the District as compared with what it was in the last century, the number of estates in 1870-71 had increased by 108 per cent. above the number in 1790, and the number of individual proprietors or coparceners had increased by 134 per cent. within the same period. In the year 1790 and in 1800 the District contained a total of 2375 estates, held by 2718 registered proprietors or coparceners, paying a total land revenue to Government of *sikká* rupees 4,645,590, or £503,272; average land revenue paid by each estate, £211, 18s. od.; average amount paid by each individual proprietor or coparcener, £185, 3s. 3d. In 1850, after Húglí and Bánkurá had been formed into separate Districts, the number of estates in Bardwán, in spite of its diminished area, had risen to 5272, and the number of registered proprietors or coparceners to 7320. The Government land revenue, however, had decreased to £309,618, equal to an average payment of £58, 14s. 7d. by each estate, or £42, 6s. od. by each individual proprietor or coparcener. Between 1850 and 1870-71 further reductions were made in the area of the District by transfers, and the

total number of estates decreased to 4947, and the number of individual proprietors or coparceners to 6352. The total land revenue ('current collections') amounted to £303,970, equal to an average payment of £61, 8s. 10d. by each estate, or £47, 17s. 1d. by each individual proprietor or coparcener. The Collector states that this general average fairly represents the state of landed property in the District. It must be remembered, however, that since 1871 the area of the District has been considerably increased by transfers of numerous estates from Húglí and Bánkurá, which took place in July 1872.

OPERATION OF THE RENT LAW.—Act x. of 1859—the Rent Law of Bengal—has not been very actively worked in Bardwán District, and the number of cases instituted under it has much decreased of late years. The number of rent cases and miscellaneous applications connected with them, instituted under the provisions of this Act in different years, is returned by the Collector as follows:—In 1861-62, 3272 original suits were instituted, besides 1962 miscellaneous applications; in 1862-63 there were 3079 original suits, besides 2316 miscellaneous applications; in 1866-67 there were 1000 original suits, and 1276 miscellaneous applications; and in 1868-69 there were 1081 original cases, and 1184 miscellaneous applications.

PROTECTION TO PERSON AND PROPERTY has been rendered more complete of late years. In 1780 and in 1800 there were only two magisterial courts in the whole District, and the number of civil and revenue courts is unknown; in 1850 there were seven magisterial and twenty civil and revenue courts; in 1860 there were fourteen magisterial and twenty-two civil and revenue courts; and in 1870 there were twenty-four magisterial and twenty-two civil and revenue courts in the District. The number of covenanted officers at work in the District throughout the year was two in 1780 and 1800, four in 1850, three in 1860, and four in 1870-71.

POLICE PROTECTION has also steadily increased. Upon the cession of the District to the British in 1760, the force employed in the protection of the country from external aggression or internal disturbance and crime consisted of three distinct bodies under the orders of the Mahárájá. These were—(1) a military force, who received cash salaries paid from the Mahárájá's treasury, and who were known by the name of *nagdís;* (2) a regular police force, officered by *thánádárs* and *náib thánádárs*, and comprising in its

ranks *chaukídárs*, *páiks*, and *peons;* and (3) a body of *páiks* who discharged the double duty of collectors of rent and of village watchmen, and were commonly known as *grám saranjamí páiks.* Both of these latter classes were supported by assignments of rent-free land. The first, or military force, has been since abolished; the second, or *thánádárí* force, has been superseded by the present regular District police, and has sunk to the level of the third force, or *grám saranjamí páiks*, who perform *zamíndárí* as well as police duties. These last two classes form the present rural police force or village watch of the District, and will be again alluded to further on. The present police force of Bardwán District consists of the regular police, a municipal police for the protection of the towns, and a village watch or rural police.

THE REGULAR POLICE consisted of the following strength at the end of 1872:—2 superior European officers, consisting of a District Superintendent and an Assistant Superintendent, maintained at a total salary of £1200; 8 subordinate officers, on a salary of upwards of £120 per annum; and 110 subordinate officers, on less than £120 a year, maintained at a total cost of £4986, or an average pay for each subordinate officer of £42, 5s. 1d. per annum; and 511 foot police constables, maintained at a total cost of £4081, or an average pay of £7, 19s. 8d. per annum for each man. The other expenses connected with the District police are as follow:—A sum of £200 allowed as travelling expenses for the Superintendent and Assistant Superintendent, £203, 8s. 0d. for pay and travelling allowances of their establishments, and £981, 16s. 0d. for contingencies and all other expenses,—bringing up the total cost of the regular police in 1872 to £11,652, 8s. 0d. The Census Report returns the area of Bardwán District at 3523 square miles, and the population at 2,034,745 souls. According to these figures, the total strength of the regular police force is one man to every 5·58 square miles of the District area, or one man to every 3224 of population. The cost of maintenance is equal to £3, 6s. 2d. per square mile of area, or a fraction under 1⅜d. per head of the population. In previous District Accounts I have invariably taken the police figures for 1871, for the sake of uniformity. But Bardwán District has undergone such a considerable change in area and population since 1871, that to give the police figures for that year would be to introduce a serious error. I have accordingly taken the figures from the Report of the Inspector-General of Police for the year 1872.

THE MUNICIPAL POLICE is a small force maintained in the larger towns and smaller municipal unions. At the end of 1872 it consisted of 24 officers and 373 men, maintained at a total cost of £3221, 6s. 0d., defrayed by means of municipal rates levied from the householders or traders living or carrying on business within municipal limits. The Census Report returns eight towns in the District of over five thousand inhabitants, each composing a municipality; the aggregate population of the eight towns being 136,623. Other smaller towns and groups of villages are also municipalities; and, according to the Report of the Inspector-General of Police, the total town population protected by municipal police is 166,000, which would give one policeman to every 418 inhabitants.

THE RURAL POLICE or Village Watch in olden times were called *grám saranjámí páiks*, and performed both police and *zamíndárí* duties, for which they were remunerated by grants of rent-free land. In 1794 the total number of these men was reported to be 17,284, holding 46,236 acres of land. At the end of 1872, the Inspector-General of Police returned the total number of village police in Bardwán at 11,647, maintained by grants of land, and in some cases also by money contributions from the villagers, at a total estimated cost, including both sources, of £23,296, or an average of £2 per man. Each village watchman or rural policeman has charge of 30 houses on an average.

Including, therefore, the regular District police, the municipal or town police, and the rural police, the machinery for protecting person and property in Bardwán District consisted, at the end of 1872, of a total force of 12,675 officers and men, equal to an average of one man to every ·28 of a square mile as compared with the area, or one man to every 160 souls as compared with the population. The aggregate cost, both Government and private, of maintaining this force, amounted to £38,169, 14s. 0d., equal to a charge of £10, 16s. 8d. per square mile of area, or 4½d. per head of the population. For police purposes, Bardwán District is divided into twenty-two police circles or *thánás*, as under:—In the Headquarters Subdivision—(1) Bardwán, (2) Khandghosh, (3) Indás, (4) Salímábád, (5) Ganguriá, (6) Sáhibganj. In Kálná Subdivision—(7) Kálná, (8) Bháturiá, (9) Mantreswar. In Kátwá Subdivision—(10) Kátwá, (11) Kátagrám, (12) Mangalkot. In Búd-búd Subdivision—(13) Búd-búd, (14) Ausgrám, (15) Soná-mukhí. In Ráníganj Subdivision—(16) Ráníganj, (17) Káksá,

(18) Niámatpur. In Jahánábád Subdivision — (19) Jahánábád, (20) Goghát, (21) Kotalpur, and (22) Rainá.

WORKING OF THE POLICE.—During the year 1872, 2817 'cognisable' cases were reported to the police, of which 949 were discovered to be false; convictions were obtained in 690 cases, or 36·9 per cent. of the 'true' cases,—the proportion of 'true' cases being 1 to every 1089 of the population, and the proportion of cases convicted, 1 to every 2948 of the population. Nuisance cases cognisable by the police have been excluded from the statement. Of 'non-cognisable' cases, 1942 were instituted, in which 2547 persons were concerned, of whom 1223 persons or 48 per cent. were convicted, the proportion of persons convicted being 1 to every 1666 souls.

The following details of the cases and convictions for different crimes and offences in 1872 are quoted from the Report of the Inspector-General of Police for that year. The 'cognisable' cases were as follow:—Class I. Offences against the State, public tranquillity, safety, and justice—Offences relating to coin, stamps, and Government notes, 5 cases, and 4 persons convicted; harbouring an offender, 1 case, no conviction; other offences against public justice, 7 cases, and 5 persons convicted; rioting or unlawful assembly, 34 cases, and 141 persons convicted—total, 47 cases, and 150 persons convicted. Class II. Serious offences against the person—Murder by robbers, 1 case, and 1 person convicted; other murders, 7 cases, and no conviction; attempts at murder, 2 cases, 1 person convicted; culpable homicide, 8 cases, 4 persons convicted; rape, 7 cases, no conviction; exposure of infants or concealment of birth, 3 cases, no conviction; attempt at and abetment of suicide, 6 cases, 3 persons convicted; grievous hurt, 21 cases, 30 persons convicted; hurt by dangerous weapon, 25 cases, 26 persons convicted; kidnapping or abduction, 14 cases, 5 persons convicted; wrongful confinement and restraint, or for purposes of extortion, 5 cases, 2 persons convicted; criminal force, 35 cases, 12 persons convicted—total, 134 cases, and 84 persons convicted. Class III. Serious offences against person and property, or against property only—Dacoity, 22 cases, 21 persons convicted; robbery with hurt, 1 case, no conviction; robbery in dwelling-house, 3 cases, no conviction; highway robbery by night, 11 cases, 3 persons convicted; other robberies, 8 cases, 1 person convicted; serious mischief and cognate offences, 20 cases, 13

persons convicted; lurking house trespass, or housebreaking with intent to commit an offence, 404 cases, 39 persons convicted; house trespass with a view to commit an offence, or having made preparation for hurt, 27 cases, 2 persons convicted; habitually receiving stolen property, 3 cases, 6 persons convicted—total, 499 cases, and 85 persons convicted. Class IV. Minor offences against the person—Wrongful restraint and confinement, 128 cases, 46 persons convicted; rash act causing hurt or endangering life, 3 cases, 1 person convicted; compulsory labour, 1 case, no conviction—total, 132 cases, and 47 persons convicted. Class V. Minor offences against property—Lurking house trespass or housebreaking, 19 cases, 2 persons convicted; cattle theft, 77 cases, 26 persons convicted; ordinary theft, 1216 cases, 294 persons convicted; criminal breach of trust, 129 cases, 17 persons convicted; receiving stolen property, 112 cases, 81 persons convicted; criminal or house trespass, 174 cases, 78 persons convicted—total, 1727 persons, and 498 cases convicted. Class VI. Other offences not specified above—Vagrancy and bad character, 55 cases, 17 persons convicted; offences against religion, 1 case, no conviction; cognisable offences under the Gambling Act, 1 case, 1 person convicted; cognisable offences under the Excise Laws, 58 cases, 5 persons convicted; cognisable offences under the Railway Laws, 93 cases, 100 persons convicted; cognisable offences under the Stamp Act, 1 case, 3 persons convicted; public and local nuisances, 977 cases, 891 persons convicted; other special and local laws cognisable by the police, 69 cases, 78 persons convicted—total, 1255 cases, and 1140 persons convicted. Grand total of 'cognisable' cases, 3794, in which 2004 persons were convicted. From the number of cognisable cases, however, 949 should be deducted as proved to be false, leaving a balance of 2845 cases.

The number of persons tried and convicted in 'non-cognisable' cases in 1872 is returned as follows:—Class I. Offences against the State, public tranquillity, etc.—Offences against public justice, 366 persons tried, 283 convicted; offences by public servants, 25 persons tried, 17 convicted; false evidence, false complaints, and false claims, 62 persons tried, 25 convicted; forgery, or fraudulently using forged documents, 6 persons tried, 1 convicted; offences relating to weighing and measuring, 36 persons tried, and all convicted; rioting, unlawful assembly, or

affrays, 68 persons tried, 49 convicted—total, 563 persons tried, 411 convicted. Class II. Serious offences against the person —Causing miscarriage, 6 persons tried, 1 convicted. Class III. Serious offences against property—Extortion, 46 persons tried, 9 convicted. Class IV. Minor offences against the person—Hurt, 116 persons tried, 36 convicted; criminal force, 980 persons tried, 307 convicted—total, 1096 persons tried, and 343 convicted. Class V. Minor offences against property—Cheating, 26 persons tried, 10 convicted; criminal misappropriation of property, 30 persons tried, 12 convicted; criminal breach of trust by public servants, bankers, etc., 8 persons tried, 3 convicted; simple mischief, 99 persons tried, 32 convicted—total, 163 persons tried, and 57 convicted. Class VI. Other offences—Offences relating to marriage, 53 persons tried, 1 convicted; criminal breach of contract of service, 2 persons tried, no conviction; defamation, 14 persons tried, 3 convicted; intimidation and insult, 39 persons tried, and 29 convicted; public and local nuisances, 9 persons tried, 6 convicted; offences under chapters xviii., xx., xxi., and xxii., Criminal Procedure Code, 399 persons tried, 328 persons convicted; offences under the Post Office Law, 2 persons tried, 1 convicted; offences under the Pound Act, 150 persons tried, 33 convicted; offences under the Coolie Emigration Act, 2 persons tried, no conviction; offences under the Registration Act, 1 person tried, no conviction; offences under the Chaukídárí Act, 1 person tried, no conviction; offences under the Jail Act, 1 person tried, 1 conviction—total, 673 persons tried, and 402 convicted. Grand total of 'non-cognisable' offences, 2547 persons tried, and 1223 convicted.

Excluding false cases, the total number of 'cognisable' and 'non-cognisable' cases investigated was 4787, in which 3227 persons were convicted, equal to one person convicted to every 630 of the population.

In serious cases, the proportion of acquittals by juries at the Sessions Court is very large: out of 150 cases tried before the Sessions in 1872, 95, or 63 per cent., resulted in acquittals. The crime of dacoity or gang robbery showed a considerable increase in 1872 as compared with 1871, there being 14 cases in 1872 as against 6 in the previous year. The cause of increase is stated to have arisen from the transfer of Jahánábád and Goghát, localities notorious for dacoity, from Húglí to Bardwán District. In sum-

ming up the general working of the police for 1872, the Inspector-General quotes from the report of the Magistrate of Bardwán as follows :—'In the management of all heinous cases, whether ending in conviction or acquittal, the police appear to have done their best. It seems very unfair, and opposed to the dictates of common sense, to draw any inference unfavourable to the police from the number of acquittals. There are instances (and two such occurred in 1872) in which the deed is done at night-time, in which by no possibility can there be direct evidence. It seems very unreasonable to say that the police failed in their duty because they were unable to procure direct evidence. In two cases, all the influence of local residents was brought to defeat the attempts of the police in obtaining evidence. In issuing summons and other miscellaneous duties, I have had no cause to find fault with the police. With a few exceptions, the police officers and constables are neither very bright nor intelligent. The head constables as a rule are deplorably wanting in intelligence and obedience. The health of the District police has been tolerably good. Seven policemen were dismissed from the regular, and sixteen from the municipal police, for misconduct. There were sixty-six resignations in the regular, and eighty-five in the municipal police.'

JAIL STATISTICS.—There are six jails in Bardwán District, viz. the principal jail at the Civil Station of Bardwán, and Subdivisional lock-ups at Kátwá, Kálná, Búd-búd, Ráníganj, and Jahánábád. Previous to 1872, Ráníganj Subdivision belonged to the criminal jurisdiction of Bánkurá District, and the greater part of Jahánábád Subdivision to Húglí. In July 1872 the lock-ups of Ráníganj and Jahánábád were transferred to Bardwán District. The following are the statistics of the jail population of Bardwán District for the years 1857-58, 1860-61, and 1870, as returned to me by the Inspector-General of Jails. As explained in previous Statistical Accounts when treating of the jail figures for other Districts, the figures for the years 1857-58 and 1860-61 must be received with caution, and looked upon as only approximately correct, owing to defects in the form of returns. In 1870, however, an improved form of preparing the returns was introduced, and the figures for that year may be accepted as correct.

In the year 1857-58, the first year for which materials are available, the daily average number of prisoners in the Bardwán

jail and Subdivisional lock-ups was 523; the total number of civil, criminal, and under-trial prisoners admitted during the year being 1319. The discharges were as follow:—transferred, 178; released, 1096; escaped, 10; died, 43; executed, 2: total, 1329. In 1860-61 the jail returns show a daily average number of prisoners of 596, the total admissions during the year being 1527. The discharges were—transferred, 237; released, 1179; escaped, 5; died, 66; executed, 4: total, 1491. In 1870 the daily average jail population was 256, the total number of prisoners admitted during the year being 805. The discharges were—transferred, 99; released, 841; escaped, 1; died, 13; executed, 1: total, 955. In 1857-58 the percentage of prisoners admitted to hospital amounted to 149·33 per cent., and the deaths to 43, or 8·22 per cent. of the average jail population; in 1860-61 the admissions to hospital amounted to 203·18 per cent., and the deaths to 66, or 11·07 per cent. of the average jail population. In 1870 the admissions to the jail hospital fell to 133·59 per cent., and the deaths to 13, or 5·07 per cent. of the average prison population.

The average cost of maintenance per prisoner in Bardwán jail, including rations, establishment, hospital charges, clothing, contingencies, and all other charges except the prison police guard, is returned as follows:—In 1854-55 it amounted to £3, 1s. 9¼d. per head; in 1857-58, to £4, 9s. 5½d.; in 1860-61, to £3, 11s. 10d.; and in 1870, to £5, 13s. 7½d. per head. The cost of the jail police guard in 1870 amounted to an average of £1, 8s. 9d. per head, making a gross charge to Government of £7, 2s. 4½d. per head. The Inspector-General of Jails, in his report for 1870, returns the total cost of the Bardwán jail, including police guard, but excluding cost of alterations and repairs, at £1633, 0s. 10d. Excluding the cost of police guard, which is included in the general police budget of the District, the cost of the jail amounted to £1300, 12s. 0d.

The jail manufactures and other work performed by the hard-labour prisoners does not contribute materially to lessen the expense of the jail. In 1854-55 the receipts arising from the sale of jail manufactures, together with the value of the stock remaining on hand at the end of the year, amounted to £318, 5s. 3d., and the charges to £155, 5s. 11d., showing an excess of receipts over charges of £162, 19s. 4d.; the average earnings by each prisoner employed in manufactures being £1, 0s. 9d. In 1857-58 the

receipts amounted to £609, 0s. 6d., and the charges to £350, 11s. 7d., leaving a profit of £258, 8s. 11d.; the average earnings by each prisoner employed in manufactures being £1, 15s. 7¾d. In 1860-61 the receipts amounted to £1841, 3s. 2d., and the charges to £1031, 18s. 8½d., leaving a profit of £809, 4s. 5½d.; the average earnings of each prisoner engaged in manufactures being £2, 7s. 2d. In 1870 the total credits arising from jail manufactures amounted to £1662, 14s. 10¾d., and the total debits to £1180, 17s. 0½d., leaving an excess of receipts over charges or profit of £481, 17s. 10¼d.; the average earnings by each prisoner engaged on manufactures being £4, 14s. 5¾d. Of the 102 prisoners engaged in manufactures in 1870, 9 were employed in cloth-weaving, 1 in tailoring, 42 in gardening, 10 in manufacturing gunny, 6 in bamboo, rattan, and reed work, 1 in brick-making, 3 in oil-pressing, 18 in flour-grinding, 2 in manufacturing blankets, 1 in iron work, 5 in carpentry, and 4 in baking—total, 102.

It must be remembered that in all these years the area of the District was considerably less than it is at present. In 1872, after the transfers from Húglí and Bánkurá, the jail statistics of the District were as follow:—The daily average number of civil prisoners in the jail and lock-ups was ·87; under-trial prisoners, 41·95; labouring convicts, 181·95; non-labouring convicts, 11·05; convicts in the lock-ups, 27·96: total, 263·78, of whom 20·11 were females. These figures give one prisoner always in jail to every 7713 of the total District population; one male prisoner to every 4086 of the male population; and one female prisoner to every 51,662 of the female population. The deaths in 1872 amounted to 15, or 7·18 per cent. of the average jail population.

With regard to the health of the jail and the influence of the prevailing fever upon the health of the prisoners, the Inspector-General of Jails makes the following remarks:—'When I visited the jail in January 1872, I found a large number of the prisoners in an anæmic condition; many were in hospital actually suffering from fever, others showed evident signs of weakness, and scorbutic symptoms were not unfrequent. All these symptoms, however, were displayed as much by the prisoners recently admitted into the jail from the District, as by those who had been some time in jail, and I had no reason to suspect any neglect on the part of the authorities. I removed many of the healthy prisoners, thinking it as well to keep the jail population down. During the year, matters have somewhat

improved, and the death-rate (7·18 per cent. on all classes) is hardly excessive, considering the circumstances of the District and the fact that this jail possesses a leper ward, to which lepers are sent from all parts of Bengal; naturally these sickly men die off faster than others. But even during the present year, fifteen per cent. of the prisoners admitted were sick on admission; and the effect of the prevalent low tone of health has clearly shown itself in the manufacturing department. Cholera was sporadic in the District during the year, and dengue fever was violent, but there was no case of either in the jail. . . . The jail is a good one,—a long masonry building divided into numerous compartments with arched roofs; it is well ventilated, with a neat grassy compound. The civil, under-trial, and leper prisoners are kept in the civil jail, which is an entirely separate building nearly a mile away. They occupy different wards, but the civil and under-trial prisoners have the same compound.'

The total cost of the jail in 1872, excluding public works, amounted to £1320, 13s. 4d., or an average of £6, 5s. 9¼d. per head. The result of jail manufactures during the year was not very satisfactory. The total credits amounted to £845, 7s. 0d., and the total debits to £527, 0s. 6d., leaving an excess of credits over debits of £318, 6s. 6d. The actual cost of the manufacture department, however, amounted to £451, 16s. 11d., and the cash remitted to the Treasury on account of manufactures to £599, 15s. 6d., leaving an actual cash profit of £147, 18s. 7½d., equal to an average earning of 16s. 3d. for each prisoner sentenced to labour, or an average of £2, 7s. 9d. for each prisoner actually engaged in manufactures. Out of 182 labouring prisoners, only 62 were employed on manufactures, the remainder being engaged on jail duties, or were in hospital, or weak or old and unable to work. The prisoners actually engaged in manufactures were distributed as follows:—Gunny weaving, 16·23; gardening, 10·80; cloth weaving, 5·43; brick-making, etc., ·70; bamboo, rattan, and reed work, 3·11; oil-making, 3·99; flour-grinding, 11·50; carpet-making, etc., ·65; carpentry, 3·96; manufacturing blankets, ·02; paper-making, ·56; iron-work, ·89; rice-husking, ·02; grinding pulses, ·51; tailoring, ·57; baking, 1·54; yarn and thread spinning, 1·12; pottery, ·33; miscellaneous, ·01: total, 61·94.

Educational Statistics.—Education has made rapid strides in

ment and aided schools having increased from 23 in 1856–57 to 325 in 1870-71, and the total number of pupils from 1681 to 12,855 within the same period. This is altogether distinct from 612 private and unaided schools, attended by an estimated number of 10,956 pupils, returned by the Inspector, but not inspected by the Educational Department. The following comparative table, compiled from the Reports of the Director of Public Instruction for 1856–57, 1860–61, and 1870–71, exhibits the number of Government and aided schools in the District in each of these years, the number and religion of the pupils attending them, the cost of education to Government, together with the proportion of the cost of Government and aided schools defrayed by fees or from private sources. The fact that in these schools the amount contributed from private sources has multiplied itself upwards of fifteen times since 1856-57, or from £368, 7s. 2d. in that year to £5735 in 1870-71, testifies to the increased interest which is being taken by the people themselves in the cause of education. Government contributions to education increased nearly ninefold in the same period, or from £588, 1s. 11d. in 1856-57 to £4933, 1s. 8d. in 1870-71. The total cost of Government and aided schools has increased upwards of eleven times, or from £915, 7s. 10d. in 1856-57 to £10,630, 3s. 4d. in 1870-71. In the schools themselves, the most marked increase has been in the aided English schools, which numbered 2 in 1856-57, and 51 in 1870-71, the number of pupils having risen from 202 to 2918 in the same period. Next come the aided vernacular schools, which have increased from 16 schools, attended by 888 pupils, in 1856, to 258 schools, attended by 8894 pupils, in 1870-71. The following is the table :—

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BARDWAN DISTRICT, FOR THE YEARS 1856-57, 1860-61, AND 1870-71.

CLASSIFICATION OF SCHOOLS.	NUMBER OF SCHOOLS.			NUMBER OF PUPILS.											
				HINDUS.			MUHAMMADANS.			OTHERS.			TOTAL.		
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
1. Government Vernacular Schools, ...	5	8	5	545	516	252	3	...	1	.	...	...	548	516	253
2. Government Normal School, ...	...	...	1	...	...	72	...	...	1	..	...	...	...	...	73
3. Aided English Schools,	2	8[1]	51	202	360	2918	...	11	116	...	...	12	202	371	3046
4. Aided Vernacular Schools, ...	16	10	258	888	425	8894	42	10	361	1	...	2	931	435	9257
5. Aided Girls' Schools, .	...	...	10	...	...	196	...	...	...	...	...	30	...	...	226
Total, . . .	23	26	325	1635	1301	12,332	45	21	479	1	...	44	1681	1322	12,855

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BARDWAN DISTRICT, FOR THE YEARS 1856-57, 1860-61, AND 1870-71—*continued.*

CLASSIFICATION OF SCHOOLS.	Cost to Government.			Amount realized by Fees and Private Contributions.			TOTAL COST.		
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1. Government Vernacular Schools,	284 11 5	425 1 7	201 13 10	39 7 0	77 18 9	77 5 7	323 18 5	503 0 4	278 19 5
2. Government Normal School,	...	...	677 0 8	...	.	...	...	...	677 0 8
3. Aided English Schools,	157 13 10	228 12 4	1980 18 8	184 13 5	323 14 8	3840 10 5	301 0 0	543 18 1	5831 19 7
4. Aided Vernacular Schools,	145 16 8	138 6 0	1881 17 11	144 6 9	141 12 11	1594 5 6	290 9 5	280 13 11	3470 13 8
5. Aided Girls' Schools,	...	...	191 10 7	...	..	223 8 10½	...	...	371 10 0
Total,	588 1 11	791 19 11	4933 1 8	368 7 2	543 6 4	5735 10 4½	915 7 10	1327 12 4	10,630 3 4

In the following year, 1871-72, the number of Government and aided schools was 327, or two in excess of the number of the previous year. Owing to the ravages of malarious fever, however, 26 schools had to be closed during the year, and the total number of pupils attending the Government and aided schools fell to 10,970, or 1855 less than the previous year. Besides these State schools, however, there were also 612 private and unaided schools, containing a total of 10,956 pupils, of which all but 9 are uninspected by the Educational Department. The returns for these uninspected schools are obtained from the police; but the Inspector is of opinion that the number has been largely under-estimated. Taking, however, the schools inspected by the Education Department, and the uninspected schools as reported by the police, there is a total of 939 schools in Bardwán District, attended by 21,926 pupils, or one school to every 3·76 square miles of area, or one to every 2167 of the population,—the proportion of pupils being one for every 93 of the population. Excluding the 10 girls' schools, attended by 217 pupils, the result shows 929 schools for the male population, attended by 21,709 boys. Taking the male population at 995,818, this gives one school for every 1072 males, and one boy attending school for every 46 of the male population. As before stated, however, the uninspected and unaided schools, as well as the number of pupils attending them, are believed to be considerably in excess of the numbers as returned by the police. The total cost to Government in 1871-72 of the 327 Government and aided schools amounted to £4328, 6s. 3d.; the amount defrayed by fees and fines and by local subscriptions was £4696, 10s. 0d.,—the total receipts on account of the 327 schools being £9024, 16s. 6d., and the total expenditure £9081, 13s. 0d. The returns received from the 612 private and unaided schools show a total expenditure on them in 1871-72 of £3046, 12s. 0d., making a grand total cost, for 939 schools, of £12,138, 5s. 0d. The following table of schools in Bardwán District in 1871-72, and the succeeding paragraphs, are taken from the Annual Report of the Educational Department for that year. They exhibit the state of public instruction in a somewhat different form from that shown in the tables previously given, and also indicate to some extent the number of unaided schools and the pupils attending them, as well as their cost, etc. Besides the total cost, the average annual

[*Sentence continued on p.* 162.

RETURN OF SCHOOLS IN BARDWAN DISTRICT IN 1871-72.

CLASSIFICATION OF SCHOOLS.	Number of Schools.	Number of Masters.	Number of Pupils on 31st March 1872.	Average Daily Attendance.	RECEIPTS. From Government.	RECEIPTS. From Local Funds. Fees and Fines.	RECEIPTS. From Local Funds. Local Subscriptions, etc.	RECEIPTS. Total Receipts.	Total Expenditure.	Average Cost to Govt. of each Pupil.	Average Total Cost of each Pupil.
					£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Higher Schools—											
Aided,	8	47	576	421	493 16 0	539 2 0	611 4 0	1644 2 0	1685 6 0	0 17 1¾	2 18 6⅛
Unaided,	3	30	704	392	...	54 4 0	1380 18 0	1435 2 0	1433 6 0	...	2 0 8⅝
Total,	11	77	1280	813	493 16 0	593 6 0	1992 2 0	3079 4 0	3118 12 0	0 7 8½	2 8 8¾
Middle Schools—											
Government,	5	12	281	206	201 16 0	61 12 0	7 4 0	270 12 0	270 12 0	0 14 4	0 19 3⅛
Aided,	64	181	2637	2085	1517 15 3	1048 9 3	1451 17 3	4018 1 9	4056 14 3	0 11 6⅛	1 10 9⅝
Unaided,	4	10	140	...	...	24 2 0	54 0 0	78 2 0	77 10 0	...	0 11 0¾
Total,	73	203	3058	2291	1719 11 3	1134 3 3	1513 1 3	4366 15 9	4404 16 3	0 11 2⅞	1 8 9⅝
Primary Schools—											
Aided,	40	16	1257	787	162 6 0	15 19 3	53 14 0	231 19 3	231 18 0	0 2 7	0 3 8½
Páthsálás (Aided),	201	201	5975	4171	1123 11 0	620 6 6	63 10 0	1807 7 6	1806 18 9	0 3 9⅛	0 6 0½
Páthsálás (Unaided),	603	602	10,073	7048	...	1502 10 0	7 4 0	1509 14 0	1509 14 0	...	0 3 0
Total,	844	819	17,305	12006	1285 17 0	2138 15 9	124 8 0	3549 0 9	3548 10 9	0 1 3½	0 4 1⅛
Normal School—											
Government Normal School,	1	3	66	50	656 18 0	...	...	656 18 0	656 18 0	...	9 19 0⅜
Girls' Schools—											
Aided,	8	12	178	134	172 4 0	94 8 0	129 4 0	395 16 0	373 6 0	0 19 4⅛	2 1 11¼
Unaided,	2	2	39	24	...	...	26 2 0	26 2 0	26 2 0	...	0 13 4⅜
Total,	10	14	217	158	172 4 0	94 8 0	155 6 0	421 18 0	399 8 0	0 15 10⅜	1 16 9¾
Total of Govt. and Aided Schools,	327	472	10,970	7854	4328 6 3	2379 17 0	2316 13 3	9024 16 6	9081 13 0	0 7 10¾	0 16 6¾
Total of Unaided Schools,	612	644	10,956	7577	...	1580 16 0	1468 4 0	3049 0 0	3046 12 0	...	0 5 6¾
Grand total,	939	1116	21,926	15431	4328 6 3	3960 13 0	3784 17 3	12,073 16 6	12,128 5 0	0 3 11⅜	0 11 0¾

Sentence continued from p. 160.]
cost of each pupil in the different classes of schools, together with the proportion of the expense of each pupil borne by Government, is also shown.

As a rule, the schools in the District derive their support in almost equal proportions from the three following sources:—The Government grant, schooling fees, and small local subscriptions. The Mahárájá of Bardwán, however, entirely maintains four free schools in the town of Bardwán, and gives material assistance to the school at Kálná. There is also a free higher school at Chakdighí, very liberally endowed by the late Bábu Sáradá Prasád Rái.

The following paragraphs, which are quoted from the Report, pp. 18–21, preserve almost verbatim the language of the Inspector; but it has been found necessary to alter many of the figures, because in their original connection they did not cover the entire District of Bardwán.

'HIGHER SCHOOLS.—There are eleven such schools, attended at the end of March by 1280 scholars; on the same day in 1871 and 1870, the numbers were respectively 1487 and 1671. Three of these 11 schools were in the town of Bardwán. The Mahárájá's school educates 500 boys free, but I only found 200 boys attending. The missionary school, in February 1868 and 1869, numbered 183 and 178 pupils; in February 1870, 1871, and 1872, the numbers were 58, 44, and 35. The Murádpur school numbered 247 in February 1869, 172 in 1870, but only 79 and 58 pupils in 1871 and 1872. The 11 schools were at the end of the year attended by 1224 Hindus, 48 Muhammadans, and 8 others; whilst 5 belonged to the upper, 1050 to the middle, and 225 to the lower classes. No pupils were able to pass the university entrance examination from the schools at Kátwá, Bághnápárá, Chakdighí, and Balgoná, or from the missionary institution at Kálná. One passed from the mission school at Bardwán, as also from the Ukarsá school; two passed from the Murádpur school, and the same number from the Mahárájá's school at Kálná; and three (of whom one gained a scholarship) from the Bodlá school; from the Mahárájá's school in the town of Bardwán three passed, and one gained a scholarship. The cost of each boy's education in schools of this class was £2, 8s. 8d., the charge to Government being, owing to the liberality of the endowments already mentioned, as low as 7s. 8½d.

'MIDDLE SCHOOLS, ENGLISH.—There were 40 such schools in 1872, viz. 38 aided and 2 unaided, attended at the close of the year by 1685 pupils. The total expenditure amounted to £3201, 12s. od., of which the Government contributed £1128, 11s. od. I saw during the year the schools situated at Búd-búd, Dáinhát, Memárí, Pátulí, and that in the town of Bardwán. The cost of each boy's education for the year was £1, 18s. od., of which amount Government contributed 13s. $4\frac{3}{4}$d. Of the pupils attending these schools, 96 were Muhammadans; all the others were Hindus. In social status, 4 lads belonged to the upper, 1173 to the middle, and 508 to the lower classes. Six lads obtained minor scholarships. Many of the schools, particularly those in the north-west of the District, are doing fairly, but to many the ravages of fever have caused considerable injury. There was a flourishing school of this kind supported by the Bráhma Samáj in the town of Bardwán. This school was attended by 173 pupils in February 1868, and by 217 in the same month of 1869. During the month of August in that year, the number on the roll was 273, and the average attendance 227; then came the fever, and in February 1870 the number on the roll had fallen to 134, in February 1871 to 78, and in February 1872 to 34.

'MIDDLE SCHOOLS, VERNACULAR.—At the close of 1871-72, there were 33 such schools, attended by 1373 lads. The total outlay on these schools amounted to £1203, 4s. od., and the Government contribution to £591, os. 3d. The total cost of each boy's schooling was 17s. 6d., of which amount very nearly half was paid by Government. The schools were attended by 1354 Hindus, 18 Muhammadans, and 1 Christian. One lad belonged to the upper, 707 to the middle, and 665 to the lower classes of society. The Government schools carried off two of the better and two of the inferior kinds of vernacular scholarships; five superior and four inferior scholarships were gained by students of aided schools. Three other scholarships of the most inferior kind, tenable for one year in a normal school, were carried off by students of improved *páthsálás*.

'PRIMARY SCHOOLS.—There were 241 such schools on my books, attended by 7232 pupils, which cost Government £1285, 17s. od. during the year; besides which sum the teachers collected £753, 9s. 9d. from their pupils and from others interested in the schools. The cost of each boy's education to Govern-

ment was about 3s. 6½d., in addition to about 2s. 0d. contributed by his friends, as schooling fees, etc. Amongst the schools of this class are 27 night schools, attended by 686 men and lads who work during the day. These schools are doing real good in the District; the teacher of each gets an allowance of a rupee or two shillings a month from Government for each six scholars in attendance. I take great care, in looking after these schools, lest lads might attend who either did or could attend a day school, with the intention of swelling the numbers in the night school. I am glad to say that I have heard the best reports of the schools. One of my deputies mentions the case of a petty shopkeeper learning to read and keep his accounts in one of these schools when he was near fifty; and another case of a boy, taken away from a day school to work in the fields, who continued studying in a night school till he gained a scholarship and joined a normal school. It is questionable if many lads taken out of their natural sphere would be benefited thereby, but this lad's case is of course an exceptional one, and he promises to be a good and useful teacher of his own vernacular in days to come. These schools are attended by 6755 Hindus, 273 Muhammadans, and 20 Christians. One belongs to the upper classes (he is son of a large landholder), 2295 to the middle, and 4752 to the lower classes.

'NORMAL SCHOOL.—The school at Bardwán for training teachers for elementary schools has just completed its ninth session. Since its establishment it has sent out 366 certificated teachers to the Districts of Bardwán, Bánkurá, Bírbhúm, and Húglí. During this year a class for training *pandits* has been added to the others, but no addition has been made to the establishment on this account. At the end of the year there were respectively 56 and 10 men under training for village teacherships and for panditships. We have been obliged to limit the number of students in the old department to 56 instead of 75, as originally arranged, owing to the necessity of paying a high house rent *from savings*. The daily average attendance was 44 in this department, the scanty attendance being due to sickness amongst the pupils. At the general examination of the training schools in Bengal, 58 candidates presented themselves from the school, 55 gained certificates, 6 of the number passing in the first division. This was a very satisfactory result. Of the expenditure in this school, £306, 12s. 0d. was

14s. od. for salaries of teachers, £29, 2s. od. for servants' wages, and the balance for land rent and petty expenses.

'GIRLS' SCHOOLS.—There are two schools—one at Bardwán and one at Ránígánj—for European and Eurasian children, which are assisted by Government grants aggregating £90 a year. As the schools were only attended by 30 little girls, the education of each cost Government £3 a year. As fees, a little more than this sum was collected; whilst towards their support the sum of £41, 6s. was subscribed by residents in the stations where the schools are placed. These schools are certainly expensive; but it is almost necessary and highly desirable that Government should help Englishmen serving in this country on small salaries to bring up their daughters properly.

'For native girls there are eight schools in the District, attended by about 180 children. The grants to them amounted to £82, 4s. od., or 9s. 1½d. for each little girl. One of these schools, situated at Kátwá, is a really excellent girls' school; the others are at best fair. Besides those in regular schools, there are 357 girls who read with boys in *páthsálás* under improvement. As in other Districts, Government pays two shillings for every five girls who can read easy sentences and write on the palm leaf.

'UNINSPECTED PATHSALAS.—The returns submitted by the police show the existence of only 603 unaided *páthsálás* in the District, attended by 10,073 children, that is, by between sixteen and seventeen pupils each on an average. I think the number of these schools is largely under-estimated, and that the smaller schools have been left out. There are probably 1500 uninspected schools in the District, attended by about twenty thousand children.'

SIR G. CAMPBELL'S SCHEME OF PRIMARY EDUCATION.—A considerable further development of education took place in the course of the following year, 1872–73, under Sir George Campbell's system, which extended the grant-in-aid rules to small indigenous village schools. Partly owing to the increased area of the District by transfers from Húglí and Bánkurá in June 1872, but principally owing to the liberal subsidies to *páthsálás*, or indigenous village schools, the total number of Government and aided schools, on the 31st March 1873, had risen to 454, attended by 14,549 pupils; against 327 Government and aided schools, attended by 10,970 pupils, on the 31st March 1872. Further details had also been

tion Department gave statistics of 612 unaided schools, attended by 10,956 pupils; while in 1872–73 the unaided schools dealt with in the Department Report amounted to 889, attended by 18,580 pupils. The grand total of Government and aided schools, together with unaided schools furnishing returns to the Department, amounted on 31st March 1873 to 1343 schools, attended by 33,129 pupils; against 939, attended by 21,926 pupils, on the 31st March 1872. During the year 1872–73 no less than 88 village *páthsálás* were subsidized and brought under the grant-in-aid rules, in terms of Sir George Campbell's scheme for extending primary education. This increase in the number of schools was effected without in any appreciable degree increasing the cost of education to the State, the Government grant in 1872–73 being only £4605, as against £4328 in the previous year. The table on the next page exhibits the development of education in the different classes of schools during 1872–73.

Postal Statistics.—Another important indication of the progress of the District consists in the increased use which the people have made of the Post Office of late years. Between 1861-62 and 1870-71, the number of letters received at the Bardwán post office multiplied itself by 140 per cent. The number of letters received at the post office amounted to 116,985 in 1861-62, to 140,604 in 1865-66, and to 280,657 in 1870-71. Taking letters, newspapers, parcels, and books together, the number which was received at the Bardwán post office increased from 132,702 in 1860-61, to 157,663 in 1865-66, and to 301,390 in 1870-71; the total increase for the ten years being 128 per cent. The number of letters despatched from the District post office has increased in like ratio, having risen from 122,077 in 1861-62 to 173,155 in 1865-66; and the total number of letters, newspapers, parcels, and books, from 124,975 in 1861-62 to 176,467 in 1865-66. I have not yet been able to obtain a return of the number of letters, etc. despatched in 1870-71. The postal money receipts have trebled, while the expenditure multiplied itself upwards of seven times within the ten years from 1861-62 to 1870-71. In the former year, the total postal receipts amounted to £1098, 7s. 7d., and the expenditure to £642, 13s. 0d. In 1865-66 the postal receipts amounted to £1458, 13s. 11d., and the expenditure to £1358, 18s. 0d. In 1870-71 the postal revenue had increased to £3068, 5s. 2d., exclusive of £126, 16s. 10d.,

[*Sentence continued on p.* 168.

RETURN OF SCHOOLS IN BARDWAN DISTRICT IN 1872–73.

CLASSIFICATION OF SCHOOLS.	Number of Schools on 31st March 1873.	Number of Masters.	Number of Pupils on 31st March 1873.	Average Daily Attendance.	RECEIPTS. Government Grant.	Schooling Fees.	Subscriptions, etc.	Total.	EXPENDITURE.
					£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Higher Schools—									
Aided,	6	39	496	310	386 8 0	416 2 0	472 2 0	1274 12 0	1263 12 0
Unaided,	3	29	706	496	...	49 18 0	1258 0 0	1307 18 0	1307 16 0
Total,	9	68	1202	806	386 8 0	466 0 0	1730 2 0	2582 10 0	2571 8 0
Middle Schools—									
Aided English,	42	140	1785	1260	1140 2 0	816 8 0	1410 14 0	3367 4 0	3377 12 0
Unaided English,	2	8	102	70	...	20 12 0	58 4 0	78 16 0	73 16 0
Government Vernacular,	9	21	446	376	317 12 0	123 2 0	18 8 0	459 2 0	459 2 0
Aided Vernacular,	31	81	1225	902	472 12 0	247 16 0	355 10 0	1075 18 0	1073 0 0
Unaided Vernacular,	4	8	164	116	...	16 4 0	101 12 0	117 16 0	117 16 0
Total,	88	258	3722	2724	1930 6 0	1224 2 0	1944 8 0	5098 16 0	5101 6 0
Lower Schools—									
Government Vernacular,	1	7	29	17	30 16 0	0 16 0	191 10 0	223 2 0	223 2 0
Aided Vernacular,	11	13	363	269	47 8 0	17 2 0	47 14 0	112 4 0	112 4 0
Unaided Vernacular,	5	5	128	120	...	8 8 0	...	8 8 0	8 8 0
Total,	17	25	520	406	78 4 0	26 6 0	239 4 0	343 14 0	343 14 0
Primary Schools—									
Aided,	343	318	9897	7066	1454 10 0	749 14 0	101 6 0	2305 10 0	2305 4 0
Unaided,	873	873	17,434	...	...	2315 2 0	637 16 0	2952 18 0	2952 18 0
Aided Night School,	1	...	41	32	7 0 0	2 10 0	7 6 0	16 16 0	16 16 0
Total,	1217	1191	27,372	...	1461 10 0	3067 6 0	746 8 0	5275 4 0	5274 18 0
Government Normal School,	1	3	66	40	578 0 0	...	...	578 0 0	578 0 0
Girls' Schools—									
Aided Schools for Europeans,	2	3	27	23	83 16 0	64 6 0	57 10 0	205 12 0	208 18 0
Aided Schools for Natives,	7	12	174	110	87 8 0	1 4 0	91 8 0	180 0 0	178 18 0
Unaided,	2	2	46	34	...	...	127 16 0	127 16 0	127 16 0
Total,	11	17	247	167	171 4 0	65 10 0	276 14 0	513 8 0	515 12 0
Total Gov't and Unaided Schools,	454	637	14,549	10,405	4605 12 0	2439 0 0	2753 8 0	9798 0 0	9796 6 0
Total Unaided Schools,	889	925	18,580	...	...	2410 4 0	2183 8 0	4593 12 0	4588 12 0
Grand total,	1343	1562	33,129	...	4605 12 0	4849 4 0	4936 16 0	14,391 12 0	14,384 18 0

Sentence continued from p. 166.]
receipts from sale of stamps for official correspondence, which in previous years were included with the general receipts, making a total revenue from the Bardwán post office of £3195, 2s. 0d.; the postal expenditure in the same year amounted to £4993, 2s. 10d. The following table, showing the number of letters, newspapers, etc. received at and despatched from the Bardwán post office, together with the postal receipts and expenditure for the years 1861-62, 1865-66, and 1870-71, is compiled from a return furnished to me by the Director-General of Post Offices :—

POSTAL STATISTICS OF BARDWAN DISTRICT, FOR THE YEARS 1861-62, 1865-66, AND 1870-71.

	1861-62.		1865-66.		1870-71.	
	Received.	Despatched.	Received.	Despatched.	Received.	Despatched.
Letters, ...	116,985	122,077	140,604	173,155	280,657	*Materials not received for this column.*
Newspapers, . .	11,410	1,304	14,377	1,598	15,549	
Parcels, ...	1,650	1,342	1,873	1,437	2,587	
Books, ...	2,663	252	809	277	2,597	
Total, . .	132,708	124,975	157,663	176,467	301,390	
Sale of Postage Stamps, . . .	£819 12 0		£975 16 5		£1806 0 0[1]	
Cash Collections,	278 15 7		482 17 6		1262 5 2	
Total Receipts, .	1098 7 7		1458 13 11		3068 5 2	
Total Expenditure,	642 13 0		1359 18 0		4993 2 10	

POLITICAL DIVISIONS.—For administrative purposes, Bardwán District is divided into the following six Subdivisions, viz. (1) Head-quarters Subdivision, and general supervision of the District; (2) Kátwá Subdivision; (3) Kálná Subdivision; (4) Búd-búd Subdivision; (5) Ráníganj Subdivision; and (6) Jahánábád Subdivision. Ráníganj Subdivision has from the first been under the revenue jurisdiction of Bardwán, but prior to 1872 the criminal jurisdiction belonged to Bánkurá and the civil jurisdiction to Bírbhúm. In

[1] Exclusive of receipts from sale of service stamps for official correspondence, which in 1870-71 amounted to £126, 16s. 10d. Service stamps were first introduced in 1866.

1872 the criminal and civil jurisdiction was also attached to Bardwán, and at the same time the greater part of the present Jahánábád Subdivision was transferred from Húglí. The population statistics in the following paragraphs are taken from Statements I A and I B, Appendix to the Census Report of 1872. The administrative statistics are taken from the special report furnished to me by the Collector.

(1) THE SADR OR HEADQUARTERS SUBDIVISION contained in 1872 a total area of 841 square miles, with 1279 villages and townships and 113,629 houses. The total Subdivisional population is 496,966, viz. 246,127 males and 250,839 females. Of the population, 387,783, or 78·1 per cent., are Hindus, the percentage of males in the Hindu population being 49·3 per cent.; 108,746, or 21·9 per cent., are Muhammadans, the percentage of males in the Musalmán population being 50·5 per cent.; 230 are Christians, the percentage of males in the Christian population being 55·2 per cent.; and 207 belong to other religious denominations not separately classified in the Census Report, the proportion of males in the 'other' population being 26·5 per cent. Proportion of males of all religions in the total Subdivisional population, 49·5 per cent. Average density of the population, 590 per square mile; average number of villages or townships per square mile, 1·52; average number of persons per village or township, 389; average number of houses per square mile, 135; average number of persons per house, 4·4. The Subdivision comprises the six police circles (*thánás*) of Bardwán, Khandghosh, Indás, Salímábád, Ganguriá, and Sáhibganj. In 1870-71 it contained 6 magisterial and revenue courts, a regular police of 218, and a village watch or rural police of 3838 men. The separate cost of Subdivisional administration in 1870-71 is returned by the Collector at £12,613, 18s. 0d.

(2) KALNA SUBDIVISION was first constituted in September 1861. In 1872 it contained a total area of 431 square miles, with 781 villages and townships, and 69,962 houses. The total Subdivisional population is 286,338, viz. 137,421 males and 148,917 females; proportion of males in the total population, 48 per cent. Of the population, 216,558, or 75·6 per cent., are Hindus, the proportion of males in the Hindu population being 47·7 per cent.; 68,415, or 23·9 per cent., are Muhammadans, the proportion of males in the Musalmán population being 48·9 per cent.; 85 are Christians, the proportion of males in the Christian population being 60 per cent.;

and 1280, or ·5 per cent., belong to other denominations not separately classified, the proportion of males in the 'other' population being 45·4 per cent. Average density of the population, 664 per square mile; average number of villages per square mile, 1·81; average number of persons per village, 367; average number of houses per square mile, 162; average number of inmates per house, 4·1. The Subdivision comprises the three police circles (*thánás*) of Kálná, Bháturiá, and Mantreswar. In 1870-71 it contained one court, with revenue, magisterial, and civil jurisdiction; a regular police force of 106, and a rural or village police of 2260 men. I have no information as to the separate cost of Subdivisional administration.

(3) KATWA SUBDIVISION was first constituted in January 1847. In 1872 it contained a total area of 407 square miles, with 577 villages or townships, and 55,043 houses. The total Subdivisional population is 242,818, viz. 115,389 males and 127,429 females; proportion of males in the total population, 47·5 per cent. Of the population, 196,519, or 81·0 per cent., are Hindus, the proportion of males in the Hindu population being 47·3 per cent.; 46,207, or 18 per cent., are Muhammadans, the proportion of males in the Musalmán population being 48·3 per cent.; 25 are Christians, the proportion of males being 40 per cent.; and 67 are of other religious denominations, the proportion of males being 52·2 per cent. Average density of the population, 596 per square mile; average number of villages per square mile, 1·42; average number of inhabitants per village or township, 421; average number of houses per square mile, 135; average number of inmates per house, 4·4. The Subdivision comprises the three police circles (*thánás*) of Kátwá, Kátagrám, and Mangalkot. In 1870-71 it contained one court, with revenue, magisterial, and civil jurisdiction; a regular police force of 96, and a village police force of 2217 men. The separate cost of Subdivisional administration in 1870-71 is returned by the Collector at £4771, 14s. od.

(4) BUD-BUD SUBDIVISION was first constituted in 1846. In 1872 it contained a total area of 532 square miles, with 749 villages or townships, and 55,248 houses. The total Subdivisional population is 286,131, viz. 140,446 males and 145,685 females; proportion of males in the total population, 49·1 per cent. Of the population, 239,985, or 83·9 per cent., are Hindus, the proportion of males in the Hindu population being 48·9 per cent.; 46,088, or 16·1 per cent.,

are Muhammadans, the proportion of males in the Musalmán population being 50·1 per cent.; 22 are Christians, the proportion of males being 59·1 per cent.; and 36 belong to other religious denominations, the proportion of males being 33·3 per cent. Average density of population, 538; average number of villages per square mile, 1·41; average number of persons per village or township, 382; average number of houses per square mile, 104; average number of inmates per house, 5·1. The Subdivision comprises the three police circles of Búd-búd, Ausgrám, and Sonámukhí (recently transferred from Bánkurá District). In 1870-71 it contained one court, with revenue, magisterial, and civil jurisdiction; a regular police force of 127, and a rural police of 2074 men. Excluding the cost of the police, for which I have no return, the separate cost of Subdivisional administration in 1870-71 is returned by the Collector at £190, 2s. 0d.

(5) RANIGANJ SUBDIVISION was first constituted in May 1847. Formerly only the revenue jurisdiction of this Subdivision belonged to Bardwán District; but in 1872 the magisterial jurisdiction was transferred to it from Bánkurá, and the civil jurisdiction from Bírbhúm. In 1872 the Subdivision contained a total area of 671 square miles, with 678 villages or townships, and 48,069 houses. The total Subdivisional population is 245,017, viz. 121,145 males and 123,872 females; proportion of males in total Subdivisional population, 49·4 per cent. Of the population, 227,901, or 93 per cent., are Hindus, the proportion of males in the Hindu population being 49·2 per cent.; 12,131, or 5 per cent., are Muhammadans, the proportion of males in the total Musálman population being 52·9 per cent.; 528, or ·2 per cent., are Christians, the proportion of males in the Christian population being 57·6 per cent.; and 4457, or 1·8 per cent., belong to other religious denominations not separately classified,—proportion of males in 'other' population, 50·7 per cent. Average density of population, 365 per square mile; average number of villages per square mile, 1·01; average number of inhabitants per village or township, 361; average number of houses per square mile, 72; average number of inmates per house, 5. The Subdivision comprises the three police circles (*thánás*) of Ránígan j, Káksá, and Niámatpur. In 1870-71 it contained one court, a regular police force of 157, and a village police of 2524 men. The separate cost of Subdivisional administration in 1870-71 is returned by the Collector at £5138, 14s. 0d.

(6) JAHANABAD SUBDIVISION was originally constituted in June

1846, when it formed a part of Húglí District. The greater part of the present Subdivision was transferred to Bardwán in 1872. In that year the Subdivision contained a total area of 641 square miles, with 1127 villages or townships, and 93,465 houses. The total Subdivisional population is 477,475, viz. 235,290 males and 242,185 females; proportion of males in total Subdivisional population, 49·3 per cent. Of the population, 410,617, or 86 per cent., are Hindus, the proportion of males in the Hindu population being 49·6 per cent.; 66,437, or 13·9 per cent., are Muhammadans, the proportion of males in the Musalmán population being 47 per cent.; Christians, *nil;* 421, or ·1 per cent., belong to other religious denominations, the proportion of males in the 'other' population being 47·3 per cent. Average density of population, 745 per square mile, this Subdivision being the most densely populated tract in the District; average number of villages per square mile, 1·76; average number of persons per village or township, 424; average number of houses per square mile, 146; average number of persons per house, 5·1. The Subdivision comprises the four police circles (*thánás*) of Jahán-ábád, Goghát, Kotalpur, and Rainá. In 1870-71 it contained one court, a regular police force of 162, and a village police force of 2877 men. The separate cost of Subdivisional administration in 1870-71 is returned at £2418, 10s. 0d.

Fiscal Divisions.—The following list of Fiscal Divisions, or *parganás*, is compiled partly from the Board of Revenue's Parganá Statistics, and partly from a list furnished to me by the Collector. The lists differ as to the number of Fiscal Divisions; and many which are returned to me by the Collector are not mentioned in the Board of Revenue's Statistics. The explanation probably is, that the *parganás* are of small size, and that the details of them are included in the Board of Revenue's Statistics with neighbouring and larger *parganás*. I have made the list as complete as possible from the materials at my disposal, and have endeavoured to bring it into conformity with the many recent changes of transfer from Húglí and Bánkurá Districts. The figures are taken from the Board of Revenue's Statistics. They should be looked upon with caution and as only approximating to correctness, but they are the best which I have been able to procure:—

(1) Akbarshahi comprises an area of 190 acres, or ·29 square mile; it consists of a single estate, and pays an annual land revenue of £3, 16s. 0d.

(2) AMBIKA: area, 26,416 acres, or 41·27 square miles; 75 estates; land revenue, £5197, 0d. 0d.

(3) AMIRABAD: area, 5944 acres, or 9·28 square miles; 7 estates; land revenue, £813, 10s. 0d.

(4) ARSHA: area, 30,493 acres, or 47·64 square miles; 18 estates; land revenue, £2450, 18s. 0d.

(5) AURANGABAD (not mentioned in the Collector's return): area, 140 acres, or ·22 square mile; 2 estates; land revenue, £10, 18s. 0d.

(6) AZIMNAGAR (not mentioned in the Collector's return): area, 115 acres, or ·18 square mile; 1 estate; land revenue, £10, 4s. 0d.

(7) AZMATSHAHI: area, 16,425 acres, or 25·66 square miles; 480 estates; land revenue, £2555, 8s. 0d.

(8) BAGHA: area, 67,370 acres, or 105·26 square miles; 81 estates; land revenue, £8936, 0s. 0d.

(9) BAIRA: area, 174,161 acres, or 272·12 square miles; 1 estate; land revenue, £35,594, 2s. 0d.

(10) BARBAKSINH: area, 1103 acres, or 1·72 square mile; 44 estates; land revenue, £90, 2s. 0d.

(11) BARDWAN: area, 638,777 acres, or 998·09 square miles; 379 estates; land revenue, £96,315, 12s. 0d.

(12) BHATSALA: area, 78 acres, or ·12 square mile; 1 estate; land revenue, £13, 12s. 0d.

(13) BINODNAGAR: area, 592 acres, or ·92 square mile; 8 estates; land revenue, £343, 16s. 0d.

(14) BISHNUPUR: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(15) CHAMPANAGARI: area, 3653 acres, or 5·71 square miles; 137 estates; land revenue, £311, 18s. 0d.

(16) CHAUMAHA: area, 2616 acres, or 4·08 square miles; 9 estates; land revenue, £656, 6s. 0d.

(17) CHHUTIPUR: area, 23,955 acres, or 37·42 square miles; 87 estates; land revenue, £3007, 4s. 0d.

(18) DHEYA: area, 23,055 acres, or 36·02 square miles; 11 estates; land revenue, £3913, 6s. 0d.

(19) FAIZULLAPUR: area, 510 acres, or ·79 square mile; 4 estates; land revenue, £25, 16s. 0d.

(20) FATHISINH: area, 500 acres, or ·78 square mile; 2 estates; land revenue, £27, 16s. 0d.

(21) GOPBHUM: area, 7408 acres, or 11·57 square miles; 112 estates; land revenue, £519, 12s. 0d.

(22) HAVILI: area, 346,482 acres, or 541·37 square miles; 159 estates; land revenue, £50,484, 12s. od.

(23) INDRANI: area, 822 acres, or 1·28 square mile; 40 estates; land revenue, £210, os. od.

(24) JAHANABAD: area, 137,123 acres, or 214·41 square miles; 219 estates; land revenue, £809, 16s. od.

(25) JAHANGIRABAD: area, 27,747 acres, or 43·35 square miles; 95 estates; land revenue, £2421, 6s. od.

(26) KHALOR: area, 108,734 acres, or 169·89 square miles; 1 estate; land revenue, £17,706, 12s. od.

(27) KHANDGHOSH: area, 1635 acres, or 2·55 square miles; 78 estates; land revenue, £147, 6s. od.

(28) KHANPUR: area, 2712 acres, or 4·23 square miles; 1 estate; land revenue, £175, 8s. od.

(29) KUBAJPUR: area, 14,027 acres, or 21·91 square miles; 31 estates; land revenue, £1602, 14s. od.

(30) KUTABPUR: area, 616 acres, or ·96 square mile; 2 estates; land revenue, £101, 8s. od.

(31) MAHANANDI: area, 885 acres, or 1·38 square mile; 2 estates; land revenue, £102, 10s. od.

(32) MAMDANIPUR: area, 7745 acres, or 12·10 square miles; 56 estates; land revenue, £407, os. od.

(33) MANDALGHAT: area, 19,500 acres, or 30·46 square miles; 2 estates; land revenue, £1617, os. od.

(34) MANOHARSHAHI: area, 15,855 acres, or 24·77 square miles; 424 estates; land revenue, £1947, 10s. od.

(35) MAZKURI: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(36) MUZAFFARPUR: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(37) MUZAFFARSHAHI: not mentioned in the Collector's return, but probably identical with the Muzaffarpur mentioned above; area, 15,599 acres, or 24·37 square miles; 240 estates; land revenue, £846, 10s. od.

(38) NALHI: area, 244,939 acres, or 382·71 square miles; 173 estates; land revenue, £42,056, os. od.

(39) PALÀSI: area, 2391 acres, or 3·73 square miles; 4 estates; land revenue, £276, 18s. od.

(40) PANDUAH: area, 140 acres, or ·21 square mile; 1 estate; land revenue, £14, 6s. od.

(41) PATMAHAL: area, 104 acres, or ·16 square mile; 1 estate; land revenue, £9, 0s. 0d.

(42) PATULI: area, 15,296 acres, or 23·90 square miles; 8 estates; land revenue, £2284, 10s. 0d.

(43) PAUNAN: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(44) RAIPUR: area, 3728 acres, or 5·82 square miles; 117 estates; land revenue, £621, 10s. 0d.

(45) RAJSHAHI: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(46) RANIHATI: area, 9475 acres, or 14·80 square miles; 648 estates; land revenue, £3747, 6s. 0d.

(47) ROKANPUR: area, 4364 acres, or 6·81 square miles; 15 estates; land revenue, £560, 6s. 0d.

(48) SAMARSHAHI: area, 22,720 acres, or 35·49 square miles; 76 estates; land revenue, £720, 14s. 0d.

(49) SATSIKKA: area, 59,302 acres, or 92·65 square miles; 152 estates; land revenue, £6325, 2s. 0d.

(50) SELERGAON: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(51) SENPAHARI: area, 246 acres, or ·38 square mile; 78 estates; land revenue, £86, 16s. 0d.

(52) SHERGARH: area, 95,010 acres, or 148·44 square miles; 552 estates; land revenue, £972, 14s. 0d.

(53) SHAHABAD: area, 65,907 acres, or 102·97 square miles; 195 estates; land revenue, £9114, 4s. 0d.

(54) SHAHSILAMPUR: area, 1957 acres, or 3·05 square miles; 3 estates; land revenue, £176, 0s. 0d.

(55) SHAHZADPUR: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* in the Collector's report.

(56) SILAMPUR: area, 5730 acres, or 8·95 square miles; 126 estates; land revenue, £284, 2s. 0d.

(57) SALAIMANSHAHI: not mentioned in the Board of Revenue's Statistics, but returned as a separate *parganá* in the Collector's report.

(58) TARAJUPINJRA: area, 606 acres, or ·94 square mile; 3 estates; land revenue, £22, 0s. 0d.

(59) UKHRA; formerly a very small *parganá*, but now washed away by the Bhágirathí river.

The foregoing fifty-nine Fiscal Divisions according to the

statistics furnished by the Board of Revenue, contain a total area of 2,235,407 acres, or 3492·83 square miles, comprising 4962 estates, paying a total land revenue of £305,040, os. od. Although I have endeavoured to make the list as complete as possible, by adding recently transferred *parganás*, these totals do not agree with those obtained from other and more trustworthy sources. There are considerable discrepancies between the areas of the several *parganás* enumerated above, and their ascertained area as at the time of the survey of the District, undertaken in 1855-57. The explanation with regard to many of them is, that the Survey authorities divided the District into 21 large *parganás*, while in the Board of Revenue's list many of the smaller Fiscal Divisions are entered separately, which at the time of the survey were included within the area of the larger *parganá* within which they were situated. The Survey officers returned the area of the 21 *parganás* in 1855-57 as follows:—(1) Ambiká Ráipur, area 30,059 acres, or 46·97 square miles; (2) Azmatsháhí, 129,224 acres, or 201·91 square miles; (3) Bágha, 38,630 acres, or 60·36 square miles; (4) Bardwán, 118,249 acres, or 184·76 square miles; (5) Champánagarí, 41,983 acres, or 65·60 square miles; (6) Chhutipur, 46,798 acres, or 73·12 square miles; (7) Dheyá, 92,204 acres, or 144·07 square miles; (8) Gopbhúm, 116,441 acres, or 181·94 square miles; (9) Hávilí, 72,232 acres, or 112·86 square miles; (10) Indrání, 41,575 acres, or 64·96 square miles; (11) Jahángirábád, 66,539 acres, or 103·97 square miles; (12) Khandghosh, 78,802 acres, or 128·13 square miles; (13) Manoharsháhí, 125,254 acres, or 195·71 square miles; (14) Nalhí, 23,115 acres, or 36·12 square miles; (15) Ránísháti, 87,221 acres, or 136·23 square miles; (16) Samarsháhí, 79,574 acres, or 124·34 square miles; (17) Sátsikká, 59,281 acres, or 92·63 square miles; (18) Senpahárí, 48,269 acres, or 75·42 square miles; (19) Sháhábád, 109,217 acres, or 170·65 square miles; (20) Shergarh, 217,577 acres, or 339·96 square miles; and (21) Silampur, 59,478 acres, or 92·94 square miles. Add to this the river circuits, comprising an area of 41,568 acres, or 64·95 square miles, and the result gives a total area for the 21 *parganás* comprising the District in 1855-57, of 1,723,290 acres, or 2692·64 square miles. The present area of the District, as ascertained at the time of the Census of 1872, is 3523 square miles, comprising 4946 estates; the current demand of Government land revenue in the same year being £305,980.

MEDICAL TOPOGRAPHY.—The climate of Bardwán may be divided into three seasons,—the cold season, ranging from about the middle of October to the middle of February; the hot season, ranging from about the middle of February to the middle of June; and the rainy season, from about the middle of June to the middle of October. The Civil Surgeon reports the average annual temperature to be 81°. The average annual rainfall is 60·31 inches. In 1872 the following were the maximum, minimum, and mean monthly temperatures at Bardwán Civil Station, as returned by the Civil Surgeon:—January, maximum, 84°; minimum, 54°; mean, 69·5°; range of thermometer, 30°. February, max., 90°; min., 57°; mean, 72·7°; range, 33°. March, max., 100°; min., 70°; mean, 84°; range, 30°. April, max., 162°; min., 75°; mean, 88·5°; range, 27°. May, max., 100°; min., 78°; mean, 89·5°; range, 22°. June, max., 99°; min., 80°; mean, 86°; range, 19°. July, max., 89°; min., 80°; mean, 83°; range, 9°. August, max., 90°; min., 80°; mean, 84°; range, 10°. September, max., 90°; min., 80°; mean, 84°; range, 10°. October, max., 93°; min., 73°; mean, 82·7°; range, 20°. November, max., 86°; min., 63°; mean, 76·5°; range, 23°. December, max., 80°; min. 52°; mean, 66·5°; range, 28°. Maximum temperature for the year, 102°; min., 52°; mean, 80·6°. The monthly rainfall for 1872 is returned by the Meteorological Department as follows:—January, *nil;* February, 0·60 inch; March, *nil;* April, 2·02 inches; May, 2·51 inches; June, 7·27 inches; July, 6·66 inches; August, 8·33 inches; September, 5·52 inches; October, 9·44 inches; November, *nil;* December, 0·12 inch. Total for the year, 42·47 inches. The average rainfall for the twelve previous years was 60·31 inches, so that the rainfall of 1872 was below the average by 17·84 inches. In the previous year, 1871, the rainfall was exceptionally heavy, being 67·13 inches at Bardwán, 69·72 inches at Kátwá, 64·16 inches at Kálná, and 65·20 inches at Búdbúd, or considerably above the average of previous years. The only place where the returns were below the average was at Ráníganj, where the rainfall was only 52·12 inches.

ENDEMIC FEVER.—The fever which has prevailed in Bardwán and Húglí Districts since 1866, and which in 1873 was continuing its ravages, is no new disease. It is reported to have first broken out as an epidemic at the village of Muhammadpur, in Jessor District, about 1824, since which date it has extended itself westward and northwards

river into Húglí District; and in 1863 it first showed itself in the Kálná Subdivision, in the south-east of Bardwán, where it caused much mortality during that and the succeeding year. The year 1865 was a comparatively healthy one, but the fever reappeared at Kálná in the autumn of 1866, whence it spread in a westerly direction. It was next heard of at Memárí, on the East Indian Railway; and by the end of 1867 it had spread over the whole tract of country on both sides of the railway embankment. Since then it has taken a north-westerly direction, and in 1869 attacked the town of Bardwán itself and the neighbouring villages, from which it radiated in all directions. In 1868 the nearest approach of the fever to Bardwán town was at Gangpur, three miles beyond the extreme municipal limits. Many different causes have been assigned for the outbreak. By some it is supposed to result from the interference of the natural drainage of the country by river and railway embankments, by changes in the course of the large rivers, and by the silting and drying up of the channels of the smaller streams. The fever has, however, appeared far away from the influence of these obstacles, and even in those parts of the country where there are no embankments. Others look upon the drinking water as the cause of the disease; but the character of the water is the same, to all appearance, throughout the District, and yet many villages have entirely escaped the outbreak. The various alleged causes of the fever are more fully described in my Statistical Account of Húglí District. Several reports on the drainage of the fever-stricken parts of the District are under the consideration of Government; and a comprehensive survey of the country, with a view to lay down a complete system of drainage, has been undertaken by the Irrigation Department.

Dr. French, the Civil Surgeon of the District, in his Report on the Bardwán Fever for 1872, makes the following general remarks on the nature and progress of the disease:—'The Bardwán fever, or, as it may be now more properly called, the Bengal endemic fever, is said by Dr. Elliot, who had great experience of it, to be an "exaggerated and congestive form of malarious fever, most frequently of the intermittent type, generally assuming the most intense and asthenic character in localities where the recognised predisposing causes of the disease preponderate most." Again, in his Report he states that—"Apart from those conditions, however, I am disposed to believe that some other influence is at work, the operation of

which is not fully understood; for while changes are constantly occurring with reference to the state of the soil, season, and water supply, there must also be a tendency to change in the condition of the people." There is one thing certain about the fever,—it progressed steadily, although in some years slowly; it has come from east and south-east regularly to west and north-west; it has followed like a rolling wave the chief roads or means of intercommunication; and it is steadily going on to the west and north-west. It has now left the eastern portion of the Bardwán District, and has entered Bírbhúm; westward it has gone to Bánkurá, and south-west to Midnapur. It slumbers or smoulders for one, two, or three years, and then breaks out afresh. The season of outbreak is always during or towards the close of the rains. It is very violent when it breaks out in a village, and the mortality is very great. It appears to me to be identical with the epidemic fever in the Mauritius of 1866-67, which was said to be non-contagious, but fearfully fatal. There the disease prevailed in the low-lying, undrained, marshy land on the leeward side of the island, near the sea, which was more densely populated than the parts on the windward side.

'In Bardwán the disease has progressed chiefly along the Dámodar river, from which it passes inwards in different directions. An overcrowded, low-lying, badly-drained, filthy village was sure to be attacked, and to suffer severely; whereas the villages that were situated on higher ground, with natural drainage, scanty population, good or fair water supply, and better ventilation, either escaped or suffered less severely. Villages answering to this description are Mánkur, Sáhaspur, Sanktá, and Chhota Palásan, which have never been inundated, and have never as yet suffered from the endemic fever. They are, however, liable to be attacked, as we saw in the case of Garh village, which possesses like advantages, and which escaped the fever until August 1872, although many months previous to that date the surrounding villages were suffering severely. We have seen the Bardwán fever attacking rich and poor, although the former recovered more quickly than the latter. It is certainly not relapsing or enteric fever, but it is something more than malarious fever. It may be called malignant malarious fever, which, when once in full operation in an unhealthy locality, appears to have the power of communicating itself to surrounding villages, and to travel along the chief lines of traffic. The "malarial collapse" of the Mauritius fever is the fatal form of the Bardwán fever. There also

the "severe continued malarial fever," with its sudden attack, was also seen,—"no intermission or remission, early delirium, tongue becoming very rapidly furred and dry, and feebleness of pulse commencing soon, vomiting very generally present; this condition, if not at once relieved by large doses of quinine, passes into a state of coma, with dilated pupils, etc., and then death." Associated with these types of fever, there were the "intermittent malarial fever" and the "remittent malarial fever." There, as in Bardwán, relapses were very common. "It would be seen that any conditions which for the time lower the system, or reduce, so to say, its vital power, have a tendency to bring on a relapse of fever." Head and liver complications were also frequently met with. In the Mauritius, as in Bardwán, quinine was found to be the only remedy which did any good.' With regard to causation, Dr. French is of opinion that the fever is due to over-population, overcrowding, diminished food supply, defective sanitary arrangements, and the silting up of rivers and water-courses.

Between July 1871 and the end of 1872 the disease prevailed with unusual virulence. In July 1871 four special fever dispensaries were at once established in the town, and five others in the rural parts of the District, where the most miserable objects were to be seen attending for medicines and food. At the end of 1871 there were three 'fever circles' of medical superintendence, viz. Bardwán, Rainá, and Mangalkot, in which there were twenty-five dispensaries at work. A list of these dispensaries, together with eighty others subsequently opened in 1872, will be found a few pages further on. A depot was also established in 1871 in Bardwán town for medical stores, and a Sub-Assistant Surgeon specially appointed to its charge, to provide that a sufficient supply of medicines should be always at hand, and that the requisitions of the dispensaries should be speedily met. In order to supplement medical aid by good and wholesome diet, food was distributed; and three of these food depots, at which blankets were also distributed as relief, were in operation on the 31st December 1871. At the end of the year, the whole of the population of South Bardwán were reported to be prostrated with fever or its sequelæ. The disease was raging in Rainá and Khandghosh to the south, Mangalkot and Kátwá to the north and east, and in Ausgrám and Búd-búd to the north and west. It was reported that three hundred villages required relief.

This was the state of affairs at the end of 1871; and Dr. French,

in his Special Report on the outbreak, describes the prevalence of sickness, mortality, and the remedial measures adopted during 1872 as follows:—

'SICKNESS.—In the report of the 10th January 1872, it is stated that the fever had abated in the town and District. There were about three hundred per day attending at Kánchannagar, and in the jail the prisoners suffered a good deal. Here the fever commenced in August 1871, and steadily progressed. In January 1872 one-fourth of the whole jail population were weak or convalescent. Fever continued to rage in Dáinhát, Paltiá, and Rájur. In the report of the 18th January, it was stated that new cases of fever were rare in town or District. In Aklokí there were six hundred daily attending the dispensary. On the 8th February the fever throughout the District was reported "to be in abeyance." On the 18th February we find a record of much fever at Jublé. On the 11th March there was an improvement in the Mangalkot circle, but there was considerable sickness in Karshindé, Gaitanpur, Digalgrám, Gopálbárá, Boyar, Jublé, Songsar, Bámniá, and Khandghosh. On the 30th March it was reported that Rainá was comparatively free from fever, but it was still prevailing in other places.

'On the 16th April fever was reported to have increased in the greater part of the District, and in the town. It was attributed to excessive heat alternating with a few days of cloudy and cool weather,—that is, sudden changes of temperature. On the 29th April it was reported that new fever was occurring in several parts of the Mangalkot circle. On the 9th May it was reported that there was great sickness at Kiroá, in the Mangalkot circle. On the 20th May it was reported that there was a great deal of fever in the Jahánábád circle, but the greater number of patients were coming from Húglí District. On the 31st May it was reported that some villages between Karmun and Pámrá, which had suffered much in past years, and in which one-third of the population had died, were again in a bad state.

'On 18th June it was reported that the fever was again in abeyance. On 26th June it was reported that there were many fresh cases at Shor, Máhátá, Ausgrám, Aror, and a great amount of sickness at Paltiá and Bámunárá. On 18th July, that it had begun to decrease at Ausgrám, but fresh cases appeared at Bághor. Up to this, the villages of Belám, Aláth, and Garh escaped the endemic fever, although the adjoining villages suffered severely. Sickness was decreasing at Maháchandá, but new cases were met with at Galshí. On

10th July it was reported that the sickness in the Jahánábád circle was decreasing, and also in the Mangalkot circle, except at Dínanáthpur and Bhurhí. On 24th July fever had increased at Ichlábázár, Báldángá, Barsul, and Jagathbáer: this was attributed to recent rainfall. It was reported to be better in Jahánábád. It appeared that the villages low down near the line of inundation suffered more than those situated higher up on the opposite bank of the Dhalkisor river. At this time the Inspecting Medical Officer, while on his way to Kendur, was attacked with fever. In other parts of the District it was reported that the general health of the population was satisfactory. There were two fatal cases of "black fever" at Kátwá. It appears that "black fever" was malignant dengue. On 9th August it was reported that there was an increase of fever at Jagatbáer, Kurmun, and Jámtárá. Bhurhí, which was free from it in 1871 and previous years, was also attacked.

'There were fresh cases at Shondá, and many cases at Kánchannagar. There was also an increase of sickness observed in the jail and among the police force. At Bilkí, Garh, and Mánkur, it was reported that the health of the people was satisfactory. Balán was also reported to be healthy. On 23d August it was reported that many new cases were occurring at Maháchandá. Tikerhát, and bad remittent fever at Jámtárá and in the town of Bardwán. On 9th September it was reported that there was still an increase in parts of the Bardwán circle, and at Jámtárá and Bhurhí; Naugarh was attacked for the first time. There was a good deal of sickness at Adrá, while Mairá and Umarpur in its vicinity were comparatively free. The endemic fever was increasing in the north and west, and in the Mangalkot circle generally At Balán and Jaugrám fatal cases of malignant dengue ("black fever") were again reported. It was also reported that since end of August there was an increase in the Búd-búd circle. On 23d September it was reported that the fever had decreased in the Búd-búd circle, but was very prevalent at Biritikarí, near Kátrápotá, and in the station. Some villages suffered severely. There was no increase in the Jahánábád circle. It was said that generally throughout the town and District the health of the people was much better than it was in the corresponding period of the previous year. On 12th October it was reported that there was an increase of sickness at Jaugrám

In the vicinity of Jaugrám a few fatal cases of malignant dengue ("black fever") were also reported. There was considerable sickness at Garh, in villages near Bhurhí, and at Salálpur also, in that part of the Bánkurá District which had been lately transferred to Bardwán.

'There were also a great many cases of fever in the town of Bardwán. Throughout the District generally, the endemic fever was said to be on the decline. In the Búd-búd circle it was said to be in abeyance. Relapses were very common in the Mangalkot circle. On 21st October it was reported that there had been great sickness and mortality in Kámárpukur in September. In October there was considerable sickness at Shor, Bardwán town, Barsul, Ichlábázár, Kurmun, Bághár, Maháchandá, and Kánchannagar. In this month it reappeared in Kálikápur, about eight miles south of Kátwá, where it had raged in 1871. There were not many new cases in the north of the District, and in the Jahánábád circle there was no perceptible increase.

'On 8th November it was reported that there was a very heavy rainfall from 23d to 26th October, and that sickness had increased in all the circles, but particularly at Barsul, Jamálpur, Kurmun, Indas, Nolá, and Kánchannagar. There were numbers of new cases of remittent fever, many of them complicated with head affections. The general health of the people was on the decline. On 20th November it was reported that there was great sickness about Hájípur and Kámárpukur. In Gaurhátí there was scarcely a single family that had not one or more of its members down with fever. In the Bardwán circle there was an increase in the number of cases of fever, spleen, and chest affections. There was a general increase in the Búd-búd circle, particularly at Kánchannagar, Tikerhát, Kátrápotá, Debíbarpur, Jublé, and Gaitanpur. In the Mangalkot circle there was an increase in Máhátá, Ausgrám, Chának, Mangalkot, Paltiá, and Aror. From 14th October to 7th November there was an increase of 2455 in the daily average sick attending the dispensaries. The virulence of the fever and the number of cases decreased at Koyar, Kendur, Digalgrám, Aklokí, and villages round Bálí. The daily average sick attending the dispensaries in the District for the week ending 14th November was 8611. On 8th December it was reported that the sickness was decreasing, both as regards the number of cases and the severity of the type. There was

bád circle was very unhealthy. In the first week of December there was a slight increase of sickness at Songshar, Tikerhát, Khandghosh, and Tásulí. On 23d December it was reported that there was a marked improvement in the health of the people at many places. Many cases of dysentery, chronic fever, spleen, anasarca, and cancrum oris were now to be met with. At the close of the year the fever and general sickness were decreasing, but still there was lamentable suffering all over the District, but particularly in the south, or Jahánábád circle, to the north and north-west, and round Bardwán. For the week ending the 31st December 1872, the daily average number of sick attending the dispensaries had gone down to 7142.

'It thus appears that the endemic fever from 1871 continued to rage all over the south and western portions of the District with great severity. Except at Kálikápur, near Kátwá, the eastern portion of the District, as Kálná, Púrbosthalí, Kátwá, Mamárí, etc., places which were nearly depopulated in previous years, was comparatively free from fever. The progress of the fever is steadily westward or north-west. The newly attacked portions of the Districts of Húglí and Bánkurá were very bad indeed at the close of the rains, and from that time till the end of December.

'In the hot season of 1872 the fever was worse than in that of the previous years; but the fever of the rains and cold weather of 1872 was milder, and did not rage to such an extent as in the corresponding period of 1871. The following statement shows the number of patients treated in each month of 1872 in the endemic dispensaries in Bardwán District. In January, 48,877 persons were treated; February, 70,877; March, 108,661; April, 114,042; May, 111,996; June, 101,717; July, 95,079; August, 111,908; September, 104,904; October, 120,039; November, 150,582; and December, 136,954. Grand total, 1,275,636. These figures show that an enormous amount of work was done, and that there was great sickness during the year. The months, however, cannot be compared with one another. Thus we cannot assume that December was nearly three times more unhealthy than January, as the figures would lead us to suppose, the great difference being due to the increased number of dispensaries. At the close of the year 1871 there were only 25 endemic dispensaries working, while on the 31st December 1872 there were 56 dispensaries open every day.'

MORTALITY FROM THE FEVER.—No accurate statistics exist showing the mortality caused by the fever. I have received a statement showing the number of patients treated, numbers cured or relieved, died, etc., but I do not reproduce it here, as the Civil Surgeon reports that, with the exception of the column showing the total number of patients treated (viz. 1,275,636), all the other figures 'are totally false and erroneous.' The police returns for 1872 show 22,947 deaths from fever, and 27,488 from all diseases, or a total death-rate of 13·41 per 1000, which the Civil Surgeon reports is very much below the mark. Dr. French's Report continues:—'Many deaths occurred which have never been registered. We have no means of finding out what the real mortality was, and we shall never know it. It has been estimated at about one-third of the total population, which in my opinion is very near the truth. In 1869 the total population of the town of Bardwán was 46,121. In 1872 the Census gave a population of 32,687, which shows a decrease in three years of 13,000 persons, or, taking births into consideration, about 15,000. In Nolá it is said half of the population died. In Sonámukhí a third of the population died. It is said that 300 people died in Jublé village in 1872. Sub-Assistant Surgeon Dínabandhu Datta supplies the following information in one of his fortnightly reports, showing the excessive overcrowding that existed and the mortality which has occurred:—In the house of Rám Karmakár, in village Nolá, 13 individuals lived in two rooms, each 13·5 by 7·5 feet. Out of these 13, 7 died in three years. In the house of Dhankrishna, 16 individuals lived in four rooms, each 12 by 7·5 feet, so that the superficial space allotted to each person was on an average 22·5 feet. Out of these 16 individuals, 11 died. In the house of Hárádhan Májí, 7 individuals lived in one room 16·5 by 7·5. Only one of this family now survives. In the house of Parán, village Kamálpur, near Gaitanpur, 7 persons lived in two rooms, one 6 by 6 and the other 12 by 7·5 feet, so that each had on an average 18 superficial feet. Four of them died. In the house of Mahividi Ghosh, same village, 7 persons lived in two rooms, each 12 by 7·5 feet, so that they each had 25·7 feet of superficial space. Five of them died. In the house of Janárdan, at Debíbarpur, there were 20 persons alive before the fever appeared in the village. They lived in three rooms, each 12 by 7·5 feet, and each had on an average 13·5 feet of superficial space. Out of these, 17 died, which is a mortality of 85 per cent. In the house of a

sweetmeat seller in village Songshar, 8 persons lived in three rooms, one 10·5 by 7·5, a second 7·5 by 13·5, and a third 12 by 7·5 feet; the superficial space allotted to each was 33·75 feet. All have died. Before the fever broke out, there were 23 persons in the house of one Nizámat Mallik; the superficial space allotted to each was on an average 22·5 feet; 15 of these 23 persons died, which is a mortality at the rate of 65·26 per cent. These facts show what the mortality was in fever-stricken villages, and also the great overcrowding that existed previous to the outbreak.

'Although the police return does not give the real total of deaths, yet it is useful for comparison of months and seasons. We see from it that most deaths from fever occurred in November, and fewest in May. The following are the months in order of their unhealthiness as regards fever:—November, December, October, September, January, August, March, April, July, June, and May.'

STATEMENT OF MONTHLY DEATHS FROM FEVER AND OTHER DISEASES IN BARDWAN DISTRICT IN 1872 (RETURNED BY THE POLICE).

MONTHS.	DEATHS FROM					
	Fever.	Bowel Complaints	Cholera.	Small-pox.	Other Diseases.	TOTAL.
January, . .	2,226	152	133	5	60	2,576
February, . .	1,268	91	56	2	41	1,458
March, . .	1,552	108	108	7	75	1,850
April, . . .	1,340	64	149	3	73	1,629
May, . . .	644	45	165	1	54	909
June, . . .	645	64	215	3	63	990
July, . . .	862	110	130	13	130	1,245
August, . .	1,684	173	213	6	135	2,211
September, . .	2,649	214	288	1	102	3,254
October, . .	2,934	162	106	2	97	3,301
November, . .	3,604	98	57	0	103	3,862
December, . .	3,539	202	398	1	63	4,203
Total, . .	22,947	1,483	2,018	44	996	27,488

I have also received a return of fifty villages in Kálná Subdivision, which contained an estimated population of 67,439 before the outbreak, and in which no less than 27,810 persons, or 41·2 per cent. of the total population, are estimated to have died between the time of

the outbreak and 1870-71. Similarly, in seventeen villages of Kátwá Subdivision, containing an estimated population of 14,982 before the appearance of the disease, no less than 6243, or 41·7 per cent. of the population, are reported to have died of fever between the period of the outbreak and 1870-71. Moreover, since that year the epidemic has continued prevalent, and, as before stated, from July 1871 to the end of 1872 it raged with increased violence.

REMEDIAL MEASURES were adopted on a large scale by Government, and no expense was spared in order to check the ravages of the disease as far as possible. Dr. French, in his Report above quoted, treats of these remedial measures under the two heads of medical and food relief. Under the former head he gives a list of dispensaries, which I reproduce on the following pages, showing the name of each dispensary, with the date on which it was opened and closed. It will be seen from it that 80 new dispensaries were opened during 1872. On 31st December 1871 there were 25 dispensaries at work, so that at different times during the year 105 villages had dispensaries located in them. The highest number open at one time was 56, in December 1872. When sickness abated in one place, the dispensary was removed to another where it was more urgently required. The following is the table:—

STATEMENT OF DISPENSARIES IN BARDWAN DISTRICT ON 31ST DECEMBER 1871, AND THOSE OPENED IN 1872, WITH DATES OF OPENING AND CLOSING OF EACH.

No.	Dispensaries.	When Opened.	When Closed.	Remarks.
	DISPENSARIES ON THE 31ST DECEMBER 1871.			
1	Aklokí, . . .	Aug. 8, 1871		
2	Báldángá, . .	,, 11, ,,		
3	Tikerhát, . . .	,, 11, ,,		
4	Kánchannagar, .	Sep. 19, 1871		
5	Saráitiker, . .	Nov. 3, 1871	Aug. 3, 1872	
6	Máhátá, . . .	,, 3, ,,	Dec. 10, 1872	
7	Chának, . . .	,, 9, ,,		
8	Ausgrám, . .	,, 18, ,,		
9	Maháchandá, . .	,, 23, ,,		
10	Kátrápotá, . .	,, 24, ,,		
11	Mirál, . . .	Dec. 9, 1871	May 2, 1872	
12	Aror, . . .	,, 11, ,,		
13	Mangalkot (1), .	,, 13, ,,	July 1, 1872	
14	Digalgrám, . .	,, 15, ,,		

No.	Dispensaries.	When Opened.	When Closed.	Remarks.
15	Gotán, . . .	Dec. 15, 1871		
16	Kátnábíl (Srírámpur),	,, 16, ,,	Feb. 21, 1872	
17	Dhárán, . . .	,, 16, ,,	,, 20, ,,	
18	Jotsiram or Srí Krishnapur, . . .	,, 19, ,,	May 30, 1872	
19	Dáin-hát, . . .	,, 20, ,,	,, 20, ,,	
20	Khandghosh, . .	,, 21, ,,	Dec. 1, 1872	
21	Galshí, . . .	,, 24, ,,		
22	Mangalkot (2), .	,, 25, ,,	Jan. 13, 1872	
23	Kurmun, . . .	,, 27, ,,		
24	Palásan, . . .	,, 28, ,,	June 19, 1872	
25	Rainá, . . .	,, 31, ,,		

DISPENSARIES OPENED IN 1872.

1	Atkoré, . . .	Jan. 9, 1872	Feb. 14, 1872	Removed to Nárchá.
2	Bámuniá, . .	,, 9, ,,	June 13, 1872	Removed to Nandá.
3	Jublé, . . .	,, 10, ,,		
4	Karshindé, . .	,, 11, ,,	Dec. 5, 1872	Removed to Indás.
5	Jámtárá, . . .	,, 11, ,,		
6	Gaitanpur, . .	,, 11, ,,		
7	Kiroá, . . .	,, 13, ,,	May 21, 1872	
8	Pámrá, . . .	,, 15, ,,		
9	Karutiá, . . .	,, 15, ,,	Apr. 26, 1872	
10	Bamniár (Hijalná), .	,, 15, ,,		
11	Bolpur Belsar, . .	,, 16, ,,	July 24, 1872	Removed to Debíbarpur.
12	Paltiá, . . .	,, 17, ,,	Feb. 29, 1872	Removed to Bhalkí.
13	Nándanpur, . .	,, 18, ,,	,, 26, ,,	
14	Ichlábázár, . .	,, 18, ,,		
15	Kánchannagar (New),	,, 19, ,,	June 3, 1872	
16	Mírpur, . . .	,, 20, ,,		
17	Sankárí, . . .	,, 22, ,,	Feb. 17, 1872	Removed to Songshar.
18	Gopálbárá, . .	,, 22, ,,	Oct. 8, 1872	
19	Kendur, . . .	,, 22, ,,	Feb. 3, 1872	Removed to Tátálpur.
20	Kátálgáchhí, . .	,, 26, ,,	,, 13, ,,	Removed to Amrá.
21	Koyar, . . .	,, 29, ,,		
22	Jagatbáer, . .	,, 30, ,,	Sep. 3, 1872	
23	Jaugrám, . . .	,, 30, ,,		
24	Tátálpur, . .	Feb. 3, 1872	June 5, 1872	Removed to Kendur (re-opened).
25	Amrá, . . .	,, 13, ,,	Apr. 9, 1872	Removed to Páitá.
26	Nárchá, . . .	,, 15, ,,	,, 3, ,,	
27	Balarámpur, . .	,, 16, ,,	,, 12, ,,	Removed to Sádipur.
28	Aruí, . . .	,, 16, ,,		
29	Kaichar, . . .	,, 17, ,,	June 10, 1872	Removed to Bhediá.
30	Songshar, . .	,, 18, ,,		
31	Bijur, . . .	,, 20, ,,	Apr. 8, 1872	Removed to Adrá.
32	Atpárá, . . .	,, 20, ,,	,, 12, ,,	Removed to Jhárgáón.
33	Jabui, . . .	Mar. 1, 1872		
34	Kuchut, . . .	,, 1, ,,	May 26, 1872	Removed to Gobindpur
35	Bhalkí, . . .	,, 1, ,,	July 2, 1872	Removed to Bhurhí.
36	Búd-búd, . . .	,, 1, ,,	,, 11, ,,	

No.	Dispensaries.	When Opened.	When Closed.	Remarks.
37	Dígnagar, . .	Apr. 5, 1872	Nov. 5, 1872	Removed to Nolá.
38	Adrá, . . .	,, 9, ,,		
39	Borsul, . . .	,, 10, ,,		
40	Sondá, . . .	,, 10, ,,	Nov. 25, 1872	Removed to Tasulí.
41	Sádipur, . . .	,, 13, ,,		
42	Jaugrám, . . .	,, 13, ,,	June 1, 1872	
43	Asansol, . . .	,, 13, ,,	Aug. 31, 1872	
44	Bághár, . . .	,, 13, ,,		
45	Paitá, . . .	,, 16, ,,		
46	Gohográm, . .	,, 22, ,,	June 22, 1872	
47	Urgrám, . . .	,, 27, ,,		
48	Shor, . . .	May 2, 1872		
49	Gobindpur, . .	,, 26, ,,		
50	Ichhápur (Ránígaṅj),	,, 28, ,,	Aug. 31, 1872	
51	Jamálpur, . .	June 1, 1872		
52	Kendur, . . .	,, 5, ,,	Dec. 5, 1872	Removed to Gaurhátí.
53	Bhediá, . . .	,, 13, ,,	June 27, 1872	Removed to Dínanáthpur.
54	Nandá, . . .	,, 14, ,,	,, 28, ,,	Removed to Chhotabainál.
55	Dínanáthpur, . .	,, 29, ,,		
56	Bámunárá, . .	July 1, 1872	Aug. 4, 1872	Removed to Mangalkot (re-opened).
57	Chhotabainál, . .	,, 2, ,,		
58	Bhurhi, . . .	,, 2, ,,		
59	Paltia, . . .	,, 4, ,,		Re-opened.
60	Khani, . . .	,, 14, ,,		
61	Debíbarpur, . .	,, 24, ,,		
62	Pográm, . . .	,, 29, ,,		
63	Báli, . . .	Dec. 1, 1871		
64	Máyápur, . .	Jan. 8, 1872		
65	Chándur, . . .	Apr. 8, 1872	Oct. 5, 1872	Removed to Kázípur.
66	Kesabganj, . .	Aug. 3, 1872	,, 22, ,,	Removed to Kálikápur
67	Mangalkot, . .	,, 6, ,,		
68	Mandalghátí, . .	Sep. 19, 1872	,, 6, ,,	Removed to Bhádur.
69	Kámárpukur, . .	,, 27, ,,		
70	Kázípur, . . .	Oct. 5, 1872		
71	Bhádur, . . .	,, 6, ,,		
72	Náráyanpur, . .	,, 28, ,,		
73	Kálikápur, . .	,, 29, ,,		
74	Nolá, . . .	Nov. 27, 1872		
75	Tasulí, . . .	,, 27, ,,		
76	Golá, . . .	Dec. 2, 1872	Sep. 23, 1872	Removed to Khandghosh (re-opened).
77	Indás, . . .	,, 5, ,,		
78	Somantí, . . .	,, 14, ,,		
79	Gaurhátí, . .	,, 17, ,,		
80	Khandghosh, . .	,, 23, ,,		Re-opened.

Dr. French's Report goes on as follows:—'It was found necessary in some localities to place dispensaries within a mile of each other, as both the Sanitary Commissioner and I found persons suffering

from violent fever, and others recovering, residing half a mile from a dispensary, who had never sought or received medical aid of any kind. This was notoriously the case at Ichlábázár and Kánchannagar, in the town of Bardwán, and at Gopálbárá and the neighbouring villages in the Uchálan circle. In other places, again, such as at Aklokí, a neighbouring dispensary was found necessary, in order to draw off the press of patients from Aklokí, where the numbers were so large that it was impossible for the Sub-Assistant Surgeon to treat them properly. In addition to the dispensing of medicine at the dispensary, each native doctor and Sub-Assistant Surgeon received orders to visit daily the surrounding villages, and to treat in their houses those bedridden patients who were unable to present themselves at the dispensary. An allowance of £1 per month was given to those who did so. In some places, as at Jámálpur and Aklokí, the attendance was very high. On some days over six hundred patients were seen and prescribed for at each of these dispensaries. Medicines were supplied without stint. The total cost of the medicines issued from the Bardwán medical store during 1872 amounted to £6017, 6s. 9d., of which £4352, 8s. 3d. was for quinine alone. The average expenditure of this drug was about 100 lbs. per month. In the month of December 1872 alone, the charge for quinine amounted to £632, 14s. 0d. In addition to these large sums, about £7 per month, or £84 for the year, were spent for contingencies and bázár medicines. A further large sum was spent for rum, which was also liberally supplied.

'FOOD RELIEF MEASURES were extensively adopted during the year, in addition to medical relief measures. On the 31st December 1871 three food depôts were giving relief, viz. Báldángá, Tikerhát, and Kátrápotá. In January 1872 the food relief measures were extended on a wider scale. The following rules were put in force at the depôts in Bardwán town:—(1) Identification of each pauper by the head-men of the village, and a certificate that he or she was a proper object for charity. (2) Inspection by the supervising medical officer, and the grant of a food ticket by him. (3) The issue of food simultaneously with that from the Maháráját's storehouse (*golábárí*). At depôts in the interior of the District the system of food relief adopted was as follows:—The head-men of the village drew up a list of those known to be in actual want of food, in other words, of those who lived by labour, and who, being unable to labour, were deprived of the means of subsistence. Such persons,

when sick, received depôt tickets from the medical officer, and obtained rations. During the year 1872, 33 depôts were opened; the total number of persons relieved amounted to 105,748, the daily average attendance being 280. The total expenditure on account of food in 1872 amounted to £563, 1s. 1d. The following food depôts were in full working order at the end of the year:—

FOOD DEPOTS IN BARDWAN DISTRICT ON THE 31ST DECEMBER 1872.

No.	Name of Depot.	When Opened.	No.	Name of Depot.	When Opened.
1	Báldángá, . .	Sept. 13, 1871	12	Kúlkol, . . .	July 1, 1872
2	Kátrápotá, . .	Nov. 28, 1871	13	Kháno, . . .	,, 5, ,,
3	Tikerhát, . .	,, 27, ,,	14	Dínanáthpur, . .	,, 11, ,,
4	Saráitikar, . .	Feb. 1, 1872	15	Khandghosh, . .	Aug. 1, 1872
5	Maháchandá, . .	,, ,,	16	Songshar, . .	,, 8, ,,
6	Aklokí, . . .	,, ,,	17	Jahánábád, . .	,, 20, ,,
7	Kurmun, . .	,, ,,	18	Debíbarpur, . .	Sept. 7, 1872
8	Palásí, . . .	,, ,,	19	Báli, . . .	Nov. 18, 1872
9	Digalgrám, . .	Mar. 22, 1872	20	Ausgrám, . .	Oct. 3, 1872
10	Jaugrám, . .	Apr. 1, 1872	21	Urgrám, . . .	,, 26, ,,
11	Shor, . . .	June 29, 1872	22	Tasulí, . . .	Dec. 8, 1872

'The total amount advanced from the District Treasury to the Bardwán Municipality, Deputy Magistrates, and other parties, on account of the food and clothing relief measures, amounted to £2204, 19s. 10d.'

In another portion of his Report Dr. French says:—'In my Sanitary Report of Rájsháhí for 1868 to the Sanitary Commissioner for Bengal, I recommended the passing of a Sanitation Act for Bengal, which would oblige every householder to keep his compound clean, jungle cut down, and drains open. The burial and burning of bodies in the village should be prohibited. A good tank or two should be kept for drinking and culinary purposes. The conservancy arrangements would be the most difficult to deal with, but even in this matter something might be done. Such an Act would not interfere with the habits of the people, would not be in any way a hardship, and would, I believe, be followed by an amelioration in the general health of the population. It would be one of the best safeguards against epidemic outbreaks. In order to reduce the over-population in the Districts, emigration ought to be encouraged in every possible way.

'For the present, we must be prepared to meet fresh outbreaks of fever in new or old localities as they occur. We must still, for this

year (1873) at least, keep up our establishments, and the work of 1872 must be carried on through 1873. For ordinary cases of intermittent fever, I have been looking out for a remedy which would act as a substitute for quinine. Carbazotate of ammonia has been highly spoken of in French literature, and I had some prepared for me. I did not like the remedy, and consider that it is of no use in the fevers of Bengal. The Rev. P. Nicholas sent me a specimen of the native plant *kálapnáth*, which is, I believe, the maidenhair fern, or *adiantum capillus veneris*. Mr. Nicholas said it was the only remedy which did him any good, and that it was invaluable in cases where quinine failed. I tried it in Bardwán in cases under my own eye, and found that in proper doses it is a useful remedy in fever. I gave eighty grains in a thirty ounce decoction, the dose of which was from half to one wineglassful three or four times daily. It can be given even when the skin is very hot and the pulse is very full and quick. It seems to have the power of preventing those repeated relapses or attacks of intermittent fever which are so commonly met with all over the District. I have not as yet tried it in "malarial collapse," or in "continued malarial fever." I shall, however, try it more extensively in the current year. Carbolic acid has been tried in many dispensaries, but the majority of my best-informed Sub-Assistant Surgeons are against it.'

EPIDEMICS.—There are no records of any serious epidemics of cholera or small-pox in Bardwán District. In 1868 a few cases of epidemic cholera appeared near the civil jail, and some of the prisoners were affected by it, but no deaths occurred among them. Several deaths from cholera took place in the neighbouring bázár, but the epidemic was of a mild character, and lasted only for a few days. The rate of mortality cannot be ascertained, as at that time no mortuary returns were kept by the police as at present. In 1872 the police returns showed 2018 deaths from cholera, and 44 from small-pox.

CHARITABLE DISPENSARIES.—Besides the 56 special itinerant fever dispensaries at work in Bardwán District at the end of 1872, there are six other hospitals and charitable dispensaries permanently maintained, partly by Government and partly by private subscriptions and contributions. The following brief account of each of these charitable dispensaries is compiled from the Report on the

At the end of the list will be found a table showing the total statistics of the amount of relief afforded by these institutions.

(1) BARDWAN TOWN DISPENSARY.—This institution was established in 1837, and is under the charge of a Sub-Assistant Surgeon. The total number of in-door patients treated in 1871 was 647, and out-door patients, 7376. The attendance of patients in the following year was larger than in 1871. The number of in-door patients treated in 1872 amounted to 881, of whom 359 were discharged cured, 109 relieved, 74 not improved or ceased to attend, 315 died, and 24 remained in the hospital at the close of the year; percentage of deaths to total number treated, 35·75 per cent.; daily average number of sick, 29·72. The total number of out-door patients treated was 8501, the average daily attendance being 57·29. The majority of patients treated suffered from malarious diseases and bowel complaints. Of the 8501 out-door patients treated, 2394 suffered from ague and remittent fever, 2340 from enlargement of the spleen, 195 from dysentery, 180 from diarrhœa, and 125 from cancrum oris. Of the 881 in-door patients treated, 139 suffered from ague and remittent fever, 218 from dysentery, 97 from diarrhœa, 53 from enlarged spleen, 39 from cholera, and 23 from cancrum oris. The death-rate amounted to 35·75 per cent. of treated, against 38·02 in 1871. Of the 315 deaths, 133 were due to dysentery, 51 to diarrhœa, 34 to dropsy, 25 to cholera, 16 to cancrum oris, 14 to ague and remittent fever, 7 each to splenic enlargement and ulcer. On the subject of the prevailing diseases and high rate of mortality, the Medical Officer in charge writes as follows:—

'The endemic fever is still lingering here, but seems to have abated a little towards the close of the year. It prevailed during the last fever season, *i.e.* the months of October and November, with the same virulence as in the preceding years; but I believe that the mortality has been much less this time. This is owing to the prompt and active treatment which the people received from the medical officers in charge of the endemic dispensaries located in various parts of the District. From the observations I made during my stay at Jamálpur, Shor, etc., I am inclined to think that the fever has turned to a type more amenable to treatment and less subject to the complication of spleen and liver. Patients suffering from other diseases are invariably tainted with malarious poison, and if they undergo any surgical operation, they are sure to exhibit the symptom of malarious fever. Hence the small number of

vaccine and important surgical operations. Dengue fever prevailed here, as in Calcutta and other large cities of Bengal. Forty-one cases were treated in the dispensary during the months of August and September; all of them recovered. Cholera also broke out sporadically during the rainy and winter seasons, in May, June, July, August, and September, and in December. It raged with great intensity, and carried off many people. Nearly all the cases that were treated in the dispensary were brought in in a state of collapse, and therefore the mortality was considerable. As there is no separate cholera ward in the dispensary, I was obliged to keep cholera cases in the general wards, but at the same time sanitary measures were taken to prevent the spread of the disease.' The excessive mortality among the in-door patients, which amounted to 319, or more than one-third of the total admissions, is attributed to the large number of moribund pilgrims taken to the dispensary.

The total income of the dispensary, including Government grant, donations, and subscriptions, etc., in 1872, amounted to £433, 2s., of which £294 was received from Government and £139, 2s. from local sources. Private subscriptions in aid of the institution, however, are very small, and in 1872 only amounted to £2, 8s. from natives, and £14, 10s. from Europeans. The total expenditure during 1872 amounted to £504, 6s., the Government contribution being £294 for salaries, special allowances, and European medicines supplied free of cost. The institution is inspected daily by the Civil Surgeon of the District.

(2) KATWA DISPENSARY.—Established in April 1860, and under the charge of a Sub-Assistant Surgeon. The dispensary building is in good repair, and can accommodate nine in-door patients. Its distance from the town of Kátwá (about a mile) is said to be a cause of complaint on the part of patients; but its present site is a healthier one than could be obtained in the vicinity of a crowded bázár. The attendance of patients has increased during 1872 as compared with 1871. In 1871, 123 in-door and 2878 out-door patients were treated at the dispensary. In 1872 the number of in-door patients increased to 162, of whom 74 were discharged cured, 42 relieved, 19 not improved or ceased to attend, 22 died, and 5 remained in the hospital at the end of the year; percentage of deaths to total number treated, 13·58 per cent.; daily average number of sick, 6·20. The out-door patients during 1872 numbered 4440, the average daily attendance being 39·95.

The Sub-Assistant Surgeon gives the following account of the health of the Subdivision, and the prevailing diseases of the year :—'The endemic fever which has been so rife in this District continued to prevail in this Subdivision. The western portion suffered the most, and almost all the villages were affected. The fever broke out anew at Kátwá town in the month of October, but soon began gradually to diminish. The new admissions from fever during the unhealthy months of the year were respectively as follow :—August, 72 ; September, 148 ; October, 224 ; November, 224. The fever was of an intermittent type, and resembled the fever of other Districts in many of its aspects ; but cases of remittent fever were also numerous. The quotidian was the common type, but cases of tertian and quartan ague were also common. The fever prevailed most among the poorer classes, and especially among those who lived in damp, ill-ventilated, and low houses ; places situated on elevated lands above the general level of the soil enjoyed a comparative immunity from the fever. The fever commenced with the setting in of the rainy season, and lasted throughout that season as well as for a few months of the cold, so that it can probably be inferred that the cause of this fever rests upon the want of proper subsoil drainage, and consequently upon prolonged dampness of the soil. As with the case of intermittent fever elsewhere, this fever had three stages, namely, the cold, the hot, and the sweating stage. In a case where the fever was of a lasting nature, and the cold stage very prolonged, there splenic enlargement was a common sequel, and this out of all the other sequelæ highly preponderated. This organ assumed such an awful bulk in some, that it was seen to descend to the pelvis, and the sufferers ultimately died, being extremely reduced and bloodless. In several cases of enlarged spleen, cancrum oris resulted, which advanced to such an extent in some, that their faces assumed shocking appearances. Relapses as a rule were very common, and took away the lives of hundreds by a process of slow death after a suffering of months or years. Besides enlarged spleen, the other sequelæ were enlargement of the liver, dysentery, and diarrhœa. In a few cases I have seen paralysis, aphonia, and blindness resulting from the fever,—the latter owing probably to malarious degeneration of the optic discs.

'The remittent fever in many appeared in the ordinary way, with the usual symptoms of headache, thirst, and bilious vomiting ; but

sembled the typhoid in several of its aspects. The patients lay, some comatose, others half sensible, with muttering delirium, having a parched tongue and teeth covered with sordes, but in no case have I seen looseness of bowels attendant upon such a type. The common complications of the remittent fever were congestion of the brain and liver.

'Dengue fever appeared in the town of Kátwá in the latter end of April, being introduced by traders from Calcutta. It raged throughout the town, and attacked almost all the inhabitants, rich and poor, high and low, and men, women, and children alike. It gradually reached the surrounding villages, whence, after expending its full force, it finally disappeared. Cholera broke out in the villages of Sirgrám and Simulgáchhí. At Kátwá it broke out twice, once in the month of July and once in December. Nowhere was it of a lasting nature. Cholera pills and stimulant mixtures were supplied to the affected places. Small-pox broke out in the village of Jhulu, near Mangalkot, but only a few persons were attacked.'

The total income of the dispensary amounted to £286, 12s. in 1872, of which £163, 8s. was contributed by Government for salaries, European medicines, and surgical instruments, and £123, 4s. came from subscriptions and other local sources. The expenditure in the same year amounted to £271, 18s. The balance remaining on hand at the close of 1872 was £35, 4s. The Civil Surgeon paid one visit of inspection to the dispensary during the year.

(3) CHAKDIGHI DISPENSARY.—Established in August 1859, and under charge of a Sub-Assistant Surgeon. The building accommodates eight male and four female in-door patients. According to the Dispensary Report for 1872, the building then stood in need of repair, and was not kept so clean as it ought to be. In 1871, 177 in-door and 4526 out-door patients received treatment at the dispensary. In 1872 the number of in-door patients increased to 231, of whom 134 were discharged cured, 48 relieved, 23 not improved or ceased to attend, 17 died, and 9 remained in the hospital at the end of the year; percentage of deaths to total treated, 7·35 per cent.; daily average number of sick, 9·59. The out-door patients during 1872 numbered 7690, the average daily attendance being 64·36. The Sub-Assistant Surgeon states that malarious diseases and their sequelæ are very common in this locality. The dispensary is mainly supported by the estate of the late Bábu Sárodá Prasád Rái. The total income in 1872 amounted to £335, 14s., of which

only £63, 10s. was contributed by Government, in the shape of salaries and medicines given free of charge, the remainder being provided from local sources. The total expenditure during the year was the same as the income, viz. £335, 14s. The Civil Surgeon visited the dispensary once during the year.

(4) BUD-BUD BRANCH DISPENSARY, established in December 1864. The dispensary is an out-door one, there being no accommodation for in-door patients. In 1871 the number of patients receiving out-door treatment was 1514, the average daily attendance being 16·11. In 1872 the number of patients increased to 2575, with an average daily attendance of 68·48. Malarious diseases were very prevalent in this neighbourhood during the year. The total income of the dispensary in 1872 was £48, 8s., of which £32, 10s. was contributed by Government, and £15, 18s. by subscriptions, etc. The total expenditure for the year amounted to £47, 10s. The balance in hand at the end of 1872 amounted to £54, 12s.

(5) RANIGANJ DISPENSARY, established in May 1867. The dispensary building has accommodation for ten male and six female in-door patients, and is well suited to its purpose. In 1871, 189 in-door and 764 out-door patients received treatment at the dispensary. In 1872 the number of in-door patients increased to 213, of whom 143 were discharged cured, 3 relieved, 7 not improved or ceased to attend, 53 died, and 7 remained in the hospital at the close of the year; proportion of deaths to total number treated, 24·88 per cent.; daily average number of sick, 9·07. The out-door patients during 1872 increased to 1138, the average daily attendance being 11·21. The total income of the dispensary in 1872 amounted to £112, 8s. 0d., of which £60, 8s. 0d. was the Government contribution for the native doctor's salary and supply of medicines and instruments, the remaining £52 being subscriptions and donations. The total expenditure in 1872 amounted to £108, 6s. 0d., and the balance in hand at the close of the year amounted to £42, 2s. 0d.

The Medical Officer gives the following account of the health of the Subdivision and the prevailing diseases of the year:—'Cholera prevailed extensively in the neighbourhood of the dispensary and various parts of the Subdivision during April, May, and June. Among certain contractors' coolies the epidemic was very bad, and special medical aid was deputed. Dengue fever was also common in May, June, and July. The early months of the year were very healthy, though the heat in March was excessive, the mean tem-

perature of the month being 78·96°, against 74·04° in 1871. April was also exceedingly hot, the mean temperature being 86·51°. Cholera prevailed in several villages during April and May, and a native doctor was sent from Bardwán. Towards the end of May, cholera came into the bázár, and dengue was first heard of about this time. The rains were ushered in by a severe storm in the first week of June; but during that month, as well as in July and August, a smaller quantity of rain fell than in the corresponding periods of 1871, and the rainfall of the early months of the year was also below the average. During the hot and rainy seasons, in this as in former years, bowel complaints were very common. In the colder months of the year fevers of various types chiefly prevailed.'

(6) JAHANABAD DISPENSARY, opened in December 1871. The Subdivision of Jahánábád was transferred from Húglí to the Bardwán District in July 1872. This dispensary building is reported not to be a good one, and to be in a bad state of repair. A sum of £130 was deposited in the District Treasury for the purpose of providing a new building. In 1872, 4 in-door patients were treated, all of whom were discharged cured; and 9749 out-door patients, the average daily attendance being 63·94. Of the total, 3816 were cases of ague, 3497 of spleen disease, 341 of dysentery, 320 of anasarca, 246 of worms, 200 of diarrhœa, 130 of bronchitis, and 91 of cancrum oris. Malarious fever was very prevalent throughout the year, but not so severe as in 1871. The total income of the dispensary in 1872 amounted to £160, 10s. 0d., of which Government contributed £53, 14s. 0d., the remainder, £106, 16s. 0d., being derived from subscriptions and other local sources. The total expenditure for 1872 amounted to £201, 0s. 0d., and the balance in hand at the end of the year to only 12s. 9d. The dispensary was frequently visited by the Inspecting Medical Officer employed on special duty in Bardwán, but the Civil Surgeon of the District was not able to inspect it.

The table on the next page shows the amount of relief afforded in 1872 by the permanent charitable dispensaries in Bardwán District, together with their cost and the proportion which is borne by Government and by private subscriptions and other local sources. Excluding the special temporary fever dispensaries, there were in 1872 six charitable dispensaries in Bardwán District, five of them with hospital accommodation for in-door patients, at which 1491

The Permanent Dispensaries and Medical Charities in Bardwan District in 1872.

Dispensaries.	Date of Establishment.	In-door Patients.								Out-door Patients.		Operations.		Total Income.	Government Contribution.	Subscriptions, Donations, etc.	Total Expenditure.
		Total Treated.	Cured.	Relieved.	Not Improved or ceased to Attend.	Died.	Remaining in Hospital.	Percentage of Deaths to Treated.	Daily Average Number of Sick.	Total Treated.	Average Daily Attendance.	Major.	Minor.				
														£ s. d.	£ s. d.	£ s. d.	£ s. d.
1. Bardwán, ...	1837	881	359	109	74	315	24	35·75	29·72	8501	57·29	10	1	433 2 0	294 0 0	139 2 0	504 6 0
2. Kátwá, ...	1860	162	74	42	19	22	5	13·58	6·20	4440	39·95	16	198	286 12 0	163 8 0	123 4 0	271 18 0
3. Chakdighí, ...	1859	231	134	48	23	17	9	7·35	9·59	7690	64·36	20	400	335 14 0	63 10 0	272 4 0	335 14 0
4. Búd-búd, ...	1864	...	...	...	...	...	...	...	...	2575	68·48	6	72	48 8 0	32 10 0	15 18 0	47 10 0
5. Ránígaṅj, ...	1867	213	143	3	7	53	7	24·88	9·07	1138	11·21	11	54	112 8 0	60 8 0	52 0 0	108 6 0
6. Jahánábád, ...	1871	4	4	...	...	...	...	...	...	9749	63·94	3	122	160 10 0	53 14 0	106 16 0	201 0 0
Total, .	...	1491	714	202	123	407	45	27·30	...	34,093	...	66	847	1376 14 0	667 10 0	709 4 0	1468 14 0

Sentence continued from p. 198.]
in-door and 34,093 out-door patients received treatment. The total income of these six dispensaries in 1872 amounted to £1376, 14s. od., the Government contribution for salaries and for medicines and instruments supplied free of charge being £667, 10s. od., and the remainder, £709, 4s. od., being defrayed by subscriptions, donations, and other private sources. The total expenditure on these permanent dispensaries in 1872 amounted to £1468, 14s. od., and the total balance in hand at the end of the year to £148, 11s. od.

THE KABIRAJS, or Hindu medical practitioners who have not been educated in our schools, practise their art with much secresy, and very little information can be obtained from them regarding their drugs. Regarding their mode of treatment, the Civil Surgeon reports as follows:—In intermittent fevers, during the cold stage, the patient is wrapped in blankets, and the feet and hands are rubbed by an attendant, who warms his hands over a fire for the purpose. During the hot stage, pills are administered, containing a preparation of mercury, and *haritaki* (terminalia chebula) mixed with senna is given as an aperient. In the sweating stage, various powders are rubbed over the body, such as *banhaldi* or wild turmeric, powder of burnt shells, etc., in order to check profuse perspiration. During the intermission, quinine is administered, disguised by an admixture of a red powder called *rasá sindhu*. Arsenic is also given; and a medicine containing this drug, and called *bish bari* (poison pills), has a great reputation. The ignorant natives believe that it contains the poison of the cobra. Remittent fevers are treated differently. To relieve the intense headache which accompanies the disease, the *kabirdj* applies bags of heated sand to the head. They also give aniseed water and a decoction of *nim* leaves in very small quantities, to relieve thirst. For many days they forbid the use of food or water, hoping to cure the patient by starvation. During this time various decoctions are administered under the name of *pachans*. In the next stage, pills containing mercury, sulphur, aconite, pepper, nut galls, etc., are given. Drastic purgatives, such as croton seeds boiled with cow-dung, are given. Bitters, such as decoctions of *nim*, *golancha*, *chiratá*, etc., are administered. Medicated oils, for which high prices are charged, are prescribed, and also preparations of gold, which are sold at exorbitant prices. In cases of spleen, the use of *ghi* (clarified butter) and milk as food is interdicted. The actual cautery is much used in the treatment of this

disease. In cholera, carminatives and astringents, such as nut galls, nutmegs, cinnamon, cloves, etc., are given at first, and later on, opium, hemp leaves (*bhán*g), assafœtida, black salt (*kála nimak*), etc. In collapse, the stimulants used consist of musk, *nílkantha*, ginger, camphor, etc. Mercury is also tried; and the body is rubbed with turmeric, ginger, and medicated oils. Water is strictly forbidden. In dysentery, astringents, such as nutmeg, opium, *kurchí*, *muthá* grass, or *bel* (ægle marmelos), are given from the outset. In dropsy, purgatives are frequently administered, and patients are directed to live chiefly on milk and a low diet.

The indigenous drugs found in the District all belong to the vegetable kingdom, and are substantially the same as those found in neighbouring Districts.

Cattle Diseases.—An epidemic among cattle, known as *guti* or *basanta*, or cattle small-pox, occasionally breaks out in particular localities, generally at the commencement of the cold season. The symptoms of the disease are as follow:—At first the animals droop and lose their appetite; fever then sets in; the animals pant for breath, and a reddish-coloured fluid issues from the mouth and the nostrils; the eyes water, and the animals lose sleep. Diarrhœa sets in, accompanied with great thirst, and water is drunk with avidity, although all food is rejected. The poor brutes quickly become emaciated; and red spots appear on the roof of the mouth, which gradually ulcerates. No eruption on the body has been observed. Death generally ensues after about eight or ten days; some animals succumb as early as the second or third day, while others linger on for twenty days, and then die. There is at present no known cure for the disease; and the Civil Surgeon reports that the rate of mortality is about sixty per cent. of those affected. At the end of 1869 a very serious outbreak of the disease occurred in Bardwán, which prevailed with more or less intensity throughout 1870. The Report of the Indian Cattle Plague Commission gives a list of 103 villages in Bardwán District, in which the deaths of cattle from this disease in 1869 and 1870 amounted to 2829, and the epidemic was still raging at the end of the year.

STATISTICAL ACCOUNT

OF

THE DISTRICT OF BANKURA.

STATISTICAL ACCOUN'

OF THE

DISTRICT OF BANKURA.[1]

BANKURA, the westernmost District of the Bardwán Division, is situated between 23° 37′ and 22° 54′ north latitude, and between 87° 33′ and 86° 51′ east longitude. According to the Census of 1872, it contains a total population of 526,772 souls, and an area, after recent transfers to and from the neighbouring Districts of Bardwán and Mánbhúm, of 1346 square miles. The Boundary Commissioner, in April 1874, returned the more exact area to me at 1338 square miles. The principal civil station, which is also the chief town of the District (although not the most populous), is Bánkurá, situated on the north bank of the Dhalkisor river, in 23° 14′ 0″ north latitude, and 87° 6′ 45″ east longitude.

[1] The principal sources from which I have compiled this Statistical Account are as follow: —(1) Answers to my five series of questions, furnished by the Collector; (2) Colonel Gastrell's Statistical and Geographical Report on Bánkurá District; (3) Census Report of Bengal, 1872, with subsequent District Census Return, compiled in 1873; (4) Collector's Report on the Land Tenures of the District; (5) Rent Report; (6) Report of the Famine Commissioners, 1867; (7) Annual Report of the Inspector-General of Jails for 1872, with special jail statistics for 1856–57, 1860–61, and 1870, compiled for me in the Inspector-General's Office; (8) Report of the Inspector-General of Police for 1872; (9) Annual Reports of the Director of Public Instruction for 1856–57, 1860–61, 1870-71, and 1872–73; (10) Postal Statistics for 1855–56, 1860–61, and 1870–71, furnished by the Director-General of Post Offices; (11) Statement of Areas, Latitudes, and Longitudes, etc., furnished by the Surveyor-General and Boundary Commissioner; (12) Income Tax Reports; (13) Medical Report, furnished by the Civil Surgeon; (14) Report on the Charitable Dispensaries of Bengal for 1872; (15) Geological Report, furnished by the Geological Department; (16) My forthcoming four volumes compiled from the Bengal Records, and my *Annals of Rural Bengal*, 5th ed.

STATISTICAL ACCOUNT OF BANKURA.

DARIES.—Bánkurá District is bounded on the north by the j Subdivision of Bardwán District, the Dámodar river he boundary-line ; on the east by the police circles (*thánás*) ıukhí, Kotalpur, and Indás, transferred in 1872 from o Bardwán District ; on the south by the Garhbetá Sub- Midnapur ; and on the west by Mánbhúm District.

TION.—Numerous changes have taken place in the juris- Bánkurá since it passed into the hands of the English. The District was anciently situated within the *chaklá* of Bardwán, and with it was ceded to the East India Company on the 27th September 1760. Subsequently, when the English obtained the *diwání* of the whole Province of Bengal, Bánkurá, or Bishnupur *Zamíndárí* as it was then called, formed a portion of Bírbhúm District, and remained as such till 1793, when, by the orders of the Board of Revenue, it was transferred from Bírbhúm to Bardwán. By Regulation xviii. of 1805, Bishnupur was incorporated in the newly established District of the Jungle Mahals, of which it continued to form a part until the passing of Regulation xiii. of 1833. It was created a separate District in 1835–36.

Up to 1872, the revenue, magisterial, and civil jurisdictions of the District were not coincident. In 1870 the Collector of the District reported that the Collectorate jurisdiction corresponded with the limits of the revenue *parganá* of Bishnupur. The criminal jurisdiction extended over the whole of the Collectorate (except the police circle of Indás, which was included within the criminal jurisdiction of Bardwán), and over the *parganás* of Shergarh and Senpahárí, which were included within the revenue jurisdiction of Bardwán ; and also over the police circles of Chátná, Gaurángdihi, and Raghunáthpur, together with *parganá* Pánchet, which were included within Mánbhúm District. The civil jurisdiction was identical with the fiscal jurisdiction, with the exception of the tract comprising the police circle of Indás. The Collector stated that the limits of the respective jurisdictions in 1870 might be generally described as follows, although it would be difficult to give the precise boundaries :—The revenue District (including the civil jurisdiction) was bounded on the north by the river Dámodar, on the east by the Collectorates of Bardwán and Húglí, on the south by the Collectorate of Midnapur, and on the west by the Collectorate of Mánbhúm. The criminal District was bounded on the north by a portion of the Santál Parganás and by the District of Bírbhúm, on the east by the District of Bardwán, on the south by

that of Midnapur, and on the west by that of Mánbhúm. The changes in the jurisdiction of the District have been so many as to have given rise to much confusion; but finally, in 1872, the *pargands* of Sonámukhí, Indás, and Kotalpur, on the east, and the *pargands* of Shergarh and Senpahárí on the north, were entirely transferred to Bardwán, while on the east the police circle (*thánd*) of Chátná was separated from Mánbhúm and added to Bánkurá, thus to a great extent rendering the jurisdictions conterminous.

GENERAL ASPECT OF THE COUNTRY.—Bánkurá District may be described as a connecting link between the plains of Bengal on the east and the mountains and highlands of Chutiá Nágpur on the west. Along its eastern boundary, adjoining Bardwán District, the land is alluvial and flat, presenting the appearance of the ordinary paddy lands of Bengal. To the north and west, however, the surface gradually rises and becomes undulating. Rocks crop out, and small knolls covered with boulders and scrubby jungle make their appearance. Paddy lands and swamps give way to tracts of low thorny jungle, or dwarf *sakuá* or *sál* trees (*shorea robusta*), interspersed with larger timber. The hamlets become smaller and more scattered, and nearly disappear altogether in the wild forest tracts of the west. In the central western portion of the District only stunted jungle remains, the large trees having been cut down by woodmen or charcoal burners, whose destructive trade has denuded the face of the country, leaving large tracts of hard, rocky soil exposed, on which nothing will grow. In the far western tracts the undulations of the country become more marked, and numerous isolated hills and mountains occur.

MOUNTAINS AND HILLS.—The following are the principal hills met with in Bánkurá District: (1) Mánjiá hill, situated on the south bank of the Dámodar river, nearly opposite the town of Ráníganj. Its height is inconsiderable, apparently only about two hundred feet above the level of the surrounding country. In shape it is conical, with a very spreading base and a rather sharp apex. It is perennially covered with grass and small jungle, and easily accessible to men and beasts of burden, but not to wheeled carriages. (2) South of Mánjiá hill, and half-way between it and Bánkurá town, is the Karo or Korá hill, of a height of about three hundred and fifty or four hundred feet above the surrounding country. The hill is an elongated one, running east and west; the

west side is steeply scarped, and the north and south sides are also precipitous; on the east, however, the hill rises from the ground with a very gentle and long ascent, reaching its greatest height just over the precipitous western face. From the east it can be ascended by beasts of burden and also by carts, but on no other side. The hill is covered with heavy jungle. (3) Due west from Korá is Susuniá hill, which forms a very marked feature in the landscape. This hill runs almost due east and west for a length of two miles, its height as given in the Survey Map being 1442 feet above sea level. It is covered with heavy tree-jungle, except in a few spots on its south face, where it is quarried by the Bardwán Stone Company for building-stone. The hill is too steep to be ascended by wheeled carriages or beasts of burden, but is accessible to men without the necessity of cutting steps in its side for foothold. (4) North-west of Susuniá hill, and close to the north-western boundary of the District, is Beharináth hill, rather smaller than Susuniá, but similar to it in appearance and formation. It is not quarried.

The foregoing are all the hills worthy of mention in Bánkurá; but the Collector, in his report to me in 1870, enumerated others, which, although then within the criminal District of Bánkurá, are now altogether within Mánbhúm District. They are as follow: (5) At Gaurángdihi, 24 miles from Bánkurá on the road to Raghunáthpur, are three small conical hills about three hundred feet above the level of the surrounding country, covered with small tree-jungle, and so steep as to be only accessible to men. (6) At Raghunáthpur, eight miles westward of Gaurángdihi, is a hill or rock of very remarkable aspect. It rises abruptly from the surface in three prominent peaks, the highest of which is at least a thousand feet above the base. The hill is mainly composed of bare and jagged rock, but in places thickly covered with strong jungle. The hill is quite inaccessible to wheeled carriages or beasts of burden, and difficult for men, in some places requiring steps to be cut for foothold. (7) Pánchet hill, situated half-way between Raghunáthpur and the confluence of the Barákhar and Dámodar rivers. It is three miles long, stretching from north to south in a long rounded ridge, and at least two thousand feet above sea level. The hill is covered with dense jungle, and is inaccessible to wheeled vehicles and beasts of burden.

Rivers.—The two principal rivers of Bánkurá District are the

Dámodar, and the Dhalkisor or Dwárakeswar, called lower down in its course the Rúpnáráyan; but neither of them, in this District, can be considered navigable. The Dámodar, which forms the northern boundary of the District, takes its rise in the hills of Chhotá or Chutiá Nagpur, about twenty miles west of Rámgarh. It touches upon Bánkurá District just after it has received the waters of the Barákhar, and flowing in a south-easterly direction for about forty-five miles, enters Bardwán District near Silampur village. The course of the river is tolerably straight, but it is full of sandbanks, with a fall of 3·40 feet per mile. During the rains, or from the middle of July till the middle of October, the river is navigable by boats of as much as 1500 maunds, or from 55 to 60 tons burden; but the rapidity of the current and the sudden rises and floods render navigation hazardous. In the hot season the river dwindles away into an insignificant stream, fordable nearly everywhere, and in many places not a foot deep. The only traffic carried on in the rainy season is the transport of coals from Ránigánj to Calcutta. The chief tributary of the Dámodar is the Sálí, which rises a few miles west of Korá hill, and falls into the Dámodar at the village of Sumsur, in Bardwán District. The Dhalkisor takes its rise near Tilábani hill, in Mánbhúm District, whence it flows through Bánkurá District, following a rather tortuous south-easterly course, with several bifurcations, till it enters Bardwán District near Chámptalá factory. Its fall is less than that of the Dámodar, but it also is liable to sudden floods. The principal smaller streams are the Jaikhál and Silái, with rocky beds, and quite unnavigable. The latter is sometimes so swollen by continual rains as to be absolutely impassable for twenty-four hours, while six hours afterwards it may be easily forded by a child. The banks of these rivers are well defined, chiefly composed of clay and sand mixed with *kankar*, with laterite rocks cropping up here and there.

At the time of flood in the Dámodar and Dhalkisor, but especially in the former, the rain-water pours off the hills through hundreds of channels with such suddenness into the river-beds, that the waters heap up and form a dangerous head wave, called the *hurpá bán*, which is not unlike the *bore* of the Húglí, but of greater breadth, extending nearly from bank to bank, presenting the appearance of a wall of water sometimes five feet in height, and often causing loss of life and considerable damage to property. Regarding the floods in the Dámodar, Major Baker, Consulting Engineer to the Govern-

ment Railway Department, wrote as follows in an official report some years ago: (The extract is quoted from Colonel Gastrell's Revenue Survey Report of the District)—'The area of land drained by the Dámodar and its affluents west of Bardwán is about 7200 square miles, according to Tassin's map. It may be assumed as possible that ten inches of rain may fall in twenty-four hours over this surface, and be so timed that the drainage of the more remote parts would meet that of the nearer at the same time and place; and assuming further that one-third of the rainfall will find its way into the Dámodar (the remainder being absorbed into the soil or evaporated), we have 55,756,679,487 cubic feet of water to be disposed of in twenty-four hours, or 645,333 cubic feet per second, which, at an average velocity of three feet per second, would require a section of 215,110 square feet, and fill a channel twenty feet deep and 10,755 feet (about two miles) in width.

'Nor does it appear that this calculation of what might possibly occur is disproportionate to the effects which have been actually observed. In Captain Crommelin's report to the Military Board, dated 18th June 1840, it is stated that, according to a section taken near Rághabpur in 1840 by Captain Finnis, the flood rose seventeen and a quarter feet above the dry-season level, and though the river is there one and a quarter miles wide, swept fairly over the plains on the right bank. And those who have witnessed the floods of the Dámodar when it has burst its bounds, describe the torrent as covering the ground to a great depth, and spreading as far as the eye can reach.' Inundations in Bánkurá District, however, rarely do any great damage; and the Collector states that no flood has taken place within the memory of the present generation on such a scale as to affect the prosperity of the District.

LAKES, ETC.—There are no natural lakes or canals or artificial water-courses in the District. Near the town of Bishnupur, and within the old fortifications, are several picturesque tanks or small artificial lakes, constructed by the ancient rájás, who, taking advantage of natural hollows, threw embankments across them to confine the surface drainage. These tanks or lakes served to supply the city and fort with an abundance of good water, and also to fill the fort moat. There are numerous small excavated tanks in the District; but in the uplands, the natives, in place of digging tanks,

common throughout the uplands; but the inhabitants do not use spring water, which, although clear and sparkling, and pleasant to the taste, is hard, and appears to be injurious to health. The number of deaths by drowning reported by the police in 1869 was 82.

THE MINERAL PRODUCTS of the District consist of lime, iron, and building stone. The lime produced is obtained from the *ghutin* or nodular limestone, which is found in abundance on the surface of the ground or a few inches below it. The iron is the produce of the ferruginous laterite with which the District abounds. Very little of it is manufactured, and that only by the Santáls and aboriginal tribes inhabiting the western frontier, for their own wants. Building stone is found in unlimited quantities in the hills and uplands, but the only quarries actually worked are those of the Bardwán Stone Company on Susuniá hill. The difficulty and expense of carriage to market is the chief obstacle to the further development of these quarries. Although the rich coalfield of Ráníganj is situated just beyond the northern border of the District, no coal has been found within Bánkurá, and it is asserted that the existence of coal south of the Dámodar is a geological impossibility.

FORESTS, JUNGLE PRODUCTS, ETC.—There are no revenue-yielding forests in the District, but several *sál* jungle estates which are kept as jungle, and cropped either yearly for the sale of firewood, or at longer intervals for the sale of saplings. These jungle estates are those of Máliárá, Shahrjorá, Kuchiákol, Panchál, Jaipur, Bánkádaha, Háspahárí, Kaniá-márí, Sabrakon, and Hármásrá. Their extent and yearly value cannot be ascertained. Large supplies of lac and *tasar* are obtained from the western jungles, the gáthering of which affords occupation to many of the poorer classes, chiefly Santáls and Báurís.

FERÆ NATURÆ.—Tigers, leopards, small but fierce bears, hyænas, wolves, deer, and wild hogs frequent the jungle tracts along the western boundary of the District, bears and hyænas being especially numerous. Wild elephants also occasionally invade the District from the Santál Parganás and the Districts of Chutiá Nágpur on the west. Almost every variety of Indian snake is found in Bánkurá, pythons being often met with in the hills. The cobra, *karáit*, and other deadly serpents are also common. In 1869, Government rewards, amounting in all to £3, 5s. od., were paid for the destruction of three leopards, seven bears, and nine bears' cubs.

No rewards have been paid during the last few years for the destruction of venomous snakes. Six deaths are reported to have occurred from wild beasts, and 104 from snake bites, in 1869. No trade is carried on in wild-beast skins, nor do the *feræ naturæ* contribute in any way towards the wealth of the District.

There being no large or important rivers in Bánkurá District, the varieties of fish are few in number. Those which are found are of the same description as in the neighbouring District of Bardwán.

POPULATION.—Prior to 1872, the only attempt at an enumeration of the people was during the progress of the Survey operations, 1854–56. Colonel Gastrell, in his Revenue Survey Report of the District, states that the number of houses in the various towns and villages were counted, and in estimating the population, an average of five persons to each house was allowed. The result was as follows:—Total number of brick houses, 1740; huts, 85,959: total inhabitants, 438,495, of whom 393,553 were returned as Hindus and Santáls, and the remaining 44,942 as Muhammadans. This refers to the then 'revenue' District of Bánkurá, which contained almost exactly the same area as the present District, despite the transfers to and from Bardwán and Mánbhúm District which have lately taken place.

A careful Census of the whole District was taken between the 20th and 27th January 1872, the Census of the town being taken on the 25th January. With regard to the agencies employed, the Collector states as follows:—'The village *panchâyats*, *mandals* (if able to read and write), and landholders or their *gumáshtás*, voluntarily came forward and co-operated in the taking of the Census. The village *chaukídárs* and *ghátwáls* were also able to assist the police sub-inspectors in preparing the lists of villages, and they aided the enumerators in the preparation of the house registers. There was, however, no thoroughly systematic distribution of duties among the various village authorities. A temporary staff of paid vernacular clerks (*muharrirs*) was appointed and placed at the disposal of the sub-inspectors in charge of police circles (*thánás*), to enable them to exercise their supervision with greater efficiency.' The total number of enumerators employed in taking the Census was 4160. The results disclosed a total population of 526,772, dwelling in 2028 villages or townships and 104,687 houses,—the average pressure of

District officers are of opinion that the results disclosed by the Census are fairly accurate.

The table on the following page shows the population in each police circle (*thánd*) of Bánkurá District, with the area, number of villages, houses, pressure of population, etc. The table is reproduced *verbatim* from the Census Report of 1872.

POPULATION CLASSIFIED ACCORDING TO SEX AND AGE.—The total population of Bánkurá District consisted, in 1872, of 526,772 souls, viz. 261,690 males and 265,082 females. The proportion of males in the total population is 49·7 per cent., and the average density of the population 391 per square mile. Classified according to age, the Census gives the following results:—Hindus—Under twelve years of age, males 87,685, and females 74,486; total 162,171. Above twelve years of age, males 154,336, and females 171,279; total 325,615. Grand total of Hindus, 487,786. Muhammadans—Under twelve years of age, males 2473, and females 1984; total 4457. Above twelve years of age, males 4377, and females 4666; total 9043. Grand total of Muhammadans, 13,500. Christians—Under twelve years of age, males 19, and females 8; total 27. Above twelve years of age, males 25, and females 18; total 43. Grand total of Christians, 70. Other denominations not separately classified—Under twelve years of age, males 5389, and females 4882; total 10,271. Above twelve years of age, males 7386, and females 7759; total 15,145. Grand total of 'others,' 25,416. Population of all religions—Under twelve years of age, males 95,566, and females 81,360; total 176,926. Above twelve years of age, males 166,124, and females 183,722; total 349,846. Grand total of District population, 526,772. Percentage of males in total District population, 49·7 per cent. The percentage of children not exceeding twelve years of age in the population of different religions is as follows:—Hindus—proportion of male children 18·0 per cent., and female children 15·3 per cent.; proportion of children of both sexes, 33·3 per cent. of the total Hindu population. Muhammadans—proportion of male children 18·3 per cent., female children 14·7 per cent.; proportion of children of both sexes, 33·0 per cent. of the total Musalmán population. Christians—male children 27·2 per cent., female children 11·4 per cent.; proportion of children of both sexes, 38·6 per cent. of the total Christian population. Other denominations not separately classified—male children 21·2 per cent., female children 19·2 per cent.; total proportion of children

ABSTRACT OF POPULATION, AREA, ETC., OF EACH POLICE CIRCLE (THANA) IN BANKURA DISTRICT.

POLICE CIRCLE (*Thánd*).	Area in square miles.	Number of villages, *mauzás*, or townships.	Number of houses.	Total population.	AVERAGES CALCULATED BY THE CENSUS OFFICERS.				
					Persons per square mile.	Villages, *mauzás*, or townships per square mile.	Persons per village, *mauzá*, or township.	Houses per square mile.	Persons per house.
Bánkurá, ...	55	114	7,944	39,080	711	2·07	343	144	4·9
Ondá, ...	308	664	23,973	121,361	394	2·15	183	78	5·0
Bishnupur or Bishenpore, .	255	214	30,816	147,252	573	·84	688	121	4·7
Chátná, ...	228	382	11,269	64,015	280	1·67	168	49	5·6
Gangájalghátí, ...	500	654	30,685	155,064	310	1·31	237	61	5·0
District total, . .	1,346	2,028	104,687	526,772	391	1·57	260	78	5·0

Sentence continued from p. 213.]
of both sexes, 40·4 per cent. of the total 'other' population. Population of all religions—male children 18·1 per cent., female children 15·5 per cent.; proportion of children of both sexes, 33·6 per cent. of the total District population.

As in almost every other District of Bengal, the Census returns show a very small proportion of female children under twelve years of age as compared with male children of the same age; while in the case of persons above twelve years of age there is a considerable excess in the proportion of females to males. This is probably owing to the fact that girls are considered to arrive at womanhood at an earlier age than boys attain manhood, and many girls are consequently entered as adults, while boys of the same age are returned as children. The proportion of the sexes of all ages, namely, males 49·7 per cent., and females 50·3 per cent., is probably correct.

The number and proportion of insanes, and of persons otherwise afflicted with infirmities, in Bánkurá District, is returned in the Census Report as under:—Insanes—males 61, and females 21; total 82, or ·0156 per cent. of the District population. Idiots—males 23, and females 4; total 27, or ·0051 per cent. of the population. Deaf and dumb—males 109, and females 41; total 150, or ·0285 per cent. of the population. Lepers—males 1303, and females 275; total 1578, or ·2996 per cent. of the population. Blind—males 233, and females 145; total 378, or ·0718 of the total population. It is a curious circumstance, that although the females outnumber the males by ·6 per cent. in the total population of the District, out of the number of persons afflicted with the above-mentioned infirmities, considerably less than one-third were women. The total number of male infirms amounted to 1729, or ·6607 per cent. of the total male population; while the number of female infirms was only 486, or ·1833 per cent. of the total female population. The total number of infirms of both sexes was 2215, or ·4205 per cent. of the total District population.

Population according to Occupation.—The following paragraphs relating to the occupations of the people are condensed from Mr. C. F. Magrath's District Census Compilation for Bánkurá. They are unavoidably imperfect in many respects, and must be accepted subject to the same cautions as those given for the corresponding section in my Statistical Accounts of the 24 Parganás and other Districts.

Occupation of Males.—Class I.—Persons employed under

police, 193; rural police or village watchmen, 1547; covenanted English officers, 4; subordinate judicial officers, 3; subordinate executive officers, 2; educational officers, 3; public works officer, 1; post office clerks, etc., 21; clerks, 10; others, 50. Total of Class I., 1834.

CLASS II.—Professional persons, including professors of religion, education, law, medicine, fine arts, surveying, and engineering:—(*a*) Religion—Hindu priests (*purohits*), 1850; spiritual guides (*gurus*), 109; Bráhman astrologers and fortune-tellers (*áchárjyas*), 4; trustee of Hindu religious endowment (*mahant*), 1; priests of family idols (*pujháris*), 130; pilgrim guides (*pandás*), 7. (*b*) Education—schoolmasters, 184; teachers of Sanskrit (*pandits*), 41; professors of *tols* or indigenous Sanskrit schools (*adhyápaks*), 3; teachers of petty vernacular village schools, (*guru-mahásays*), 51; Muhammadan clerks and interpreters (*munshis*), 6; students and scholars, 337. (*c*) Law—attorneys, 3; pleaders, 8; law agents (*mukhtárs*), 41; stamp vendors, 7. (*d*) Medicine—doctors, 314; Hindu medical practitioners (*kabirájs*), 86; vaccinators, 2; cow-doctor (*gobaidya*), 1; compounder, 1. (*e*) Fine arts—musicians, 696; singers, 131; painters, 16. (*f*) Surveying and engineering—native surveyors (*ámins*), 2. Total of Class II., 4031.

CLASS III.—Persons in service, or performing personal offices:—Personal servants, 1408; cooks, 225; barbers, 1149; washermen (*dhobás*), 373; sweepers (*mihtars*), 14; gardeners (*mális*), 182; doorkeepers (*darwáns*), 34; corpse-bearers (*murdá farásh*s), 3; unspecified, 2011. Total of Class III., 5399.

CLASS IV.—Persons engaged in agriculture and with animals:—(*a*) In agriculture—superior landholders (*zamindárs*), 838; large leaseholders (*ijárádárs*), 7; holders of rent-free lands (*lákhirájdárs*), 866; service tenure holders (*jágírdárs*), 22; holders of land on military tenure (*ghátwáls*), 552; subordinate landholders (*tálukdárs*), 181; permanent leaseholders (*patnídárs*), 32; cultivators with rights of occupancy, 3100; holders of small estates (*mahaldárs*), 45; ordinary cultivators or tenants at will, 69,935; land stewards (*gumáshtás*), 306; rent collectors (*tahsíldárs*), 2; village accountants (*patwáris*), 5; holders of land on tenures of military or police service (*páiks*), 213. (*b*) With animals—cattle dealers, 56; goat dealers, 7; pig dealers, 2; poultry dealers, 4; buffalo dealers, 8; shepherds, 16; cowherds, 1145; elephant drivers (*máhuts*), 4; grooms, 88; farriers and shoeing smiths (*nálbands*), 5; hunter (*shikári*), 1. Total of Class IV., 77,449.

GLASS V.—Persons engaged in commerce and trade:—(*a*) In conveyance of persons and goods—bullock drivers, 35; palanquin bearers, 1022; carters, 224; overseers (*sardárs*), 14; boatmen, 1199; warehouse keepers (*áratdárs*), 21; weighmen, 18. (*b*) In keeping and lending money, and in the sale of goods—bankers and *mahájans*, 71; pawnbrokers (*poddárs*), 52; money-changers, 2; money-lenders, 652; merchants in special goods, 129; produce merchants (*saudágars*), 8; commission agents, (*páikárs*), 21; petty dealers (*bepáris*), 14; storekeepers and commission agents (*goládárs*), 167; shopkeepers, 1862; petty shopkeepers (*mudís*), 948; grocers and spice dealers (*baniás*), 67; hawkers, 26; brokers (*daláls*), 12; out-door clerks (*sarkárs*), 22; vernacular clerks and writers (*muharrirs*), 173. Total of Class V., 6759.

CLASS VI.—Persons employed in mechanical arts, manufactures, and engineering operations, and in the sale of goods manufactured or prepared for consumption:—(*a*) Manufactures—indigo manufacturers, 4. (*b*) Constructive art—contractors, 4; bricklayers (*rájmistrís*), 285; stone masons, 24; brick makers, 8; sawyers, 49; carpenters, 507; thatchers, 82; painters, 50; well-digger, 1; cart-builders, 215; boatbuilder, 1. (*c*) Miscellaneous artisans—blacksmiths (*kámárs*), 835; dealers in hardware, 213; braziers and coppersmiths (*kánsárís*), 770; tinmen (*kalaigars*), 21; goldsmiths (*swarnakárs*), 833; watchmakers, 10; potters (*kumárs*), 1215; glass vendor, 1; lime vendors, 59; cabinetmakers, 167; comb makers, 8; mat makers, 129; fan makers, 24; basket makers, 377; toy makers, 5; bead makers, 576; hookah makers, 7; musical instrument makers, 11; lacquered ware makers, 14; garland makers, 221; turners, 3; shell carvers, 228; workers in pith (*solá*), 9; cotton spinners, 5; silk weavers, 35; cotton weavers, 6685; coir weaver, 1; shawl menders, 8; dyers, 50; tailors, 106; gold lace makers, 2; shoemakers, 546; cloth vendors, 281; ornament makers, 11; tape makers, 5; net makers, 18; thread sellers, 102; jute spinners, 22; cotton sellers, 3; blanket makers, 47; silk dealers, 22; picture sellers, 2; bookbinders (*daftris*), 4; bookseller, 1. (*d*) Dealers in vegetable food—oil sellers, 2167; grain sellers, 243; rice sellers, 109; sellers of spices, 211; millers (*jantáwálás*), 6; grain huskers, 457; grain parchers, 13; costermongers, 21; confectioners, 368; sellers of molasses (*gur*), 68. (*e*) Dealers in animal food—butchers, 10; fishermen, 2521; milkmen, 1594; poulterers, 4; butter sellers, 3. (*f*) Dealers in drinks—spirit sellers, 138; toddy sellers, 5;

liquor shop keepers, 60. (*g*) Dealers in stimulants—tobacco sellers, 235; *gánjá* sellers, 2; *pán* sellers, 320. (*h*) Dealers in perfumes, drugs, medicines, etc.—salt sellers, 41; gunpowder sellers, 8; *tikâ* sellers, 11. (*i*) Dealers in vegetable substances—firewood sellers, 225; charcoal sellers, 80; cow-dung seller, 1; rope sellers, 4; wood cutters, 195. (*j*) Dealers in animal substances—hide sellers, 190; leather dealers and skinners (*chámárs*), 6. Total of Class VI., 24,238.

CLASS VII.—Miscellaneous persons not classified otherwise:—Pensioners, 1176; gamblers, 3; beggars and paupers, 2444; apprentices, 11; labourers, 41,215; unemployed, 1576; male children, 95,564. Total of Class VII., 141,989. Grand total of males, 261,690.

OCCUPATIONS OF FEMALES.—The general caution with regard to the paragraphs on the occupations of the people applies with particular force to this section. Class I., *nil.* Class II.—Professional females—priestesses, 98; female spiritual guides (*gurus*), 1; schoolmistresses, 3; nurses, 44; midwife (*dái*), 1; female doctors (*kabirájs*), 11; singers, 3; jugglers, 8; dancers, 2; painter, 1: total, 172. Class III.—Females in service or performing personal offices—female domestic servants, 490; ayah, 1; cooks, 16; female barbers, 101; washerwomen, 50; female sweepers (*nihtránis*), 6; prostitutes, 270; unspecified, 12: total, 946. Class IV.—Females employed in agriculture and with animals—female landlords (*zamíndárs*), 353; female holders of rent-free estates (*lákhirájdárs*), 14; female subordinate landlords (*tálukdárs*), 8; female cultivators, 1306; female goat dealers, 3; female cowherds, 44: total, 1728. Class V.—Females engaged in commerce and trade—money-lenders, 34; shopkeepers, 353; retail dealers (*bepáris*), 2: total, 389. Class VI.—Females employed in manufactures, and in the sale of goods manufactured or prepared for consumption—dealers in pottery, 63; dealers in lime, 10; shell carver, 1; cane workers, 2; basket makers, 65; mat makers, 3; bead makers, 102; toy maker, 1; silk spinners, 12; spinners, 1469; weavers, 46; dyers, 7; female tailor, 1; jute sellers, 8; ornament sellers, 2; thread sellers, 24; cloth vendors, 4; grain dealers, 13; rice dealers, 80; costermongers, 40; dealers in spices, 11; oil dealers, 149; confectioners, 4; grain parchers, 20; grain huskers, 1460; fishwomen, 349; milk sellers, 176; tobacconist, 1; *pán* sellers, 76; toothpowder sellers, 12; salt sellers, 12; firewood sellers, 550; sellers of leaves, 44; rope

females not classified otherwise—female pensioners, 222; female beggars and paupers, 642; female labourers, 2699; unemployed adult females, 172,188; female children, 81,260: total, 257,011. Grand total of females, 265,082.

ETHNICAL DIVISION OF THE PEOPLE.—The Hindus form the great mass of the population. They number, including semi-aboriginal castes, 487,786, or 92·6 per cent. of the entire population. The Muhammadans only number 13,500, or 2·6 per cent. of the population; Christians, 70; and other denominations not separately classified, consisting of aboriginal races who still retain their primitive faiths, 25,416, or 4·8 per cent. of the population.

Mr. C. F. Magrath's District Census Compilation for Bánkurá thus classifies the ethnical divisions of the people. The list of Hindu castes will be reproduced on a subsequent page, but arranged in a different order from that given here, according to the rank which they hold in social esteem:—

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
I.—NON-ASIATICS.	
Europeans—	
English,	10
Irish,	17
Scotch,	1
TOTAL OF NON-ASIATICS,	28
II.—MIXED RACES.	
Eurasians,	5
III.—ASIATICS.	
A.—Other than Natives of India and Burmah.	
Nepalese,	1
B.—Natives of India and Burmah.	
1. *Aboriginal Tribes.*	
Bhumij,	1,466
Dhángar,	105
Khariá,	17,939
Kol,	1
Santál,	25,378
Total,	44,889

NAME OF NATIONALITY, TRIBE, OR CASTE.	Total.
2. *Semi-Hinduized Aborigines.*	
Bágdí,	18,632
Báheliá,	17
Báurí,	76,915
Bediyá,	3
Bhuiyá,	278
Bind,	112
Buná,	2,175
Chámár and Muchí,	3,117
Chandál,	507
Dom,	7,193
Dosadh,	2
Hárí,	2,445
Káorá,	135
Karangá,	412
Mál,	8,436
Málo,	1,268
Mihtar,	56
Pásí,	4
Rájbansí Koch,	3
Rájwár,	2
Shikári,	31
Total,	121,743

Name of Nationality, Tribe, or Caste.	Total.
3. *Hindus.*	
(i.) Superior Castes.	
Bráhman, . . .	49,473
Rájput, ...	9,180
Ghátwál, . . .	3
Total, .	58,656
(ii.) Intermediate Castes.	
Baidya, ...	2,366
Bhát, ...	17
Káyasth, . . .	11,676
Total, .	14,059
(iii.) Trading Castes.	
Agarwálá and Márwárí, .	79
Gandha Banik, . .	6,626
Khatrí, ...	497
Mahurí, ...	21
Subarna Banik, . .	5,259
Total, .	12,482
(iv.) Pastoral Castes.	
Goálá, ...	38,572
Ját, ...	1
Total, .	38,573
(v.) Castes engaged in preparing Cooked Food.	
Gánrár, ...	192
Madak, ...	3,719
Total, .	3,911
(vi.) Agricultural Castes.	
Agurí, ...	3,443
Bárui, ...	979
Támlí, ...	12,034
Kaibartta, . . .	12,644
Koerí, ...	2,397
Kurmí, ...	622
Málí, ...	535
Sadgop, ...	17,971
Sarak, etc. . . .	2,485
Total, .	53,110

Name of Nationality, Tribe, or Caste.	Total.
(vii.) Castes engaged chiefly in Personal Service.	
Behárá and Duliyá, .	107
Dhanuk, . . .	17
Dhobá, ...	2,343
Hájjám, . . .	7,428
Káhár, ...	124
Total, .	10,019
(viii.) Artisan Castes.	
Kámár, ...	22,750
Kánsárí, ...	103
Kumár, ...	4,518
Láherí, ...	28
Sánkhárí, . . .	479
Sonár, ...	1,506
Sunrí, ...	12,657
Sutradhar, . . .	4,610
Telí, ...	41,322
Kalu, ...	13,064
Total, .	101,037
(ix.) Weaver Castes.	
Jogí, ...	439
Kotál, ...	172
Maraní, ...	159
Tántí, ...	16,510
Total, .	17,280
(x.) Labouring Castes.	
Beldár, ...	26
Bhálya, ...	5
Chunarí, . . .	179
Korá, ...	1,216
Náik, ...	3,860
Patiál, ...	34
Sámanta, . . .	5,840
Total, .	11,160
(xi.) Caste occupied in Selling Fish and Vegetables.	
Metiyá, ...	2,463

Name of Nationality, Tribe, or Caste.	Total.	Name of Nationality, Tribe, or Caste.	Total.
(xii.) Boating and Fishing Castes.			
Jáliá, ...	1,261	4. *Persons of Hindu Origin not recognising Caste.*	
Mahádanda, etc., . .	1,359		
Málá, ...	1,333	Vaishnav, . . .	10,250
Mánjhí, ...	5,600	Native Christians, . .	37
Pod, ...	3		
Tior, ...	62	Total, .	10,287
Total, .	9,618		
(xiii.) Dancer, Musician, Beggar, and Vagabond Castes.		5. *Muhammadans.*	
Báití, ...	158	Pathán, ...	77
		Shaikh, ...	2
(xiv.) Persons enumerated by Nationality only.		Unspecified, . . .	13,421
		Total, .	13,500
Hindustání, . . .	7		
Madrasi (Telingá), . .	899	Total of Natives of India, . . .	526,738
Uriyá, ...	8		
Total, .	914	Total of Asiatics, .	526,739
(xv.) Persons of Unknown or Unspecified Castes, . . .	2,879	Grand Total, .	526,772
Grand Total of Hindus,	336,319		

Immigration.—There are no statistics of immigration ; nor does it appear that any regular immigration exists, except in the case of the Santáls and other hill people, who occasionally come in small numbers and settle in the neigbourhood of colonies of their own tribes already residing in the District. These hill people, after they have once come to the District, settle down permanently, the only observance of their former mode of forest life being an occasional gathering for hunting or feasting. Emigration from the District goes on to a certain extent. During the five years ending 1869, 3508 coolies, almost entirely composed of aboriginal hill and jungle tribes, emigrated under the Labour Laws, principally to the tea Districts of Assam. The Collector states that very few of these emigrants ever return to the District.

Castes.—The following is a list of 83 Hindu castes met with in Bánkurá District, arranged as far as possible in the order in which they rank in local public esteem, and showing their occupation,

etc. The figures indicating the number of each caste are taken from Mr. C. F. Magrath's District Census Compilation for Bánkurá:—(1) Bráhman; members of the priesthood, and the first caste in the Hindu social scale. Many of them are also landholders, and others are employed in Government or private service. In this District many Bráhmans are also cultivators of the soil, performing every operation of agriculture themselves, except the actual holding of the plough, which is considered menial and degrading, and is accordingly done by means of hired servants. The District Census Report returns the number of Bráhmans in Bánkurá at 49,473. (2) Kshattriyas or Khatris. In Sanskrit times, the Kshattriyas formed the second or warrior caste in the Hindu social system. It is believed that at the present time, at least in Bengal, there are no pure Kshattriyas; and a Hindu tradition relates that they were exterminated by Parasurám, an incarnation of Vishnu, for having insulted the Bráhmans. The present Khatris, however, claim to belong to the ancient warrior caste, and explain their existence by asserting that their ancestors hid themselves or fled, and thus escaped the wrath of Parasurám. The Khatris are now traders and cultivators by occupation; and the Census Report of 1872 returns their number in Bánkurá at 497. A further account of the Khatris will be found in the Statistical Account of Bardwán, the Mahárájá of which belongs to this caste. (3) Rájputs; employed in military service, and as guards, policemen, etc. They also claim the dignity of Kshattriyahood, and the rank is generally accorded to them by the natives. Number in 1872, 9180. (4) Ghátwáls; returned in the Census Report as a subordinate caste of Rájputs. Their number is returned at 3 only, but this is evidently an error, as they are somewhat numerous in the District, and still form an important class of the population. In 1866 the number of Ghátwáls employed in the rural police of the District was returned at 1646. The following account of the Ghátwáls of Bánkurá is quoted from Colonel Gastrell's Revenue Survey Report of the District:—'A class of men called Ghátwáls hold rent-free grants of land, which were assigned to them in consideration of their performance of certain specified duties. In former days the responsibility of keeping open the roads and protecting travellers from being plundered rested with the Ghátwáls, and the grants of land were allotted them in return for this service. The custom then was for every traveller or merchant, on entering a Ghátwál's beat, to apply for a pass from the chief

Ghátwál, which he obtained on payment of a small sum of money, —black-mail, in fact. In the earlier days of the system, this pass carried a man fairly through all the difficulties of the road, the production of his pass being generally sufficient to secure him from any molestation. But as the tribes became more divided, and dissensions sprang up amongst them, the number of chiefs increased, and a pass then only sufficed to protect a man from one end of a chief's beat to another. On passing the boundary-line between two chiefs' domains, he had to apply for and obtain another pass, and pay more money. A man neglecting to get a pass fared badly, and was considered fortunate if he escaped with the loss of his property only. This system of levying black-mail and granting of passes has of course long since ceased as a general practice. But, true to their old habits, some Ghátwáls even now attempt to seduce the unwary or ignorant traveller into paying them for a safe-conduct. An instance of this occurred when the Revenue Survey camp was pitched at Bishnupur. A little way from the camp, on the Midnapur road, two men had established themselves, under pretence of levying fees on account of the *zamíndárs* from the wood-cutters bringing in wood for sale in the Bishnupur market. These men also demanded payment from travellers going along the road, and carried on their trick for some time undiscovered. But one day a traveller, having paid the first man, strongly objected to paying the second; the fellow insisted; but the traveller, determined not to pay the cess twice over, came into the camp to complain and get redress. The case was at once brought to the notice of the police authorities, and the leviers of black-mail disappeared from that spot at any rate. This was going on close to a police station.

'There are said to have been six great divisions or tribes of Ghátwáls in Bánkurá District; none of them, however, belonged to any particular or exclusive caste. The names of these divisions or tribes were as follow:—(1) Bantor, (2) Bánkdho, (3) Chuá Musuiá, (4) Khátul, (5) Jaibalia, and (6) Báisgrám. These all held lands, granted to them as *jágírs* on condition of their keeping open the roads. Some possessed a rent-free tenure in their grants; others paid a small quit-rent called *panchakí* to the Collector; others, again, paid the same to the *zamíndár* on whose lands they were located. The first five tribes, who now pay rent to Government under the general name of *bára-hazárís*, were all originally included in the *zamíndárí* of Bishnupur, then in possession of the Rájá of Bishnupur.

But subsequently, on the Rájá becoming a defaulter in payment of revenue, the estate was put up to auction, and sold in 1791. Eleven years afterwards, the Commissioner made a settlement with all the Ghátwáls of this estate (not living on the "*bára-hazári*" *mahal* lands), then numbering about 2300 souls, and assigned to their custody forty-three *ghát*s,—in consideration thereof awarding to them for their own use 11,645 acres or 34,934 *bighás* of land, for which they were bound to pay an annual quit-rent or *panchakí* of £469, 1s. 6d. into the Collectorate Treasury. The sixth tribe were not originally Ghátwáls, but were attached to the *top-khánd* or artillery of the Bishnupur Rájá. Their duties were to attend on him on all occasions of ceremony, with horses, guns, etc. For the due performance of these duties, certain lands were made over to them and their heirs in *jágír*, for which they had to pay a small *panchakí* to the Rájá—how much is not clearly known. These had twenty-three *ghát*s assigned them in the days of the Bishnupur Ráj, under twenty-three chief Ghátwáls, each having charge of a *ghát*. Their *sanad* or deed of grant allowed them about 2000 acres or 6000 *bighás* of land, for which they paid a light *panchakí* or quit-rent to the *zamíndár*. The estate in which their lands lay was subsequently purchased by Mr. J. Erskine of Sonámukhí. That gentleman found that he had to receive £130 as *panchakí* rent from the Baísgrám Ghátwáls. At first he had great difficulty in obtaining possession of a single spot of land on the estate he had just purchased, even to establish a Revenue Court or *Kachárí*. The Ghátwáls laid claim to all. On Mr. Erskine remonstrating with them, they said they had no objection to his taking over for himself the small barren hill of Korá, which was apparently fit for nothing but a trigonometrical station. They held deeds (*sanads*) for 2000 acres or 6000 *bighás* only, and on the strength of these claimed and held possession of the whole. Subsequently, the Revenue Survey operations established Mr. Erskine fully in his rights, and confined the Ghátwáls to theirs.' The Ghátwáls still perform police duties, and continue to hold their service lands, either rent-free or subject to a light quit-rent. These Ghátwáli tenures, and the duties and responsibilities which attach to the holders of them, will be further described on a subsequent page, when treating of the land tenures of the District. (5) Baidya; physicians by caste occupation; but many of them have abandoned their hereditary avocation, and are now landholders, Government officials, clerks, etc., or follow other respectable occupations.

The Census of 1872 returned their number in Bánkurá District at 2366. (6) Káyasth; some are well-to-do landholders, Government officers, *zamíndári* revenue collectors, etc.; while others are agriculturists, but, like the Bráhman and Khatri cultivators, they abstain from actually holding the plough. Number of Káyasths in Bánkurá, 11,676. (7) Bhát; heralds and bards, and also carriers of letters of invitation on occasions of religious and social ceremonies. The members of this caste claim to be Bráhmans who have lapsed from the dignity of pure Bráhmanhood by their acceptance of alms. There is much doubt, however, whether they ever were Bráhmans, although they wear the *paitá* or sacred thread. The Census Report classifies them separately from the Bráhmans, and returns their number at 17. (8) Achárjya; astrologers and fortune-tellers, and receivers of alms at feasts and ceremonies. They wear the sacred thread, and claim to be Bráhmans who have fallen from the same cause as that stated above. The right of the caste to Bráhmanhood is generally conceded, but its members are not held in much esteem. This caste is not returned separately in the Census Report, and its members are probably included among the regular Bráhmans. (9) Agarwálá and Márwárí; a wealthy class of up-country traders, claiming the rank of Kshattriya. Number in Bánkurá District in 1872, 79.

PURE SUDRA CASTES.—Next in rank come the following twelve pure Súdra castes, from whose hands a Bráhman can take water or uncooked food without injury to his caste:—(10) Nápit; barbers; 7428 in number; generally poor. (11) Kámár; blacksmiths; 22,750 in number; poor. (12) Telí or Tilí; oil-pressers and sellers by caste occupation, but many of them have now abandoned their hereditary employment and taken to trade. Those of the caste who retain their hereditary occupation are generally poor; while the traders are usually well to do, and some of them rich. Number in 1872, 41,322. (13) Kumár; potters and makers of earthen idols; 4518 in number; poor. (14) Sadgop; the highest of the cultivating castes. Some are landed proprietors, who till their own land, and are comparatively wealthy; the others, who are ordinary cultivators, are poor; 17,971 in number. (15) Támbulí or Támlí; *pán* growers and sellers by caste occupation, but many are now landed proprietors, traders, etc.; some are rich and others poor; 12,034 in number. (16) Bárui; growers and sellers of *pán* leaves; 979 in number; poor. (17) Málákar or Málí; gardeners and flower sellers;

535 in number; poor. (18) Gandhabanik or Baniá; grocers and spice dealers; 6626 in number; some rich, others poor. (19) Sánkhárí; shell cutters and makers of shell bracelets; 479 in number; generally poor. (20) Kánsárí; braziers and coppersmiths; 103 in number; some tolerably well off and even rich, others poor. (21) Agurí; a respectable mixed caste lately sprung up, following agriculture; 3443 in number; poor.

INTERMEDIATE SUDRA CASTES.—The following fourteen form the intermediate Súdra castes, who are neither esteemed nor despised, but who have some claim to respectability:—(22) Goálá; milkmen and cowherds; the second most numerous caste in the District, numbering 38,572. (23) Ját; up-countrymen; 1 in number. (24) Gánrár; preparers and sellers of parched rice; 192 in number. (25) Madak; confectioners and sweetmeat makers; 3719 in number. (26) Kaibarttá; cultivators and fishermen; 12,644 in number. (27) Vaishnav. This is not, properly speaking, a caste, but rather a class of Hindus professing the principles inculcated by Chaitanya, which are distinctly opposed to caste, asserting the equality of all men before God. Caste prejudices, however, are said to be now creeping into the sect: the higher and wealthier members will not eat with or mix in any way with the lower. Most of these latter are beggars, and many of the women prostitutes. The Census Report returns the number of Vaishnavs in Bánkurá District at 10,250. (28) Malla; not given in the Census Report, but returned as a separate caste by the Collector. It is probably a caste or class of people peculiar to the District, the ancient name of which was Mallabhúm, and Malla the title of its Hindu kings. (29) Mahurí; an up-country trading caste; number in Bánkurá District, 21. (30) Koerí; cultivators; 2397 in number. (31) Kurmí; cultivators and sellers of jungle products; 622 in number. (32) Sarak; cultivators; 2485 in number. (33) Tántí; weavers; 16,510 in number. (34) Sonár or Swarnakár; goldsmiths and jewellers; 1506 in number. (35) Subarnabanik; bankers and dealers in gold and silver; 5259 in number. These last two castes are offshoots of the Baniá or trading caste. The low rank which they hold in social esteem is stated to be owing to their propensity of pilfering the gold entrusted to them to work up.

LOW CASTES.—The following twenty-seven are low castes, and despised accordingly:—(36) Láherí; lac ornament makers; 28 in

(38) Sunrí or Surí; wine sellers by caste occupation, but many have now abandoned their hereditary calling, some taking to trade and others to agriculture; 12,657 in number. (39) Dhanuk; from northern Bengal; employed as labourers or as menial domestic servants; 17 in number. (40) Káhár; palanquin bearers and domestic servants; 124 in number. These are probably up-country Káhárs, who occupy a much higher position in Behar than the castes following the same occupation do in Lower Bengal. (41) Kalu; oil-pressers and sellers; 13,064 in number. (42) Dhobá; washermen; 2343 in number. (43) Jogí; weavers; 439 in number. (44) Kotál; weavers and cultivators; 172 in number. (45) Maraní; weavers; 159 in number. (46) Beldár; labourers; 26 in number. (47) Bhálya; labourers; 5 in number. (48) Chunárí; lime-burners, 179 in number. (49) Korá; earthworkers; chiefly employed in digging tanks, or as labourers upon embankments; 1216 in number. (50) Náik; cultivators and labourers; 3860 in number. (51) Sámanta; agricultural day-labourers; 5840 in number. (52) Patiál; mat makers and labourers; 34 in number. (53) Jáliá; fishermen; 1261 in number. (54) Mahádanda; fishermen and boatmen; 1359 in number. (55) Málá; fishermen and boatmen; 1333 in number. (56) Mánjhí; not a caste, but a class of boatmen who act as helmsmen. The Census, in its list of fishing and boating castes, returns the Mánjhís at 5600; but from this high number it appears probable that a class of village head-men among the jungle and aboriginal people, who have the title of Mánjhí, have been included with the Mánjhís who are properly boat-steerers. (57) Metiyá; sellers of fish and vegetables; 2463 in number. (58) Keut; fishermen and boatmen; mentioned in the Collector's return, but not shown separately in the Census Report. (59) Behárá and Duliá; palanquin bearers and labourers; 107 in number. These are two separate castes, but are returned together in the Census Report. (60) Pod; fishermen; 3 in number. (61) Tior; fishermen and boatmen; 62 in number. (62) Báití; drummers and mat makers; 158 in number.

SEMI-ABORIGINAL CASTES.—The following twenty-one are all semi-aboriginal castes, and are utterly despised:—(63) Chandál; cultivators and labourers; 507 in number. (64) Bhuiyá; cultivators and labourers; 278 in number. (65) Bágdí; cultivators, fishermen, and day-labourers; 18,632 in number. (66) Dom; basket makers and cultivators; 7193 in number. (67) Karangá; cultivators and labourers; 412 in number. (68) Mál; snake-charmers; 8436 in

number. (69) Málo; labourers; 1268 in number. (70) Dosadh; labourers and cultivators; 2 in number. (71) Muchí and Chámár; shoemakers and leather dealers; 3117 in number. These are two distinct castes, following the same occupation, but they do not intermarry or mix in any way. The Muchís belong to Lower Bengal, while the Chámárs are up-countrymen. (72) Báurí; labourers and cultivators; the most numerous caste in the District; 76,915 in number. (73) Pásí; toddy makers and leather dealers; 4 in number. (74) Rájbansí Koch; fishermen and cultivators; 3 in number. (75) Rájwár; labourers and cultivators; 2 in number. (76) Shikári; hunters and bird-catchers; 31 in number. (77) Báheliá; day-labourers; 17 in number. (78) Bediyá; a wandering and gipsy-like tribe, living by bird-catching, juggling, fortune-telling, and occasionally by petty thefts; 3 in number. (79) Bind; cultivators and labourers; 112 in number. (80) Buná; day-labourers; 2175 in number. (81) Hárí; swineherds and sweepers; 2445 in number. (82) Káorá; swineherds; 135 in number. (83) Mihtar; sweepers and scavengers; 56 in number.

The foregoing list of Hindu castes is exclusive of 2879 persons of unknown or unspecified caste, and 914 persons enumerated by nationality only. The list includes a number of aboriginal people who have abandoned their ancient beliefs and embraced some sort of Hinduism. There are no predatory clans or castes in Bánkurá District.

RELIGIOUS DIVISION OF THE PEOPLE.—The great bulk of the population of Bánkurá District consists of Hindus, the remainder being made up by Muhammadans, Christians, and hill people professing aboriginal faiths. The Hindus number 242,021 males and 245,765 females; total, 487,786, or 92·6 per cent. of the District population. The members of the Bráhma Samáj, or reformed theistic sect of Hindus, are included in the Census Report with the general Hindu population, and I have no means of ascertaining their separate number. The Collector states, however, that the sect is not making any progress in the District. The Muhammadans of Bánkurá number 6850 males and 6650 females; total, 13,500, or 2·6 per cent. of the District population. There are no distinct sects of Musalmáns except the ordinary division into Shiás and Sunnís. No Buddhists or Jains are found in Bánkurá District. The Christian population numbers 44 males and 26 females; total, 70. Deducting 33 from this as the number of European and Eurasian

Christians, a balance remains of 37, as representing the whole native Christian community of Bánkurá. The rest of the population consists of various hill races and jungle tribes, professing primitive aboriginal superstitions, who are classified in the Census Report under the name of 'others.' They consist of 12,775 males and 12,641 females; total, 25,416. These aborigines are chiefly represented by the Santáls, Khariás, and Bhumijs, found in very considerable numbers in the jungly tract on the western border. Their present status and occupations are stated to be similar to those of the Bengalis among whom they live.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—The Census Report of 1872 thus classifies the villages and towns:—There are 1287 villages of less than two hundred inhabitants; 526 with from two hundred to five hundred inhabitants; 165 from five hundred to a thousand; 41 small towns with from one to two thousand; 7 with from two to three thousand; 1 with from three to four thousand; and 2 with from fifteen thousand to twenty thousand: total number of villages and towns, 2029. The population is almost entirely rural, the Census Report returning only two towns as containing a population of five thousand souls and upwards, namely, Bánkurá, population 16,794; and Bishnupur, population 18,047. These are, indeed, the only towns in the District. The total urban population thus disclosed amounts to 34,841, leaving a balance of 491,931, or 93·39 per cent., as forming the rural population. The following are the details of the two towns in the District:—

BANKURA, the chief town and administrative headquarters of the District, is situated on the north bank of the Dhalkisor river, in 23° 14′ 0″ north latitude and 87° 6′ 45″ east longitude. The population of the town seems to have increased somewhat of late years. At the time of the experimental Census, taken in 1869, it contained 8157 male and 7189 female inhabitants; total, 15,346. The regular Census in January 1872 disclosed the following results:—Number of houses, 2435. Population—Hindus, 8207 males and 7772 females; total, 15,979. Muhammadans, 421 males and 290 females; total, 711. Christians, 43 males and 23 females; total, 66. Other denominations not separately classified, 24 males and 14 females; total, 38. Total of all religions, 8695 males and 8099 females; grand total, 16,794. Average number of inmates per house, 6·90. Gross municipal income in 1871, £551; expenditure, £476, 8s. 0d.; average rate of municipal taxation, 7¾d. or 5¼ *ánnás* per head.

The station is exceedingly dry, and considered very healthy. The principal buildings are the Church, the Government Courts, Jail, Treasury, Post Office, and Government School. The school was established in January 1846, and in 1871-72 it was attended by 222 scholars. The station also contains a public library, supported by subscriptions, contributed chiefly by European and native officials.

BISHNUPUR, the ancient capital of the District under its native rájás, and still the most populous town, is situated in the south-east of the District, a few miles south of the Dhalkisor river, in 23° 4′ 40″ north latitude and 87° 22′ 0″ east longitude. According to the Census of 1872, it contains 4007 houses, and a population made up as follows :—Hindus, 8565 males and 8871 females ; total, 17,436. Muhammadans, 304 males and 307 females ; total, 611. Christians and 'others,' *nil.* Total population, 8869 males and 9178 females ; grand total, 18,047. Average number of inmates per house, 4·50. Gross municipal income in 1871, £273, 14s. 0d. ; expenditure, £192, 6s. 0d. ; rate of municipal taxation, $3\frac{5}{8}$d. or 2 *ánnás* 5 *pie* per head.

The family of the Rájá of Bishnupur, or Bishenpore, as it is more commonly spelt, is one of the most ancient, and was formerly one of the most important, of all the Hindu dynasties in Bengal. The following sketch of its traditional history is mainly derived from an account drawn up for me by a pandit [1] :—

'Raghu Náth Sinh, the founder of the dynasty of Bishnupur, derived his origin from the kings of Jainagar, near Brindában. The story of his parentage is as follows. The king of Jainagar, being seized with a desire to visit distant countries, set out for Purushottam, and on his way thither passed through Bishnupur. While resting at one of the halting-places in the great forest of that country, his wife gave birth to a son ; and the king, foreseeing the difficulties of carrying a child with him, left the mother and her baby behind in the woods, and went forward on his journey. Such barbarous desertions are still heard of ; even women, when they have once set their hearts upon pilgrimage, become merciless to their offspring, and abandon any child they may happen to give birth to by the way.

'Soon after the father had departed, a man named Sri Kasmetiá Bágdi (an aboriginal inhabitant), when gathering firewood, passed by the halting-place, and saw the newly-born child lying helpless and alone. The mother never was heard of ; and whether she was devoured by wild beasts, or found shelter with the natives, remains

a mystery to this day. The woodman took the infant home, and reared him till he reached the age of seven, when a certain Bráhman of the place, struck with his beauty and the marks of royal descent that were visible on his person, took him to his own house. (This is the first appearance of a resident Aryan in the legend; and he is not a conqueror, but a poor colonist.) The Bráhman, however, being an indigent person, was compelled to send the boy out to tend his cows and work for his living; and the lad so grew upon the affections of the Bágdis (aborigines), that they called him Raghu Náth, Lord Raghu, and supplied him with food.

'One day in particular, the boy attracted the notice of everybody by his beauty, as he played with the other young cowherds, while the elder shepherds looked on. The fathers, seeing that the day was wearing on, set their faces homewards, driving their numerous cattle before them. On the way, a cow belonging to Raghu's herd strayed from the rest, and the boy, going in search of her into the thick forest, wandered up and down, looking in all directions, but in vain, till at last, overcome with fatigue, he lay down at the foot of a tree. No sooner had he fallen asleep, than a huge cobra glided out of a tuft of high grass; but instead of biting the lad, gazed stedfastly on him, and, erecting his many-coloured hood above the sleeper's face, shaded him from the rays of the sun (a legend told of many successful adventurers). His adopted parent meanwhile was in great distress about his disappearance, and, unable to bear the suspense any longer, started in search of him. At length he came to the spot; but what was his terror when he beheld the deadly snake, with hood erect, as if in the act to strike! "Alas! my loved one," he cried; "what madness tempted me to send thee forth to thy destruction?" Meanwhile the snake, scared by his approach, and quickly contracting its hood, glided off, and the boy, awakened by the withdrawal of the shade, started up. The old man poured forth tears of gratitude, vowing never to let his precious child go forth into the forest again. "Ah, what would I have done had I lost you?" he exclaimed. "You, whom I cannot bear to be out of my sight for a moment! From the day I brought you to my house with only a few worn rags, and tended by the Bágdis, deep and unspeakable tenderness sprang up in my heart towards you. Your beautiful face, and the tears rolling down your little cheeks, will never be forgotten."

'One day the boy found a golden ball in a water-course, and

brought it to his master, who treasured it up with delight as a sign of the future greatness of his child. Soon afterwards, the king (an aboriginal prince) having died, his obsequies were celebrated with great pomp, and people from all parts went to the funeral feast. The Bráhman, being very poor, went among the rest, taking Raghu with him. When the Bráhman was in the middle of his repast, the late king's elephant seized Raghu with his trunk, and approached the empty throne. Great was the consternation and terror lest the elephant should dash the boy to pieces; but when the royal animal carefully placed the lad on the throne, the whole multitude, thunder-struck at seeing a deed so manifestly done by the will of God, filled the place with their acclamations, and the ministers agreed to crown the boy on the spot. So they made him king of the country; and the singers came and poured forth their melodies, the musicians played on their instruments, and the minstrels tuned their harps, and recited the wonderful deed that had been done.

'For this was the custom in the old countries, that when the king died, the ministers did not crown the legal heir, but they made the king's white elephant, attended by all the officers of state, and covered with jewelled trappings, go through the capital in solemn procession; and whomsoever among the multitude the elephant lifted on to its back, him they crowned, saying that it was the act of God.

'Raghu Náth Sinh, therefore, was the first king of Bishnupur (*i.e.* the first king of Aryan birth, the aboriginal princes going for nothing with the worthy pandit). He is celebrated in history as the King of the Bágdis (aborigines), and was the first of a race that has reigned nearly 1100 years. He founded the city of Bishnupur, guided thither by auspicious signs. For long his kingdom passed under the name of Mallabhúmí (the land of the wrestlers), then as the Jungle Mahals (forest country); it is now included in the Districts of Bardwán, Bánkurá, and Bírbhúm.

'Bírbhúm is known as a place for heroes and Bágdis (aboriginal castes). They wore long black hair, and generally decorated themselves with iron ornaments, the most costly being of silver, and called *bálá*. For arms they had spears and javelins. The kings often employed them as guards of their palaces, owing to their skill in wrestling. They also joined with the wild tribes (*i.e.* aboriginal races of the highlands) in committing acts of plunder, and thus

Murshidábád occasionally solicited their assistance in time of war. At the time when the Nawáb was engaged in conflict with the Marhattás, he requested his dependent kings to give him every support in their power. Accordingly the Rájá of Bishnupur despatched a band of his bravest heroes to the assistance of the Nawáb. By their valour the Marhattás were subdued; and from that time the Rájá of Bishnupur was the most renowned of the tributary kings of the Nawáb.'

The history of the kings of Bishnupur, written by Rájá Gopál Sinh, was found in the Bánkurá Collectorate. Guided by the facts contained therein, and collecting others from various sources, the pandit proceeds to give a chronicle of the kings of Bishnupur. One or two facts connected with the kings and their country may be mentioned in passing:—

'The kings belonged to the Kutumi branch of the Mahárishi family. Their god was Akalang, and their goddess Purá, of the Ketti caste. The kings were followers of Sambad; the high priest, or Rishí, was Viswá Mitra; Bráhmans who worshipped Vishnu were their religious guides. The sacred verse called Gatha, which the kings received at the time of their being invested with the sacred thread (*paitá*), is still in use. Bishnupur acquired a place in history from the time of Rájá Raghu Náth Sinh, whom the Bágdis (aborigines) called Raghu Náth. At the time of his coronation he was termed "Original Wrestler," or *Adi Malla*.

'1. *Original Wrestler, Adi Malla.*—The Rájá was born in 122 Bengalí era (A.D. 715).[1] He received a mark in his forehead from other kings, that is, was crowned, in the year of Bishnupur 1. He reigned 34 years. His queen, Chandra Rumari, was the daughter of Indra Sinh, a western prince of the Solar race. He built a temple in honour of the goddess Punteswarí. The capital was Laográm.

'2. *Rájá Jai Malla.*—This prince was born in 156 Bengalí era (A.D. 749), and was crowned in the year 34 of the Bishnupur era. He reigned 30 years, and died in 64 Bishnupur era. His queen was the daughter of Dinu Sinh, a prince of the western Solar race. Rájá Jai built a temple in honour of Sát Chako Behárí. His Kámdár (steward and chancellor) was Bhagirathi Gop, who received

[1] In matters of chronology, I have followed, not the pandit's figures, which are often contradictory, but the family book of the Rájás of Bishnupur and other Persian archives, which have been ascertained to be accurate in their dates.

the rents of the country of the Wrestlers. The king left two sons; the elder succeeded him, while the younger was pensioned. The race of the latter is now extinct. The Rájá was a powerful monarch, and fond of pompous display. He increased the number of troops.

'3. *Rájá Ambhuchalla* (*otherwise Beni Malla*).—The Rájá was born in A.D. 779, and his coronation took place in the year of Bishnupur 64. He reigned 12 years, and died in 76. His capital was Laográm. He married Kánchanmani, the daughter of Mattiar Sinh, a western king of the Solar race. His Kámdár, Bhagirathi Sinh, held the same office as under the former king. He had five sons, of whom the eldest succeeded him, while the others received pensions. No descendants of these now remain.'

[Thus the pandit goes on through a weary list of kings, all of whom married ladies of Aryan birth, Kshattriya princesses from the north, and most of whom employed Aryan settlers as their stewards and ministers. They warred with the adjoining princes—for the most part aborigines, but some of them rival Aryan immigrants—built temples, principally to Aryan divinities, but occasionally to the ghosts of celebrated men, according to the aboriginal ideas of worship; but throughout this and all similar documents that I have examined, the importance of the aboriginal element and the frequency of its mention steadily decline. I give an example here and there, adopting the chronology of the family book, etc., instead of the pandit's.]

'18. *Rájá Jagat Malla.*—The Rájá was born in 275 Bishnupur era (A.D. 990), crowned in 318 (A.D. 1033), and died in 336 (A.D. 1051). Bishnupur was his capital. He married Chandrabati, daughter of Golanda Sinh. In the earlier part of his reign, he erected a building in honour of Rádhá Binod Thákur, and another for Rush Mandip. His Kámdar (steward) was Gopál Sinh. He left three sons. Bishnupur was the most renowned city in the world, and it became more beautiful than the beautified house of Indra in heaven. The buildings were of pure white stone. Within the walls of the palace were theatres, embellished rooms, dwelling-houses, and dressing-rooms. There were also houses for elephants, barracks for soldiers, stables, storehouses, armouries, a treasury, and a temple. The king secured fame by adding to the magnificence of the city. It was during his reign that a number of merchants established themselves in the city.

'33. *Rájá Rám Malla* (*Khetra Náth Malla?*).—The Rájá was

crowned in 564 (A.D. 1277), and died in 587 (A.D. 1300), after a reign of 23 years. His consort was Sukumárí Bái, daughter of Nand Lál Sinh. In his reign a temple was built to the god Rádhá Kánta Ji (apparently to the ghost of some hero), and cost an enormous sum. The Kámdár (steward) was Jagu Mandhar Goho. The king left four sons. At this time the fort was improved, and various sorts of fire-engines were brought into it. A governor was appointed, with orders to prepare a uniform for the army. The soldiers learned the use of arms more perfectly; and the high renown they bore was sufficient to strike terror even into the hearts of the giant race. In this reign no foreign prince ventured to attack Bishnupur.

'48. *Rájá Bírhambar.*—He was born in 868, and succeeded to the throne in 881 Bishnupur era (A.D. 1596). He reigned 26 years. This king had four wives and twenty-two sons. Three temples were erected in his reign. The fort received its last embellishment, and guns were mounted on the walls. He led his forces against the Nawáb of Murshidábád, but, understanding that he was the Lord Superior of the country, he paid 167,000 rupees (£17,000) as tribute, and returned to his capital. His Kámdár was Durgá Prasád Ghor.

'54. *Rájá Gopál Sinh.*—This prince was born in 975 Bishnupur era, and died in 1055 (A.D. 1708), after a reign of 38 years. He was married to the daughter of Raghu Náth Tungu, whose capital was Tungubhúmí. Five temples were erected in his reign. At this time the Marhattás, under the command of Bháshkar Pandit, appeared before the southern gate of the fort of Bishnupur. The Rájá met them with his troops, but victory at first leaned to the side of his enemies. By the favour of the god Madan Mohan, it is said the guns were fired without any human assistance. Among the slain was the Marhattá general. The Bishnupur troops plundered the enemy, and retired within the fort. Others relate that the king by his own prowess slew many of the opponents; but, failing to take the life of the general, he declined a second battle, and fled into the fort. Upon this the Marhattás renewed the attack, but were effectually repelled by the guns. Mahárájá Kirtti Chánd Báhádur of Bardwán also attacked Bishnupur, and defeated its king, but soon after joined in league with him against the Marhattás. The king left two sons, of whom the elder succeeded him. Upon the younger was bestowed the Jágir of Jámkundi, which possession his de-

[Thus the chronicle goes on. One prince digs tanks and sets up idols, often representing aboriginal worship; another encourages trade; a fourth goes to war. The eldest son, if living, succeeded to the throne, but the others had a right to a suitable provision. The Bishnupur family appears sometimes as the enemy, sometimes as the ally, and sometimes as the tributary of the Musalmán Nawáb; but it was formally exempted from personal attendance at the court of Murshidábád, and appeared, like the English in later days, by a representative or resident at the Darbár. Of several princes it is recorded that they encouraged trade, and that strangers settled in their capital; one appointed two judges, another improved the fortifications. The family drop the patronymic of Wrestler (one of the last relics of ancient aboriginal influences), and take that of Sinh, after the 50th lineal prince (922 Bishnupur era, A.D. 1637). In the 18th century the family rapidly declined: the Marhattás impoverished them; the famine of 1770 left their kingdom empty of inhabitants; and the English, treating these tributary princes as mere land-stewards, added to their public burdens at pleasure, and completed their ruin.]

The pandit concludes as follows:—'After the idol Madan-Mohan (a remnant of aboriginal worship) was removed from Bishnupur, the city began to fall into decay. Owing to his great indigence, the Rájá pawned the idol to Gokul Chandra Mitra of Calcutta. Some time after, the unfortunate prince with great difficulty managed to collect the amount required to redeem it, and sent his minister to Calcutta to bring home the pledge. Gokul received the money, but refused to restore the idol. The case was brought before the Supreme Court at Calcutta, and was decided in favour of the Rájá; whereupon Gokul caused a second idol to be made, exactly resembling the original, and presented it to the Rájá.'

The following description of the town and its principal buildings, etc., is reproduced in a condensed form from Colonel Gastrell's Revenue Survey Report. The origin of the town dates from the commencement of the Bishnupur Ráj, which, according to native tradition, was founded by Adi Malla early in the eighth century. Rájá Bar Sinh, one of Adi Malla's descendants, who lived about 1650 A.D., is said to have been noted for his many benevolent and charitable actions, and the construction of most of the tanks and embanked lakes at Bishnupur is attributed to him. He also built many of the temples. Another of the Rájás, named Chaitan Sinh, who lived in the latter half of the last century, was similarly noted. He entered

into engagements with the Company for the Decennial Settlement of the Jungle Mahals, as Bánkurá was then called. Subsequently, his sons squandered all their property, and eventually the estate was brought to sale for arrears of Government land revenue.

'The city of Bishnupur,' says Colonel Gastrell, 'was once strongly fortified by a long connected line of curtains and bastions, measuring seven miles in length, with small circular ravelins covering many of the curtains. Within this outer line of fortifications, and west of the city, lies the citadel. The remains of these defences still exist. The Rájá's palace was situated within the citadel. What it may have been in the palmy days of its ancient chieftains it is difficult to say. But at present a very insignificant pile of brick buildings, surrounded by ruins, marks the site. The old courtyard walls are now nearly level with the ground, and its once massive gateways are fast falling to ruins. Numerous old temples still stand in the interior of the citadel, and in and about the present city. Those in the citadel are mostly in a ruinous state, and covered with jungle. One south of and just outside the ramparts is of more ancient date than the rest, and of quite a different style of architecture. The basement consists of a square solid plinth of hewn stone (laterite), 100 feet in length and breadth and 7 feet in height. This is surmounted by a treble series of low-arched colonnades, $9\frac{1}{2}$ feet in height, within which are several small square and dark chambers. The arches and their supports are all of brick. The outer colonnade is roofed in with the peculiar hog-backed domes of Hindu architecture, whilst the remainder of the building is surmounted by a pyramidal stone roof rising in steps. The whole is well put together, and was once stuccoed. The only approach is by a flight of narrow stone steps at one corner, nor does it appear that there ever was another ascent to it. Most, if not all the other temples are built of moulded and well-burnt bricks, on the face of which shapes of birds, flowers, and other ornaments have been imprinted, and so arranged as to form various patterns. In some of these temples, which are all square, the little turrets or towers built at the four corners of the roof, and from the base of which the central dome springs, are not always of the same style of architecture, neither do these again always agree with that of the dome.

'On the rampart, and alongside the south gate of the citadel, is a curious old building, consisting of four solid brick walls, with no entrance except from above. It has no roof, and, according to tradi-

tion, was the place into which criminals were thrown and left to die of starvation. It is also said to have had its bottom and sides studded with nails, but no trace of them now remains. The ruins of an extensive series of granaries may still be seen near the south gateway. An immense piece of iron ordnance is lying in the jungle inside the fort. It is apparently made of sixty-three hoops or short cylinders of wrought iron welded together, and overlying another cylinder, also of wrought iron, the whole being well welded and worked together. The indentations of the hammers and the joining of the hoops are still plainly visible. Its extreme length is 12 feet $5\frac{1}{2}$ inches, the diameter of the bore being $11\frac{1}{2}$ inches at the muzzle, and $11\frac{1}{4}$ inches throughout the remainder of its length. Tradition states that a deity gave this and another similar gun to one of the old Rájás of Bishnupur. The fellow gun is said to be at the bottom of one of the lakes. This one, though exposed to all weathers, is still free from rust, and has a black and polished outer surface.

'There are seven market-places within the precincts of the town; and also a post office, court-house, police station, one public and several private schools. Musalmán mosques and Hindu temples are also very numerous, the latter especially so. Considering the number of wealthy people in the town, the paucity of good substantial brick dwelling-houses is somewhat striking. The people say that the chief cause of this was the rapacity of former rájás, which rendered it dangerous for any one to show signs of wealth. Under these circumstances, mud and thatch proved safer than brick and mortar; and although the immediate cause has long since been removed, the children still follow in the fathers' footsteps, and adhere to the unpretending dwellings of their forefathers. The old military highroad from Calcutta to the North-Western Provinces passes through the centre of Bishnupur town, from which another main road branches off southwards to Midnapur.'

Smaller Towns and Villages.—The following five villages and small towns, although their population is not returned separately in the Census Report, because they contain less than five thousand inhabitants, are places of some importance:—(1) Ondá, a large village and headquarters of a police circle, containing a Subordinate Judge's Court, is situated near the south bank of the Dhalkisor river, about half-way between the towns of Bánkurá and Bishnupur, in 23° 8′ 20″ north latitude and 87° 15′ 4″ east longitude. (2) Chátná, a village

and headquarters of a police circle, situated within the tract recently transferred from Mánbhúm, in 23° 18′ 28″ north latitude and 87° 0′ 45″ east longitude. (3) Gangájalghátí, a considerable village and headquarters of a police circle, situated in the north-west of the District, in 23° 25′ 0″ north latitude and 87° 9′ 35″ east longitude. (4) Barjorá, a large trading village and police outpost station, situated in the north-east of the District, a few miles south of the Dámodar river, in 23° 25′ 30″ north latitude and 87° 20′ 0″ east longitude. (5) Rájgrám, a large trading village near the town of Bánkurá, situated in 23° 13′ 20″ north latitude and 87° 4′ 40″ east longitude.

VILLAGE OFFICIALS.—The following account of the principal village officials and notabilities met with in Bánkurá District is condensed from a report by Bábu Ratan Lál Ghosh, Deputy Collector, dated 17th March 1873. It will be seen that such village authorities as exist are in possession of no power or influence, everything being managed by the nominees of the *zamíndárs*. Any respect still paid to the *mandal* or village head-man is but a shadow of that formerly shown.

(1) MAL GUMASHTA.—The *mál gumáshtá*, or *tahsíldár*, is the official employed by the *zamíndár* to manage affairs between himself and his tenants. His chief duties consist in collecting rents, granting receipts, and in seeing that the *nij jot* or home farm lands of his master or masters are properly cultivated, and that in case any cultivator abandons his fields and leaves the village, the relinquished lands are let out to a new tenant. He is authorized to distrain the crops of the cultivators, on their making default in payment of rent. Through him the *zamíndár* carries on a trade with his *rayats*, by advancing rice and seed paddy, at interest, to those in need of the accommodation. He keeps the accounts of the rent collections and grain advances. At each village the *gumáshtá* has a *khámár*, or house for storing grain, in which paddy received from the cultivators, either in payment of the seed-grain advanced to them or as *sájá jamá* (rent in kind) or *bhág jamá* (rent paid by a share of the produce), is kept. At the end of every year he submits to the *zamíndár* a *jamá wásil bákí*, showing in detail the amounts due from and paid by each tenant, and the arrears remaining unrealized at the end of the year. Sometimes a *gumáshtá* is specially vested with power to grant ordinary leases to husbandmen who take up relinquished lands for cultivation. His salary is

generally paid in money, varying in amount from Rs. 8 to Rs. 24, or 16s. to £2, 8s. 0d. a year. In addition to this, he also receives perquisites from the cultivators on occasions of certain festivals. Where the *zamíndár's* estate is a large one, one *gumáshtá* is appointed to collect the rents of a group of several villages; but to each village is attached an *átpaharí* or *páik*, who assists the *gumáshtá*, and who is remunerated by a grant of rent-free land. Besides his other multifarious duties, the *gumáshtá* is often called upon to assist his employer in the conduct of suits connected with any of the villages in his charge, and occasionally to give evidence as a witness. But, by the custom of the country, a man who is considered respectable in the village community avoids giving testimony in a court as much as possible. He is therefore generally allowed an assistant, whose duty it is to attend any court where the evidence of the *gumáshtá* is thought necessary for his master's case. This assistant is called the *faujdári gumáshtá.* Another important duty of the *mál gumáshtá*, which is performed either by himself or by his assistant the *faujdári gumáshtá*, is that imposed by the law. Regulation iii. of 1821, clause 5, section 7, held landholders, farmers, local managers, etc. of villages, 'responsible for the early and punctual communication to the officers of the nearest police station, of the resort to or passage through their villages of any considerable body of strangers, or of the assemblage of such bodies within the limits of their villages, together with any particulars which they may be able to collect as to the alleged object of their assemblage or journey, or any suspicions which may arise as to their real character and intentions.' Again, the new Code of Criminal Procedure (Act x. of 1872, section 90) provides that it is the duty of the village officials, inclusive of headmen and landholder's agents, to communicate to the nearest Magistrate, or to the officer in charge of the nearest police station, any information which they may obtain respecting (1) the residence in the village of any notorious receiver or vendor of stolen property; (2) the resort of persons suspected to be robbers; (3) the occurrence of any sudden or unnatural death; (4) the commission or intention to commit *satí*, or other non-bailable offence, at or near such village.

Faujdari Gumashta.—As already stated, this officer is an assistant to the *mál gumáshtá.* His duties are chiefly confined to giving evidence in a court of justice in cases in which the *zamíndár* is con-

or 12s. to £1, 4s. 0d. a year, besides diet expenses when he has to attend a distant court.

ATPAHARI; an officer who assists the *gumáshtá* in the collection of rents, etc. In return for his services, he is usually remunerated by a grant of from ten to fifteen *bighás* or from three to five acres of rent-free land. His tenure of office is hereditary. He is a useful assistant of the rent collector, and does a good deal of private service for him. Occasionally he receives a small perquisite from a cultivator to whom he has done some favour. But this is so rare, and the perquisite so small, that the proceeds of his service land may be said to be his only wages.

MUKHYA or MANDAL.—The *mukhya* or *mandal* is an official who was of great importance and much influence in days gone by. He was, in fact, the head-man of a Hindu village community; a representative of the villagers in all matters of general or individual interest; an arbiter in petty disputes; and a respectable man, whose presence would be sought by all the villagers at feasts and festivals. *Mukhya* is a Sanskrit word meaning superior; and in former days the village head-man was raised above the common level of ignorant husbandmen, and commanded their respect. His was an honorary office; and the articles and petty money gifts that were occasionally presented to him were considered more as tokens of respect than as wages. At the present day a *mukhya* is a misnomer. In most villages of Bánkurá District he belongs to the poorer classes, and has no social position apart from his office. His present duties are as follow:—Whenever a Civil Court messenger or a police constable goes to the village to serve any civil or criminal process, the service is effected through the *mukhya*. In cases of accidental or unnatural death, the police officer holds an inquest on the dead body in the presence of the principal villagers, one of whom must be, as a rule, the *mukhya* of the village where the death took place, or where the dead body was found. Moreover, when a police officer or other public servant desires to obtain information regarding any matter connected with the village, *e.g.* the state of the crops, general health, the condition of the villagers or their cattle, it is to the *mukhya* that application is made. His post is a hereditary one. He does not get any fixed pay, but receives perquisites and gifts from the villagers on occasions of domestic and religious ceremonies, in accordance with time-honoured custom. Whenever a marriage takes place, he is paid a small sum of money, varying from three-

pence to a shilling, according to the means of the payer. He also receives a few betel-nuts, sweetmeats, and other presents, which, although of small value, are indicative of respect for his position. Again, whenever a villager gives a feast on the occasion of *annaprásan* (or the feeding of an infant with rice for the first time), *karnabedh* (ear-boring), *yajna-pabit* (first wearing of the sacred thread by Bráhman boys), marriage, *srádddha* (funeral obsequies), *sapindakaran* (annual obsequies), or *púját* (religious ceremony), the *mukhya*, of whatever caste he may be, must be invited to dine. The Deputy Collector, from whose report this account is taken, states: 'If any one of the village officials is to be utilized for the purpose of obtaining from time to time trustworthy information connected with the people of a village, their crops or cattle,—a measure essentially requisite for the proper administration of Bengal,—it should emphatically be the *mukhya*, who alone, as was actually the case in former days, can be the representative of the village community. The other officials, being servants of the landholder, are not expected to have a common interest with the cultivators.'

CHAUKIDAR.—The *chaukídár* is the village watchman, whose duty consists chiefly in keeping watch and ward during the night in the village to which he belongs, and in giving information at the nearest police station of the commission or intended commission of non-bailable offences which are cognisable by the police. In some cases he is paid exclusively by grants of rent-free service land from the *zamíndár;* in others, by payments in either money or grain, or both, made by the villagers of his beat,—a contribution called *dwármáshrá* or monthly door tax; and again in others, both by service land and *dwár-máshrá*. Those *chaukídárs* who get their wages chiefly from *dwár-máshrá* are very badly off. They are not paid regularly, and the small amount they realize is scarcely sufficient to serve as an inducement to them to do their duty honestly. The villagers cannot be compelled by the authorities to pay arrears of *dwár-máshrá* by any legal process, and the effect is that the little wages, whether in money or grain, promised by the villagers, remain partially unrealized for several months together. The *chaukídár* petitions the Sub-Inspector and other police authorities over and over again, in order to make the villagers pay him his wages, but to no effect. The *chaukídár* who gets his wages from the proceeds of his service land is better off, and has some inducement to do his work. But practically it has been found that the services of this

class of men also are inefficient, inasmuch as they are partly the servants of Government, and partly of the *zamíndárs* whose lands they enjoy rent-free. To secure a more efficient force of village watchmen, Act xx. of 1856 was passed ; and in the towns and large villages which could be conveniently turned into unions, *chaukídárs* on a fixed monthly salary (at least Rs. 4 or 8s. a month) have been established, and paid from the taxes realized under that Act. The Bengal Legislative Council has passed a further measure, Act vi. of 1871, which proposes to pay the village *chaukídárs* certain monthly wages in money, and to compel all those who hold service lands to relinquish them.

THE OTHER VILLAGE NOTABILITIES are the priest, barber, washerman, astrologer, and the representatives of the various artisan castes. In the old Hindu organization, these persons were looked upon as public servants, and remunerated by grants of rent-free lands from the common lands of the village. They have, however, ceased for a long time to exist as village officials, and are now hardly more than private servants carrying on certain occupations, and paid for their work by the individuals on whom they attend. I condense the following particulars from Bábu Ratan Lál Ghosh's report before alluded to :—

PUROHIT or PRIEST.—Nearly every well-to-do Hindu cultivator maintains a family idol, generally a *sálgrám* (a black round stone with a hole in it), which the family priest worships every morning and evening as representing Vishnu, for which he is remunerated by daily gifts of rice and milk. In some villages there is an idol kept in a house called the *mandap*, or in a masonry temple erected at the joint expense of the great majority of the villagers ; and the gifts of rice, fruit, etc. for its service are contributed by each household in turn. If the village idol has been set up by a *zamíndár* or rich villager, there will be found almost invariably a considerable endowment of land attached thereto, from the proceeds of which the necessary articles for the *púját* services are purchased, and from which are supported the village priest, the *málí* who furnishes the flowers, the *doms* or musicians, the *kámár* who sacrifices goats before the idol, the potter who supplies the earthen vessels, etc. Besides this remuneration for his services before the idol, the family priest also receives numerous gifts, on occasions of births, marriages, *sráddhas*, etc., from the villagers.

NAPIT or BARBER.—Besides his ordinary avocation of shaving a

certain number of families, called his *jajmáns* or customers, the *nápit* has to be present at marriage ceremonies, to assist in the performance of certain rites. His wages usually consist of a *sali* (a measure holding about 1½ cwts.) of unhusked rice, paid by each family at harvest-time. This is the general custom; but in some villages he is paid in grain or money every time he shaves a beard or performs any of the other services of his calling.

DHOBA or WASHERMAN.—Every village has not a washerman of its own. In a poor family the females always wash the clothes themselves. Those families, however, who are in better circumstances generally send their clothes to the washerman's house, whether it is situated in their own or a neighbouring village. The washerman's wages are paid either in kind or in money.

MAHAJAN or GRAIN MERCHANT.—The *mahájan*, besides carrying on a trade in rice, makes loans of seed, grain, and money to the cultivators. In the case of grain advances, the usual rate of interest charged is one-half the quantity borrowed. On money loans where security is given, the rate varies from twenty to twenty-four per cent., and without security, from sixty to a hundred per cent.

KAMAR or SMITH.—In Bánkurá District, one smith usually works for the people of four or five villages, his chief business being the forging of ploughshares, hoes, and other agricultural implements. A ploughshare generally becomes almost useless at the end of each ploughing season, and has to be re-cast and re-forged at the beginning of the next year. This the smith does, and for remuneration receives a customary fee of one *sali*, or 1½ cwt., of unhusked rice from every husbandman at harvest-time. For all other work he is paid at contract rates, generally in money. In sacrificial ceremonies the *kámár* also officiates as sacrificer; and in many cases he holds a small plot of rent-free land in return for his services in this respect.

KUMAR or POTTER.—For furnishing a temple with earthen vessels, etc., the potter, in many places, is rewarded by a small plot of rent-free land. Earthen vessels for domestic use are paid for in money.

MALI or GARDENER.—His chief business is to supply flowers and garlands to the villagers on the occasion of a *pújá* or other Hindu ceremony; but few *malis* live by this calling exclusively. Those who hold no service land, and are unable to subsist solely by collecting flowers and making garlands, also follow agriculture as an auxiliary means of livelihood. Flowers and garlands are paid for either in kind or in money.

SUTRADHAR or CARPENTER.—Usually one carpenter does the work of two or more villages, his chief business being the construction of the woodwork of ploughs, for which he receives as wages a certain fixed measure of rice from every cultivator.

ACHARJYA; astrologer, fortune-teller, and almanac writer. He is remunerated either in money, or by gifts of rice, pulses, and vegetables.

MATERIAL CONDITION OF THE PEOPLE.—Bánkurá is a poor District; and the Revenue Surveyor in his report states that the general condition of the people, as compared with that of adjoining Districts to the east, is one of poverty. This is especially apparent in the jungle tracts. In the towns and villages of the low lands they are better off, but even here few show signs of much comfort, either in personal appearance or the economy of their houses.

AGRICULTURAL.—Rice forms the staple crop of the District, consisting of two great kinds, *áman* or winter rice, and *áus* or autumn rice. *Aman* rice is sown in April or May, transplanted in July or August, and reaped about December. The twenty-one principal varieties of *áman* rice grown in Bánkurá District are as under :—(1) *Rám-sál*; (2) *Gauráng sál*; (3) *Noná*; (4) *Sál-jhántí*; (5) *Benámí*; (6) *Kayá*; (7) *Muktáhár*; (8) *Laksh-man-bhog*; (9) *Jhokroá*; (10) *Káli kási-phul*; (11) *Latsáj*; (12) *Chachmoyá*; (13) *Darpatti*; (14) *Danár-gunrá*; (15) *Parmánna-sál*; (16) *Haimantik*; (17) *Noná-sál*; (18) *Katram-sál*; (19) *Jhinga-lagrá*; (20) *Bántjár*; (21) *Kálá-jirá*. The *áus* or autumn rice is sown broadcast on the fields in May, and reaped in September; it is of two varieties in Bánkurá District, *áus* proper, and *kelásh*.

For an *áman* rice crop, the soil requires to be ploughed four times before the sowing of the seed. Colonel Gastrell thus describes the mode of cultivation :—'The first ploughing takes place early in February or March, and the three following ones between that time and August, according as the season may be wet or dry. The process of sowing, weeding, and reaping is precisely the same here as in other parts of Bengal. A small ridge or embankment is raised round each plot or field after the ground is considered sufficiently ploughed; the cultivator then lets in water from the tank, reservoir, or dammed-up water-course in which he has his water supply. This water is allowed to stand some time, to assist in decomposing the stubble or roots of the previous year, and to incorporate them and the manure more intimately with the soil. The ground then receives

its final ploughing, after which it is harrowed and levelled, and the seed is sown. About two months after the sowing, the young plants are transplanted into other plots, at regular intervals apart. Whilst the plant is still young, the earth is gently loosened round the roots by hand labour, or sometimes more roughly by the plough. The crop is kept carefully weeded. When nearly ripe, a bamboo is laid horizontally on the ground and drawn over the plants, thus laying them down regularly in one direction. The crop is reaped in December and January, and bound up in small bundles. It is subsequently either beaten out on a board by men, or trodden out by cattle. Such of the stubble as may not be required for other purposes is left on the ground to rot and renovate the land for future crops.' No improvement seems to have lately taken place in the quality of the rice grown in the District, but its cultivation has been considerably increased by the reclamation of extensive jungle tracts within the last twenty or twenty-five years. No superior cereals have been substituted for inferior kinds, although it is the custom to sow the newly cultivated lands for two or three years after reclamation with inferior crops, as they are not at first capable of producing the superior sorts. By this means the lands gradually increase in fertility, and become fit for better kinds of grain. The names by which rice is known in its various stages is as follows:—*bíj*, or seed; *chárá*, the plant; *sish*, the plant in ear; *dhán*, unhusked rice; *chául*, husked rice; *bhát*, boiled rice.

Green Crops.—(1) Mustard seed, sown on dry lands in October or November, and cut in March or April. (2) Til-seed, sown in August and September, and cut in December or January. (3) *Suárgujá*, oil-seed, sown in June or July, and cut in November or December. (4) *Máskalái* or *urut* (*phaseolus Roxburghii*), sown in June or July, and cut in November or December. (5) *Arhar* (*cajanus Indicus*), sown in May or June, and cut in February. (6) *Matar* or peas (*pisum sativum*), sown in October or November, and cut in February or March. (7) *Chholá* or gram (*cicer arietinum*), sown in October or November, and cut in February or March. All the above require a dry soil for their proper cultivation.

Of Fibres, the following crops are raised:—(1) Cotton, sown in September or October, and cut in March or April. (2) Flax, sown in April or May, and cut in September or October. (3) Hemp, sown in April or May, and cut in September or October. These crops are all grown on dry lands.

MISCELLANEOUS CROPS.—(1) Indigo, sown generally in October or November, and cut in July. The decrease in the rainfall of the District, owing, it is stated, to the unsparing and indiscriminate clearing of the uplands, has operated disadvantageously on the indigo cultivation. There are two seasons for sowing indigo,—one in February or March, called the 'spring sowings,' and the other about October, called the 'autumn sowings.' Formerly the sowings were chiefly made in February or March, but now the sowings generally take place in October, owing to the uncertainty in the spring rainfall of late years. The Collector states, moreover, that the soil of the District is not well adapted for the growth of indigo, the produce being less and the plant of a smaller size than that grown in other Districts, although yielding a good blue. (2) Sugar-cane, sown in April or May, and cut in the following February or March. (3) *Pán*, sown in the month of June or July; the leaves are picked at all seasons of the year after the plant is twelve months old.

DESCRIPTION OF SOIL.—The soil of the low-lying villages is generally productive, from the detritus washed down from the higher levels. It is commonly divided into two classes, *Sálí* and *Soná*. The former is exclusively restricted to the cultivation of the coarser kinds of rice. The latter is used for the cultivation of more valuable crops, such as the superior varieties of rice, sugar-cane, indigo, oil-seeds; and in the richest soil of all are grown *pán*, tobacco, garden herbs, and vegetables.

AREA; OUT-TURN OF CROPS, ETC.—The present area of Bánkurá District, after the transfer of the three eastern police circles of Kotalpur, Indás, and Sonámukhí to Bardwán, and the addition of a large tract on the west transferred from Mánbhúm District, is returned at 1338 square miles. These transfers were made very recently, and my information does not show the proportion of cultivated to cultivable and waste land. Prior to the transfers, the area of the Revenue District amounted to 863,343 acres, or 1348·97 square miles, of which 358,046 acres or 559·60 square miles were returned as under cultivation, 211,618 acres or 330·65 square miles as fallow or uncultivated but capable of cultivation, and the remaining 293,679 acres or 458·87 square miles as incapable of tillage and barren. Very little rice land in the District pays as high a rent as Rs. 3 per *bighá*, or 18s. an acre. The best description of land, growing ordinary paddy, rents at about Rs. 2/6 per *bighá*, or 14s. 3d. an acre, a fair average out-turn from which would be about

ten maunds per *bighá*, or twenty-two hundredweights of paddy, valued at about 12 ánnás a maund, or 2s. od. a hundredweight; total value of produce, about Rs. 7/8 a *bighá*, or £2, 5s. od. an acre. It will be seen from the above that about one-third of the produce is paid as rent, the remaining two-thirds, together with the straw, going to the cultivator for his capital and labour. For second-class paddy land, paying an annual rental of Rs. 1/8 a *bighá*, or 9s. an acre, the Collector reports that a fair average out-turn would be about half that obtained from superior rice land. Rice lands in Bánkurá rarely yield a second crop. The rates of rent paid for land yielding different descriptions of crops will be afterwards given in detail.

CONDITION OF THE PEASANTRY.—The Collector, in his report to me in 1871, stated that, judging from the mode of living and the general condition of the rural classes of Bánkurá District, it would seem that a holding exceeding fifty *bighás* or seventeen acres in extent would be exceptionally large, while one below ten *bighás* or three and a third acres would be exceptionally small. A farm consisting of thirty *bighás* or ten acres of all descriptions of land would be considered a fair-sized comfortable holding for a cultivator. A peasant with a small farm of fifteen *bighás* or five acres would not be so well off as a respectable retail shopkeeper, or as a man drawing a pay of Rs. 8 or 16s. a month. The peasantry are almost invariably in debt. Very few cases occur of small proprietors who own, occupy, and cultivate their hereditary lands without either a superior landlord above, or a sub-tenant or labourer or *krishán* below them. Up to 1871, only 38 husbandmen had been acknowledged by the Courts as entitled to hold their lands with a right of occupancy, and only 26 as possessing rights to hold their land in perpetuity without liability to enhancement of rent. The Collector states that Rs. 9 or 18s. in money per mensem, or its equivalent value in produce, etc., will enable a peasant to support comfortably a middle-sized household.

THE DOMESTIC ANIMALS of Bánkurá District used for purposes of agriculture are buffaloes and oxen. Cows, oxen, buffaloes, sheep, goats, and pigs are reared for food and as articles of trade. The price of an average cow is from Rs. 15 to Rs. 20, or from £1, 10s. to £2; a pair of oxen from Rs. 30 to Rs. 50, or from £3 to £5; a pair of buffaloes from Rs. 40 to Rs. 60, or from £4 to £6; a score of sheep from Rs. 30 to Rs. 45, or from £3 to £4, 10s.; a score of kids six months old, from Rs. 25 to Rs. 30, or from £2,

10s. to £3; a score of full-grown pigs, from Rs. 50 to Rs. 60, or from £5 to £6.

THE AGRICULTURAL IMPLEMENTS in common use are the following:—(1) *nángal* or plough; (2) *kodáli* or spade; (3) *mai* or harrow; and (4) *káste* or reaping-hook. The cattle and implements necessary for cultivating what is technically known as 'a plough' of land, equal to about twelve *bighás* or four acres, and their cost, are as follow:—One pair of oxen, value about Rs. 40 or £4; plough, 12 ánnás or 1s. 6d.; spade, Rs. 1/8 or 3s.; harrow, 6 ánnás or 9d.; sickle, 2 ánnás or 3d. The total cost of cattle and implements represents a capital of about Rs. 42/12 or £4, 5s. 6d.

WAGES AND PRICES.—Wages have considerably increased of late years. The present wages of coolies and of agricultural day-labourers are returned at 2 ánnás or 3d. per diem; those of smiths, from 3 to 4 ánnás, or from 4½d. to 6d. per diem; carpenters, from 3 to 5 ánnás, or from 4½d. to 7½d. per diem. Bricklayers generally work on contract, and are paid by the job. Wages of labourers, etc. in former days are stated to have been about one-half of their present rates. Prices of grain and other produce have also increased considerably of late. The Collector in 1871 returned the price of the best cleaned rice at Rs. 1/10 a maund, or 4s. 5d. a hundredweight, and of the best unhusked rice at 13 ánnás a maund, or 2s. 2d. a hundredweight; common rice, such as that used by labourers and the poorer classes, Rs. 1/4 a maund, or 3s. 5d. a hundredweight; and common unhusked rice, 10 ánnás a maund, or 1s. 8d. a hundredweight; unshelled barley, Rs. 1/10 a maund, or 4s. 5d. a hundredweight; shelled barley, Rs. 2 per maund, or 5s. 5d. a hundredweight; Indian corn, Rs. 1/4 a maund, or 3s. 5d. a hundredweight; wheat, Rs. 3 a maund, or 8s. 2d. a hundredweight; sugar-cane, about 10 ánnás a maund, or 1s. 8d. a hundredweight; common distilled country spirit, about 8 ánnás or 1s. a quart; *pachwai*, or fermented rice beer, 4½ pies or about a halfpenny a quart; and *hariá*, another fermented liquor, 2 pies or about a farthing a quart.

Eleven years previously, in 1860, prices were returned as under:—Best cleaned rice, Rs. 1/1 a maund, or 2s. 10½d. a hundredweight; common rice, 15 ánnás a maund, or 2s. 6½d. a hundredweight; shelled barley, Rs. 2 a maund, or 5s. 5d. a hundredweight; unshelled barley, Rs. 1/8 a maund, or 4s. 1d. a hundredweight; Indian corn, 12 ánnás a maund, or 2s. a hundredweight; wheat, Rs. 2 a maund, or 5s. 5d. a hundredweight; sugar-cane, 4¼ ánnás a

maund, or 8½d. a hundredweight; indigo, Rs. 265 a maund, or £36 a hundredweight. Distilled and fermented spirits were at about the same price as at present.

WEIGHTS AND MEASURES.—Various weights are used in this District. Colonel Gastrell states: 'In the Bishnupur and many other principal *bázárs*, the standard *ser* of 80 *tolá* weight (2 lb. 0 oz. 14½ drs. avoirdupois) has been adopted. But in the western villages a *ser* of 98 *tolá* weight (2 lb. 8 oz. 5 drs. avoirdupois) is still in use at most of the markets; and at the same time a smaller *ser* of from 60 to 65 *tolá* weight (from 1 lb. 8 oz. 11 drs. to 1lb. 10 oz. 11⅞ drs. avoirdupois). The chief object in having these different-weighted *sers* is apparently that, by using them, the grain merchants, when bartering at the *háts* or markets with the peasants, are able to take advantage of their ignorance, and gain by the exchange more than they would do were but one weight in use. As with weights, so with measures. Three or four kinds are used, all based, however, on the weights above mentioned,—that is, the one *ser* rice measure may be for the 98, 80, 65, or 60 *tolá ser* weight; and the five *ser* (*pasuri*) measure also. A village merchant, when lending grain for seed, will use the 98 *tolá* measure, and when the time comes for payment, will, if he can, use the 60 or 65 *tolá* measure. It is true that he calculates how many *sers* of one weight will be equivalent to a certain number of *sers* of the other, and that he calculates this fairly enough. But he gains, nevertheless; for the diameter of both measures is the same, and it is customary in measuring out grain to heap it up as much as possible. Each measure is thus somewhat overweight. By using the heavy weight or large measure in lending, he gives overweight the smallest number of times; and by using the light weight or small measure in repaying himself, he gains the overplus the greatest number of times.

'The old land measure in Bánkurá District was as follows:—1 *káni* = 12 *chhatáks* Bengal standard measure, or 1 pole 22 yards 5 feet; 40 *káni* = 1 *oáni* 3 *káthá*, or 7 poles 28 yards 2 feet; 50 *oánis* = 1 *árhi* 7½ *bighás*, or 2 acres 2 roods 18 poles 19 yards 8 feet; 4 *árhi* = 1 *drun* = 30 *bighás*, or 10 acres 1 rood 34 poles 19 yards 7 feet. The Bengal standard *bighá*, which was introduced with the Revenue Survey operations, is equal to 1600 square yards, and is divided thus:—20 *gandá* = 1 *chhaták*, or 5 square yards; 16 *chhaták* = 1 *káthá*, or 80 square yards; 20 *káthá* = 1 *bighá*, or 1600 square yards. There is another division of the standard *bighá*, as follows:

—16 *gandá* = 1 *biswansi*, or 4 square yards ; 20 *biswansi* = 1 *biswá*, or 80 square yards ; 20 *biswá* = 1 *bighá*, or 1600 square yards.'

LANDLESS LABOURING CLASSES.—The Collector states that the growth of a distinct class of day-labourers in the District, neither possessing nor renting any land, is checked by emigration. A large number of the labouring population of Bánkurá have proceeded to the tea districts of Assam, Káchár, Silhet, etc. Besides these, there are many others who, although unwilling to emigrate to such distant places, leave the District to seek employment on the railway or public works in different parts of the country. These migrations have much thinned the labouring population of the District. Agricultural labourers employed in cultivating the lands of others are called *krisháns* and *máhindárs*, and are usually paid wages at the rate of from Rs. 30 to Rs. 36, or from £3 to £3, 12s. 0d. a year. In the cases where *krisháns* supply the seed and cattle for cultivation, as well as give their own labour, they are generally remunerated by a one-half share of the produce of the land. Women and children are not largely employed in field labour.

SPARE LAND.—Spare land fit for tillage is scarce in Bánkurá District. Tenures, however, are not unfavourable to the cultivators ; and that there is a certain quantity of surplus cultivable land is shown by the fact that there is a class of peasants who only hold their lands on a yearly lease, and lead a wandering life from village to village, settling down for the time being wherever they can get their temporary holdings on the best terms. These cultivators are called *sájás*, and they pay their rent in kind. This system is generally the result of sub-infeudation and idleness on the one hand, and of unsettled habits and poverty on the other. As a rule, all the cultivable lands are included in the general measurement paper, and are duly settled for. In Bánkurá, as in most Districts of Bengal, land is let and sublet to a great extent, and many middle-men come between the proprietor of the land and the actual cultivator. The greater quantity of the land of the District has passed from the hands of the *sadr zamíndár*, or superior landlord, into those of intermediate holders. The different tenures current in the District, from the landed proprietor down to the actual cultivator, are described below.

LAND TENURES.—The following description of the different varieties of land tenure in Bánkurá District is condensed from a report on the subject drawn up by Bábu Ratan Lál Ghosh, Deputy

Collector, dated 17th March 1873, and forwarded to the Government of Bengal by the Collector of the District on the 21st March 1873 :— The tenures are divided into four classes,—(1) Tenures held directly from Government ; (2) intermediate tenures ; (3) cultivating tenures ; (4) service tenures ; and (5) rent-free tenures. The first class consists of the *zamíndáris*, with the proprietors of which a settlement was made at the time of the Decennial Settlement ; independent *táluks*, which were separated from the parent *zamíndáris* under Regulation viii. of 1793 ; *lákhiráj* tenures resumed and settled by Government ; service tenures held at quit-rents payable to Government ; and lands temporarily settled by Government and farmed out. The peculiarity of each of these different tenures is thus described :—

ZAMINDARIS AND INDEPENDENT TALUKS.—In the last century, *parganá* Bishnupur, the original territory, and afterwards the *zamíndárí*, of the Rájá of Bishnupur, was the only estate in the District. In 1790 A.D., or 1197 Bengal era, a settlement of the estate was made by Government with Rájá Chaitan Sinh, and the land tax fixed at *sikká* rupees 400,000, equivalent to £43,333, calculating the *sikká* rupee at 2s. 2d. This settlement was accepted by the Rájá ; but soon after the execution of the agreement, the *parganá* split up, separate engagements being taken from the proprietors of the *táluks* which had become independent of the parent estate. Subsequently, parts of the old estate of Bishnupur were from time to time detached and sold for realization of the Government revenue due from it, and thus originated the ten estates of the present District of Bánkurá, viz. (1) Bishnupur, (2) Bára Hazárí, (3) Karisundá, (4) Jungle *Mahal*, (5) Kuchiá-koḷ, (6) Panchál, (7) Jámtárá, (8) Máliárá, (9) Shahrjorá, and (10) Kismat Shahrjorá. One of these, the Jungle *Mahal*, requires especial mention. Large portions of the old estate of Bishnupur were under jungle, and the timber and firewood, honey, wax, etc., thence produced, formed a considerable source of revenue to the Bishnupur Rájá. The right of collecting these jungle products was farmed out by the Rájá, and the revenue he derived from it was called the Jungle *Mahal*, and had nothing to do with the land. But afterwards, when it was formed into a separate estate, the name of Jungle *Mahal* was given to the whole area, some part of which was cleared and cultivated, while the rest remained covered with jungle. The Rájá of Bishnupur, who held the estate, was incorrigible in his non-compliance with the revenue demand, and on the 9th August 1806 it was sold by auction. At

that time no individual would bid above £15,000, and the Government became the purchaser for that sum. On the 12th November in the same year, it was put up again for sale by Government, and purchased by the Mahárájá of Bardwán for £21,500, and still remains in the possession of the Bardwán family.

Resumed Lákhiráj Estates.—There are altogether 858 Permanently Settled Estates entered on the rent-roll of the District. Deducting the 10 large estates mentioned in the last paragraph from this total, there remain 848. These are estates which were formerly held rent-free (*lákhiráj*), but which were afterwards resumed by Government and assessed. Most of these were at first settled temporarily, contrary to the rules laid down in Regulations xix. of 1783, section 8, and xiii. of 1825, section 5. This error was not rectified till January 1866, when by a circular order of the Board of Revenue it was provided that all settlements of resumed *lákhiráj mahals* should be revised, and settlements in perpetuity on the basis of the old *jamá-bandi* (assessment) papers be effected with the proprietors, and that no change in the rate of rent should be made unless it was avowedly lower then what it would have been had a permanent settlement been originally effected. The owners of these estates have the same rights and liabilities as the independent *tálukdárs* (*vide* section 7, Regulation xix. of 1793), with whom the well-known Decennial Settlements were concluded. All the permanently settled estates are hereditary and transferable without the permission of Government, and the land tax has been formally declared to be fixed for ever, and on no account to be enhanced. In cases of alluvial accretion to an estate, however, the newly-created lands are assessed under Regulation xi. of 1825; and in practice it has now and then been found expedient by Government to allow an equitable abatement of the fixed revenue when a considerable portion of the lands of an estate is washed away by a river. For the punctual realization of Government dues from the estates, the revenue sale law makes them, in case of default, liable to sale periodically every year; and an auction-sale purchaser of an estate, with but few restrictions, is recognised as if he were the person with whom the original settlement of the estate was made by Government.

Khás or Government Estates and Farmed Estates.—Besides the 858 Permanently Settled Estates, there are 4 estates of which the Government is the *zamíndár* or proprietor, and 5 Temporarily Settled Estates let out in farm (*ijárá*). Of the 5 *ijárá* estates,

three have been settled for 30 years each, one was under re-settlement in 1873, and the fifth is leased out for an indefinite period.

Ghátwáli Estates.—In addition to these, there are 43 estates held by *ghátwáls* entered on the District rent-roll, and subject to the payment of a light quit-rent to Government. The *panchaks* or quit-rents of these estates were originally payable to the Rájá of Bishnupur on account of the service lands held by the *ghátwáls*, or officers appointed for the defence of certain passes against the ingress and inroads of the Marhattás and others, who made frequent plundering expeditions into the country. At the time of the Decennial Settlement, these *ghátwáli* estates and other service lands were, by section 41 of Regulation viii. of 1793, annexed to the *málguzári* or regular rent-paying lands, and declared liable to the revenue demand.

In 1802 it was found necessary, for the purpose of utilizing the *ghátwáls*, to place them immediately under the English officer in charge of the District. The Bishnupur Rájá, finding that he had no control over their services, and that they often caused him heavy pecuniary loss by withholding payment of the *panchaks* due by them, applied to the authorities to get rid of them, and to be allowed an abatement of the revenue paid by him to the State corresponding to the amount payable to him by the *ghátwáls*. This abatement was made accordingly, the *ghátwáls* were taken over by Government, and the 43 *ghátwáli mahals* were entered on the District register of estates. *sardárs*, who are at the head of these quasi-military bodies of men, are held responsible for the punctual payment to Government of the *panchak* or quit-rent formerly paid to the Rájá. The lands held by the *ghátwáls*, and their superior officers the *sardárs* and *sadiáls*, have been assessed at merely nominal rates, and their rents scarcely ever fall into arrear. Up to 1873, only one instance had occurred in which Government had any real difficulty in recovering arrears of *panchak*, and in this case the amount of the arrears was paid by the candidate nominated for the defaulter's place. In cases of default, the Collector ordinarily issues a written order to the *sardárs* through the police, and all arrears are at once paid. The *ghátwáli* tenures of Bánkurá are neither transferable nor hereditary, differing in this respect from the lands held by the *ghátwáls* of Bhágalpur and Bírbhúm, who appear to have a hereditary title to their lands. As a rule, however, the male heirs of the Bánkurá *ghátwáls* are appointed to their fathers'

posts, unless there should be some strong objections to this course. The heir usually gets a new *sanad* of office; and if he is a minor, a servant or his guardian officiates for him until he comes of age. Although the *ghátwáli* lands are not alienable by right, the *ghátwáls* contrive to encumber them by deeds of all descriptions short of out-and-out sale. They mortgage them, and grant *mukarrarí* and *maurusí* leases; but inasmuch as a *ghátwáli* tenure only endures during the personal exercise of his functions by the *ghátwál*, such encumbrances are easily voidable, and are the source of much fraud and oppression. To the 43 *ghátwáli* estates are attached 44 *sardárs*, 35 *sadiáls*, and 360 lowest grade *ghátwáls*; and the service lands measure upwards of one *lákh* of *bighás*, or over thirty-three thousand acres. The *sardárs* have always held the lion's share of these lands since the date of their original allotment. No record exists in the Collector's office to show on what express conditions the Rájá of Bishnupur parted with the *ghátwáli* lands, when he obtained from Government an abatement of £500 from the land tax of his estate.

Shikmí Tenures.—There is a class of tenures of a peculiar nature, created by Government at the settlement of the resumed *lákhiráj* villages. The revenue of *shikmí* estates is paid to Government through the proprietors of the villages in which they are situated. During the investigations which were made into the validity of the rent-free tenures of the district, several villages were discovered to be held under invalid *lákhiráj* grants. They were resumed; and in the course of the measurement and assessment of the tenants' holdings preliminary to the settlement of the village by Government, several small *lákhiráj* holdings were found. These were separately measured and assessed. Their proprietors were called upon to enter into a settlement on the same principle as observed in the settlement of the entire village,—half the assets was allowed to them as profits, etc., and half as the revenue due to Government. Thus came into existence the *shikmí mahals*, the revenue of which is paid to Government. But for convenience sake, the proprietor of the entire *mahal* was at the time of the settlement of it entrusted with the collection of the revenues due from his *shikmídárs*, and was allowed 10 per cent. on the collections as his remuneration. The status of a *shikmídár* is at present equal to that of a dependent *tálukdár* with transferable and hereditary rights; for in several suits brought by the superior holder for recovery of arrears of rent, it has been held that the relation of landlord and tenant exists between

the parties. It is a moot point, however, whether the sale of a *shikmí* for arrear decrees will entitle the purchaser to acquire the tenure free of all encumbrances, as in the case of an ordinary under-tenure sold under the rent law; for a *shikmídár* has essentially proprietary rights. The Government revenues paid by the *shikmídárs* are fixed in perpetuity, and are not subject to enhancement. *Shikmí* tenures may be found in almost every part of the District; they number 748.

INTERMEDIATE TENURES.—The second class of tenures consists of estates held under the *zamíndárs* or other superior tenure holders. They comprise (*a*) *patní táluks* with their subordinate tenures, called *dar-patní* and *se-patní*; (*b*) *mukarrarí táluks*, (*c*) *istimrárí táluks*, (*d*) *ijárá* and *dar-ijárá*, (*e*) *zar-i-peshgí ijárá*. The following is a brief description of each of these tenures:—

Patní, dar-patní, and se-patní táluks.—It has been already mentioned that the Rájá of Bishnupur's estate became broken up towards the end of the last century, and that in 1806 a considerable portion of it was purchased by the Mahárájá of Bardwán. The Mahárájá gradually became the proprietor of four of the most important estates in the District, namely, Bishnupur, Bára-hazári, Karisundá, and Jungle Mahal, paying a total Government land revenue of £35,973. On these estates coming into his possession, he created the under-tenures known as *patní táluks*, similar to those in existence on his large estates in Bardwán and other Districts. A *patní* tenure is in effect a lease which binds its holder by the same terms and conditions as those by which the superior landlord is bound to the State. By Regulation xliv. of 1793, the proprietors of an estate were allowed to grant leases for a period not exceeding ten years; but this provision was rescinded by section 2 of Regulation v. of 1812; and by Regulation xviii. of the same year, proprietors were declared competent to grant leases for any period, even in perpetuity. In the preamble to Regulation viii. of 1819, it is distinctly declared that *zamíndárs* are at liberty to grant *táluks* or other leases of their lands, fixing the rent in perpetuity, at their discretion, subject to the liability of their being annulled on sale of the lessor's estate for arrears of the Government revenue. In the exercise of the privilege thus conceded to *zamíndárs* under direct engagement with Government, there has been created a tenure which had its origin on the estates of the Rájá of Bardwán, but has since been extended to other *zamíndárís*. It may be described as

a *táluk* created by the *zamíndár*, to be held by the lessee and his heirs for ever at a rent fixed in perpetuity; the tenant is called upon to furnish collateral security for the rent and for his conduct generally, or he is excused from this obligation at the *zamíndár's* discretion. All subordinate tenures in perpetuity, or for a longer period than ten years, were declared valid, although created previous to the passing of Regulation xviii. of 1812. The *patní* sale law (Regulation viii. of 1819) is a great boon to *zamíndárs* who have leased out their estates in *patní táluks*. A summary process is provided for the punctual realization of the rent due from the *patnídárs;* and Collectors are directed, twice in every year, at the instance of the *zamíndárs*, to sell *patní* tenures in arrear. The sale purchaser of a *patní táluk* obtains it free of all encumbrances which may have been created by the defaulting tenant, 'unless the right of making such encumbrances shall have been expressly vested in the tenant by a stipulation to that effect in the written engagements under which the said *táluk* may have been held.' He is not entitled, however, to eject 'a *khúdkást rayat*, or resident and hereditary cultivator,' or to cancel *bonâ fide* engagements made with such cultivators by the late tenant or his agent, except it be for an enhancement of their rent by means of a regular suit in the Civil Court. By the same Regulation (viii. of 1819), *patní táluks* are declared to be hereditary, transferable, and valid in perpetuity; and *patnídárs* are entitled to create under-tenures 'in any manner they may deem most conducive to their interest.' The Bánkurá estates belonging to the Mahárájá of Bardwán contain 341 *patní táluks*. The number of *patní táluks* on other estates in the District is not definitely known. *Dar-patní* is a subordinate *patní* tenure created by the *patnídár*. It is a tenure in perpetuity, transferable and hereditary, and conferring on its holder the same rights and privileges as that of a *patnídár* holding direct from the *zamíndár*. Section 13 of Regulation viii. of 1819 provides rules for staying the sale of a *patní* if it takes place by the intentional withholding of payment of rent by the *patnídár* with the object of ruining his subordinate tenure-holders. In such a case, the under-tenants are allowed the means of saving their tenures, by paying into the Collector's office the advertised balance due to the *zamíndár*. If the under-tenants are themselves in arrear, the deposit is credited to the account of the rent due by them; if they are not in arrear, the amount is considered

proprietor of the tenure preserved from sale. The *táluk* so preserved is held to be the security to the depositors, who have a lien thereupon, in the same manner as if the loan had been made upon mortgage. The depositors may then apply to the Collector for obtaining immediate possession of the defaulter's tenure; and the defaulter will not recover his tenure 'except upon repayment of the entire sum advanced, with interest at the rate of 12 per cent. per annum up to the date of possession having been given as above, or upon exhibiting proofs, in a regular suit to be instituted for the purpose, that the full amount so advanced, with interest, has been realized from the usufruct of the tenure.' *Se-patní*, or a *patní* of the third degree, is also a *táluk* in perpetuity, hereditary and transferable, the holder of which has the same rights and privileges as a *dar-patnídár* or *patnídár*. It is not known how many *dar-patní* and *se-patní* estates exist in Bánkurá District. At the creation of these subordinate *táluks*, a bonus is generally paid by the *tálukdár* to his superior tenant.

Mukarrarí Táluks.—At the time of the Decennial Settlement, all *mukarraridárs* who held lands of which they were not the actual occupants, and whose *mukarrarí* grants had been obtained since the Company's accession to the *diwání* or financial administration of the country (12th August 1765), were dispossessed; and those who had held possession of their *mukarraris* for a term exceeding twelve years were allowed during their lives an annual grant of money compensation, *i.e.* the difference between the rents they paid and the rent at which their lands were accepted by the *zamíndárs*. The old *mukarrarí* tenures which existed in Bengal prior to the Decennial Settlement were thus almost all abolished. The *mukarrarí táluks* subsequently created by a *zamíndár* or *tálukdár* are not numerous in Bánkurá District. The few that exist have definite rights expressed in the written engagements by which they are created. Their rents are not subject to enhancement, but they are saleable for arrears. It has been decided by the High Court, and also on appeal by the Privy Council, that unless such definite words are used in the lease as would make the tenure hereditary (*e.g. maurúsí, ba-ferzandan, nasl imbád nasl*, or the like), or unless the hereditary nature of the tenure can be inferred from the general language of the lease, it must be considered to be for the life of the tenant only, and to terminate with his death. In the lease of a *mukarrarí táluk*, it is usually specified that it shall be hereditary. At the creation of a *mukarrarí*

tenure, the lessee pays a bonus or *salámí*. *Dar mukarraris* are subordinate to *mukarraris*, and are created by the *mukarraridár*. These tenures are also of a fixed nature, and the rights of the tenant are stated in a written contract. These rights are the same in every way as those of the superior holder or *mukarraridár* who created the tenure. *Dar-mukarrarí* tenures, however, are very few in number in Bánkurá.

Istimrárí Táluks are not numerous. All those found in Bánkurá District are said to have been created by proprietors of estates subsequent to the Decennial Settlement. The rights and privileges of *istimráridárs* are exactly similar to those of *mukarraridárs*, and bonuses are also paid by the tenants at the time of the execution of the lease. *Dar-istimrárí táluks*, or *istimráris* of the second degree, are very rare.

Ijárá and Dar-ijárá.—The status of *ijárádárs*, or farmers, and their subordinate *dar-ijárádárs*, differs considerably from that of the other intermediate tenure-holders described above. *Ijárádárs* hold under-leases, by which a definite amount of annual rent is fixed for a specified term, usually varying from five to thirty years. *Ijárá* leases are granted not only by the *zamíndárs* or superior landlords, but also by the most subordinate *táluk*-holder in an estate. Like *tálukdárs*, the *ijárádárs* cannot relinquish their tenures without the consent of their superior tenure-holders; and on the other hand, the superior tenant cannot enhance the rent of an *ijárá* lease during its term. On the expiry of a lease, however long its term may have been, the *ijárádár* is not entitled to its renewal; he may be ousted, and a fresh *ijárá* lease, at any rate of rent and for any period, may be granted to a person other than the ex-*ijárádár*; or the superior tenant may not make any *ijárá* settlement at all. If the *ijárádár* is not specifically, by the conditions of his lease, debarred from creating an under-tenure, he occasionally creates a *dar-ijárá* tenure, the term of which cannot, of course, be longer than that of his own lease. Either an *ijárádár* or *dar-ijárádár* is entitled to enhance the rent of a husbandman's holding within his farm.

Zar-i-peshgí Ijárá.—This is another mode by which an *ijárá* lease may be created. It may be granted for an unspecified term of years, and made terminable on certain conditions. This happens when a *tálukdár* or other tenant mortgages his estate as security for a loan. The term expires when the mortgagee has recovered the amount of debt and interest from the proceeds of the property.

These transactions are called *zar-i-peshgí ijárá*, or *ijárá* on an advance of money, and are much in vogue in this part of the country. Even actual cultivators often give a *zar-i-peshgí ijárá* of their lands to the village *mahájans*.

CULTIVATING TENURES.—The third class of tenures consists of lands held by actual cultivators. They comprise (*a*) *jamá* or *jot*, (*b*) *miádi jamá*, (*c*) *mukarrarí* and *maurúsí jamá*, (*d*) *korfá* and *dar-korfá*, and (*e*) *bhág jot*.

Jamá or *Jot*.—Cultivators' holdings called *jamá* or *jot* are generally held without any sort of written engagement. The lands remain in the possession of one family from generation to generation, and in most cases without any document of title. By the custom of the country, a *rayat*, whether resident or non-resident, is allowed to hold his fields undisturbed so long as he pays the rent, together with the fixed and occasional *abwábs* or cesses, to his landlord. But where his immediately superior landlord is an *ijárádár*, with only a temporary lease, the relations are more strained. An ordinary *jamá* can only be sold with the permission of the superior holder, who may refuse to register the name of a purchaser thereof in his records unless the sale takes place with his consent, or unless it is subsequently ratified by him. This consent or ratification may be secured in two ways,—first, by payment of a bonus or *salámí*; secondly, by the recognition of the purchaser's occupation on the part of the *zamíndár* or his agent, by receiving rent from him and granting him receipts. When a *jamá* is sold by a civil court in satisfaction of a decree, the purchaser becomes the *rayat* whether his name is entered in the *zamíndár's* records or not. A *jamá* holding cannot legally be divided without the express consent of the superior holder. But in practice a *jamá* is divided into as many parts as suit the convenience of the *rayats* who hold it, and the total rent contributed by the different holders thereof is paid by one of them to the *gumáshtá* or rent-collector. An ordinary *jamá* is not by law hereditary, yet in practice it descends from father to son without objection. For the protection of the old hereditary tenants, Act x. of 1859 (and subsequently Act viii. [B.C.] of 1869) provides that in a suit between landlord and tenant, the latter shall be presumed to have held his tenure at a uniform rate of rent since the date of the Decennial Settlement, if he can prove payment of an unvaried rent for the last twenty years. This presumption, though it may be rebutted by the landlord, has practically become

almost irresistible, for it is scarcely possible for him to show that the rent has varied since the Decennial Settlement, or that the tenure has been created subsequent thereto. A *rayat*, whether having a *pattá* or lease or not, may be called upon by his landlord to pay an enhanced rent for the following year, after notices to that effect have been issued through the Collector of the District. If the *rayat* has a right of occupancy, his rent must be a fair and equitable one; and he cannot be forced to pay an enhanced rent if it is not proved either that his rent is lower than that paid by the generality of other *rayats* of the same class, and with similar advantages of cultivation; or, secondly, that the value of produce or the productive powers of his lands have increased otherwise than at the expense or by the agency of such *rayat;* or, thirdly, that his actual holding is larger than that for which he pays rent. The *rayats* can relinquish their holdings by giving a notice to the superior holder, either directly or through the Collector of the District. Again, if the superior holder refuses to take the rent from a *rayat*, the latter may deposit the amount in the Civil Court.

Miádi Jamá.—The holding of a cultivator with but a temporary interest in his land, which he holds for a fixed term of years under a *pattá* or lease, is called a *miádi jamá.* He cannot relinquish his tenure before his term expires, without the consent of the superior holder; and on the other hand, the superior holder cannot enhance his rent, nor can he eject him, before the expiry of the lease. This lease is sometimes called an *ijárá* lease.

Jangalburí Jamá.—When waste lands are leased out for the purpose of being cleared of jungle and brought under cultivation, the tenure is known by the name of *jangalburí.* Such lands are generally assessed at progressive rates of rent, payable after a certain number of years, during which no rent is paid. The rights of these tenants are of a permanent and fixed nature. In Bánkurá District there are large tracts of waste land on which *sál* timber grows in abundance; and these jungle tracts are at the present day the source of greater profit to the owners than they would be if reclaimed and brought under the plough. Several *zamíndárs* and *tálukdárs* have leased out their jungle lands at a small annual rent, and others retain them in their own immediate possession. The timber trees are kept growing, and the land on which they grow is cleared of the useless weeds. The expense of protecting the timber from being cut and carried away by trespassers and thieves is but a

trifle when compared with that of clearing the jungle and making the land fit for cultivation. The owners of such protected timber lands sell their timber every fifth, eighth, tenth, or twelfth year, at highly remunerative prices. Thus, in the case of estates containing extensive areas of jungle, the waste lands, which are assessed at a very low rate of rent, are by far the most profitable portion.

Mukarrarí and *Maurúsí Jamá.*—Some of the cultivators hold lands under leases called *mukarrarí* and *maurúsí*, the chief stipulations of which are, that the rent is subject neither to enhancement nor abatement, and that the tenure descends from father to son. These leases are generally granted on the payment of a bonus or *salámí* by the tenant. *Mukarrarí* is a Persian word, derived from *karár*, meaning fixed; and *maurúsí*, also a Persian word, from *mirás*, or ancestor. Some leases are *mukarrarí* only, and others merely *maurúsí*. *Mukarrarí pattás* have been held by the High Court to convey the right of paying the fixed rent mentioned therein without change only during the life of the leaseholder. Simple *maurúsí*, or hereditary tenures, with no fixed rate of rent specified, are very rare. When a lease creates a *jamá* transmissible to the children and grandchildren of the lessee, and at the same time reserves the granter's power of assessing any land that may, after the execution of the lease, be found in excess of the specified area, the *jamá* is a simple *maurúsí* one.

Korfá and *Dar-korfá.*—A sub-*rayati*, or tenure subordinate to that of and created by an ordinary cultivator, is called *korfá*. The chief peculiarity of this tenure is that its holder, although he is the cultivator of the land, does not acquire a right of occupancy by length of occupation. *Korfá* tenures are generally created verbally. In some cases there are also *dar-korfádárs*, or *rayats* holding under *korfádárs*, and with the same rights, etc. as the superior tenants.

Bhág Jot.—Bhág, a Bengali word meaning share, is applied to a tenure in which the tenant has the use of a husbandman's land for a year or season, and pays as rent a certain share of the produce of the land. Ordinarily one-half of the produce is so paid. In that case the *bhág jotdár* cultivates the land with his own cattle and plough, and also finds seed and manure. Occasionally the superior tenant who engages the *bhág jotdár* finds the manure, in return for which he receives the straw in addition to his half-share of the produce. Another class of *bhág* tenants pay as rent two-thirds of the

produce. In these cases the husbandmen who let out their land in *bhág jot* supply the cultivators with seed, manure, and the use of their cattle. A *bhág jotdár* is a mere tenant at will, and liable to be ousted by the superior tenant as soon as a single crop is grown and cut. Where, however, he is allowed to hold on for twelve years or upwards, he may, if not a subordinate *rayat* or *korfádár*, and if not barred by express stipulation, acquire a right of occupancy.

SERVICE TENURES.—The fourth class of tenures consists of lands held either entirely rent-free (*be-panchak*), or liable to a nominal quit-rent (*panchak*), as described below.

Service lands.—Service lands paying *panchak* or quit-rent are of two classes, namely, those that pay the *panchak* to Government direct, as noticed in a previous paragraph, and those that pay it to the *zamíndár* in whose estates the lands are situated. In Máliárá, *be-panchak*, or entirely rent-free *ghátwálí* tenures, exist; and in Gangájalghátí police circle the *ghátwáls* pay their *panchaks* to the *zamíndárs* or *tálukdárs*. Two classes of public servants still receive their wages from the produce of service or *chákrán* land given to them in lieu of their services, namely, the *ghátwáls* and *chaukídárs*. The nature of the 43 *ghátwálí* tenures has been described in a previous paragraph. The total number of *ghátwáls* of all descriptions who are public servants in Bánkurá District, exclusive of the recently annexed *parganá* of Mahisárá, is returned as under:—*Sardárs*, 131; *sadiáls*, 325; *tabídárs* or *ghátwáls*, 2699: total, 3155. Besides these there are many *chaukídárs*, or village police, who also receive their wages from the produce of *chákrán* lands, a mode of remuneration which has been in existence from time immemorial. The *panchaki* or quit-rent system came into vogue at a subsequent period, when totally rent-free grants were looked upon as an infringement of the conditions on which a *zamíndárí* was supposed to be held. The *zamíndárs*, on the one hand, were fond of making grants of land rent-free to their relations and dependents, etc., and thereby securing a future source of income to themselves in case they should be deprived of their *zamíndárís;* and the Government, on the other hand, was jealously on the alert to invalidate as many rent-free grants as came to its knowledge. Thus originated those classes of private service tenures and grants by the *zamíndárs* which are practically rent-free, but for which the grantees paid *panchaks* or quit-rents in order to evade detection by Government officials. There are in some parts of the District *bráhmottar* lands, and other

tenures devoted to charitable or religious purposes, which still pay certain quit-rents to the *zamíndárs.*

In a letter from the Rájá of Bishnupur to the Judge of Bánkurá in 1845, he gives the following list and description of the various *panchaki mahals* which prevailed in the territory of his ancestors:—(1) *Senápati mahal—panchak* paid for service lands held by the commanding officers of the army. (2) *Mahal-berá mahal—panchak* paid for service lands held by the guards of Bishnupur fort. (3) *Chharidhárí mahal—panchak* paid for service lands held by the Rájá's macebearers. (4) *Bakhshí mahal—panchak* paid for service lands held by *bakhshís* or military paymasters. (5) *Káshtha-bhándár mahal—panchak* paid for service lands held by the suppliers of fuel for the Rájá's palace. (6) *Shagirdi-pesha mahal—panchak* paid for service lands held by private servants of the Rájá, such as *khávás, khidmatgárs, námhátás, gatáits*, etc. (7) *Krot mahal—panchak* paid for service lands held by the court officials of the Rájá, such as *díwán*, etc. (8) *Topkháná mahal—panchak* paid for service lands held by the gunners. (9) *Dom mahal—panchak* paid for service lands held by drummers and musicians. (10) *Kaharan mahal—panchak* paid for service lands held by palanquin bearers. (11) *Khátáli mahal—panchak* paid for service lands held by coolies and labourers for working in the fort. (12) *Hátilá mahal—panchak* paid for the sites of markets at Bishnupur. (13) *Betalabi mahal—panchak* paid by lands granted by the Rájá for charitable and religious purposes. The majority of these tenures have been abolished by the Mahárájá of Bardwán; but the service and rent-free *panchaki* lands granted by the Rájá of Bishnupur for religious purposes have not been interfered with, though some of such service lands have lapsed to the proprietor of the estate on the decease of the servants who formerly enjoyed them. *Panchaki lákhiráj* tenures are still to be found in *parganá* Bishnupur.

RENT-FREE TENURES form the fifth and last class of landed estates in Bánkurá District. Several varieties of this tenure exist, but none prevail to any considerable extent. Lands granted for religious purposes, such as *bráhmottar, sivottar, debottar*, etc., by Hindus, and *pírottar, chirágán*, etc., by Muhammadans, are found in many villages. Besides these there are several other rent-free tenures granted for charitable purposes, and numerous small rent-free holdings, which do not appear to have been assigned for any special purpose. All

(Act xiv. of 1859, and its amending Act, No. ix. of 1871); and the rulings of the High Court have now finally decided that twelve years' possession of rent-free lands bars the proprietor of the estate in which they are situated from resuming them; but that in the case of an auction purchaser of any such estate, the cause of action begins anew, and the said period of limitation commences to run from the date of such purchase. Rent-free tenure holders, whether paying *panchak* or not, have several classes of *rayats* directly under them, and in some cases middle-men, generally *mukarraridárs* or *tálukdárs*, to whom the *rayats* holding or cultivating the said lands pay their rent. Some proprietors of small rent-free holdings are simple cultivators, who either cultivate their rent-free lands themselves, or sub-let them to a *jotdár* or *bhág jotdár*.

RATES OF RENT.—The ordinary rates of rent prevailing in the Bishnupur estate for the different qualities of land, at or about the time of the Permanent Settlement (1793), are returned as follows:—*Sáli jol*, or low marshy rice land—1st class, Rs. 2. 6. 0 a *bighá*, or 14s. 3d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre. *Sáli kanáli*, or low rice land bordering on river banks or marshes, or lying between high lands—1st class, Rs. 2. 2. 0 per *bighá*, or 12s. 9d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 0. 0 a *bighá*, or 9s. an acre. *Sáli máth*, or large flat plains growing *áman* or winter rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 9d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 8. 0 or 9s. an acre. *Sáli karpa*, low marshy lands growing *áman* or winter rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 2. 0. 0 a *bighá*, or 12s. 0d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 6d. an acre. *Sáli matiál*, plain marshy land, black soil, growing winter rice—1st class, Rs. 2. 0. 0 per *bighá*, or 12s. an acre; 2d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre; 3d class, Rs. 1. 7. 0 a *bighá*, or 8s. 7½d. an acre. *Sáli garanji*, or sloping rice land—1st class, Rs. 1. 0. 0 a *bighá*, or 6s. an acre; 2d class, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre; 3d class, Rs. 0. 8. 0 a *bighá*, or 3s. an acre. *Nij sonáá*, land growing *áus* or autumn rice, with a second or winter crop of pulses or oil-seeds—1st class, Rs. 3. 4. 0 a *bighá*, or 19s. 6d. an acre; 2d class, Rs. 2. 10. 0 a *bighá*, or 15s. 9d. an acre; 3d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre. *Sonáá karpa*, or *sonáá* lands of the first quality, growing the finer qualities of rice, sugar-cane, cotton, peas, mustard-seed, etc.—1st class, Rs. 3. 4. 0 a *bighá*, or 19s. 6d. an acre; 2d class, Rs. 2. 10. 0 a *bighá*, or 15s. 9d. an acre; 3d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre. *Sonáá matiál*, or *sonáá* lands of the second quality, growing the finer qualities of rice, sugar-cane, cotton, peas, mustard-seed, etc.—1st class, Rs. 2. 10. 0 a *bighá*, or 15s. 9d. an acre; 2d class, Rs. 2. 0. 0 a *bighá*, or 12s. 0d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 6d. an acre. *Sonáá kanáli*, or *sonáá* lands of the third quality, growing the finer qualities of rice, sugar-cane, cotton, peas, mustard-seed, etc.—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre. *Sonáá garanji*, or *sonáá* lands of the fourth quality, growing the finer qualities of rice, sugar-cane, cotton, peas, mustard-seed, etc.—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Bhánga jol*, or low marshy land, growing *bhánga* or autumn rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre. *Bhánga kanáli*, or low rice land bordering on river banks or marshes, or lying between high lands, growing *bhánga* or autumn rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Bhánga matiál*, plain marshy land, black soil, growing *bhánga* or autumn rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Bhánga garanji*, or sloping rice land, growing *bhánga* or autumn rice—1st class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 2d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre; 3d class, Rs. 1. 2. 0 a *bighá*, or 6s. 9d. an acre. *Bhánga karpa*, low marshy lands growing *bhánga* or autumn rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 2. 0. 0 a *bighá*, or 12s. 0d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 6d. an acre. *Bhánga matiál*, plain marshy land, black soil, growing *bhánga* or autumn rice—1st class, Rs. 2. 0. 0 a *bighá*, or 12s. an acre; 2d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre; 3d class, Rs. 1. 7. 0 a *bighá*, or 8s. 7½d. an acre. *Bhánga garanji*, or sloping rice land, growing *bhánga* or autumn rice—1st class, Rs. 1. 0. 0 a *bighá*, or 6s. an acre; 2d class, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre; 3d class, Rs. 0. 8. 0 a *bighá*, or 3s. an acre. *Dángá jol*, or low marshy land, growing *dángá* or autumn rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre. *Dángá kanáli*, or low rice land bordering on river banks or marshes, or lying between high lands, growing *dángá* or autumn rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Dángá matiál*, plain marshy land, black soil, growing *dángá* or autumn rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Dángá garanji*, or sloping rice land, growing *dángá* or autumn rice—1st class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 2d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre; 3d class, Rs. 1. 2. 0 a *bighá*, or 6s. 9d. an acre. *Dángá karpa*, low marshy lands growing *dángá* or autumn rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 2. 0. 0 a *bighá*, or 12s. 0d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 6d. an acre. *Dángá matiál*, plain marshy land, black soil, growing *dángá* or autumn rice—1st class, Rs. 2. 0. 0 a *bighá*, or 12s. an acre; 2d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre; 3d class, Rs. 1. 7. 0 a *bighá*, or 8s. 7½d. an acre. *Dángá garanji*, or sloping rice land, growing *dángá* or autumn rice—1st class, Rs. 1. 0. 0 a *bighá*, or 6s. an acre; 2d class, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre; 3d class, Rs. 0. 8. 0 a *bighá*, or 3s. an acre. *Kárti jol*, or low marshy land, growing *kárti* or winter rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre. *Kárti kanáli*, or low rice land bordering on river banks or marshes, or lying between high lands, growing *kárti* or winter rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Kárti matiál*, plain marshy land, black soil, growing *kárti* or winter rice—1st class, Rs. 1. 14. 0 a *bighá*, or 11s. 3d. an acre; 2d class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 3d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre. *Kárti garanji*, or sloping rice land, growing *kárti* or winter rice—1st class, Rs. 1. 10. 0 a *bighá*, or 9s. 9d. an acre; 2d class, Rs. 1. 6. 0 a *bighá*, or 8s. 1½d. an acre; 3d class, Rs. 1. 2. 0 a *bighá*, or 6s. 9d. an acre. *Kárti karpa*, low marshy lands growing *kárti* or winter rice—1st class, Rs. 2. 2. 0 a *bighá*, or 12s. 9d. an acre; 2d class, Rs. 2. 0. 0 a *bighá*, or 12s. 0d. an acre; 3d class, Rs. 1. 10. 0 a *bighá*, or 9s. 6d. an acre. *Kárti matiál*, plain marshy land, black soil, growing *kárti* or winter rice—1st class, Rs. 2. 0. 0 a *bighá*, or 12s. an acre; 2d class, Rs. 1. 8. 0 a *bighá*, or 9s. an acre; 3d class, Rs. 1. 7. 0 a *bighá*, or 8s. 7½d. an acre. *Kárti garanji*, or sloping rice land, growing *kárti* or winter rice—1st class, Rs. 1. 0. 0 a *bighá*, or 6s. an acre; 2d class, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre; 3d class, Rs. 0. 8. 0 a *bighá*, or 3s

a *bighá*, or £1, 7s. 9d. an acre; 2d class, Rs. 4. 4. 0 a *bighá*, or £1, 5s. 6d. an acre; 3d class, Rs. 4. 0. 0 a *bighá*, or £1, 4s. 0d. an acre. *Soná ikshu*, or *soná* land particularly suited for sugar-cane cultivation, but also growing rice of good quality, cotton, pulses, etc.—1st class, Rs. 3. 8. 0 a *bighá*, or £1, 1s. 0d. an acre; 2d class, Rs. 3. 4. 0 a *bighá*, or 19s. 6d. an acre; 3d class, Rs. 2. 12. 0 a *bighá*, or 16s. 6d. an acre. *Soná do karpa*, or land growing two superior crops in the year—1st class, Rs. 7. 5. 0 a *bighá*, or £2, 3s. 10d. an acre; 2d class, Rs. 6. 8. 0 a *bighá*, or £1, 19s. 0d. an acre; 3d class, Rs. 5. 12. 0 a *bighá*, or £1, 14s. 6d. an acre. *Je dángá*, or high dry land growing pulses, hemp, and oil-seeds—1st class, Rs. 3. 4. 0 a *bighá*, or 19s. 6d. an acre; 2d class, Rs. 2. 12. 0 a *bighá*, or 16s. 6d. an acre; 3d class, Rs. 2. 9. 0 a *bighá*, or 15s. 4d. an acre. *Je karpa*, or cotton land—1st class, Rs. 3. 11. 0 a *bighá*, or £1, 2s. 1d. an acre; 2d class, Rs. 3. 4. 0 a *bighá*, or 19s. 6d. an acre; 3d class, Rs. 2. 13. 0 a *bighá*, or 16s. 10d. an acre. *Bástu*, or land upon which the homestead is built, Rs. 8. 6. 0 a *bighá*, or £2, 11s. 0d. an acre. *Udbástu*, or land surrounding the homestead, Rs. 2. 1. 0 a *bighá*, or 12s. 4d. an acre; vegetable land, Rs. 6. 8. 0 a *bighá*, or £1, 19s. 0d. an acre. *Bánsberá*, or bamboo land, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre. *Pán baraj*, or betel enclosures, Rs. 18. 4. 0 a *bighá*, or £5, 9s. 6d. an acre. *Til dángá*, or high dry land producing *til* seed, Rs. 0. 5. 0 a *bighá*, or 1s. 10½d. an acre. *Kaldi dángá*, high dry land on which *biri kalái*, a kind of pulse, is grown, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre. *Sarishá dángá*, high dry land producing *sarishá* or mustard-seed, Rs. 0. 12. 0 a *bighá*, or 4s. 6d. an acre. *Musurí dángá*, high dry land producing *musurí kaldi*, another kind of pulse, Rs. 0. 8. 0 a *bighá*, or 3s. an acre. *Bágát*, or orchard land on which fruit-trees, such as mango, guava, jack, etc., are grown, Rs. 0. 4. 0 a *bighá*, or 1s. 6d. an acre. *Puskarni*, or sites of tanks, Rs. 0. 4. 0 a *bighá*, or 1s. 6d. an acre. *Nil dángá*, high lands growing indigo, Rs. 0. 5. 0 a *bighá*, or 1s. 10½d. an acre.

These were the ordinary rates prevailing at the end of the last century, and the Collector states that no marked change has taken place in the rates of rent since the Permanent Settlement. The landlords, however, have benefited by lands which have improved and passed from one class into another, and so now pay a higher rate. In a few places there have been enhancements under the provisions of Act x. of 1859; but nothing approaching to a general

rise of rent has taken place, as in some other Districts. In July 1872 the Government of Bengal called for a report showing the ordinary rates of rent paid by the cultivators; and the Collector, in August 1872, returned the prevailing rates as under. The lowest rates exhibit the quit-rents paid by *ghátwáls* for the service lands which they cultivate themselves, and the rents paid for jungle land, which is very lightly assessed :—

Sáli jol, or low marshy rice land—1st class, from Rs. 1. 8. 0 to Rs. 3. 0. 0 a *bighá*, or from 9s. to 18s. an acre; 2d class, from Rs. 1. 0. 0 to Rs. 2. 8. 0 a *bighá*, or from 6s. to 15s. an acre; 3d class, from Rs. 0. 8. 0 to Rs. 2. 0. 0 a *bighá*, or from 3s. to 12s. an acre. *Sáli kanáli*, or low rice land bordering on the banks of rivers or marshes, or lying between high lands—1st class, from Rs. 1. 8. 0 to Rs. 2. 9. 0 a *bighá*, or from 9s. to 15s. 4d. an acre; 2d class, from Rs. 1. 4. 0 to Rs. 2. 5. 0 a *bighá*, or from 7s. 6d. to 13s. 10d. an acre; 3d class, from Rs. 1. 0. 0 to Rs. 1. 15. 0 a *bighá*, or from 6s. to 11s. 7d. an acre. *Sáli máth*, or large flat plains—1st class, from Rs. 1. 6. 0 to Rs. 2. 5. 0 a *bighá*, or from 8s. 3d. to 13s. 10d. an acre; 2d class, from Rs. 1. 0. 0 to Rs. 2. 0. 0 a *bighá*, or from 6s. to 12s. an acre; 3d class, from Rs. 0. 13. 0 to Rs. 1. 11. 0 a *bighá*, or from 4s. 10d. to 10s. 1d. an acre. *Sáli dángá*, or high rice land—1st class, from Rs. 1. 0. 0 to Rs. 2. 7. 0 a *bighá*, or from 6s. to 14s. 7d. an acre; 2d class, from Rs. 0. 13. 0 to Rs. 2. 4. 0 a *bighá*, or from 4s. 10d. to 13s. 6d. a *bighá*; 3d class, from Rs. 0. 9. 0 to Rs. 1. 15. 0 an acre, or from 3s. 4d. to 11s. 7d. an acre. On all the above lands the *áman* or winter rice is only grown. *Nij soná*, or land producing a crop of *áus* or autumn rice, and a second or winter crop of pulses or oil-seeds—1st class, from Rs. 2. 9. 0 to Rs. 6. 4. 0 a *bighá*, or from 15s. 4d. to £1, 17s. 6d. an acre; 2d class, from Rs. 2. 2. 0 to Rs. 4. 6. 0 a *bighá*, or from 12s. 9d. to £1, 6s. 3d. an acre; 3d class, from Rs. 1. 11. 0 to Rs. 3. 6. 0 a *bighá*, or from 10s. 1d. to £1, 0s. 3d. an acre. *Soná karpa*, or *soná* land of good quality, particularly suited for cotton cultivation, but also producing good rice, pulses, or oil-seeds—1st class, from Rs. 2. 0. 0 to Rs. 6. 4. 0 a *bighá*, or from 12s. 0d. to £1, 17s. 6d. an acre; 2d class, from Rs. 1. 8. 0 to Rs. 5. 2. 0 a *bighá*, or from 9s. to £1, 10s. 9d. an acre; 3d class, from Rs. 0. 12. 0 to Rs. 4. 15. 0 a *bighá*, or from 4s. 6d. to £1, 9s. 7d. an acre. *Soná ikshu*, or *soná* land of good quality, particularly suited for sugar-cane cultivation, but also producing good rice, pulses, and oil-seeds—1st class, from Rs. 3. 0. 0.

to Rs. 6. 4. 0 a *bighá*, or from 18s. to £1, 17s. 6d. an acre; 2d class, from Rs. 2. 0. 0 to Rs. 4. 12. 0 a *bighá*, or from 12s. to £1, 8s. 6d. an acre; 3d class, from Rs. 1. 0. 0 to Rs. 4. 8. 0 a *bighá*, or from 6s. to £1, 7s. 0d. an acre. *Soná do karpa*, or land growing two crops a year, generally one of cotton and one of pulses or oil-seeds—1st class, from Rs. 5. 12. 0 to Rs. 9. 0. 0. a *bighá*, or from £1, 14s. 6d. to £2, 14s. 0d. an acre; 2d class, from Rs. 4. 9. 0 to Rs. 8. 0. 0 per *bighá*, or from £1, 7s. 7d. to £2, 8s. 0d. an acre; 3d class, from Rs. 3. 13. 0 to Rs. 6. 14. 0 a *bighá*, or from £1, 2s. 10d. to £2, 1s. 3d. an acre. *Soná do ikshu*, or land yielding two crops a year, generally one of sugar-cane and another of pulses or oil-seeds—1st class, from Rs. 4. 8. 0 to Rs. 9. 0. 0. a *bighá*, or from £1, 7s. 0d. to £2, 14s. 0d. an acre; 2d class, from Rs. 3. 7. 0 to Rs. 8. 0. 0 a *bighá*, or from £1, 0s. 7d. to £2, 8s. 0d. an acre; 3d class, from Rs. 3. 0. 0 to Rs. 6. 14. 0 a *bighá*, or from 18s. to £2, 1s. 3d. an acre. *Je dángá*, high dry land producing pulses, hemp, and oil-seeds—1st class, from Rs. 2. 8. 0 to Rs. 3. 15. 0 a *bighá*, or from 15s. to £1, 3s. 7d. an acre; 2d class, from Rs. 1. 15. 0 to Rs. 3. 7. 0 a *bighá*, or from 11s. 7d. to £1, 0s. 7d. an acre; 3d class, from Rs. 1. 10. 0 to Rs. 3. 0. 0 a *bighá*, or from 9s. 9d. to 18s. an acre. *Pán baraj* or *pán* enclosures—1st class, from Rs. 20. 8. 0 to Rs. 38. 14. 0 a *bighá*, or from £6, 3s. 0d. to £11, 13s. 3d. an acre; 2d class, Rs. 16. 0. 0 a *bighá*, or £4, 16s. 0d. an acre; 3d class, Rs. 12. 0. 0 a *bighá*, or £3, 12s. 0d. an acre. *Til dángá*, high dry land producing *til* seed, from Rs. 0. 4. 0 to Rs. 1. 6. 0 a *bighá*, or from 1s. 6d. to 8s. 3d. an acre. *Kalái dángá*, high dry land on which *biri kalái*, a kind of pulse, is grown, from Rs. 0. 2. 0 to Rs. 1. 10. 0 a *bighá*, or from 9d. to 9s. 9d. an acre. *Musurí dángá*, high dry land producing *musurí kalái*, another kind of pulse, from Rs. 0. 9. 0 to Rs. 1. 10. 0 a *bighá*, or from 3s. 4½d. to 9s. 9d. an acre. *Sarishá dángá*, high dry land producing *sarishá* or mustard oil-seed, from Rs. 0. 13. 0 to Rs. 1. 10. 0 a *bighá*, or from 4s. 10½d. to 9s. 9d. an acre. *Bágát*, or orchard land producing fruit-trees, such as mango, guava, jack, plantains, etc., from Rs. 0. 2. 0 to Rs. 0. 4. 0 a *bighá*, or from 9d. to 1s. 6d. an acre. Indigo lands, Rs. 0. 6. 0 a *bighá*, or 2s. 3d. an acre. Hemp lands, Rs. 0. 8. 0 a *bighá*, or 3s. an acre. Mulberry lands, for providing food for silkworms—1st class, from Rs. 2. 8. 0 to Rs. 3. 0. 0 a *bighá*, or from 15s. to 18s. an acre; 2d class, from Rs. 1. 8. 0 to Rs. 2. 0. 0 a *bighá*, or from 9s. to 12s. an acre. Vegetable gardens, from Rs. 3. 0. 0 to Rs. 7. 0. 0 a *bighá*, or from 18s. to £2, 2s. 0d. an acre.

MANURES.—Manure, consisting of rich black mud scraped from the bottoms of tanks or reservoirs, with ashes and stubble, is used for the rice fields; with an addition of cow-dung for *soná* lands growing the more valuable crops. The Collector states that about 40 maunds a *bighá*, or about 88 hundredweights an acre, would be a liberal allowance of manure for rice land; and about 80 maunds a *bighá*, or 176 hundredweights an acre, for *soná* land producing a crop of sugar-cane. The cost of manuring would be about 12 *ánnás* a *bighá*, or 4s. 6d. an acre, in the case of rice lands; and about Rs. 1/8 a *bighá*, or 9s. an acre, in the case of sugar-cane lands.

IRRIGATION is necessary for all descriptions of crops in Bánkurá District, and is carried on by means of wells and tanks, or streams and natural water-courses where these are available. The Collector states that it is difficult to estimate the cost of irrigating a *bighá* of ground, as the facilities for irrigation vary considerably in different parts of the District. It might be, however, approximately stated to vary from Rs. 1/8 to Rs. 2/8 per *bighá*, or from 9s. to 15s. an acre, for rice land; and from Rs. 3 to Rs. 6 a *bighá*, or from 18s. to £1, 16s. 0d. an acre, for sugar-cane land. The average cost of digging and constructing a well in Bánkurá District varies from Rs. 10 to Rs. 15, or from £1 to £1, 10s.; but irrigation by means of wells is not carried on to any great extent. The usual process of irrigation is thus described by Colonel Gastrell in his Revenue Survey Report:—'A small ridge or *bándh* is raised round each plot or field after the ground is considered sufficiently ploughed; the cultivator then lets in water from the tank, reservoir, or dammed-up stream or *khál* in which he has his water supply. This water is allowed to stand some time, to assist in decomposing the *dhán* stubble and roots of the previous year, and to incorporate them and the manure more intimately with the soil.' *Sáli* or rice lands are usually allowed to remain fallow every third or fourth year; and the Collector estimates that one-fifth or one-sixth of the total area of *sáli* lands lies fallow every year. *Soná* lands are never allowed to remain uncultivated.

ROTATION OF CROPS is observed on all lands growing sugar-cane and other exhausting crops. The common rotation is as follows:—After cutting a crop of sugar-cane in February or March, the plough is passed through the field, and a crop of *til* seed is sown, which is cut and garnered in May or June. The soil is then well ploughed, and in June or July is sown with *áus* or autumn rice, which is reaped

in September or October. After the rice crop is off the ground, the field is again ploughed twice, and a crop of mustard (often mixed with peas) is sown. These crops ripen and are cut in January or February, when the field is again well manured and ploughed, ready for another crop of sugar-cane, which is planted about April. In some parts cotton alternates with sugar-cane after the mustard is cleared off the ground.

NATURAL CALAMITIES.—Drought is the only natural calamity to which Bánkurá is subject; and the Collector reports that the District suffers in this respect every second or third year. Indiscriminate jungle clearing has been ascribed as the cause of the falling off in the local rainfall. The average annual rainfall, however, between 1859 and 1872 was nearly five inches in excess of the average annual rainfall between 1849 and 1858. Other calamities besides drought are of so rare occurrence as to require no notice. There is no important embankment or other protective work against floods in Bánkurá; and the Collector states that no flood has occurred within the experience of the present generation on a scale sufficiently large to affect the general prosperity of the District. Inundations, however, occur every year, owing to the suddenness with which the rivers and streams rise in the rainy seasons; and the lands bordering on the rivers suffer accordingly,—so much so, that in many places they are permanently allowed to remain waste and uncultivated. Drought in Bánkurá District arises solely from a deficiency in the local rainfall, and not from the failure of the rivers or streams to bring down their usual supply of water. Nothing has been done to guard against this calamity, the only remedy for which is the construction of irrigation canals and works for the storage of water. Such works would not only afford a safeguard against drought, but would also, by means of irrigation, impart increased productive power to those lands which are now generally in want of water, and be the means of bringing large tracts of jungle lands under cultivation. The quantity of low marshy lands in Bánkurá District retaining moisture for a considerable time is very small as compared with the uplands; and in a year of drought no increased fertility of the marshes could compensate for the loss of the crops on the higher lands. Excepting 1865-66, the last year of serious general drought in Bánkurá District was in 1851. In that year common rice sold at Rs. 3/5 a maund, or 9s. a hundredweight; common unhusked rice, Rs. 2/9 a maund, or 7s.

a hundredweight; and Indian corn, Rs. 1/8 a maund, or 4s. 2d. a hundredweight.

THE FAMINE OF 1866.—The Report of the Commissioners appointed to inquire into the famine of 1866 returned the average monthly rates at which coarse rice was selling in 1866 as follows:—January, 15 *sers* (of 2 lbs.) per rupee, or 7s. 5d. a hundredweight; February, 13 *sers* per rupee, or 8s. 7d. a hundredweight; March, 12½ *sers* per rupee, or 8s. 11d. a hundredweight; April, 11⅞ *sers* per rupee, or 9s. 5d. a hundredweight; May, 10 *sers* per rupee, or 11s. 2d. a hundredweight; June, 7½ *sers* per rupee, or 14s. 11d. a hundredweight; July, 6 9/16 *sers* per rupee, or 17s. 0d. a hundredweight; August, 6 *sers* per rupee, or 18s. 8d. a hundredweight; September, 5¼ *sers* per rupee, or £1, 1s. 4d. a hundredweight; October, 15¼ *sers* per rupee, or 7s. 4d. a hundredweight; November, 17 *sers* per rupee, or 6s. 7d. a hundredweight; December, no return. In 1871 the Collector reported to me that prices had not yet returned to the ordinary rates prevailing before the famine. The following brief account of the effects of the famine in Bánkurá District is condensed from the District Narrative in the Report of of the Famine Commissioners:—

The jungly western tract bordering on Mánbhúm suffered most severely from the famine; in the north-eastern portion, adjoining Bardwán District, its effects were not felt to any serious extent. In ordinary years, Bánkurá exports small quantities of rice to Húglí and Midnapur. In 1865 these exports were much larger than usual, on account of the deficiency of the crop in Midnapur and Mánbhúm. The price of rice throughout the whole of 1865 was high as compared with previous years. In January, coarse rice was selling at 25 *sers* for the rupee, or 4s. 5¾d. a hundredweight, instead of 32 and and 31 *sers* for the rupee, or 3s. 6d. or 3s. 7d. a hundredweight, which is the usual price in that month. In August the rate rose to 22 *sers* for the rupee, or 5s. 1d. a hundredweight, against 32 *sers* per rupee, or 3s. 6d. a hundredweight, as in previous years. In September 1865, when the failure of the coming winter crop had become a certainty, a sudden rise in price took place, to 15 *sers* for the rupee, or 7s. 5d. a hundredweight; and the same price ruled in January 1866. In February 1866, a violent outbreak of cholera took place at Bishnupur town, induced probably by insufficient food. Prompt medical assistance was afforded by Government, and stringent measures taken for improving the sanitary state of the town. In

March the death-rate in Bishnupur town had fallen to 11 per diem. Distress, however, continued to increase throughout the western portion of the District; and the middle and lower classes suffered severely from want of the ordinary necessaries of life. The weaving population of Bishnupur and the neighbouring villages were the worst off. Deprived of a market for the produce of their ordinary labour by the general distress, and unable to compete in field work with those whose daily occupation was agricultural labour, their condition was miserable. The agricultural labourers who live by wages were but a few degrees better off; even their labour, when employed, scarcely yielded enough for the support of the working man himself, and left no surplus for wife and children.

The distress gradually spread over the south and west; and in March the Collector held a public meeting at the town of Bánkurá, at which subscriptions were raised, and employment was provided for applicants for relief, by the construction of a tank at the civil station. The construction of a second tank was undertaken by a native gentleman at his own expense. Rice was imported from Calcutta, and retailed to the labourers on the relief works at cost price, viz. 10 *sers* for the rupee, or 11s. 2d. a hundredweight; but this did not cause any reduction in the market rates. An average number of 500 men was daily employed from the 18th March to the 24th April. The relief work, however, was soon obliged to be discontinued from want of funds; and the Collector sent 400 of the men to work on the chord line of the East Indian Railway beyond Ráníganj, where labour was required. This measure, however, did not succeed. The men returned in batches, complaining that payments were made by the piece, and that the standard of work was so high that in their emaciated condition they found it impossible to earn more than two ánnás or threepence a day, a sum which was not sufficient to support them at the ruling price of rice.

At the end of May, on the application of the Judge of the District, the Government made a grant of £500 for relief in Bánkurá, from the balance of the North-Western Provinces Relief Fund. This grant was devoted by the Committee entirely to the importation of rice from Calcutta, and its sale at cost price. These sales were carried on in the town of Bánkurá from June to November, at the rate of 10 *sers* for the rupee, or 11s. 2d. a hundredweight, with the exception of one month (August), when it was 8 *sers* for the rupee, or 14s. 0d. a hundredweight. The sales were limited to 4

ánnás or 6d. worth daily to each applicant. Up to July, payment for labour on the Committee's works had been made in rice; from that month, money payments were substituted. Charitable relief to the helpless who were unable to work was at first given in the shape of uncooked rice, but the Committee were soon driven to adopt the system of cooked rations, at the rate of 6 *chhatáks* or 12 ounces for each adult, besides a little pulse, spice, etc. On the 13th July the Committee recorded, 'There is actually no rice in the Bánkurá Bázár, and the people are entirely supported at present by the rice which they purchase daily from the Committee.' On the 23d July there were 4880 persons purchasing rice at the Committee's sales in Bánkurá town, 320 receiving gratuitous relief in the town from the Committee, and 300 from private charity. The Committee applied for a further grant of £1000 towards the purchase of rice for sales, and early in August the application was met by a grant of £500. Up to this time the Committee's relief operations had been confined to the town of Bánkurá. Early in August a special subscription was raised for the Bishnupur weavers, who were reported 'in terrible destitution,' for the purpose of supplying them with capital for carrying on their trade, and for purchasing the produce of their manufacture. Besides private subscriptions, the Committee requested a special grant of £500 for the relief of the Bishnupur weavers, and received a sum of £200 before the end of August. The relief afforded to Bishnupur, however, was too late, and the emigration, suffering, and mortality were very great. Rice was also sent to Gaurángdihí in August, and operations commenced by the supply of 640 persons daily.

On the 23d August the Committee applied for another grant of £1000, as distress was increasing on all sides, and numbers were on the roads dying from exhaustion, not being able to reach the relief depôts. In reply to this application, the Commissioner pointed out that £1200 had already been granted for Bánkurá and Bishnupur, and that the private subscriptions amounted to only £300. He had no returns of the number of paupers fed, and in the absence of further details he hesitated to apply to the Board of Revenue for further relief funds, but would do so, if necessary, on receipt of further details. In reply, the Committee, on the 14th September, strongly urged the necessity of a further grant of £500, to enable it to carry on the relief centres in the interior, where the requirements were increasing. The Commissioner supported the application; and

a further sum of £400 was soon afterwards received from the Calcutta Relief Committee.

Altogether, four relief depôts were opened in the District,—one at Bánkurá town, another at a village three miles distant, a third at Bishnupur, and a fourth at Gaurángdihí. In September, the autumn or rice harvest brought prices down to 12 *sers* for the rupee, or 9s. 4d. a hundredweight. Relief operations were suspended early in November, except in Bishnupur, where they were continued till nearly the end of November, when they were finally closed, 11 deserted children being sent to the missionary schools. The total sum placed at the disposal of the Committee was as follows:—From the Board of Revenue, £1200; from Calcutta Relief Committee, £1000; private subscriptions (including those for Ráníganj), £844, 12s.: total, £3044, 12s. The sales of rice amounted to £1742, 10s. The total number of paupers relieved (including Ráníganj) was as follows:—July, 5000; August, 5175; September, 8223; October, 14,818,—after which operations were gradually contracted.

Famine Warnings.—The Collector states that in his opinion relief operations by Government would become necessary when prices rise to double their ordinary rate. Coarse rice selling at Rs. 2/8 a maund, or 6s. 10d. a hundredweight, in January or February, soon after the reaping of the winter harvest, should be considered as a warning of the approach of famine later in the year. The price in January 1866 was Rs. 2/10 a maund, or 7s. 2d. a hundredweight. Bánkurá District chiefly depends on the *áman* or winter rice harvest. *Aus* or autumn rice is also largely cultivated; but while a good *áman* crop would compensate for the loss of the *áus*, and enable the people to live through the year without famine, the *áus* harvest could never make up for an almost total loss of the *áman* crop. The means of transit at the disposal of the District, if used in good time, are, in the opinion of the Collector, sufficient to avert the worst consequences of any future famine, by importation from other parts. The Trunk Road from Ráníganj to Orissa passes through the District; but the nearest railway station is at Ráníganj, thirty miles distant from the headquarters station of Bánkurá, and more than sixty miles from the farther end of the District. The railway, with its continuation the Orissa Trunk Road, would afford facilities for the importation of food supplies, but would not guard against the danger of the isolation of parts of the District situated away from the line of the Trunk Road. These outlying tracts are ill provided

with means of communication with other parts of the District, and need both roads and bridges. The Collector suggests as measures to be adopted for mitigating the evils of famine, the construction of irrigation works by Government, and grants in aid to the landed proprietors for a similar purpose, together with the promotion of emigration.

FOREIGN AND ABSENTEE PROPRIETORS.—In 1871 there were three European landholders registered as proprietors on the rent-roll of the District, the amount of land revenue payable by them being £14, 11s. 6d. The Muhammadan proprietors numbered 193, paying a Government land revenue of only £128, 4s. 10d. In that year (1870-71) the total number of proprietors entered on the District rent-roll was 1513, and the total land revenue collected was £45,110. It does not appear that any portion of the District is held by absentee proprietors, as the Mahárájá of Bardwán, with his residence and large estates in the neighbouring District, can hardly be placed in that class.

ROADS AND MEANS OF COMMUNICATION.—Four main lines of roads traverse the District. One running northwards from Bánkurá town connects the civil station with the railway at Ráníganj. A second, also from Bánkurá town, runs north-east to Sonámukhí, now in Bardwán District, thence to Khandghosh and on to Bardwán town. The third is part of the old Military Grand Trunk Road from Calcutta to the North-Western Provinces. It enters Bánkurá District from Bardwán near the village of Baniápukur, and, traversing the southern half of the District, runs in a north-westerly direction nearly parallel to and south of the Dhalkisor, and, passing through Baniápukur, Bishnupur, Pátpur, Kámárbáriá, Ondá, Bánkurá, and Chatná, enters Mánbhúm District near the village of Raghunáthpur. The fourth is the continuation of the road from Ráníganj to Midnapur, and thence on to Orissa, and strikes off from the old Military Grand Trunk Road at Bishnupur. This line from Ráníganj to Midnapur is the only imperial road in Bánkurá District, and is under the management of the Public Works Department. The average annual cost of its repairs is about £400. Numbers of pilgrims annually traverse this road on their way to the great temple of Jagannáth at Purí, in Orissa. Besides these main lines, numerous common cart roads and tracks intersect the District, rendering the transit of light loads by carts or pack bullocks easy in the cold and hot weather. They are, however, impassable for

traffic in the rains. Excellent facilities exist for road-making in Bánkurá District, the laterite formation affording an inexhaustible supply of good metalling. No market of any importance has recently sprung up along or near the principal routes of traffic.

THE MANUFACTURES of Bánkurá District consist principally of silk and cotton weaving. Bishnupur town, the ancient capital of the District under its native chiefs, contains a large weaving population, and is noted for its manufacture of prettily embroidered silk scarfs, plain and flowered *sáris* or dress pieces for women, a purple-dyed cloth called *dhupchháyá*, and other silk cloths, vieing in quality and fineness with those of Murshidábád. A cloth called *khutni*, a mixture of silk and cotton, is also largely manufactured, the warp being of silk and the woof of cotton thread. *Tasar* silk cloths are woven at the village of Barjorá. Lac dye and shellac are also manufactured. The lać in its crude state sells at from three to four *sers* per rupee, or from threepence to fourpence a pound. Great numbers of stone plates, cups, etc. are carved in Bishnupur town by stone cutters. The stone is brought from Mánbhúm District in roughly cut blocks of various sizes; it is of a light greyish or slaty colour, close-grained and compact, and cuts easily. These plates and cups sell for from three pies to four ánnás, or from ½d. to 6d. each, and are in very general use. Sugar is refined, but only for home consumption; that which is exported is sent away after the first crystallization, as raw sugar.

The social condition of the manufacturing classes is not prosperous. The introduction of the cheaper English piece goods has caused the weaving manufacture to fall off, and there is now but little demand for native-made cloth. Most of the manufactures are carried on by workmen under a system of advances made by *mahájans* or capitalists, and very seldom by the people on their own account. The *mahájans* generally advance the raw materials and a sum of money to the workmen. When the articles for the manufacture of which the advance was given are made and ready for delivery, the manufacturers are bound to sell them at wholesale market rates to the merchants from whom they received the advance. The *mahájan*, on receiving the goods, deducts the value of the raw materials and the amount of money advance, with interest, and the balance of the price that remains is handed over to the manufacturer. There are no cases of ancient manufactures having died out, nor are there any legends of ancient processes of manufacture

which are now no longer made use of. The weaving trade, however, as stated above, has greatly declined in late years, on account of the competition of English goods.

The following table shows the number of skilled workers, mechanics, and artisans in Bánkurá District, under their respective trades, as returned by the Census of 1872, making a total of 14,234 adult males, or 8·56 per cent. of the total adult male population of the District:—

MANUFACTURING CLASSES AND ARTISANS OF BANKURA DISTRICT.

	Male Adults.		Male Adults.		Male Adults.
Indigo manufacturers,	4	Potters,	1215	Cotton weavers,	6685
Brick-masons (*Rájmistrís*),	285	Cabinetmakers,	167	Coir weaver,	1
Stone-masons,	24	Comb makers,	8	Shawl menders,	8
Brickmakers,	8	Mat makers,	129	Dyers,	50
Sawyers,	49	Fan makers,	24	Tailors,	106
Carpenters,	507	Basket makers,	377	Gold lace makers,	2
Thatchers,	82	Toy makers,	5	Shoemakers,	546
Painters,	50	Bead makers,	576	Ornament makers,	11
Well digger,	1	Hookah makers,	7	Tape makers,	5
Cart-builders,	215	Musical instrument makers,	11	Net makers,	18
Boat-builder,	1	Lacquered ware makers,	14	Jute spinners,	22
Blacksmiths,	835	Garland makers,	221	Blanket makers,	47
Braziers,	770	Turners,	3	Bookbinders (*daftrís*),	4
Kalaigars,	21	Shell carvers,	228	Silk weavers,	35
Goldsmiths,	833	Workers in pith,	9		
Watchmakers,	10	Cotton spinners,	5	Total,	14,234

COMMERCE AND TRADE.—The local manufactures suffice to meet the local demand, and a considerable surplus is left over for export to other Districts and to Calcutta. The staple produce of the District, viz. rice, is also more than sufficient for all local wants, and the surplus is exported to neighbouring parts, principally to Húglí and Midnapur. Besides rice, the other chief articles of export are oil-seeds, lac, cotton and silk cloth, silk cocoons, etc. The principal articles received in exchange for the commodities exported from the District are English piece goods, salt, tobacco, spices, cocoa-nuts, and pulses of different kinds. The principal seats of commerce are the towns of Bánkurá and Bishnupur, and the villages of Rájgrám and Barjorá. Trade is carried on chiefly by means of permanent markets, but also through the medium of fairs and religious festivals. The Collector states that there is every reason to believe that the exports are much greater than the imports, and that a considerable accumulation of coin is going on, in consequence of the balance of

trade being in favour of the district. Several of the *mahájans* or traders are said to have amassed considerable wealth.

CAPITAL AND INTEREST.—Accumulations of money obtained by trade are partly hoarded and partly employed as capital in trade and manufactures, and but rarely expended in the improvement of land. The current rates of interest prevalent in Bánkurá District are as follow :—(1) In small loan transactions, in which the borrower pawns some article, such as ornaments or household vessels, of greater value than the sum borrowed, the rate of interest varies from twelve to eighteen per cent. (2) In large transactions, when a mortgage on moveable property only is given, the interest is from eighteen to twenty-four per cent., as the security is not so easily realized in execution of a decree, owing to the facilities for removing or alienating the property pledged. (3) In large transactions, where the lender is well secured by a mortgage on immoveable property, such as houses or lands, the interest is from nine to twelve per cent. (4) Petty agricultural advances are made to the cultivators, either upon the personal security of the borrower in a current account, or with a lien upon the crops. The interest in these cases varies from eighteen to thirty-six per cent. Six or seven per cent. per annum is considered a fair return for money invested in the purchase of land. There are no regular native banking establishments in Bánkurá District, and loans are conducted by village shopkeepers or *mahájans*, and by the *zamíndárs* themselves, who, almost without exception, combine rice-dealing with money-lending.

IMPORTED CAPITAL.—The Collector, in 1871, reported to me that only two indigo factories were conducted in the District under European management and with imported capital, but was unable to furnish any statistics regarding the amount of capital invested, the number of labourers employed, or the amount of profit derived from them. There are no silk filatures or factories in Bánkurá conducted by Europeans.

INSTITUTIONS.—A charitable dispensary at the civil station of Bánkurá, partly supported by Government and partly by private subscriptions, a small public library, also at the town of Bánkurá, and a few *dharmsálás* or resting-houses for travellers, are the only public institutions in the District. There is no newspaper or printing press in the District; and the Collector states that a marked want of interest is shown by the people generally in any measures calculated for their improvement.

INCOME OF THE DISTRICT.—The estimated income of Bánkurá District, as calculated for the purposes of the Income Tax Act of 1870, viz. the total of all incomes over £50 a year, is returned at £224,000; but the amount of tax actually realized amounted to £5441, 4s. 0d., which, at the rate of $3\frac{1}{8}$ per cent., would represent a total income of only £175,000. In the following year, 1871–72, the rate of the tax was reduced to one-third of what it had been before, or to $1\frac{1}{24}$ per cent., and the minimum of incomes liable to assessment was raised to £75 per annum. The *net* amount of income tax realized in that year was £1308, 12s. 0d.

REVENUE AND EXPENDITURE.—Since Bánkurá was constituted a separate Collectorship in 1835–36, the District revenue has steadily increased. In 1835–36 the total revenue of the District amounted to £40,670, and the total civil expenditure to £8006; in 1850–51 the revenue had increased to £50,736, and the civil expenditure to £17,511; in 1860–61 the revenue had risen to £60,072, and the civil expenditure to £19,426; while in 1870–71 the total District revenue amounted to £69,130, and the civil expenditure to £25,441. During the thirty-five years, therefore, between 1835–36 and 1870–71, the District revenue rose from £40,670 to £69,130, or an increase of 72 per cent., and the civil expenditure from £8006 to £25,441, or an increase of 217 per cent.

The tables on the two following pages show the balance sheet of Bánkurá District in 1850–51 and 1870–71. The figures showing the land revenue, education, police, jails, and post office have been taken from the respective Departmental Reports for 1870–71; all the other figures have been furnished by the Collector in a special report.

I have no materials for showing the revenue and expenditure of Bánkurá since 1870; and it must be remembered that the constitution of the District has recently (1872) undergone considerable change, owing to transfers to Bardwán on the east and annexations from Mánbhúm on the west. The area of the District, however, is at present almost exactly the same as it was before the change.

THE LAND TAX.—While the general revenue of the District has increased by 38 per cent. within the twenty years between 1850–51 and 1870–71; the Government land revenue has increased only 3 per cent. within the same period, or from £43,766 in 1850–51 to £45,110 in 1870–71. Sub-infeudation of estates has rapidly gone on. In 1835–36, the first year in which Bánkurá was constituted a

[*Sentence continued on p.* 282.

Balance Sheet of Bankura District for 1850-51.

Revenue.		Expenditure.	
Land Revenue,	£43,766 12 7	Land Revenue,	£38 1 8
Abkárí,	3,171 7 2	*Abkárí*,	276 17 8
Post Office,	300 6 6	Post Office,	409 11 3
Stamps,	3,095 8 4	Stamps,	240 18 0
Judicial Charges General,	169 17 6	Judicial Charges General,	12,145 18 7
Revenue Charges General,	28 12 9	Revenue Charges General,	3,592 13 10
Civil Suits,	73 14 7	Civil Suits,	4 1 3
Law Charges,	44 17 4	Law Charges,	92 13 0
Education,	85 5 1	Education,	294 8 1
		Interest,	22 11 0
		Pensions,	287 12 2
		Charges General; General Department,	62 14 0
		Khás Mahal Collections,	43 6 7
Total,	£50,736 1 10	Total,	£17,511 7 1

Balance Sheet of Bankura District for 1870-71.

Revenue.		Expenditure.	
Land Revenue,	£45,110 2 0	Land Revenue,	£3,796 6 0
Stamps,	6,787 4 0	Stamps,	247 12 0
Excise,	3,167 4 0	Excise,	373 6 0
Education,	1,668 11 10[1]	Education,	2,886 12 3
Police,	...	Police,	4,791 2 0[2]
Post Office,	751 0 10	Post Office,	913 19 6
Income Tax,	5,441 4 0	Income Tax,	246 12 0
Civil Justice,	2,407 16 0	Civil Justice,	8,555 12 0
Criminal Justice,	639 16 0	Criminal Justice,	416 6 0
Pound,	199 0 0	Pound,	99 2 0
Ferry,	265 0 0	Ferry,	109 0 0
Tolls,	458 0 0	Tolls,	...
Zamínddri Post,	188 10 0	*Zamínddri* Post,	311 18 0
Medical,	...	Medical,	419 10 0
Jail,	310 6 0	Jail,	1,441 18 0
Registration,	300 8 0	Registration,	123 8 0
Town Tax,	909 18 0	Town Tax,	319 2 0
Miscellaneous,	526 10 0	Miscellaneous,	390 8 0
Total,	£69,130 10 8	Total,	£25,441 13 9

[1] Schooling fees and fines.
[2] Cost of the Regular Police only, excluding Municipal Police and the Village Watch.

Sentence continued from p. 279.]
separate Collectorship, the District contained altogether 56 estates, owned by 71 registered proprietors or coparceners, paying a total Government land revenue of £39,117, 10s. 0d.; the average land revenue paid by each estate amounted to £698, 10s. 6d., and by each individual proprietor or coparcener to £550, 19s. 0d. By 1850 the number of estates had increased to 454, and the number of registered proprietors or coparceners to 850. The total net Government land revenue amounted to £42,534, 2s. 0d., equal to an average payment of £93, 13s. 9d. from each estate, or £50, 0s. 9½d. from each proprietor or coparcener. In 1870–71 the number of estates had reached 905, and the number of individual proprietors and coparceners to 1351; the total Government land revenue amounted to £45,110, equal to an average payment of £49, 16s. 10d. from each estate, or £33, 6s. 4d. by each individual proprietor or coparcener.

OPERATION OF THE RENT LAW.—Acts x. of 1859 and viii. (B.C.) of 1869 have been but little appealed to in Bánkurá District. The number of rent cases and miscellaneous applications connected therewith, instituted under the provisions of this Act in different years, is returned by the Collector as follows:—In 1861–62, 1549 original suits were instituted, besides 833 miscellaneous applications; in 1862–63 there were 905 original suits, besides 802 miscellaneous applications; in 1866–67 there were 1697 original suits, and 1437 miscellaneous applications; and in 1868–69, 1381 original suits, and 1408 miscellaneous applications.

PROTECTION TO PERSON AND PROPERTY has been rendered more exact of late years. In 1835–36 there was only one magisterial and one revenue and civil court in the District; in 1850, and also in 1862, there were four magisterial and thirteen revenue and civil courts; in 1869, four magisterial and twelve revenue and civil courts; and in 1870 there were seven magisterial and fifteen revenue and civil courts. The number of covenanted English officers resident in Bánkurá District throughout the year was one in 1835–36, three in 1850, 1862, and 1869, and five in 1870.

POLICE PROTECTION.—For police purposes, Bánkurá District is divided into the following five police circles (*thánás*):—(1) Bánkurá, (2) Ondá, (3) Bishnupur, (4) Chátná, and (5) Gangájalghátí. The present police force of Bánkurá District consists of three distinct bodies, namely, the regular or District police, a municipal police for the protection of the towns, and a village watch or rural

police. The total strength and cost of maintenance of each of these bodies is as follows :—

THE REGULAR POLICE consisted of the following force at the end of 1872 :—1 superior European officer or District Superintendent, at a salary of Rs. 600 a month, or £720 a year ; 2 subordinate officers, at a salary of upwards of Rs. 100 a month, or £120 a year ; 36 officers, at less than Rs. 100 a month, or £120 a year, maintained at a total cost of Rs. 1190 a month, or £1428 a year, or an average pay of Rs. 31. 7. 3 a month, or £37, 12s. 1d. a year, for each subordinate officer ; and 3 mounted and 154 foot, total 157 constables, maintained at a total cost of Rs. 1057 a month, or £1268, 8s. 0d. a year, or an average pay of Rs. 6. 11. 8 per month, or £8, 1s. 7d. per year for each man. The other expenses connected with the District police are,—a sum of Rs. 100 a month, or £120 a year, as travelling expenses for the Superintendent ; Rs. 290. 10. 8 a month, or £348, 16s. 0d. a year, for pay and travelling allowances of his establishment ; and Rs. 351. 12. 0 a month, or £422, 2s. 0d. a year, for contingencies and all other expenses,—bringing up the total cost of the regular police in Bánkurá District in 1872 to Rs. 3649. 6. 8 a month, or £4379, 6s. 0d. a year. The present area of Bánkurá District is 1346 square miles, and the total population, as returned by the Census of 1872, is 526,772. According to these figures, the total strength of the regular police is one man to every 6·86 square miles of the area, or one man to every 2687 of the population. The annual cost of maintenance is equal to Rs. 32. 8. 8 or £3, 5s. 1d. per square mile of area, or Rs. 0. 1. 3 or $1\frac{7}{8}$d. per head of the population. In presenting the police statistics in each District Account, I have usually, for the sake of uniformity, taken the figures for the year 1871 ; but this and other Districts of the Bardwán Division have undergone such considerable changes since 1871, by reason of transfers, etc., that to give the police figures for that year would be to introduce an element of error. I have accordingly taken the figures from the Report of the Inspector-General of Police for 1872.

THE MUNICIPAL POLICE at the end of 1872 consisted of a small force of 5 officers and 76 men, maintained at a total cost of Rs. 437 a month, or £524, 8s. 0d. a year, defrayed by means of rates or duties levied upon householders or traders carrying on business within municipal limits. The Census Report returns only two towns in Bánkurá District, namely, Bánkurá and Bishnupur, of over five

thousand inhabitants, which each form a municipality, the aggregate population of the two towns being 34,841. According to the Report of the Inspector-General of Police, the total town population protected by municipal police is 38,000, or one policeman to every 468 inhabitants. The cost of the municipal police in 1872, as compared with the town population, is Rs. 0. 2. 3 or $3\frac{3}{8}$d. per head of the population.

THE RURAL POLICE or village watch consists of two bodies, the *ghátwáls* and *chaukídárs*, maintained by service lands, which they hold either rent-free or at a light quit-rent, or by direct contributions of money or grain from the villagers, at an estimated total cost, including both sources, of Rs. 134,210, or £13,421. I have already described the duties of the *ghátwáls* and the nature of the tenure by which they hold their service lands. The total number of village police of all denominations in Bánkurá District in 1872 was 4715, equal to one man to every 0·28 of a square mile of area, or one man to every 112 of the population. Each village watchman has charge, on an average, of 22 houses, and receives an average pay in money or lands of Rs. 2. 5. 9 a month, or £2, 16s. 8d. a year.

Including, therefore, the regular District police, the municipal or town police, and the rural constabulary, the machinery for protecting person and property in Bánkurá District consisted, at the end of 1872, of a total force of 4992 officers and men, equal to an average of one man to every 0·27 of a square mile as compared with the area, or one man to every 105 souls as compared with the population. The estimated aggregate cost, both Government and private, of maintaining this force in 1872 amounted to Rs. 15,270 a month, or a total for the year of £18,324, 14s. 0d., equal to a charge of Rs. 136. 2. 0 or £13, 12s. 3d. per square mile of area, or $8\frac{1}{4}$d. per head of the population. As compared with the population, the cost of the police of Bánkurá is twenty-five per cent. higher than that of any other District of the Bardwán Division. In Bírbhúm District, which is the next highest, the total cost is only $6\frac{1}{2}$d. per head; while in Midnapur District, which is the lowest, it is only $3\frac{1}{4}$d. per head of the population.

WORKING OF THE POLICE.—During the year 1872, 960 'cognisable' cases were reported to the police, of which 174 were ascertained to be false. Convictions were obtained in 217 cases, or 27·6 per cent. of the 'true' cases. In these cases, 718 persons were placed on trial, and 452 finally convicted; proportion of persons

convicted of 'cognisable' offences, 1 to every 1165 of the population. Of non-cognisable cases, 744 were instituted, in which process issued against 699 persons; of whom 318, or 45 per cent., were convicted,—the proportion of persons convicted of 'non-cognisable' offences being 1 to every 1656 of the population.

The following details of the cases and convictions for different crimes and offences in 1872 are taken from the Report of the Inspector-General of Police for that year. The 'cognisable' cases were as follow:—Class I. Offences against the State, public tranquillity, safety, and justice—Offences against public justice, 3 cases, and 3 convictions, in which 5 men were actually put on trial, and all convicted; rioting or unlawful assembly, 16 cases, and 7 convictions, 98 persons tried, and 83 finally convicted. Class II. Serious offences against the person—Murders, 6 cases, and 1 conviction, 14 persons tried, and 1 finally convicted; attempted murder, 1 case, no conviction; culpable homicide, 2 cases, no conviction; rape, 2 cases, no conviction; concealment of birth, 1 case, no conviction; attempted suicide, 1 case, and 1 person convicted; grievous hurt, 15 cases, and 5 convictions, 19 persons tried, and 11 finally convicted; hurt by dangerous weapons, 20 cases, and 6 convictions, 22 persons tried, and 6 finally convicted; kidnapping or abduction, 4 cases, and 1 conviction, 4 persons tried, and 2 finally convicted; wrongful confinement or restraint, 1 case, no conviction; criminal force to a public servant, or to a woman, or in attempt to commit theft, etc., 1 case, and 1 conviction, 12 persons tried, and all finally convicted. Class III. Serious offences against person or property—*Dákáiti* or gang robbery, 21 cases, and 5 convictions, 43 persons tried, and 23 finally convicted; robbery with hurt, 1 case, no conviction; robbery in dwelling-house, 4 cases, and 1 conviction, 2 persons tried, and 1 finally convicted; other robberies, 3 cases, no conviction; serious mischief, 6 cases, and 2 convictions, 17 persons tried, and 15 finally convicted; lurking house trespass or housebreaking, having made preparation for hurt, 392 cases, and 21 convictions, 51 persons tried, and 36 finally convicted; habitually receiving stolen property, 1 case, no conviction. Class IV. Minor offences against the person—Wrongful restraint, 16 cases, and 4 convictions, 24 persons tried, and 13 finally convicted. Class V. Minor offences against property—Lurking house trespass or housebreaking, 34 cases, and 5 convictions, 11 persons tried, and 5 finally convicted; cattle theft, 13 cases, and 8 convictions, 17 persons tried, and 9 finally

convicted; ordinary theft, 266 cases, and 54 convictions, 194 persons tried, and 99 finally convicted; criminal breach of trust, 9 cases, and 1 conviction, 4 persons tried, and 1 finally convicted; receiving stolen property, 22 cases, and 16 convictions, 29 persons tried, and 20 finally convicted; criminal house trespass, 14 cases, and 7 convictions, 33 persons tried, and 24 finally convicted. Class VI. Other offences not specified above—Vagrancy and bad character, 53 cases, and 41 convictions, 52 persons tried, and 41 convicted; offences under the Excise Law, 25 cases, and 20 convictions, 43 persons tried, and 33 finally convicted; public and local nuisances, 7 cases, and 7 convictions, 11 persons tried, and all convicted. Total, 960 cases, and 217 convictions; excluding 174 false cases, the percentage of cases convicted to total 'cognisable' cases, 27·6; 718 persons tried, and 452 finally convicted; percentage of persons convicted to persons tried, 62·9.

The number of cases instituted, and of persons tried and convicted, in 'non-cognisable' cases during 1872 is returned as follows:—Class I. Offences against the State, public tranquillity, etc.—Offences against public justice, 59 cases, 154 persons tried, and 120 convicted; offences by public servants, 2 cases, 3 men tried, and all convicted; perjury, false complaints, etc., 18 cases, 22 persons tried, and 12 convicted; forgery or fraudulently using forged documents, 4 cases, 8 persons tried, and 2 convicted; offences relating to weighing and measuring, 3 cases, 10 persons tried, and 4 convicted; rioting or unlawful assembly, 1 case, 10 persons tried, and 2 convicted. Class II. *Nil.* Class III. Serious offences against property—Extortion, 1 case, no persons convicted. Class IV. Minor offences against the person—Hurt, 57 cases, 58 persons tried, and 33 convicted; criminal force, 467 cases, 209 persons tried, and 51 convicted. Class V. Minor offences against property—Cheating, 8 cases, 8 persons tried, no conviction; criminal misappropriation of property, 4 cases, 10 persons tried, and 3 convicted; criminal breach of trust by public servants, bankers, etc., 1 case, 1 person tried, no conviction; simple mischief, 24 cases, 43 persons tried, and 26 convicted. Class VI. Other offences not specified above—Offences relating to marriage, 10 cases, 15 persons tried, and 2 convicted; criminal breach of contract, 1 case, 1 person tried, no conviction; defamation, 4 cases, 3 persons tried, no conviction; intimidation and insult, 8 cases, 10 persons tried, and 4 convicted; offences under chapters xviii., xx., xxi., and xxii., Criminal Procedure Code, 16 cases, 20

persons tried, and 17 convicted; cattle trespass, 31 cases, 25 persons tried, and 8 convicted; offences under the Emigration Act, 4 cases, 7 persons tried, and 3 convicted; offences under the Jail Act, 1 case, 1 person tried and convicted; offences under the Police Act, 11 cases, 11 persons tried, and all convicted; offences under Act xviii. of 1869, 1 case, 1 person tried and convicted; offences under the *Chaukídári* Act, 4 cases, 13 persons tried, and 12 convicted; offences under the Income Tax Act, 3 cases, 3 persons tried, and 2 convicted; offences under the Post Office Act, 1 case, 1 person tried and convicted. Total, 744 cases, 647 persons tried, and 318 convicted; proportion of persons convicted to persons tried, 49·15 per cent.

Excluding 174 'false' cases, the total number of 'cognisable' and 'non-cognisable' cases investigated in Bánkurá District in 1872 was 1530, in which 770 persons were convicted, or one person convicted of an offence to every 684 of the District population.

In serious cases the police do not seem to have been very successful. Six murder cases were reported to have taken place in 1872, and 2 in 1871 which were investigated in 1872, making 8 in all. In these 8 cases, 16 persons were arrested, and 14 put on trial, but only 1 convicted. Of attempted murder, 1 case occurred, for which two persons were placed on trial, but none were convicted. Similarly, no conviction followed in two cases of rape. Out of 15 cases of grievous hurt reported, 5 resulted in convictions, 11 men out of 19 put on trial being convicted. In *dákáitis*, out of 21 cases reported, conviction followed in 5; out of 43 persons tried, 23 were finally convicted.

With regard to *dákáiti* cases or gang-robberies, I take the following from the Report of the District Superintendent, quoted in the Inspector-General's Report for 1872:—'The *dákáitis* may be divided into three kinds—(1) *Dákáitis committed by professionals.* (2) *Dákáitis committed by men of local bad character*—men who, though not regularly organized into bands, are always at the service of any one who is getting ready a party to commit an offence. The employers of these men are—(*a*) sometimes receivers of stolen property; (*b*) sometimes the keepers of *saráis* or rest-houses at which travellers put up; (*c*) not unfrequently one or two of their number constitute themselves the leaders of the expedition. (3) *Dákáitis committed by unpractised men, who are driven to bad courses by want.*

'Under the first head two cases are reported. In one case the gang has been broken up, and the head of it imprisoned. The other was almost certainly committed by a band of professional

dákáits from Bardwán District. Most of the cases fall under the first and third sections of the second head, seven cases coming under that category. With one exception these cases have been detected, though in two of them the accused were discharged either by the Magistrate or the High Court. They were all the work of local bad characters who were got together for the occasion. In one case the men were hired by a receiver, who barely escaped conviction; and in another their employer was a dissipated relative of the man who was robbed. Patiently weeding out the bad characters by prosecutions for bad livelihood; letting them know that every police officer is acquainted with their names, appearance, and associates, and that a watch is being kept upon their movements; and carefully disseminating intelligence of cases in which accused persons have disclosed the names of their accomplices—are the only means by which the *dákáits* of this description can be kept under. Such a result, however, can only be the work of time. Until recently, bad characters have enjoyed a comparative immunity from supervision, but now every measure is being adopted to curb the criminal classes, and improve the efficiency of the police.

'One case of *dákáiti* was probably, and another certainly, committed by local bad characters at the instigation of the keeper of the *sarái* in which the travellers had been staying. Cases of this description have frequently occurred in this District. Travellers at a *sarái* are carefully watched by their host, and any one of them who has cash about him, or whose female companions have valuable ornaments, is noted. The *sarái* keeper finds out when the traveller will start, and sometimes, as in one case, induces him, through the cartman, to start at night. Men are posted at some lonely spot on the road, and the *dákáiti* or robbery is committed with ease, and generally with impunity. Great facilities for the commission of such offences are afforded by the wildness of the country through which the road from Ránígánj to Midnapur passes. The road in many parts is flanked on both sides by jungle for miles together, while from the 20th to the 28th milestone on the road from Ránígánj there are only three houses to be met with. For ten miles beyond Bishnúpur the road is equally lonely. *Ghátwáls* are appointed in monthly rotation to keep guard at certain half-ruined huts, called *pháris*, one of which is to be seen about every two miles along the road, but the men are never to be found at their posts. A proposal has been recently submitted to the Magistrate and Collector, to make

a certain number of men come and live at selected points along the road. Men have been selected who at present let out the greater portion of their lands, and in no case will the place assigned to them for residence be more than two miles from their present places of abode. If four or five men are made to build their houses and live with their families at the points which have been selected (about three-quarters of a mile apart, with a good view of the road on either side), the commission of *dákáitis* or robberies on the highway ought practically to become impossible. Every effort is also being made to induce pilgrims and travellers to journey by day, but with very little success. They prefer to risk the dangers of the road by night, to toiling along in the heat of the day.'

The Magistrate of the District makes the following remarks on the same class of crime, which I also quote from the Inspector-General's Report:—'The number of *dákáitis* committed by professional bands appears to be small, the major portion having been committed by local bad characters, who live by pilfering, and are ready to join any plan for obtaining plunder. It will be observed that the *dákáitis* have not been in general productive of much gain to the perpetrators. Many of these *dákáitis* were in truth only highway robberies; and this is an offence for the commission of which the nature of the country affords every facility. The road from Ráníganj to Midnapur is the highroad to Jagannáth, and in many parts is very lonely and bordered with jungle. The plunder obtained from travellers is often only money, and incapable of identification; and even if other property has been taken, the owners are always unwilling to wait for the result of a tedious enquiry. The plan drawn out by the Superintendent of Police, of excioning small outposts of *ghátwáls* all along the road, is a most excellent one, and ought to be preventive of a species of crime like which is hard to deal with successfully when committed. There great many *ghátwáls* in the District who enjoy their service lands without being called on to do any duty worth mentioning, is no hardship to compel them to do something in return for favours enjoyed. With the road guarded by *ghátwáli* outposts every mile or so, serious crime against property should be checked. The proceedings taken against the bad characters should also have a good effect. I have tried, during my tour this year, accompanied by the Superintendent, several cases of this sort, and have observed the truth of the remark that it is often difficult to get

witnesses to testify against a known *badmásh* or bad character. It is only by going to the spot and investigating the cases, and taking evidence locally, that the truth can be elicited. It was curious to observe how the success met with by one set of villagers, in getting rid of a bad character, emboldened others to come forward for their own relief. The efforts of the police have hitherto been directed more to detection than to prevention of crime. It remains to be seen which is the more successful method; but I am sure that if the same strict supervision as is now exercised be maintained, the results must be satisfactory.'

JAIL STATISTICS.—There is only one jail in Bánkurá District at present—that at the civil station. Prior to 1872, the Ráníganj Subdivision of Bardwán was included within the criminal jurisdiction of Bánkurá. The following are the statistics of the jail population of Bánkurá District (including the Ráníganj lock-up) for the years 1857–58, 1860–61, and 1870, as returned to me by the Inspector-General of Jails. As explained in previous District Accounts, the jail figures for 1857–58 and for 1860–61 must be received with caution, and looked upon as only approximating to correctness, owing to defects in the form of the returns, which cannot now be remedied. In 1870 an improved form of preparing the returns was adopted, and the figures for that year may be accepted as accurate.

In 1857–58, the first year for which materials are available, the daily average number of prisoners in the Bánkurá jail and Ráníganj lock-up was 369; the total number of civil, criminal, and under-trial prisoners admitted during the year being 978. The discharges were as follow:—Transferred, 249; released, 603; died, 16; executed, 3—total, 871. In 1860–61 the jail returns show a daily average number of 321 prisoners, the total admissions during the year being 582. The discharges were—transferred, 139; released, 478; escaped, 2; died, 31—total, 650. In 1870 the daily average jail population was 390, the total number of prisoners admitted during the year being 977. The discharges were—transferred, 70; released, 990; escaped, 5; died, 1—total, 1065. Bánkurá jail has materially improved in healthiness of late years. In 1857–58 the proportion of prisoners admitted to the jail hospital amounted to 95·66 per cent., and the deaths to 16, or 4·34 per cent. of the average jail population; in 1860–61 the admissions to hospital amounted to 122·43 per cent., and the deaths to 31, or 9·65 per cent. of the average jail population; in 1870 the admissions to the

jail hospital fell to 45·12 per cent., and the deaths to 1, or only ·24 per cent. of the average prison population. In 1872, with a total average prison population of 240, there was not a single death in the jail, this being the only jail in all Bengal in which no death occurred.

The average cost of maintenance per prisoner in Bánkurá jail, including rations, establishment, hospital charges, clothing, contingencies, and all other charges except the prison police guard, is returned as follows:—In 1854–55 it amounted to Rs. 37. 1. 6, or £3, 14s. 2¼d. per head; in 1857–58, to Rs. 42. 9. 0, or £4, 3s. 1½d. per head; in 1860-61, to Rs. 37. 15. 2, or £3, 15s. 10¾d. per head; and in 1870, to Rs. 39. 8. 6, or £3, 19s. 0¾d. per head. The cost of the jail police guard in 1870 amounted to an average of Rs. 6. 13. 4, or 13s. 8d. per head, making a gross charge to Government of Rs. 46. 5. 8, or £4, 12s. 8¾d. per prisoner. The Inspector-General of Jails, in his Report for 1870, returns the total cost in that year of the Bánkurá jail and lock-up at Ráníganj, which was then attached to the criminal jurisdiction of the District (including the prison police guard, but excluding cost of alterations and repairs), at £1693, 11s. 0d. Excluding the cost of the jail police guard, which is included in the General Police Budget of the District, the cost of the jail amounted to £1441, 18s. 0d.

The jail manufactures and other work performed by the hard-labour prisoners further lessens the actual expense of the jail to a certain but not very material extent. In 1854–55 the receipts arising from the sale of jail manufactures, together with the value of stock remaining on hand at the end of the year, amounted to £212, 15s. 1d., and the charges to £117, 19s. 7d., showing an excess of receipts over charges, or profit, of £94, 15s. 6d.; the average earnings of each prisoner employed on manufactures amounted to Rs. 5. 10. 4, or 10s. 11½d. In 1857–58 the total receipts amounted to £373, 16s. 5d., and the charges to £143, 11s. 10d., leaving a profit of £230, 4s. 7d.; average earning of each prisoner engaged in manufacture, Rs. 18. 6. 0, or £1, 16s. 9d. In 1860–61 the receipts amounted to £502, 3s. 3d., and the charges to £200, leaving a surplus or profit of £302, 3s. 3d.; average earning of each prisoner engaged in manufactures, Rs. 17. 10. 8, or £1, 15s. 4d. In 1870 the total credits arising from jail manufactures amounted to £1233, 8s. 0d., and the total debits to £923, 1s. 3d., leaving a surplus or profit of £310, 6s. 9d.; average

earning by each prisoner engaged in manufactures, Rs. 19. 12. 0, or £1, 19s. 6d. Deducting the profits derived from prison labour from the total cost of the jail, the net cost of the jail and Ráníganj lock-up, in 1870, amounted to £1131, 11s. 3d.

It must be remembered that the figures for all these years, up to and inclusive of 1870, included also those of the Ráníganj lock-up, which was then attached to the criminal jurisdiction of the District. In 1872, after the complete transfer of Ráníganj to Bardwán District, the statistics of Bánkurá jail were as follow:—The daily average number of civil prisoners in jail was ·32; under-trial prisoners, 13·97; labouring convicts, 215·82; non-labouring convicts, 10·18—total, 240·29, of whom 13·61 were females. These figures give one prisoner always in jail to every 2192 of the total District population; one male prisoner to every 1110 of the total male population; and one female to every 19,477 of the total female population.

The Inspector-General of Jails, in his Report, makes the following remarks with regard to Bánkurá prison:—'This is an unimportant jail, but quite sufficient for an unimportant District, and one in which the criminal jurisdiction has been lately reduced in extent. The jail consists of three separate buildings in distinct but contiguous enclosures,—the criminal jail; the civil jail, in which the under-trial prisoners are now segregated; and a building which contains the female ward and the hospital. It is well provided with workshops, and is in fact one of the best of the smaller jails. Very little is needed to make it as good as possible. The jail is a really healthy one: the average of sick did not exceed one per cent. throughout the year, and this was the only jail in Bengal in which there were no deaths. Of course the healthiness of the District and the sturdiness of the population have much to do with this, but it also points to the excellence of the jail.' The total cost of Bánkurá jail in 1872, excluding public works and prison guard, amounted to £1073, 19s. 9d., or an average of Rs. 44. 11. 0 or £4, 9s. 4½d. per head of the jail population. The financial result of jail manufactures during the year was not very satisfactory: the total credits, including stocks remaining on hand at the end of the year, amounted to £1017, 14s. 0d., and the total debits to £872, 8s. 5d., leaving an excess of credits over debits of £145, 5s. 7d. The actual money cost of the manufacture department during the year amounted to £670, 9s. 2d., and the cash remitted to the Treasury to £725, 13s. 0d.,

leaving an actual cash profit of £55, 3s. 10d., or an average earning of Rs. 4. 10. 0 or 9s. 3d. by each prisoner engaged in manufactures. Out of 215 labouring prisoners, 120 were employed in manufactures; the remainder were engaged in jail duties, or were in hospital, or were weak and old and unable to work. The prisoners actually engaged in manufactures were distributed as follow:—Gunny weaving, 2·23; gardening, 17·34; cloth weaving, 10·93; brickmaking, etc., 10·73; bamboo, rattan, and reed work, 7·86; oil pressing, 8·26; string and twine manufacturing, 4·82; flour grinding, 2·77; carpentry, 9·37; paper-making, 24·86; iron-work, 1·96; rice husking, ·85; tailoring, 1·96; baking, ·09; yarn and thread spinning, 4·39; miscellaneous, 11·93—total, 120·35.

EDUCATION.—The comparative table on the two next pages, compiled from the Reports of the Director of Public Instruction for 1856–57, 1860–61, and 1870–71, indicates the progress of education by means of Government and aided schools in Bánkurá District.

In a backward and poor District like Bankurá, it is not surprising that education should have made but little progress as compared with richer parts of the country. Of late years, however, it has commenced to diffuse itself more rapidly. The table on the following page shows that in 1856–57 the total number of Government and aided schools was only 14, attended by a total of 1354 pupils, and maintained at a total cost of £1168, of which almost two-thirds, or £726, was contributed by Government, the remainder being made up by fees, subscriptions, etc. In 1860–61 the number of Government and aided schools in the District had fallen to 12, and the total number of scholars to 967; the expenditure on these schools amounted to £1028, of which nearly one-half, or £485, was contributed by the State. 'During the next ten years education rapidly extended itself, and in 1870–71 there were altogether 83 Government and aided schools in the District, attended by a total of 3873 pupils, and maintained at a cost of £2886, of which £1283 was given by Government. The greatest increase was in the number of aided vernacular schools, which rose from 6 in 1856–57 to 64 in 1870–71, and the number of pupils from 491 to 2527 in the same period. It must be remembered that the table is altogether exclusive of private schools, which are returned by the police at 427.

Since 1871 the advance of primary instruction has been still more rapid. The reforms of Sir G. Campbell came into operation at the

[*Sentence continued on p.* 296.

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BANKURA DISTRICT IN 1856-57, 1860-61, AND 1870-71.

CLASSIFICATION OF SCHOOLS.	NUMBER OF SCHOOLS.			NUMBER OF PUPILS.											
				HINDUS.			MUHAMMADANS.			OTHERS.			TOTAL.		
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57	1860-61.	1870-71.
Government English School, ...	1	1	1	154	212	210	1	4	4	...	...	1	155	216	215
Government Vernacular Schools, . . .	2	2	5	102	95	389	3	2	8	...	...	...	105	97	397
Aided English Schools,	5	4	9	599	240	625	4	3	4	...	1	...	603	244	629
Aided Vernacular Schools, ...	6	5	64	488	266	2514	3	...	8	...	...	5	491	410	2527
Aided Girls' Schools, .	...	...	4	...	...	101	...	...	2	...	...	2	...	...	105
Total, ...	14	12	83	1343	813	3839	11	9	26	...	1	8	1354	967	3873

[*Table continued on next page.*

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BANKURA DISTRICT IN 1856-57, 1860-61, AND 1870-71—*continued from last page.*

CLASSIFICATION OF SCHOOLS	Cost to Government.						Amount realized by Fees and Private Contributions.						TOTAL COST.					
	1856-57.			1860-61.			1870-71.			1856-57.			1860-61.			1870-71.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Government English School, ...	438	1	2	220	1	10½	241	14	1½	191	15	6	334	18	5½	373	19	1	629	16	8	555	0	4	615	13	2½
Government Vernacular Schools, . . .	43	4	4	36	0	0	102	2	8½	10	0	10	10	10	10½	72	4	6	53	5	2	46	10	10½	174	7	2½
Aided English Schools,	179	13	9½	192	12	11	346	12	0	254	9	4½	184	14	3	642	3	5	360	8	7½	350	13	7½	953	4	7½
Aided Vernacular Schools, ...	65	0	6	36	9	7	524	18	3	59	10	6¼	46	7	4	487	14	8	124	11	0¼	76	9	8	1003	16	1
Aided Girls' Schools, .	...			...			68	0	0	...			...			92	10	2½	...			...			139	11	2
Total, . . .	725	19	9½	485	4	4½	1283	7	1	515	16	2¾	576	10	11	1668	11	10½	1168	1	5¾	1028	14	6	2886	12	3½

Sentence continued from p. 293.]
close of 1872, and their effects were immediately felt. The grant-in-aid system has been extended to a large number of the old *páth-sálás* or indigenous village schools, which have by the same means been brought under Government supervision. In 1872–73 the total number of schools in Bánkurá aided or controlled by Government officers amounted to 134, attended by 4724 pupils. Besides these, statistics for 58 private schools, attended by 1701 pupils, were collected by the Inspector, making a total of 192 schools, attended by 6425 pupils, maintained in 1872–73 at a total outlay of £2970, of which Government contributed £1103. This, however, does not represent the total number of schools, as there are a large number of unaided schools altogether uninspected by the Education Department. In 1871–72 the police returned 427 unaided primary schools, attended by 10,754 boys. The table (shown on the next page) of schools in Bánkurá District in 1872–73, and the succeeding paragraphs, are condensed from the Report of the Educational Department for that year. Besides the Government and aided schools, it also includes 58 private schools for which statistics were obtained during the year. As already stated, however, the total number of private schools in Bánkurá was returned by the police in 1871–72 at 427.

HIGHER-CLASS SCHOOLS.—The three higher-class schools in the District are the Bánkurá Government school, the Kuchiákol school, and the Ajodhyá school. The Bánkurá school showed a falling off in attendance in 1872–73, the numbers being 186 against 222 in the previous year, owing partly to the opening of a new middle-class English school by the Wesleyan missionaries, and partly to epidemic cholera and chicken-pox, which were prevalent during some part of the year. The pupils consisted of 181 Hindus, 4 Muhammadans, and 1 Christian. Of these, 7 belonged to the upper classes of society, 157 to the middle classes, and 22 to the lower. The pupils of the two aided higher-class English schools, numbering 166, are all Hindus. The Kuchiákol school is highly spoken of by the District Magistrate and Deputy-Inspector of Schools, but the attendance does not appear to be so large as formerly. The Ajodhyá school has been much neglected by the managers, and in consequence of the protracted illness of the head-master, it was rumoured that the school was closed, but it is now reported to be improving in condition. The higher-class schools are fairly suc-

[*Sentence continued on p.* 298.

Return of Schools in Bankura District in 1872-73.

Classification of Schools.	Number of Schools.	Number of Masters.	Number of Pupils on 31st March 1873.	Receipts.				Total Outlay.	Average Cost to Government of each Pupil.	Average total Cost of each Pupil.
				Government Grant.	Fees and Fines.		Total Receipts.			
					Fees and Fines.	Local Subscriptions.				
Higher Schools.				£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government,	1	11	186	194 4 0	425 10 0	1 4 0	620 18 0	620 18 0	1 0 10½	3 6 9⅙
Aided,	2	11	166	144 0 0	123 14 0	196 14 0	464 8 0	466 0 0	0 17 4⅛	2 16 1¾
Total,	3	22	352	338 4 0	549 4 0	197 18 0	1085 6 0	1086 18 0	0 19 2½	3 1 9
Middle Schools.										
Government Vernacular,	2	6	199	41 12 0	32 12 0	...	74 4 0	74 4 0	0 4 2⅛	0 7 5⅜
Aided English,	7	21	251	183 10 0	141 16 0	156 16 0	482 2 0	485 12 0	0 14 7⅜	1 18 8¼
Aided Vernacular,	12	30	504	200 18 0	136 14 0	149 8 0	487 0 0	474 16 0	0 7 11⅝	0 18 10
Unaided English,	1	3	110	...	2 8 0	26 12 0	29 0 0	29 0 0	...	0 5 3¼
Total,	22	60	1064	426 0 0	313 10 0	332 16 0	1072 6 0	1063 12 0	0 8 0	0 19 11⅞
Primary Schools.										
Government Aided,	107	111	3316	278 16 0	164 12 0	17 0 0	460 8 0	460 2 0	0 1 8⅛	0 2 9¼
Unaided,	57	57	1591	...	192 10 0	42 8 0	234 18 0	234 18 0	...	0 3 11⅜
Total,	164	168	4907	278 16 0	357 2 0	59 8 0	695 6 0	695 0 0	0 1 1⅝	0 2 9⅞
Girls' Schools Aided	3	4	102	60 0 0	...	62 4 0	122 4 0	124 12 0	0 11 9⅛	1 4 5⅛
Total of Government and Aided Schools,	134	194	4724	1103 0 0	1024 18 0	583 6 0	2711 4 0	2706 4 0	0 4 8	0 11 5½
Total of Unaided Schools,[1]	58	60	1701	...	194 18 0	69 0 0	263 18 0	263 18 0	...	0 3 1⅛
Grand total,	192	254	6425	1103 0 0	1219 16 0	652 6 0	2975 2 0	2970 2 0	0 3 5¼	0 9 2⅞

[1] These are only the unaided schools for which statistics were collected by the Education Department. The police in 1871 returned the total number of unaided schools at 427.

Sentence continued from p. 296.]
cessful in the university entrance examinations. Out of 27 candidates from the Bánkurá Government school, 3 passed in the first division and obtained scholarships at the Presidency College, 7 passed in the second division, and 7 in the third division—10 failed. From the Kuchiákol school, out of 11 candidates, 1 passed in the first, 1 in the second, and 3 in the third division—6 failed. From the Ajodhyá school, out of 7 candidates, 2 passed in the third division, and 5 failed. The cost of education is greater in the Government school than in the two other higher-class schools. The total average cost of each pupil in the Government school is £3, 6s. $9\frac{1}{8}$d., of which £1, 0s. $10\frac{1}{2}$d. is paid by the State; in the two other schools, the average cost of each pupil is £2, 16s. $1\frac{3}{4}$d., of which the Government grant in aid is 17s. $4\frac{1}{8}$d.

MIDDLE-CLASS SCHOOLS.—There are seven aided and one unaided middle-class English schools in Bánkurá District. The seven aided schools were attended by 281 pupils at the close of 1872–73, as against 277 in the previous year; but the one unaided English school, which was established during the year, had 110 pupils, thus showing a considerable total increase on the previous year. The Inspector of Schools in his Report states that middle-class English education does not appear to make much way in Bánkurá: the schools are badly attended and expensive, and the boys as a rule exhibit, in all the subjects taught, an ignorance not to be found in vernacular schools. Nothing is acquired beyond a little English; the Anglo-vernacular system is not followed out. In the schools visited by the Inspector, he found the attendance small, the number of classes large, and every class learning by rote a few sentences from English school-books. The average cost of each pupil educated in a middle-class English school was £1, 18s. 8d., of which Government paid 14s. $7\frac{1}{2}$d. The middle-class vernacular schools consist of two Government model schools and twelve aided vernacular schools. These 14 schools were attended by 705 pupils in 1872–73; in the previous year there were 19 schools of this class, with 1105 pupils. Five schools, with an attendance of about 240 pupils, were transferred to Bardwán during the year. The falling off in attendance is attributable to the increase in the number of primary schools, and to the prevalence of cholera during the latter part of the year. Of the two model schools, the one at Bishnupur is excellent; in 1872–73 it was attended by 142 boys, and managed

by three masters. The other model school has lately been transferred from Bibardá, where it did not flourish, to Bírsinhpur, where it appears to be improving, and has 57 boys on its roll. Ten vernacular scholarships were awarded to the boys of the aided middle-class vernacular schools. The average cost of each pupil in the model schools was 7s. $5\frac{3}{8}$d., of which Government contributed 4s. $2\frac{1}{8}$d.; in the aided schools, the average cost per pupil was 18s. 10d., of which Government paid 7s. 11d. It thus seems that for each pupil educated in an aided middle-class vernacular school, Government pays almost double the sum expended in a model school; and the Inspector states that it would be sound policy on the score of economy to convert all the vernacular schools on the same scale of establishment. At present each of the aided schools costs three times as much as a Government school.

PRIMARY SCHOOLS.—There are altogether 107 aided primary schools in Bánkurá District, attended in 1872 by 3316 pupils; average cost per pupil, 2s. $9\frac{1}{4}$d., of which 1s. 8d. was contributed by Government. Only 57 unaided village schools are included in the statistics of the Education Department; but these returns are incomplete, as there is a large number of private village schools in the District, returned by the police in 1871–72 at 427. Of the pupils in the 57 private schools mentioned in the Education Report, 1585 are returned as Hindus, and only 6 as Muhammadans.

GIRLS' SCHOOLS.—There are three girls' schools in Bánkurá District, attended by 102 pupils, of whom 25 are reported to be able to read and write easy sentences in their mother tongue. No fees are charged in these schools. The foregoing paragraphs are condensed from the Report of the Inspector of Schools in the Annual Report of the Education Department for 1872–73.

POSTAL STATISTICS.—The number of letters, newspapers, parcels, and books received at the Bánkurá Post Office has risen from 37,990 in 1861–62, to 43,398 in 1865–66, and to 85,476 in 1870–71. The letters, etc. despatched from the Bánkurá Post Office increased from 34,169 in 1861–62 to 38,368 in 1865–66. I have not been able to obtain a return of the number of letters, etc. despatched in 1870–71. The postal receipts and expenditure have increased in like proportion. In 1861–62 the total postal receipts amounted to £340, 4s. 6d., and the expenditure to £355, 8s. 3d.; in 1865–66 the postal receipts had increased to £459, 11s. 4d., and the expenditure to £511, 18s. 2d.; in 1870–71 the receipts amounted to

£751, os. 10d., exclusive of the sale of service stamps for official correspondence, and the expenditure to £913, 19s. 6d. The following table, showing the comparative postal statistics of Bánkurá District for the years 1861–62, 1865–66, and 1870–71, is compiled from a special return furnished to me by the Director-General of Post Offices :—

POSTAL STATISTICS OF BANKURA DISTRICT, FOR THE YEARS 1861–62, 1865–66, AND 1870–71.

	1861–62.		1865–66.		1870–71.	
	Received.	Despatched.	Received.	Despatched.	Received.	Despatched.
Letters, ...	32,003	33,111	37,692	37,638	77,038	No Materials received for this Column.
Newspapers, . .	3,838	576	4,169	280	6,147	
Parcels, ...	2,106	476	779	405	408	
Books, ...	43	6	758	45	1,883	
Total, . . .	37,990	34,169	43,398	38,368	85,476	,,
	£ s. d.		£ s. d.		£ s. d.	
Sale of Postage Stamps, . . .	165 5 1		233 8 9		497 10 4	
Cash Collections, .	174 19 5		226 2 7		253 10 6	
Total Receipts, . .	340 4 6		459 11 4		751 0 10	
Total Expenditure	355 8 5		511 18 2		913 19 6	

MEDICAL ASPECTS: CLIMATE.—The year is divided into three seasons,—hot, rainy, and cold. During the hot season, which lasts from the middle of March to the beginning of June, the temperature is very hot, oppressive, and relaxing. The rainy season, which sets in in June, and lasts till the middle of September, is by no means so damp and unhealthy as in the deltaic Districts to the east. The cold season, from October to the end of February, is bracing and enjoyable; the air is clear and dry, and fogs are comparatively rare. The Civil Surgeon reports the average annual mean temperature for the ten years ending 1868 to be 78°·62 Fahr.; the average annual rainfall for the fifteen years ending 1872 is returned by the Meteorological Department at 53·09 inches. The rainfall in 1872 was 44·41 inches, or 8·68 inches below the average.

ENDEMIC DISEASES.—The principal endemic disease is the ordi-

nary intermittent fever of Bengal, which every year after the rains regularly attacks certain portions of the District. Since the famine of 1866, this fever has been particularly severe at Bishnupur, and the mortality proportionately high. Leprosy is common in the District, as also diarrhœa and dysentery. No measures appear to have been taken to improve the general sanitary condition of the District.

EPIDEMICS.—Cholera is nearly always present in the District in a sporadic form, and occasionally breaks out as an epidemic. In 1855 a severe outbreak of cholera occurred, but no record exists of the number of persons attacked, or the proportion of the deaths, except in the jail, where, out of 32 prisoners attacked, 18 died, or 6·44 per cent. of the daily average prison population. In 1860 cholera again occurred in the District and jail, and 3·54 per cent. of the daily average strength of prisoners died. The disease appears to have been introduced into the jail by some prisoners who stopped at Bánkurá on their way from Cattack to Ránchí. They brought cholera with them, and were unwisely allowed to be treated in the jail hospital, whence the disease was immediately disseminated through the jail. The outbreak commenced on the 18th May, and terminated on the 1st July 1860. Again, in 1864, epidemic cholera made its appearance in Bánkurá jail on the 30th January, and lasted till the 28th March. During the outbreak, 40 prisoners, or 11·66 per cent. of the daily average jail population, were attacked, and 15, or 4·37 per cent. of the average daily number of prisoners, died. It appears from the records that the general inhabitants of the District and the police also suffered severely from the disease, and that the mortality was very great. The medical officer in charge of the District was of opinion that the disease was introduced by pilgrims going to or returning from the Orissa shrine of Jagannáth. Another outbreak took place in Bishnupur town towards the close of the famine of 1866. It commenced in the latter part of September, and lasted till the middle of November. The mortality from the disease was again very great. Small-pox occasionally makes its appearance in an epidemic form. The Civil Surgeon is of opinion that the outbreaks are primarily caused by inoculation, and also that the disease is spread through the District by pilgrims going to and returning from Jagannáth. No data exist to supply an estimate of the rate of mortality, or to show the extent to which the disease prevails among the rural population.

CHARITABLE DISPENSARY.—The Bánkurá Charitable Dispensary was established in 1839. The total number of in-door patients treated in 1871 was 170, and of out-door patients 1271. In the following year, 1872, the attendance of patients considerably increased. The number of in-door patients treated in 1872 amounted to 196, of whom 144 were discharged cured, 6 not improved or ceased to attend, 35 died, and 11 remained in hospital at the close of the year; proportion of deaths to total number treated, 17·85 per cent.; average daily number of sick, 10·34 per cent. The deaths were chiefly due to diarrhœa and dysentery, occurring for the most part among pilgrims, many of whom are brought to the hospital in a state of hopeless exhaustion. The mortality among pilgrims was 23·9 per cent. The total number of out-door patients treated in 1872 amounted to 3086, the average daily attendance being 40·21. The local income of the dispensary (exclusive of Government aid in the shape of salaries and medicines supplied free of charge) amounted to £55, 16s. 0d. in 1872, against £49, 6s. 0d. in 1871. The balance in hand rose from £7, 18s. 0d. to £49, 18s. 0d. In 1874 a new dispensary was established in Bishnupur town, but I have not been able to obtain any statistics as to the amount of relief afforded.

NATIVE MEDICAL PRACTITIONERS.—The Civil Surgeon, in his report to me, states that the *kabirájs*, or native medical practitioners who have not been brought up in our schools, are a very ignorant class of men, and that the ignorance and want of skill with which they treat many diseases often end either in the death or permanent injury of the patient. Mercury is considered a panacea for a great variety of diseases, and its indiscriminate use frequently results in lamentable consequences. Many of their medicines consist in a combination of several drugs; sometimes as many as twenty-four drugs enter into the composition of a single mixture or powder. For example, a powder called *gangádhar chúrna* consists of several drugs, such as *bel*, *pániphal*, *pomegranate*, *atas* flowers, *cyperus* grass, ginger, pepper, capsicums, *chiretá*, nutmeg, ter-sulphuret of antimony, sap of the *simul* tree, *bháng*, etc. A wonderful composition is given to rich persons for chronic diarrhœa, consisting of gold, silver, copper, coral, pearls, carbonate of iron, stramonium, and yellow arsenic. In fever cases, the *kabirájs* strictly avoid giving either aperients or stimulants, and even prohibit all food excepting a little parched rice or *muri* for the first seven

days. The consequence is that many patients die from sheer exhaustion through maltreatment. The Civil Surgeon adds that a few of the *kabirájs* of the District have taken of late years to the administration of castor-oil and quinine.

The following is a list of the indigenous vegetable drugs of Bánkurá District which are used by the *kabirájs*. For the botanical identification, where it is given, I trust to the scientific accuracy of the Civil Surgeon:—(1) *Muthá* (cyperus hexastachyus); (2) *nagar muthá* (cyperus pertenuis); (3) *kul bich* (zizyphus jujuba); (4) *golancha* (cocculus cordifolius); (5) *khet páprá* (oldenlandia biflora); (6) *paltá pát* (leaves of trichosanthes dioica); (7) *satamúlí* (asparagus sarmentosus); (8) *telmúlí;* (9) *pipul múl* (root of piper longum); (10) *chitrá múl* (root of plumbago zeylanica); (11) *akand* (calotropis gigantea); (12) *gandha bhedálí* (pæderia fœtida); (13) *mainá phul;* (14) *nim chhál* (bark of azadirachta Indica); (15) *mahá nim;* (16) *arjun chhál* (bark of terminalia alata var. glabra); (17) *thul kurí* (hydrocotyle Asiatica); (18) *indur kalí;* (19) *mugání;* (20) *teorí múl* (root of ipomœa turpethum); (21) *danti múl;* (22) *gámár chhál* (bark of gmelina arborea); (23) *isháη múl* (aristolochia Indica); (24) *nílkánta* (curcuma cœsia); (25) *suska múl;* (26) *dhuturá* (datura alba); (27) *buan;* (28) *jaipál* (croton tiglium); (29) *sálpani;* (30) *chakulá;* (31) *gakhurí;* (32) *birti;* (33) *kantikárí* (solanum jacquini); (34) *bel* (ægle marmelos); (35) *soná chhál* (bark of cassia elongata); (36) *párul* (bignonia suaveolens); (37) *aganto;* (38) *ananta múl* (hemidesmus Indicus); (39) *soná latá* (ichnocarpus frutescens); (40) *satliledá;* (41) *beledá;* (42) *bhúmí kusáná;* (43) *kusáno;* (44) *básak chhál;* (45) *khejur* (phœnix sylvestris); (46) *alkusi* (mucuna prurita); (47) *piál* (Buchanania latifolia); (48) *tetul chhál* (bark of tamarindus Indica); (49) *apáng* (achyranthes aspera); (50) *tál máthí* (borassus flabelliformis or palmyra tree); (51) *báblá chhál* (bark of acacia Arabica); (52) *pániphal* (trapa bispinosa); (53) *jám chhál* and *pát* (bark and leaves of eugenia jambolana); (54) *amlá phal* and *pát* (fruit and leaves of phyllanthus emblica); (55) *haritakí* (terminalia chebula); (56) *bahará* (terminalia bellerica); (57) *ban kundrí;* (58) *telákuchá* (momordica monodelpha); (59) *ádá* (zinziber officinalis); (60) *málatí phul* (flower of jasminum grandiflorum); (61) *nageswar phul* (flower of mesua ferrea); (62) *kuchilá* (strychnos nux vomica); (63) *nátá karanjá* (cæsalpinia bonduc); (64) *bichtarká múl;* (65) *keá mathi* (pandanus odoratissimus); (66) *asud chhál* (bark of ficus religiosa); (67) *bilá*

múl; (68) *kasi múl;* (69) *khajulá ákhermúl* (root of saccharum officinarum).

VITAL STATISTICS.—No regular system for collecting trustworthy vital statistics for the whole population exists in Bánkurá District. For the jail, the Civil Surgeon gives the following statistics:—The average annual rate of mortality in the Bánkurá jail during the sixteen years from 1853 to 1868 was 58·80 per thousand from all diseases. The highest death-rate was in 1855, when it reached 121·20 per thousand; and the lowest in 1868, when it was 14 per thousand. Since 1864 there has been a gradual diminution in the number of deaths in the jail, the famine year of 1866 excepted. Even in 1866, however, the mortality (65·92 per thousand) was not so high as might have been expected, considering the reduced vital strength of the people from insufficient food, and the overcrowded state of the jail. As stated on a previous page, the mortality in Bánkurá jail in 1872, with a daily average prison population of 240, was *nil.* The average prison death-rate from cholera during the sixteen years ending 1868 was 12·01 per thousand. The highest mortality from this cause was in 1855, when the rate was 64·40 per thousand. In 1856, 1862, 1863, and 1867, the jail was free from cholera. The mortality from all causes has very much decreased during the eight years from 1861 to 1868, as compared with the previous eight years from 1853 to 1860. The average annual death-rate from cholera during 1853–60 was 15·17 per thousand; in 1861–68 it was only 8·84 per thousand. Mortality from all other diseases decreased from 53·89 per thousand in 1853–60, to 39·70 per thousand in 1861–68. Total average prison mortality in 1853–60, 69·06 per thousand; in 1861–68, 48·54 per thousand. Since 1868 the mortality has still further greatly declined. In 1869 the deaths in the jail amounted to 6·93 per thousand; in 1870 there was but a single death in the jail; and in 1872 the mortality was *nil.* Of the total number of deaths that occurred in the jail for the four years ending 1868, 69·86 per cent. were of Bengali Hindus, 16·43 per cent. up-country Hindus, 1·36 Muhammadans, and 12·32 Santáls. As exhibiting the proportion in which diseases prove fatal, the Civil Surgeon returns the following figures, calculated on the records of the jail for eleven years:—Diarrhœa and dysentery, 42·80 per cent.; cholera, 18·80 per cent.; anasarca, 7·20 per cent.; fever, 6·20 per cent.; phthisis and asthma, 5·20 per cent.; leprosy, 1·20 per cent.; all other diseases, 18·60 per cent.

The regular police figures for the four years ending 1869 show an average annual death-rate of 19·79 per thousand of the average strength. The rural police returns for three years ending 1868 show an average annual death-rate of 24·50 per thousand. The mortality statistics for the general population are manifestly imperfect. During the twelve months from May 1868 to April 1869, the number of deaths reported amounted to 6491, or, calculating according to the population as returned by the Census of 1872, a death-rate of only 12·61 per thousand,—a rate absurdly low as compared with the mortality in the jail, which during the sixteen years ending 1868 averaged 58·80 per thousand per annum.

BOTANY.—The botanical products of Bánkurá District, either cultivated or growing indigenously, are returned by the Civil Surgeon as follow. Many of them have been already mentioned on a previous page in the list of vegetable drugs used by native practitioners. Ordinary crops, such as rice, pulses, Indian corn, etc., are omitted from this list:—(*a*) Trees—(1) *Sál* (shorea robusta); (2) *jám* (eugenia jambolana); (3) *kend* (diospyros melanoxylon); (4) *arjun* (terminalia alata var. glabra); (5) *sirish* (acacia sirissa); (6) *pipal* (ficus religiosa); (7) *bar* (ficus Indica); (8) *simul* (bombax heptaphyllu); (9) *kádám* (naumclea kadumba); (10) *bábul* (mimosa Arabica); (11) *dhái* (grislea tomentosa); (12) *palás* (butea frondosa); (13) *kul* (zizyphus jujuba); (14) *gámár* (gmelina arborea); (15) *segun* (tectona grandis); (16) *tál* (borassus flabelliformis); (17) *nim* (melia azad-irachta); (18) *ámrá* (spondias mangifera); (19) *kántál* (artocarpus integrifolia); (20) *kámrángá* (averrhoa carimbola); (21) *bel* (ægle marmelos); (22) *khayer* (mimosa catechu); (23) *sumrál* (cassia fistula); (24) *dumur* (ficus glomerata); (25) *chálá* (dillenia Indica); (26) *átá* (anona reticulata); (27) *jháu* (tamarix Indicus); (28) *ámlá* (phyllanthus emblica); (29) *haritaki* (terminalia chebula); (30) *bahará* (terminalia bellerica). (*b*) Vegetables, etc.—(31) *Láu* (cucurbita lagenaria); (32) *jhingá* (luffa acutangula); (33) *kankur* (cucumis utilissimus); (34) *khárá* (amaranthus lividus); (35) *sim* (phaseolus dolichos); (36) *chichingá* (trichosanthes anguina); (37) *kachu* (arum colocasia); (38) *káhmálu* (dioscorea globosa); (39) *kundrukí* (Boswellia thurifera); (40) *pui;* (41) *kalmi* (convolvulus repens); (42) *pát* (corchorus olitorius); (43) *gájar* (daucus carota); (44) *kántá-natiá* (amaranthus spinosus); (45) *kánch kalá* (musa paradisiaca); (46) *piring ság* (trigonella corniculata). (*c*) Flowers, etc.—(47) *Chandra mallikd* (chrysanthemum Indicum); (48) *jui*

(jasminum auriculatum); (49) *belá* (jasminum zambac); (50) *champá* (michelia champaca); (51) *tagar* (tabernæmontana coronaria); (52) *gendá* (tagetes patula); (53) *rájání gándha* (polyanthes tuberosa); (54) *játi* (jasminum grandiflorum); (55) *nágeswar* (mesua ferrea); (56) *muchkand* (pterospermum suberifolium); (57) *asok* (Jonesia asoca); (58) *báshkuná* (sesbania grandiflora); (59) *padma* (nelumbium speciosum); (60) *sundi* (nymphœa cyanea); (61) *sáluk* (nymphœa lotus); (62) *sthal padma* (hibiscus speciosus); (63) *súrjyamaní* (hibiscus phœniceus); (64) *kástha mallikd;* (65) *sephálikd* (nyctanthes arbortristis); (66) *Krishna churá* (poinciana pulcherrima); (67) *jhumká* (passiflora citrifolia). (*d*) Fruit trees and English vegetables cultivated in private gardens — (68) Orange (citrus aurantia); (69) shaddock (citrus decumana); (70) peach (amygdalus Persica); (71) beet (beta vulgaris); (72) potato (solanum tuberosum); (73) artichoke (cynara scolymus); (74) endive (cichorium endivia); (75) lettuce (lactuca sativa); (76) celery (apium graveolens); (77) parsley (petrosselhinum sativum); (78) *lichi* (nephelium lichi); (79) pear (pyrus communis); (80) loquat (eriobotrya japonica); (81) strawberry (fragaria vesca); (82) onion (allium cepa); and (83) cucumber (cucumis sativus).

Geology.—The following brief account of the geology of Bánkurá District is taken from a report furnished to me by the Geological Department. The report was drawn up in 1869, and refers to the District as then constituted, and before the transfer of the eastern portion of the District to Bardwán, or the addition of a large tract on the west from Mánbhúm. Bánkurá District is readily divisible into two physically well-marked portions. Along its eastern side, a large area, fully one-third of the entire District, forms merely a continuation of the wide-spread alluvial flats of Bardwán, Húglí, and Midnapur; while towards the west, the surface rises gradually in broken, swelling ridges to the western boundary. In the other direction, also, the District of Bánkurá is physically divided into two portions by the Dhalkisor river, which traverses its whole breadth from north-west to south-east. The general course of this stream, with many subordinate windings, is about twenty degrees south of east, being rudely parallel with the Dámodar, which forms the northern boundary of the District. Along its western boundary, the District runs into the immense area of metamorphic rocks (gneiss, hornblendic schists, etc.) which cover the country between Bánkurá and Hazáribágh in Chutiá or Chhotá Nágpur. In the northern

portion of this western tract, the rocks stand up boldly and in well-marked ridges or bands, the prevailing character of which is hornblendic, associated with granitic gneiss. The general strike in that part is east and west, or a little to the north of east. Many of the rocks are highly crystalline, traversed by numerous veins of granite; others are softer, yielding more readily to decomposition, and consequently are generally found to be coincident with slight depressions of the general surface, in which deposits of clay and sandy clay, with *kankar*, are not unfrequent. All dip to the north at high angles.

The same prevailing character of rock extends to the hill of Korá, situated about half-way between the Dámodar river and the town of Bánkurá. This hill is sharply scarped to the north and west, and on those sides stands up boldly from the flat country around; but on the east there is a gradual ascent. The hill is composed of a granular quartzite of a greyish white colour, arranged in flag-like layers, more like thin-bedded indurated sandstone than ordinary gneiss. Korá hill is in a line with Susuniá hill to the west, from which at present all the stone known in Calcutta as 'Bardwán paving-stone' is obtained. The same quality of stone could be more readily obtained from Korá hill. To a limited extent, the stone is now used by the people in the neighbourhood for quern stones, curry-stones, etc. To the south-west, close to Korá hill, many veins of pegmatitic granite occur in hornblendic schists. A few badly seen dykes of trappean rocks occur; and near Kendbrosá is a vein of porphyritic greenstone, nearly sixty feet wide. The strike of the rocks south of Korá changes to the west of north, and they are non-quartzose. To the east, they become gradually covered up with laterite masses and coarse sandy clays. South of Bánkurá town, veins of granite occur, heading nearly east and west.

Between the flats of the Dámodar river and its feeders on the north, and those of the Dhalkisor in the centre of the District, and again between the latter stream and the District of Midnapur, extend low, broken, swelling ridges of half-cultivated or uncultivated ground. For the most part these broken swells are covered by low coppice jungle, the hereditary abode of charcoal-burners, whose labours have removed almost everything that could be called a tree, and have left only the stumps and young shoots where once noble *sál* trees flourished. A very few trees, however, are still preserved near some of the villages. The entire surface of this tract is composed of long,

low, swelling ridges, interrupted by irregular bays and spits of the more recent alluvium of sand and *kankar*, which extend into the higher grounds of the ferruginous gravels and clays, forming narrow strips of cultivation, separating the jungles, and giving a very irregular outline to the laterite deposits on which these jungles grow. In Bánkurá, the solid massive laterite is not so largely developed as either in Bardwán to the north or in Midnapur to the south. The prevailing rock is of a gravelly character, having all the appearance of being the result of the breaking up and rearrangement of the more massive form. These varieties pass into a coarse ferruginous gravel, and then into a more sandy clay, containing a few nodules of laterite disseminated, and only sufficient to give a red colour to the whole. These deposits gradually thin out in proceeding westwards, and die away, becoming broken up into isolated patches of smaller and smaller extent and thickness, until at last a few loose scattered blocks may be the only trace of their former occurrence. In proportion, also, as the gneiss is approached, do the number and the size of the fragments of quartz, felspar, and other *débris* of this rock increase, clearly indicating the source from which the materials of the laterite have been derived. In every case within Bánkurá District the laterite is detrital, that is, contains pebbles of quartz, and often of other rocks also; frequently, from the abundance of these, it becomes even conglomeratic. Associated with these laterite deposits, in one or two places, thinly-bedded sandy layers of an ochrey tint, of some feet in thickness, occur. They are to be seen at the east end of the great tank at Bishnupur, and between that and Baniápukur. Near the eastern boundary of the District, a bed of loose quartz pebbles, forming a clean gravel, is found under the laterite bed. Most of the pebbles are rounded, some being as big as a man's head. The same or a smaller bed of coarse loose quartz gravel is met with south of Midnapur.

Bánkurá contains but little mineral wealth, the Ráníganj coal-mines now lying beyond its jurisdiction. Korá hill would yield capital flagging stone, hard, dry, and durable; and fair building stone can be raised from several of the varieties of gneiss rocks. In the extreme west of the District iron is abundant; and in several parts good clays can be had for brick-making, or for the manufacture of the ruder kinds of earthenware.

STATISTICAL ACCOUNT

OF

THE DISTRICT OF BIRBHUM.

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DISTRICT OF BIRBHUM.[1]

BIRBHUM (*Beerbhoom*), the northernmost District of the Bardwán Division, is situated between 24° 9′ and 23° 33′ north latitude, and between 88° 6′ and 87° 9′ east longitude. It contains an area, after recent transfers to and from the neighbouring Districts of Bardwán and Murshidábád and the Santál Parganás, of 1344 square miles, as returned to me by the Boundary

[1] The principal official sources from which I have compiled this Statistical Account of Bírbhúm District are as follow:—(1) Answers to my five series of questions, furnished by the District Officers and signed by T. T. Allen, Esq., C.S., 1870–72. (2) Report on the District of Bírbhúm, by Captain W. S. Sherwill, Revenue Surveyor (1855). (3) Annals of Rural Bengal, by W. W. Hunter, Esq., LL.D. (1868). (4) Mr. Grant's Report on the Finances of Bengal, dated 27th April 1786, published in the Fifth Report of the Select Committee on the Affairs of the East India Company, vol. i. (London, 1812; Madras reprint, 1866). (5) Bengal Census Report, 1872; with subsequent District Compilation in 1873, by Mr. C. F. Magrath, C.S. (6) Report on the Indigenous Agency employed in the Census (1872). (7) Collector's Report on the Land Tenures of the District (1873). (8) Special Agricultural Statistics, compiled by Deputy-Collector Jánakí Náth Mazumdár, with subsequent revision by the Collector (1873). (9) Rent Statistics, furnished by the Collector. (10) Return of Area, Latitudes and Longitudes, etc. furnished by the Surveyor-General. (11) Annual Reports of the Inspector-General of Police, particularly that for 1872. (12) Report of the Inspector-General of Jails for 1872, with special jail statistics for the years 1856–57, 1860–61, and 1870, compiled in his office. (13) Annual Reports of the Director of Public Instruction, with special statistics compiled for the years 1856–57, 1860–61, and 1870–71. (14) Postal Statistics for the years 1855–56, 1860–61, and 1870–71, furnished by the Director-General of Post Offices. (15) Medical Reports, furnished by the Civil Surgeon of the District. (16) Reports on the Charitable Dispensaries of Bengal for 1871 and 1872.

Commissioner in 1874, and a total population, as ascertained by the Census of 1872, of 696,943 souls. The principal town, which is also the Administrative Headquarters of the District, is Surí (Soorie), situated about three miles south of the Mor river, in 23° 54′ 30″ north latitude and 87° 34′ 35″ east longitude.

Boundaries.—Bírbhúm is bounded on the north by the Santál Parganás and the District of Murshidábád, on the east by the Districts of Murshidábád and Bardwán, on the south by Bardwán District, the Ajai river forming the boundary-line for the entire distance, and on the west by the Santál Parganás.

Constitution of the District.—The several *parganás* or Fiscal Divisions which now constitute Bírbhúm, are mentioned in the rent-roll of Todar Mall, Akbar's Prime Minister, as being included within the Sarkars of Tanda, Jannatábád (Lakhnauti or Gaur), and Sharifábád (Bardwán). The first fiscal appearance of the '*zamíndárí* of Bírbhúm' occurs at the beginning of the eighteenth century, when the estate or *zamíndárí* was formally conferred by Jafar Khán on one Asadullá Pathán, whose family had settled in the country about 1600 A.D., after the fall of the Afghán or Pathán dynasty of Bengal kings. Mr. J. Grant, in his Analysis of the Finances of Bengal, dated April 1786, and published in the celebrated Fifth Report of the Select Committee on the Affairs of the East India Company, London, 1812, states that the *zamíndárí* was originally conferred on Asad-ullá, for 'the political purpose of guarding the frontiers on the west against the incursions of the barbarous Hindus of Jharkand (Chhotá or Chutiá Nágpur) by means of a warlike Muhammadan peasantry, entertained as a standing militia, with suitable territorial allotments under a principal landholder, attached to the interests of the State from motives of religion. This District, therefore, although granted under the same written forms as others, was yet held by a tenure different to any other known in the country. In some respect it corresponded with the ancient military fiefs of Europe, inasmuch as certain lands were held *lákhiráj*, or exempted from the payment of rent, and solely appropriated for the maintenance of the troops.' In Jafar Khán's rent-roll of Bengal in 1722, subsequently corrected by Shujá Khán in 1727, the 24 *parganás* or Fiscal Divisions then comprising the Bírbhúm *zamíndárí* were assessed at a rental (*asl jama*) of *sikka* rupees 368,017, or £39,868 sterling. The area of the *zamíndárí*, then the largest Muhammadan estate in Bengal, was 3858 British square miles. This included the whole of Deogarh and other parts of the Santál Par-

ganás which within recent times have been severed from Bírbhúm, and erected into a separate administration. On the death of Asad-ullá, this immense estate was continued under the management of his son, Badi-ul-zamán. In 1760, in the time of Kásím Alí, the privilege of holding immense tracts of lands as *lákhiráj*, or rent-free, was resumed, 'having been found entirely subversive of the sovereign authority under preceding Musalmán administrations, and inconsistent with present exigencies, or a more vigorous, intelligent system of government, which required the sword to be kept unparticipated in the hands of the ruling power.' These *lákhiráj* or rent-free tracts, when brought under assessment, produced a very considerable accession of territorial income to the *subahdárí*, or Government treasury, under the name of *kifayat* or profit. On the death of Badi-ul-zamán in 1769, the *zamíndárí* fell to his legitimate son, Asad Zamán Khán. He died in 1776, and the estate passed into the hands of his half-brother, Bahádur Zamán Khán. An account of the family of the Rájás of Bírbhúm will be given on a subsequent page. Their hereditary possessions have dwindled under each successive chief; and the present representative of one of the most powerful of the old Muhammadan families of Bengal lives in the leaky ruins of what was once a palace.

In 1765 the British obtained the *díwání* or financial administration of Bírbhúm, in common with that of the rest of Bengal; but it was not till March 1787 that the Company assumed the whole direct administration of this District. Bírbhúm had been temporarily placed under supervision in 1769, and was formally visited by the Committee of Circuit in 1772; but the local administration remained in the hands of the Rájá as *amíl*. But the power of the chiefs had rapidly declined, and the prince was not in a position to provide for the security of his people. Bands of marauders congregated upon the western frontier, where the mountain system slopes down upon the Gangetic valley; and in 1784 the evil had grown so serious as to require the interference of the British power. In May 1785, the Collector of Murshidábád, at the extremity of whose jurisdiction Bírbhúm lay, formally declared the civil authorities 'destitute of any force capable of making head against such an armed multitude,' and petitioned for troops to act against bands of plunderers four hundred strong. A month later, the banditti had grown to 'near a thousand people,' and were preparing for an organized invasion of the lowlands. Next year (1786) the freebooters had

firmly established themselves in Bírbhúm, and occupied strong positions with permanent camps. The hereditary prince was unable to take any effective measures against the invaders; the public revenues were intercepted on the way to the treasury; and the commercial operations of the Company within the District brought to a standstill, many factories being abandoned. It was clear that the old system could not be permitted to last longer. A British civil officer, Mr. G. R. Foley, was accordingly despatched from Murshidábád to support the Rájá against the marauders, to inquire into the grievances of the peasantry, and to ascertain the amount of revenue which the principality, if relieved of the incidents of a military tenure, and brought directly under British rule, could afford to pay. Prior to Mr. Foley's deputation, the records show that a Mr. Taylor had been previously (in 1783) officially employed in the District with the designation of Supervisor. Lord Cornwallis, in rearranging the Divisions of Bengal in 1787, perceived that Bírbhúm would never be free from the hill plunderers so long as it remained in any degree dependent on Murshidábád. The two border principalities of Bírbhúm and Bishnupur or Bánkurá were accordingly, by a notification in the *Calcutta Gazette* of the 29th March 1787, united into one compact British District.

For some time after the Company assumed the direct administration of the troubled District of Bírbhúm and Bishnupur, a considerable armed force had to be maintained for the repression of the bands of plunderers along the western frontier. The chief English officer of the District exercised, under the title of Collector, the functions of commander-in-chief and civil governor within his jurisdiction. Indeed, the military side of his duties received during several years undue prominence. At the beginning of each cold weather, when the great harvest of the year approached, he furnished the officer at the head of his troops with a list of hill passes which the sepoys were to defend until the banditti should retire into quarters for the next rainy season. On a proposition being made to reduce the strength of his force, he plainly stated that he would not in that case be responsible for holding the District. Mr. Keating, one of the earliest Collectors whose records are extant, appointed to the District in 1788, had not held his post two months before he found himself compelled to call out the troops against a band of marauders five hundred strong, who had made a descent on a market town within two hours' ride of the English station, and murdered or frightened

away the inhabitants 'of between thirty and forty villages.' In February 1789 the hill men broke through the cordon of outposts *en masse*, and spread 'their depredations through the interior villages of the District.' Panic and bloodshed reigned; the outposts were hastily recalled from the frontier passes, and a militia was levied to act with the regulars against the banditti, who were sacking the country towns 'in parties of three and four hundred men, well found in arms.' Eventually it was found necessary to direct the Collectors of several neighbouring Districts to unite their forces; a battle was fought, and the banditti were chased back into the mountains.

In the Bishnupur portion of the united District the state of affairs was even worse, the peasantry making common cause with the banditti to oppose the Government. After two years of continued disorder and armed resistance to authority, order was at last imperatively enforced. The state of desolation and misery to which the country was reduced by these years of tumult, may be inferred by the following extract from a letter written by Mr. Keating, the Collector, in June 1792. 'Bírbhúm,' he wrote, 'is surrounded on the south-west and west by the great western jungle, which has long protected from the vigilance of justice numerous gangs of *dakáits*, who there take refuge and commit their depredations on the neighbouring defenceless cultivators. Towns once populous are now deserted; the manufactures are decayed; and where commerce flourished, only a few poor and wretched hovels are seen. These pernicious effects are visible along the whole course of the Ajai, particularly in the decay of Ilambázár (sacked by banditti in 1789), and the almost complete desertion of the once large trading town of Sakarakunda. When these places on the frontier became, from their poverty, no longer an object to the *dakáits*, their depredations were extended into the heart of the District; and towns have been plundered and people murdered within two *kos* (four miles) of the Collector's house, by banditti amounting to upwards of three hundred men.'

Even during those first troubled years of British rule, the peasantry obtained a degree of protection which they had not previously enjoyed. Tillage extended; and between February 1786, when Mr. Foley was sent to Bírbhúm, and 1790, when Mr. Keating finally elaborated his system of frontier passes, three hundred and twenty-eight rural communes had been repeopled and brought once more under cultivation. In November 1788, Mr. Keating

found the banditti free to roam over the District. He established outposts to check the constant invasions of marauders from the hill country; but his frontier passes were forced, and to all appearance the District was no safer in 1789 than when he took over charge. The disasters of his first winter, however, had taught him what was needed. The outposts, strengthened by reinforcements, were maintained intact; and the banditti, unable to find an entrance, made a detour southwards, and massed themselves on the south of the Ajai. Before the rains of 1790 set in, the inhabitants had joined heartily with the Government against the common enemy, and the destruction of the robber hordes of Bírbhúm was complete.

As soon as order was established, the amending hand rapidly made itself felt. Organized robberies and armed feuds between the landholders have from time to time disturbed the repose of the District, but on a scale so trifling as barely to keep alive the remembrance of the old troubles. The names of Sinh-bhúm (Lion-land), Sher-garh (Tiger-fort), Sher-ghati (Tiger-ford), Shikar-pur (Hunting-hamlet), now stand as scarcely recognised memorials of the days when the margin of cultivation receded before wild beasts. In 1802, Sir Henry Strachey mentions Bírbhúm as a part of the country remarkably free from robbery. It is at present one of the quietest Districts in Bengal; and a few years back, a public document, in perfect unconsciousness of the past, described it as still enjoying 'its old immunity from crime.'

CHANGES IN JURISDICTION.—Bírbhúm has now a much more circumscribed area than formerly. At the time when it first came under direct British administration, the area of the Bírbhúm *zamíndárí* was returned at 3858 square miles, exclusive of the Bishnupur *zamíndárí*, which constituted the southern half of the united District. In the earlier part of the present century, Bishnupur was separated, and formed into the present independent Collectorate of Bánkurá; and some years subsequently, the western tracts of Kundhit, Kareá, Paboá, and Sarath Deogarh were also separated and included within the jurisdiction of the Santál Parganás. These and other minor changes and transfers have reduced the present area of the District to 1344 square miles. Up to within the last few years, the limits of the different jurisdictions were not coincident, the civil jurisdiction being more extensive than either the magisterial or the revenue. These conflicting jurisdictions proved a source of great inconvenience, and transfers of various small tracts were made in 1872 to the

neighbouring Districts of Bardwán, Murshidábád, and the Santál Parganás, with a view to a remedy. The three jurisdictions may be now said to be practically conterminous with each other.

SUPERFICIAL CONFIGURATION OF THE DISTRICT.—The eastern portion of the District presents the appearance of the ordinary alluvial plains of Lower Bengal. Proceeding towards the west, however, the ground rises, and the surface consists of undulating beds of laterite, resting on a rock basis. The height of the District above sea-level, according to the Geological Department, varies from 76 to 900 feet.

RIVER SYSTEM.—No important or navigable river flows through Bírbhúm. The largest stream is the Ajai, which, however, nowhere intersects the District, but forms its southern boundary. It first touches upon the District on its south-west corner, flows a winding course in an easterly direction, till, at the extreme south-eastern corner of Bírbhúm, it enters Bardwán. During the rains, this river is at times navigable by cargo boats. The principal streams flowing through Bírbhúm District are as follow:—The Mor, or Maureksha river, rises in the Santál Parganás, near Tior hill, a little east of Deogarh. It enters Bírbhúm near the village of Haripur, flows through the centre of the District from west to east, and leaves it at Malandí Digar. The Mor is occasionally navigable during the rains, but only by *descending* boats. Small canoes are accordingly built on its banks, and floated down during the freshets, but are unable to return. They carry the charcoal from the jungle down to Kátwá, in Bardwán District, where the Ajai joins the Bhágirathí. The cargo proves highly remunerative, and the boats fetch their cost price. The Bakeswar river takes its rise within the District, and with its tributary, the Kopai or Kopa or Sal Nadi, drains the country between the Mor and the Ajai. Shortly after leaving the District on its eastern boundary, the river falls into the Mor. The Hinglá Nadi flows through a small portion of the extreme south-west of the District. It enters from Kundahít Kareá, in the Santál Parganás, and after passing through the Fiscal Divisions of Padra and Sháh Alampur, falls into the Ajai. The only other stream deserving mention is the Dwarká Nadi, which waters the north of the District, entering from the Santál Parganás, and passing into Murshidábád District on the north-east. None of these rivers or streams are navigable except by very small canoes, and by them only during freshets in the rainy season. No lakes or canals are situated in Bírbhúm District. The

total number of deaths from drowning reported by the police in 1869 amounted to 72. None of the rivers or streams are utilised as a motive power for machinery, nor have they any descents or rapids of such a character as to render it likely that they could be so applied by the formation of dams or weirs. The river fisheries are very small in extent, and of but little value.

MINERAL PRODUCTS.—Iron and limestone are the only minerals of any importance found in the District. Iron ores have long been worked under the rough native mode of smelting; and within the last few years an attempt has been made to ascertain whether more extended operations might not profitably be carried out according to the European process of manufacture, under competent supervision. During the cold weather of 1851-52, the different iron-yielding Districts of Bengal were examined and reported on by the Geological Survey. I extract the following paragraphs from the Report:—

'This is a very interesting District, both from the manner in which the ore occurs, and from the simple process adopted in its reduction. At present (1852) the manufacture is almost entirely confined to three or four villages, of which Beliá Náráyanpur is the largest and most important. Next to it in extent of the workings is the village of Deocha, lying about twenty miles to the south of Beliá Náráyanpur. At Dhamrá also, the position of which is intermediate, there are several furnaces at work, and also at Ganpur. But there are few villages throughout that neighbourhood adjoining which large heaps of slag and refuse of furnace workings may not be seen, giving evidence of the extent to which these operations had been formerly carried on, and also of their long continuance.

'At Deocha there are at present (1852) about thirty furnaces at work for the reduction of the ore into pig iron, or what is called here *kachhá* iron, and about as many more for refining it, or making it *pakká*. The two operations are carried on by totally different sets of people, and what is curious, by people of different religions,—those who reduce the ore in the first instance being invariably Muhammadans, and the refiners as invariably Hindus. From each of these furnaces, when at work, between twenty and twenty-five maunds (between three-quarters of a ton and a ton) of pig iron can be turned out during a week. The furnaces work throughout the year, with only occasional stoppages for *pujás*, or festivals; that is, provided the proprietor has been able to lay in a stock of ore and of

charcoal previously to the commencement of the rains, sufficient to last till the weather again admits of the miners obtaining the ore. From each furnace a produce of about 34 tons of pig iron is annually obtained. At Deocha there are thirty of these furnaces; at Beliá Náráyanpur, about as many more; at Dhamrá, four; and at Ganpur about six; or a total of about seventy furnaces. Supposing these to be all continuously at work, they would yield a produce amounting to $70 \times 34 = 2380$ tons of pig iron in the year,—a considerable quantity when the rude processes of manufacture are taken into account. The pig iron is then sold to the refiners, and in the process of re-melting and preparation nearly one-fourth of its weight is lost. Allowing for this reduction, there would be a final produce of iron fit for the market of about 1700 tons.

'Under existing arrangements (1852), and with the present mode of conducting the operations of smelting and refining, the cost of this iron is Rs. 1/8 a maund, or 4s. 2d. a hundredweight, making a cost of £4, 4s. od. a ton. To reduce this into a state fit for any large works would cost at least one-half more, so that we should have the cost of this iron brought into a convenient state for European works about £6, 6s. od. a ton, a price at which it could not compete with English bar iron, the quality of which is known. It must be remembered, however, that the quality of the Bírbhúm iron, owing to the processes adopted, and to its being smelted entirely with charcoal, is essentially different from that of English iron, and, though not so useful for railway purposes, is more valuable for other work in which toughness and malleability, combined with softness, are required.

'It remains to be considered whether any improvements in the process of smelting could so reduce the cost as to render the produce available. Undoubtedly such improvements are possible, and if the iron is to be used on any large scale, absolutely essential. But there is to my mind a very serious and insuperable objection to the adoption of such a course, in the simple fact of the manner in which the ore presents itself. The ore is an oxide of iron, partly earthy, partly magnetic, which occurs in thin seams, disseminated among and spreading in a tangled manner through the soapy trappean claystone. The bed or layer in which it occurs is on an average about five feet thick; but the ore is by no means equally disseminated, but, like all other metallic ores, occurs in irregular bunches or nests. There is no vein, but only thin disseminated threads or

strings of ore passing in every direction across and among the clay matrix, and filling up every fissure in the mass. It is, in fact, an infiltered oxide of iron which has passed into and been deposited in the little cracks and joints of the rocks. Occurring in this way, therefore, it will be obvious that a very large proportionate amount of material has to be removed in order to obtain any considerable quantity of the ore. In other words, the produce of any one place is soon exhausted, and the scene of operations must be changed, the ore being so scattered and so little concentrated. With the very limited demand at present existing, this is of minor consequence, although even under present arrangements the great heaps of refuse adjoining many of the villages where no furnaces now exist, and where they have not existed within the memory of any of the inhabitants, indicate that this exhausting process has taken place,—that the ore in the vicinity has been worked out, and the occupation therefore abandoned. Where the profit is so small, the addition of a few miles to the distance from which either the raw ore or the charcoal for its fusion has to be brought will be quite sufficient to turn the balance. This removal is a trifling matter when the whole house and apparatus for the furnace only costs from Rs. 12 to Rs. 16, or from £1, 4s. 0d. to £1, 12s. 0d., as is the case with the native furnaces; but it would be of supreme importance, and indeed fatal to the success of the effort, with large and expensive furnaces and machinery, such as would be required were the ordinary European processes of smelting introduced. The difficulty of procuring fuel is also daily increasing. The forests and jungles are disappearing before the axe of the charcoal-burner, and the plough is steadily taking possession of lands but very recently covered with impenetrable wood. No doubt a vast extent still remains unhewn, and fuel in the immediate neighbourhood of the jungle is still (1852) very cheap; but with a bulky article of commerce like charcoal the expense of carriage is considerable, and the question of distance as regards the supply and the economy of it is therefore an important one.' The Geological Surveyor, in the above report, thus summed up the prospect regarding the iron-yielding tracts of Bírbhúm: 'The absence of economical fuel, combined with the scanty supply of ore, at once determines the inapplicability of any extended series of operations for smelting and manufacturing iron in the District of Bírbhúm.'

'These paragraphs were written in 1852; but the great rise which

has taken place of late years in the price of English iron has again turned public attention to the iron ores of Bengal. Within the past few years, operations were set on foot on an extensive scale about twelve miles north-west of the present Civil Station, for raising and smelting the ore, under European supervision. The iron produced appears to have been of good quality, and well suited for manufacturing purposes. The experiment, however, proved unsuccessful from a pecuniary point of view, and the enterprise dropped. Specimens of the ore and of the limestone for fluxing found in the vicinity were forwarded, in 1870, to Professor Murray Thomson of the Rurkí College, for assay and analysis, and that gentleman submitted the following report:—

'The ores belong to the description known as brown hematite. (1) Crude ore from surface. This contains 49·03 per cent. of sesqui-oxide of iron, corresponding to 34·32 per cent. of metallic iron. (2) The same surface iron roasted. This contains 67·81 per cent. of sesqui-oxide of iron, corresponding to 49·97 per cent. of metallic iron. (3) Crude ore from hill, eighteen feet from surface. This contains 34·80 per cent. of sesqui-oxide of iron, corresponding to 24·35 per cent. of metallic iron. (4) Limestone used in smelting. This contains 65·50 per cent. of carbonate of lime, corresponding to 31·50 per cent. of lime.

'So far as analyses show, these ores seem excellently adapted for the production of iron. There are many poorer ones worked in Great Britain. The limestone is also good. I have analysed but few Indian limestones which contain a higher percentage of lime than this one does. I would here suggest that although the crude ore No. 3 from the hill, eighteen feet from the surface, contains a lower percentage of iron than the surface ore, yet that may be owing to its greater dampness. When more exposed, so as to become drier, the percentage of iron would in all likelihood rise.'

A more detailed examination of the chances of profitably working the Bengal iron ores will be found in my Statistical Account of Bardwán District, where I treat of the iron beds of the Ráníganj Subdivision, which are much more extensive than the iron-yielding tracts of Bírbhúm. In 1873 a professional gentleman from England was deputed to visit and report upon the different iron beds in India. He thus reports (12th March 1874) with regard to the Ráníganj ore:—

'There does not seem to be much prospect of being able to work

at a profit except during a prevalence of high prices in England, as under ordinary circumstances I should think that English iron would have the command of the market.' These remarks apply also to the Bírbhúm ores; but the railway, with its cheap transit rates for coal and limestone, is every year developing new possibilities of industrial enterprise in Bengal. The East India Line runs through Bírbhúm District.

HOT SPRINGS.—Several sulphur springs are found in Bírbhúm *District.* A group of these springs is situated on the banks of the Bakeswar *nálá*, about a mile south of the village of Tántipárá, in the *parganá* of Haripur. This group is named the Bhúm Bakeswar. There are also numerous hot jets in the bed of the stream itself, and the air is impregnated with sulphuretted hydrogen. The locality has its sacred legend, and forms a noted place of pilgrimage. Along the right bank of the stream stand upwards of three hundred small brick and mortar temples, built by various pilgrims, each containing an emblem of Mahádeo or Siva. Another warm spring occurs near the hamlet of Sakarakunda (once a place of considerable importance, but now fallen to decay), with a temperature of 85°. On the banks of the pool are the ruins of a curious old Hindu temple of hewn stone.

FERÆ NATURÆ.—The wild beasts which formerly infested Bírbhúm have now almost disappeared, with the exception of an occasional tiger or bear which wanders into the cultivated tracts from the jungles of the Santál Parganás on the west in the cold weather. During the year 1869, 3 deaths were reported as having been caused by wild beasts, and 55 by snake-bite. Of small game, hare, partridges, wild duck, quail, and snipe are met with.

POPULATION.—In 1801 the population of Bírbhúm was estimated at 700,000 souls. At that time the District included Deogarh and part of Dumká, now incorporated in the Santál Parganás, as well as the police circles (*thánás*) of Nalhátí and Rámpur Hát, which now belong to Murshidábád. At the time of the Revenue Survey of the District (1848–52), its area amounted to 3142 square miles, including the tracts since transferred to the Santál Parganás and Murshidábád; but the population, as estimated by the Revenue Surveyor, only amounted to 514,597, or an average of 163 persons to the square mile. The estimate in 1801 seems to have been excessive, while that made at the time of the Revenue Survey in 1848–52 was probably below the mark.

A careful Census of the District was taken on the 13th and 14th of January 1872. It was intended that the Census for the whole District should be taken simultaneously, and the 1st of *Mágh* was the day fixed; but the native almanacs differed as to the number of days in *Paush*, the month preceding, and the result was, that some returns were filled up on one day and some on the next. The agency employed in taking the Census was that of respectable inhabitants of each village, who were assisted by the rural police (*chaukídárs*). The Collector states: 'The *zamíndárs* of the District were asked to give their assistance, and they placed the *gumáshtás* of their villages at the disposal of the Magistrate for this purpose. In many instances the *gumáshtás* performed the duty of enumerators, especially where the residents were illiterate. In Santál villages, the agency of the village heads (*mánjhís*) was made use of.' The total number of enumerators employed in the Census was 7738. The most populous parts of the District are the police circles (*thánás*) in the south and east, bordering upon Bardwán and Murshidábád. The northern *thánás* adjoin the Santál Parganás, and contain more or less uncleared jungle.

The results of the Census disclosed a total population of 696,945 souls, residing in 160,206 houses and 2478 villages. The total area of the District is taken at 1344 square miles, showing the average density of the population to be 518 souls to the square mile; the average population of each village, 281; and average number of inmates per house, 4·3. The following table illustrates the distribution of the population in each police circle or *thánd*. As the *thánd* boundaries of the District have not yet been finally adjusted, it is impossible to give the exact area, or the density of population in each, as has been given in the population tables and the Statistical Accounts of other Districts. It must also be mentioned that the figures in the following table are slightly different from those published in the General Census Reports, some villages of *thánd* Kasba having been omitted in the General Report, the error being afterwards corrected in the separate District Compilation by Mr. C. F. Magrath, C.S.:—

Abstract of Population of each Police Circle (Thana) of Birbhum District.

Police Circle (*Thánd*).	Number of Villages or Townships.	Number of Houses.	Total Population.	Averages.	
				Persons per Village or Township.	Persons per House.
Surí,	387	24,038	104,107	269	4·3
Rájnagar,	141	6,823	30,985	320	4·5
Dubrájpur,	433	31,336	137,255	317	4·3
Kasbá,	393	28,217	122,417	311	4·3
Sákulipur,	177	14,930	61,842	349	4·1
Lábhpur,	269	16,195	71,945	267	4·4
Barwán,	228	14,503	64,173	281	4·4
Maureswar,	450	24,164	104,221	232	4·3
District Total,	2478	160,206	696,945	281	4·3

Abstract.—District area, 1344 square miles; average density of population, 518 per square mile; average number of villages per square mile, 1·84; average number of houses per square mile, 119.

Population classified according to Sex and Age.—The total population of Bírbhúm District consisted in 1872 of 335,052 males, and 361,893 females; total, 698,945, Proportion of males in total population, 48·1 per cent. Classified according to age, the Census shows the following results:—Hindus—under twelve years of age, males 93,749, and females 83,584; above twelve years, males 184,405, and females 217,078; total of all ages, males 278,154, and females 300,662. Grand total of Hindus, 578,816. Muhammadans—under twelve years of age, males 20,603, and females 17,535; above twelve years, males 32,665, and females 40,151; total of all ages, males 53,268, and females 57,686. Grand total of Muhammadans, 110,954. Christians—under twelve years of age, males 50, and females 47; above twelve years, males 70, and females 80; total of all ages, males 120, and females 127. Grand total of Christians, 247. Other denominations not separately classified, and consisting of aboriginal tribes professing primitive faiths—under twelve years of age, males 1567, and females 1516; above twelve years, males 1902, and females 1943; total of all ages, males 3510, and females 3418. Grand total of 'others,' 6928. Population of all religions—under twelve years of

age, males 115,969, and females 102,682; over twelve years, males 219,083, and females 259,211; total of all ages, males 335,052, females 361,893; total, 696,945. The percentage of children not exceeding twelve years of age in the population of different religions is as follows:—Hindus—proportion of male children, 16·2 per cent., and of female children, 14·4 per cent.; total proportion of children of both sexes, 30·6 per cent. of the Hindu population. Muhammadans —male children 18·6, and female children 15·8 per cent.; proportion of children of both sexes, 34·4 per cent. of the Muhammadan population. Christians—male children 20·1, and female children 18·9 per cent.; proportion of children of both sexes, 39·0 per cent. of the Christian population. Other denominations not separately classified —male children 22·6, and female children 21·9 per cent.; proportion of children of both sexes, 44·5 per cent. of the 'other' population. Population of all religions—male children 16·7, and female children 14·7 per cent.; proportion of children of both sexes, 31·4 per cent. of the total District population. It is a curious fact that the proportion of children is greatest among the aboriginal tribes classed as 'others,' not only in Bírbhúm District, but throughout Bengal. The aboriginal tribes, indeed, so far from dying out, seem to be the most prolific of the Indian races. Another remarkable circumstance is that, except in a few Districts where the number of Muhammadans is comparatively small, the proportion of children is everywhere greater among the Musalmán than among the Hindu population of Lower Bengal. In Behar and the North-Western Provinces, however, their families are not much if at all larger than those of Hindus. It has been suggested as a probable cause of this, that the Muhammadan population of Lower Bengal consists in a great part of the descendants of converted aboriginal tribes.

With regard to the ratio of the sexes, the Census returns show a small number of female as compared with male children, while in the case of adults the proportion of the sexes is inversed. This is the case in almost every District of Bengal, and arises from the fact that girls are considered to arrive at womanhood at an earlier age than boys attain manhood, and many are consequently returned as adults while boys of the same age are returned as children. The proportion of the sexes of all ages, namely, males 48·1 per cent., and females 51·9 per cent., is probably correct. The preponderance of the female over the male population of Bírbhúm is due to the fact that a number of the male inhabitants seek employment in Calcutta or

in other Districts, leaving their wives and families behind them. Recruiting for male labourers for the West Indies and Mauritius plantations also goes on in Bírbhúm on a small scale.

THE INFIRM POPULATION.—The number and proportion of insanes and of persons otherwise afflicted with infirmities in Bírbhúm District is returned in the Census Report as under:—Insanes—males 95, and females 25; total 120, or ·0172 per cent. of the population. Idiots—males 17, and females 2; total 19, or ·0027 of the District population. Deaf and dumb—males 192, and females 76; total 268, or ·0382 of the District population. Blind—males 390, and females 202; total 592, or ·0849 per cent. of the District population. Lepers—males 2417, and females 467; total 2884, or ·4138 per cent. of the District population. Leprosy is the most common infirmity met with in Bírbhúm. It is curious that although the females number 51·9 per cent. of the District population, yet out of the total number of persons returned as afflicted with the above-mentioned infirmities, less than one-fifth were women. The total number of male infirms amounted to 3111, or ·9583 per cent. of the whole male population, while the number of female infirms returned was only 772, or ·2153 per cent. of the female population. The total number of infirms of both sexes was 3883, or ·5600 per cent. of the total District population.

I omit the returns of the population according to occupation, as they do not stand the test of statistical criticism.

ETHNICAL DIVISION OF THE PEOPLE.—The Hindus form the great majority of the population of Bírbhúm. The District Census Compilation returns their number at 278,154 males, and 300,662 females; total, 578,816, or 83·05 per cent. of the entire population. The Muhammadans number 53,268 males, and 57,686 females; total, 110,954, or 15·92 per cent. of the District population. The Christian community consists of 120 males, and 127 females; total, 227. The remaining 1·03 per cent. of the population is composed of other denominations not separately classified in the Census Report. These are principally aboriginal tribes who still continue to follow their primitive faiths. The Census returns their numbers at 3510 males, and 3418 females; total, 6928. This estimate, however, as will be seen from the following table, is based upon religious rather than ethnical grounds, and by no means includes the total number of persons of aboriginal descent in Bírbhúm

are accordingly returned among the general Hindu population. The total number of aboriginal tribes is estimated at 16,276, and of semi-Hinduized aborigines at 181,147.

Mr. Magrath's District Census Compilation thus classifies the ethnical divisions of the people. The list of Hindu castes will be reproduced on a subsequent page, but arranged in a different order from that given here, according to the rank which they hold in social esteem :—

Name of Nationality, Tribe, or Caste.	Total.
I.—NON-ASIATICS.	
European—	
English,	65
French,	1
Irish,	4
Scotch,	15
Spaniard,	1
Total of Non-Asiatics,	86
II.—MIXED RACES.	
Eurasians,	5
III.—ASIATICS.	
A.—Other than Natives of India and Burmah.	
Nepalese,	6
B.—Natives of India and British Burmah.	
1. *Aboriginal Tribes.*	
Bhumij,	49
Dhángar,	5,159
Khariá,	231
Kharwár,	14
Kol,	24
Nat,	3,830
Paháriá,	15
Santál,	6,954
Total,	16,276
2. *Semi-Hinduized Aborigines.*	
Bágdí,	56,157
Báheliá,	48
Báurí,	24,569
Bediyá,	593
Bhuiyá,	970
Buná,	43

Name of Nationality, Tribe, or Caste.	Total.
2. *Semi-Hinduized Aborigines—continued.*	
Chain,	2
Chámár and Muchí,	30,181
Kuril,	7
Chandál,	891
Dom,	34,994
Turí,	65
Dosádh,	96
Hárí,	21,827
Káorá,	410
Karangá,	48
Mál,	9,346
Mihtar,	101
Musáhar, etc.	496
Pásí,	6
Rájbansi Koch,	1
Shikárí,	296
Total,	181,147
3. *Hindus.*	
(i.) Superior Castes.	
Bráhman,	42,389
Rájput,	7,028
Ghátwál,	184
Total,	49,601
(ii.) Intermediate Castes.	
Baidya,	1,352
Bhát,	146
Káyasth,	8,319
Total,	9,817
(iii.) Trading Castes.	
Agarwálá and Márwárí,	203
Gandhabanik,	10,182
Khatrí,	558

Name of Nationality, Tribe, or Caste.	Total.
(iii.) Trading Castes—*continued.*	
Mahurí,	95
Seth,	90
Subarnabaniá,	5,262
Total,	16,390
(iv.) Pastoral Castes.	
Gareri,	1
Goálá,	17,448
Total,	17,449
(v.) Castes engaged in preparing Cooked Food.	
Gánrár,	70
Madak,	10,066
Total,	10,136
(vi.) Agricultural Castes.	
Agurí,	3,103
Bárui,	2,269
Támbulí,	2,962
Chásádhopá,	430
Kaibartta,	11,081
Koerí,	468
Kurmí,	364
Málí,	536
Sadgop,	109,630
Others,	474
Total,	131,317
(vii.) Castes engaged chiefly in Personal Service.	
Behárá and Duliyá,	916
Dhanuk,	772
Dháwá,	41
Dhobá,	2,131
Hájjám,	7,757
Káhár,	938
Total,	12,555
(viii.) Artisan Castes.	
Bháskar,	1
Kámár,	10,495
Kánsárí,	148

Name of Nationality, Tribe, or Caste.	Total.
(viii.) Artisan Castes—*continued.*	
Kumár,	7,583
Láherí,	98
Sánkhárí,	574
Sonár,	4,544
Sunrí,	21,237
Sutradhar,	7,747
Telí,	8,107
Kalu,	22,762
Total,	83,296
(ix.) Weaver Castes.	
Jogí and Patuá,	2,999
Kapálí,	230
Kotál,	631
Tántí,	16,761
Total,	20,621
(x.) Labouring Castes.	
Beldár,	102
Chunárí,	206
Korá,	3,776
Náik,	8
Pairágh, etc.,	425
Patiál,	3
Total,	4,520
(xi.) Castes occupied in selling Fish and Vegetables.	
Matiá,	1,315
Pundarikákhya,	13
Purá,	1,089
Total,	2,417
(xii.) Fishing and Boating Castes.	
Jáliá,	765
Keut,	1,078
Málá,	466
Mánjhí,	120
Pátní,	104
Pod,	68
Tior,	307
Others,	58
Total,	2,966

Name of Nationality, Tribe, or Caste.	Total.
(xiii.) Beggar, Dancer, Musician, and Vagabond Castes.	
Báití and Bájuár, . .	454
Others, ...	105
Total, .	559
(xiv.) Persons enumerated by Nationality only.	
Hindustání, . . .	64
Panjábí, . . .	3
Uriyá, ...	6
Total, .	73
(xv.) Persons of Unknown or Unspecified Castes,	2,345
Grand Total of Hindus,	364,062

Name of Nationality, Tribe, or Caste.	Total.
4. *Persons of Hindu Origin not recognising Caste.*	
Vaishnav, . . .	23,249
Sanyásí, ...	117
Native Christians, . .	158
Total, .	23,524
5. *Muhammadans.*	
Julahá, ...	205
Mughul, . . .	56
Pathán, ...	960
Sayyid, ...	68
Shaikh, ...	713
Unspecified, . . .	109,835
Total, .	111,837
6. *Burmese.*	
Magh, ...	2
Total of Natives of India, . . .	696,848
Total of Asiatics, .	696,854
Grand Total, .	696,945

Castes.—The following is a list of the different Hindu castes in Bírbhúm District, arranged as far as possible in the order in which they rank in local public esteem, together with the occupations followed by their members. The numbers are taken from the District Census Report. The list of castes involves to a certain extent a repetition of the tables given above, but it follows a different order, and deals with another aspect of the subject. The highest castes are,—(1) Bráhman; members of the priesthood, landholders, employed in Government or private service in respectable occupations, traders, and cultivators. The cultivating class of Bráhmans are numerous in Bírbhúm District. They perform all the operations of husbandry, with the exception of the actual holding of the plough, which is considered a menial function. The Census Report returns the number of Bráhmans in Bírbhúm at 42,389. (2) Kshattriya or Khatri; in reality traders and merchants, who claim to belong to the second or warrior caste of the old Hindu system in Sanskrit times. As fully explained in my Account of Bardwán, it is believed that, at least in Lower Bengal, no

pure Kshattriyas now exist. The Census Report returns them as a trading caste under the designation of Khatris, and gives their number in Bírbhúm District at 558. As a rule, the members of this caste are wealthy men, or at least in comfortable circumstances. (3) Rájput; a caste claiming Kshattriyahood, employed in military service, or as guards, policemen, doorkeepers, etc.; 7028 in number, generally poor. (4) Ghátwál; a caste or class also claiming the rank of Kshattriya, whose duty was formerly to guard the hill passes and keep them free from robbers; they are now employed as a superior class of police, and remunerated by rent-free grants of service land. The Census of 1872 returned the number of Ghátwáls in Bírbhúm District at 184. (5) Baidya; hereditary physicians by caste occupation, but many have abandoned their profession, and are now landed proprietors, traders, Government servants, etc.; 1352 in number. (6) Káyasth or writer caste; some are now landed proprietors, and others are employed as *zamíndárí* rent-collectors, Government servants, clerks, etc.; 8319 in number. (7) Bhát; bards, heralds, and genealogists, also carriers of letters of invitation. This caste claim to be lapsed Bráhmans, but it is very doubtful whether they have any title to Bráhmanhood at all, although they wear the sacred thread. They are returned as a separate caste in the Census Report; number, 146. (8) Ganak or Achárjya; fortune-tellers and astrologers; a degraded caste of Bráhmans, who have lost public esteem in consequence of their accepting alms at *sráddhas* and other ceremonies. The Census Report does not return their number separately, but includes it with that of the other Bráhmans. (9) Agarwálá and Márwárí; two distinct castes, but returned as one in the Census Report; they are wealthy up-country traders, 203 in number. (10) Seth; a wealthy caste of up-country traders; 90 in number.—See the Statistical Account of Murshidábád District.

Pure Sudra Castes.—Next in order come the following twelve pure Súdra castes:—(11) Nápit; barbers; 7757 in number. (12) Kámár; blacksmiths; 10,495 in number. (13) Kumár; potters and makers of earthen idols; 7583 in number. (14) Telí or Tilí; oil pressers and sellers by caste occupation, but many have latterly pushed themselves a step upwards in the social scale, and are now wealthy traders and grain merchants; 8107 in number. (15) Támbulí or Támlí; originally *pán* growers and sellers, now traders and landed proprietors; 2962 in number. (16) Sadgop; the highest cultivating caste, and by far the most numerous caste in Bírbhúm;

the great majority are ordinary cultivators, but many are comparatively wealthy landed proprietors, who till their own lands; 109,630 in number. (17) Bárui; growers and sellers of betel leaf; 2269 in number. (18) Málákar or Málí; gardeners, flower sellers, and pith workers; 536 in number. (19) Gandhabanik or Baniá; grocers, spice dealers, and general traders; 10,182 in number. (20) Sánkhárí; shell cutters and makers of shell bracelets; an offshoot of the Baniá caste; 574 in number. (21) Kánsárí; braziers and coppersmiths; 148 in number. (22) Agurí; a respectable mixed caste of cultivators lately sprung up; 3103 in number.

INTERMEDIATE SUDRA CASTES.—The following fourteen are intermediate Súdra castes, who are neither esteemed nor despised, but who yet have some claim to respectability. (23) Goálá; cowkeepers and milkmen; 17,448 in number. (24) Gánrár; sellers and preparers of parched rice; 70 in number. (25) Madak; sweetmeat makers; 10,066 in number. (26) Kaibartta; cultivators. These men are probably the descendants of one of the aboriginal tribes of the western Districts of Chhotá or Chutiá Nágpur, who embraced Hinduism soon after the appearance of the Aryans in Bengal. They are now looked upon as one of the intermediate Súdra castes. Number in Bírbhúm, according to the Census Report, 11,081. A further account of the Kaibartta caste will be found in my Statistical Accounts of Midnapur District, pp. 54 and 55, and of Huglí District, p. 288. (27) Chásá Dhobá; cultivators; 430 in number. (28) Garerí; an up-country pastoral caste; only 1 returned as dwelling in Bírbhúm District. (29) Vaishnav; not a caste, but rather a class of Hindus, followers of Chaitanya; 23,249 in number. A further description of the Vaishnav sect will be found in my Statistical Accounts of the 24 Parganás, pp. 65–67 and 72–73, and of Dacca District, pp. 55–57. (30) Mahurí; traders in cloth; 95 in number. (31) Koerí; cultivators; 468 in number. (32) Kurmí; cultivators and sellers of jungle products; 364 in number. (33) Tántí; weavers; 16,761 in number. (34) Swarnakár or Sonár; goldsmiths and jewellers; an offshoot of the Baniá caste, but not held in the same esteem as other branches, from the supposed propensity of its members of pilfering the gold or silver entrusted to them; 4544 in number. (35) Subarnabaniá; bankers, and dealers in gold and silver; also a branch of the Baniá caste, but held in low esteem, for a similar reason to that just cited; 5261 in number. (36) Bháskar; stone mason; 1 in number.

Low Sudra Castes.—The following thirty-two are the despised low castes :—(37) Jogí and Patuá ; weavers. These are two distinct castes, but are returned as one in the Census Report, probably for the reason that both follow the same occupation. The number of both castes in the District is given at 2999. (38) Láherí ; lac ornament makers ; 98 in number. (39) Kapálí ; weavers ; 230 in number. (40) Sutradhar or Chhutár ; carpenters ; 7747 in number. (41) Sunrí or Surí ; distillers and wine sellers by caste occupation, but many have now abandoned their hereditary profession, some taking to cultivation and others to trade ; 21,237 in number. (42) Dhanuk ; labourers and domestic servants ; 772 in number. (43) Káhár ; palanquin bearers and domestic servants ; 938 in number. (44) Pairágh ; labourers ; 425 in number. (45) Kotál ; weavers ; 631 in number. (46) Dhobá ; washermen ; 2131 in number. (47) Kalu ; oil pressers and sellers ; 22,762 in number. (48) Beldár ; labourers ; 102 in number. (49) Chunárí ; lime-burners ; 206 in number. (50) Korá ; earth workers, chiefly employed in road making, digging tanks, etc. ; 3776 in number. (51) Náik ; labourers ; 8 in number. (52) Patiál ; labourers ; 3 in number. (53) Metiyá ; sellers of fish and vegetables ; 1315 in number. (54) Bhuiyá; cultivators and labourers ; 970 in number. (55) Jáliá ; fishermen and boatmen ; 765 in number. (56) Málá ; fishermen and boatmen ; 466 in number. (57) Mánjhí ; not a separate caste, but a class of boatmen who act as helmsmen ; 120 in number. (58) Pátní ; ferrymen ; 104 in number. (59) Keut ; fishermen and boatmen ; 1078 in number. (60) Dháwá ; fishermen and boatmen ; 41 in number. (61) Bágdí ; cultivators, day-labourers, and fishermen ; 56,157 in number. (62) Dalui ; cultivators and labourers ; mentioned by the Collector, but not returned in the District Census Report. (63) Behárá and Duliyá ; palanquin bearers and labourers ; the Duliyás are also fishermen ; 916 in number. (64) Pundari-Kákshya ; sellers of fish and vegetables ; 13 in number. (65) Purá ; sellers of fish and vegetables ; 1089 in number. (66) Chandál ; cultivators and labourers ; 891 in number. (67) Pod ; fishermen ; 68 in number. (68) Tior ; fishermen and boatmen ; 307 in number.

Semi-Aboriginal Castes.—The following are all semi-aboriginal castes, and form the very lowest castes of the Hindu community :—(69) Báití or Bájuár ; mat makers, musicians, dancers, etc. ; 454 in number. (70) Dom ; basket makers, cultivators, and labourers ; 34,994 in number. (71) Dosadh ; cultivators and labourers ; 96 in

number. (72) Turí; cultivators and labourers; 65 in number. (73) Karangá; cultivators and labourers; 48 in number. (74) Mál; snake-charmers; 9346 in number. (75) Muchí and Chámár; shoemakers and leather dealers; 30,181 in number. (76) Báurí; palanquin bearers and labourers; 24,569 in number. (77) Pásí; toddy sellers; 6 in number. (78) Rájbansí Koch; fishermen and cultivators; only 1 in Bírbhúm District. (79) Rájwár; cultivators and labourers; mentioned by the Collector, but not returned in the District Census Report. (80) Shikárí; huntsmen; 296 in number. (81) Báheliá; coolies and day-labourers; 48 in number. (82) Bediyá; a wandering gipsy-like tribe who live by selling trinkets at fairs, bird-catching, juggling, fortune-telling, etc., and when these means fail, by petty thefts; 593 in number. (83) Pákhmárá; bird-catchers; mentioned by the Collector, but not returned as a separate caste in the District Census Report. Perhaps they may be identified with the Bediyás. (84) Set; labourers; mentioned by the Collector as a numerous caste, but not returned separately in the District Census Report. (85) Hárí; swineherds and sweepers; 21,827 in number. (86) Káorá; swineherds; 410 in number. (87) Mihtar; sweepers and scavengers; 101 in number. (88) Buná; labourers, principally employed as coolies in indigo factories; 43 in number. (89) Chain; labourers; 2 in number. (90) Musáhar; labourers and fishermen; 496 in number. (91) Kuril; cultivators and labourers; 7 in number. (92) Bholá; (93) Kámilá; (94) Boání; (95) Kurur. These all belong to the lowest class of day-labourers, but they are not returned as separate castes in Mr. Magrath's District Census Report.

The foregoing list of Hindu castes is exclusive of 73 persons enumerated by nationality only, 2345 persons of unknown or unspecified castes, and 275 persons of Hindu origin not recognising caste (excepting the Vaishnavs, who are included).

RELIGIOUS DIVISION OF THE PEOPLE.—The Hindus form the great majority of the population (83 per cent.). The remainder is composed of Muhammadans, a few hill tribes professing aboriginal faiths, and a very small sprinkling of Christians. According to Mr. C. F. Magrath's District Census Report, the Hindu population of Bírbhúm numbers 278,154 males, and 300,662 females; total, 578,816, or 83·05 per cent. of the District population. Proportion of Hindu males to total Hindu population, 48·1 per cent. A list of the different Hindu castes is given above.

THE MUHAMMADANS number 53,268 males, and 57,686 females; total, 110,954, or 15·92 per cent. of the District population. Proportion of Muhammadan males in total Muhammadan population, 48·0 per cent. The four principal sects or classes among the Musalmáns are the Sayyids, Shaikhs, Patháns, and Julahás. The Sayyids form the principal sect, the word signifying a chief or a leader. They claim to be lineal descendants of the Prophet. The Shaikhs are subdivided into two classes,—the Sadiks, who are zealous followers of Muhammad, and the Akbarís. The Patháns are of Afghán descent, and the Rájá of Nagar and his family belong to this class. The Julahás are Muhammadan weavers. They form a low class, and were originally Hindus who were forcibly converted to the faith of Islám. It is said that in some parts they still observe certain Hindu prejudices, such as abstaining from meat, etc. The Musalmán religion, however, has now ceased to make any further progress among the people. The Collector reports that the Muhammadans are generally in poor circumstances, and that they are more or less fanatical in their tenets.

THE CHRISTIANS in Bírbhúm District number 249 souls, viz. 121 males, and 128 females; proportion of males in total Christian population, 48·6 per cent. Deducting 91 for the European and Eurasian population, there remains a balance of 158 representing the total native Christian community. The Collector reports that the native Christians of the District are generally well-off.

OTHER RELIGIONS.—The remainder of the population consists of a few hill tribes professing aboriginal faiths, and not separately classified in the Census Report. That Report returns the aboriginal tribes in Bírbhúm District as under:—Bhumij, 49; Dhángar, 5159; Khariá, 231; Kharwár, 14; Kol, 24; Nat, 3830; Paháriá, 15; and Santál, 6954: total, 16,276. Large numbers of these have now adopted other religions; and the Census Report returns only 6928 as still retaining their primitive forms of faith.

There are no Buddhists or Jains in Bírbhúm.

DIVISION OF THE PEOPLE INTO TOWN AND COUNTRY.—Bírbhúm is a purely rural District. The Census Report returns only one town with a population over five thousand, viz. Surí, the headquarters of the District; population, 9001. The villages and towns are classified as follows:—There are 1325 villages containing less than two hundred inhabitants; 788 with from two to five hundred; 294 with from five hundred to a thousand; 50 small towns with from

one to two thousand; 6 with from two to three thousand; 5 with from three to four thousand; and 1 town with from nine to ten thousand inhabitants.

SURI, the principal town and administrative headquarters of Bírbhúm District, is situated in *parganá* Khatanga, about three miles south of the Mor river, in latitude 23° 54′ 30″ and longitude 87° 34′ 35″. The population is returned as follows:—Hindus, males 3543, and females 3203; total 6746. Muhammadans, males 975, and females 1081; total 2056. Christians, males 90, and females 97; total 187. Other denominations, males 9, and females 3; total 12. Total of all religions, males 4617, and females 4384; grand total 9001. The gross municipal income of the town in 1871 amounted to £483, 18s. 0d. or Rs. 4839, and the gross expenditure to £473, 8s. 0d. or Rs. 4734; rate of municipal taxation, 1s. $0\frac{7}{8}$d. or 8 ánnás 7 pies per head of the population. The town and station are situated upon the summit and immediate extremity of a gravel-covered ridge.

RAJNAGAR or NAGAR, the ancient capital of the District, is situated within *pargaṇá* Haripur, in latitude 23° 56′ 50″ and longitude 87° 21′ 45″. Prior to the arrival of the Muhammadans, Nagar was the capital of the Hindu princes of Bírbhúm. It was a place of considerable consequence and note; and in 1205 A.D., or two years after the Muhammadan conquest of Bengal, Bakhtiár Khiljí, the Musalmán general, constructed a highway from Nagar to Deokot, near Gaur, a distance of ten days' journey. In 1244 A.D. the town was plundered by the Uríyás. The Muhammadan family of Nagar dates from the beginning of the eighteenth century, when the estate of Bírbhúm was conferred by Murshid Kuli Khán on one Asád-ullá Pathán as a military fief, for the purpose of guarding his western frontiers against the incursions of the aboriginal tribes of Chhotá or Chutiá Nágpur. The town of Nagar has now fallen into decay, and its site is covered by crumbling houses, mouldering mosques, and weed-choked tanks. The ancestral palace of the rájás, still occupied by the representative of the family, has almost fallen into ruins. North of Nagar, and buried in a heavy jungle, are the remains of an ancient mud fort, said to have been built in the last century as a defence against the Marhattás. Another defence to the town was a wall, thus described in Captain Sherwill's Revenue Survey Report of Bírbhúm District:—'The famous Nagar wall or entrenchment, which was thrown up by one of the Nagar rájás, extends in

an irregular and broken figure around the town for a distance of thirty-two miles. Its average distance from Nagar is four miles. It is in good preservation to this day (1852), and is not, as represented in Arrowsmith's large map of India, a connected entrenchment enclosing the town and the surrounding country. It is merely thrown across the approaches to Nagar, and usually flanks and crosses all the main routes to the town, there being from a quarter of a mile to six miles of the entrenchment on either side of the road. The entrenchment, which was constructed to ward off the attacks of the Marhattás, is from twelve to eighteen feet in height, with a broad ditch on the outside, formed by digging out the earth for the parapet. Each entrance upon the main roads was guarded by a small outwork, defended by wooden gates supported on stone jambs, the outwork being capable of holding about a hundred soldiers. The embankment itself, as well as a few hundred yards of the country both on the outside and inside of the gateways, is covered with a thick, tangled jungle. The whole thing was a foolish and expensive piece of work, as the well-mounted Marhattá had only to ride four or five miles to the flank of the entrenchment, and thus find an easy approach to Nagar. The entrances were all called *ghát*s, and retain their name to this day.' Since the above was written, the process of decay has gone on rapidly. The *ghát*s or gateways have long ceased to be capable of defence, and many parts of the wall have been washed almost level with the ground by the annual rains.

ILAMBAZAR, a considerable trading town, situated in *parganá* Senbhúm, on the bank of the Ajai river, in the south-west of the District; latitude 23° 37′ 35″, and longitude 87° 34′ 50″. It is noted for its manufacture of lac ornaments. At the time of the Survey (1849–52), the population of the town was returned at 2235 souls. The District Census Report does not give separate returns of towns below five thousand inhabitants, and I am therefore unable to give the present population.

DUBRAJPUR, a considerable place of trade, and the headquarters of a police circle (*thánd*), situated in the southern portion of *parganá* Sháh Alampur; latitude 23° 47′ 35″, and longitude 87° 25′ 0″. The Revenue Surveyor's Report thus describes the town:—'Dubrajpur is a very fine town in the south of Sháh Alampur *parganá*. It contains an *abkárí* or excise officer's bungalow, a *munsif's kachárí* or Subordinate Judge's Court, and a police station. In the town there is a good market for English piece goods, cloth, brass pots, sugar,

lac, rice, and sweetmeats. The town is surrounded on all sides by numerous large tanks, the banks of which are generally planted with *tál*, or fan-leaved palm trees (*borassus flabelliformis*). These trees yield a considerable excise revenue to Government, their juice forming a powerful spirit, which is largely consumed by almost all classes. The tanks surrounding the town contain abundance of fish, which are brought from the Bhágirathí river. Great attention is paid to the rearing and breeding of these fish, and, as they increase in size and number, they are transferred from tank to tank, according to their ages. These tanks are either the property of *zamíndárs*, or of *mahájans* who farm the fishings, or they are public property. Those that are private property, and are preserved, produce fish of great size and delicacy; those that are public property are so constantly disturbed, by being dragged with the small hand and casting nets of the poor, as to produce no fish of any large size. The supply of small fish, however, appears to be inexhaustible; for the fishing, which is carried on all day long and on every day of the year, never seems to make any difference in this respect. Within the town, and immediately to the south of it, large, naked, picturesque masses of granite and gneiss protrude through the soil, occupying altogether about a square mile of space. The granite is grey, composed of glassy quartz, pink and grey felspar, and black mica. In the centre of the mass, a large block of granite is seen, united to a mass of gneiss. The gneiss is composed of the same materials as the granite, and adheres to it at an angle of 45°. The immediate junction of the two rocks is not perceptible; but six inches in width covers the doubtful belt where the two distinct rocks appear fused together. On one side of the doubtful space the granite is quite distinct; and on the other, the gneiss, with its perfect stratification. From the summit of the rock, which is about sixty feet high, a good view is obtained of the surrounding country. The Paresnáth mountain is seen at a distance of seventy-five miles in a south-westerly direction, the Rájmahal hills to the north, and the Pánchet hill to the south-south-west. One of the large hemispherical masses of granite, six feet in height and thirty in circumference, has been covered over with a flat-roofed temple, and a masonry drain built round the block, which is worshipped as Mahádeo. Bráhmans are attached to the temple; and offerings of flowers and Ganges water are made to this extraordinary object of worship.'

GANUTIA, situated in the east of the District, on the north bank of

the Mor river, in *parganá* Inchápukur. This little village is the centre of the silk industry in Bírbhúm ; and nearly every household in the neighbourhood supports itself by the rearing of silkworms. The cocoons are either wound off at home or sold to the large English factory at Ganutiá. The establishment of this factory dates from about the year 1786, when Mr. Frushard, a private merchant or 'adventurer,' built a factory, protected by a moat and ramparts, on the banks of the Mor, and entered into engagements for the supply of silk to the Company. This gentleman, as a private factor, was harassed in every possible way by the Company's executive officers in the District; and the following paragraphs regarding Mr. Frushard's undertaking [1] illustrate the difficulties which beset private enterprise in Bengal in the last century.

The East India Company managed its rural manufactures according to two systems,—by salaried officers, termed commercial residents ; and by unpaid agents, who agreed to supply the material at fixed rates. Mr. Frushard was one of the latter class ; and having contracted with the Company for the supply of silk in Bírbhúm, built his factory at Ganutiá, on the north bank of the River Mor. The river then flowed through pathless jungles, with here and there a little cleared spot, in which the mulberry-growing villages could barely hold their own against the wild beasts. But the Bírbhúm silk fetched a high price ; and as soon as one hamlet was harried by banditti or trampled down by wild elephants, another sprang up. About the year 1786, therefore, Mr. Frushard determined to become a producer of Bírbhúm silk on a large scale ; and by engaging to supply the Company, obtained from the Rájá, through its influence, a lease of the jungle lands on the north bank of the Mor. The trials and difficulties which constantly beset him, with the political necessities which regulated his position, are scarcely intelligible to Anglo-Indians of the present day, and even the class to which he belongs has been for more than a generation extinct. From the moment that the 'adventurer' set foot in the District, he found the whole body of officials arrayed against him. The natives charged him the highest prices for everything, and the Company allowed him the smallest. A sanguine, irascible man, a novice in dealing with the agricultural classes, but full of energy, and firmly believing that a fortune was to be made in a few years, he entered into engagements

[1] Extracted in a condensed form from *Annals of Rural Bengal*, by W. W. Hunter, vol. i. p. 357 et seq., 5th edition.

without calculating the cost, and lived a laborious life with small profit. In the first place, he paid a great deal too much for his land. Jungle lands such as Mr. Frushard's then let for 1s. 6d. an acre; but the Rájá having a monopoly of almost the whole land in the District, managed to obtain 6s. 6d. from the eager Englishman, or at the rate of 16s. for the land really capable of tillage. The ordinary rent of excellent rice land then varied from 7s. to 12s. an acre. Mr. Frushard therefore speedily fell into arrears; and the Rájá complained to the Collector, employing Mr. Frushard's non-payment as a pretext for being himself behind with his land tax. The Collector found himself powerless to touch the defaulter. He could not distrain the factory lands or take out execution against its stock-in-trade, for such a step would interfere with the regular supply of the silk investment; and to do justice to a native at the expense of disarranging the mercantile operations of the Company was unheard of in those days. Mr. Keating, the Collector, feared to take any step that would bring down on his own head the wrath of the Board of Trade, and poured forth his complaints to the Board of Revenue. He stated that, while the factory property was thus protected from attachment, 'the adventurer' secured his person from arrest by living beyond his jurisdiction, and that, in short, he had no means of reaching 'that *páikásht rayat* Mr. Frushard.' Nor was the latter gentleman less clamorous. His case even reached the Court of Directors; and Lord Cornwallis, in 1787, writes of him as deserving special indulgence. The burden of all his petitions was, that Government should use its influence with the Rájá to procure a remission of rent. At length, in 1790, he declares himself wearied out, and makes a final appeal for relief. He had taken the land, he says, at an exorbitant rent; to this rent he had added the interest on the capital expended in reclaiming the land from jungle; he had suffered heavy losses from floods; his filature had been at work during four years, but it had not begun to pay. In the past year (1789) he had indeed cleared the paltry sum of £200 as a return for all his capital, but during the current year (1790) he would not be able to make both ends meet. 'In a word, although for these five years forbearing from any place of public resort, and living almost in retirement, here I am, after a ten years' absence from home, with no hope to return, and with barely the means to live.'

While, however, the District officers thwarted the unhappy Mr.

Frushard at every turn, the higher authorities looked upon him as an unavoidable evil, and rather favoured him than otherwise. At length, in 1791, Lord Cornwallis, fearing to lose his services altogether, commanded that all his past arrears should be forgiven; that for the future his rent should be reduced by nearly one-half; and that the Collector should deduct whatever these sums came to from the land tax payable by the Rájá. For the agency system had been found to yield larger profits than the more imposing operations of the commercial residents. It was conducted partly with the speculator's private capital, and partly with money advanced by the Board of Trade in Calcutta. The Company ran no risk. If the season proved a bad one, the agent suffered; and the factory, built at his expense, afforded a material guarantee if he failed to perform his contract. Mr. Frushard being thus relieved from the exorbitant rent he had hastily agreed to, became a permanent resident in Bírbhúm, and soon a very important one. A pushing Englishman, with £15,000 a year to spend on the part of the Company, and as much more as his credit could supply on his own account, and connected in a certain degree with the Government, he acquired great influence among the jungle villages. The Collector's jurisdiction practically ended on the south side of the river Mor. All beyond was forest and waste, where the scattered inhabitants had to protect themselves as best they could. In this uncared-for territory, the presence of an energetic mercantile Englishman made itself felt in spite of official discouragement. He became their magistrate and judge, arrested robbers, freed many a village from tigers, spread a ring of cultivation and prosperity round the factory, and soon founded little tributary filatures throughout the whole north-eastern jungle of Bírbhúm. His factory, rebuilt several times, now forms the most imposing mercantile edifice in Bírbhúm. It is situated on a rising ground on the bank of the Mor, defended from the river by buttresses, and surrounded by a high and many-angled wall, enclosing a space large enough for a little town. The concern now belongs to a large English firm in Calcutta, under the management of European superintendents on the spot. Two thousand four hundred artisans are employed for the single process of winding off the cocoons; and if to these be added the mulberry growers and silkworm breeders with their families, it may be calculated that the factory supports 15,000 persons. Its annual outlay averages

old commercial residents in Bírbhúm. The yearly value of the general silk manufactures of the District now exceeds £160,000.

SURUL, situated in the south of the District, in *parganá* Sibpur, about five miles north of the Ajai river. This village was the site of a large and important commercial residency, where the greater part of the Company's District trade was centred. I have just mentioned one mode in which the Company conducted its manufactures, viz. by contracts with unpaid agents. The other and more important system was to carry on the trade itself through its own servants, styled commercial residents. The sum spent upon the mercantile investment at Surul in Bírbhúm, during the latter years of the last century, varied from £45,000 to £65,000 a year. The weavers worked upon advances. Every head of a family in a Company's village had an account at the factory, where he attended once a year for the purpose of seeing his account made up, and the value of the goods which he had delivered from time to time set off against the sums he had received. The balance was then struck, a new advance generally given, and the account re-opened for the ensuing year. The commercial residents were practically the real heads of the District, rather than the Collectors. The first commercial resident, Mr. Cheap, has left behind him the name of 'Cheap the Magnificent.' His residency at Surul consisted of a pile of buildings, surrounded by artificial lakes and spacious gardens, and encircled by a strong wall, which gave the place a look less of a private dwelling than of a fortress. Mr. Cheap exercised magisterial powers; and the villagers, to whom an appearance before the Collector, whether as plaintiff or defendant, was equally an object of terror, referred their disputes to his arbitration. Little parties arrived every morning,—one bearing a wild beast, and expecting the reward; another guarding a captured freebooter; a third to request protection against a threatened attack on their village; a fourth to procure the adjustment of some dispute about their watercourses or landmarks. In such matters the law gave Mr. Cheap no power; but in the absence of efficient courts, public opinion had accorded jurisdiction to any influential person who chose to assume it, and the commercial resident's decision was speedy, inexpensive, and usually just. Besides being the medium for investing the Company's money, Mr. Cheap was a great merchant and manufacturer on his own account. He introduced the cultivation of indigo into the District, improved the

manufacture of sugar by means of apparatus brought from Europe, and established a mercantile house, which still flourishes, and whose brand bears his initials at the present hour. Something of the old authority of the commercial resident yet clings to the firm. Ill-feeling between landlord and tenant is unknown on their estates; and an order from the resident partner has all the force of a legislative enactment throughout the valley of the Ajai. The village of Surul, however, has lost all its importance. When the Company gave up their mercantile dealings, the commercial residency at Surul was abandoned and allowed to fall into decay. The ruins crown the top of a small hill, visible for many miles. The above account was written in 1864, when I was employed officially in the District, but so far as I can ascertain it still holds good.

TANTIPARA, situated in *parganá* Haripur, a few miles south of Nagar. The Revenue Surveyor describes it (1852) as a fine substantial village, standing in the midst of rice cultivation. A large number of Hindu families in the village find employment in weaving, or in collecting and reeling off *tasar* silk for the Calcutta market. A remarkable exposed dyke of conchoidal hornstone, running three or four hundred yards east and west, lies on the east of the village. A mile south of Tántípárá, on the banks of a small stream, the Bakeswar, is the group of hot springs called Bhúm Bakeswar, to which allusion has been made on a previous page. The Revenue Surveyor states that the temperature of the hottest well at noon on 28th December 1850 was 162° Fahr.; the coolest, 128°; temperature of the air in the shade, 77°; temperature of the stream above the influence of the hot springs, 83°. Shoals of small fish were observed in the cool water. There are also several cold springs in the vicinity of the hot ones, the whole flowing from crevices in a tough gneiss rock, composed of glassy quartz, pink felspar, and black mica. The sand of the stream, some way removed from the hot springs, and at the depth of six inches from the surface, is very hot to the touch. The body of water ejected from the hottest well is very considerable, being about a hundred and twenty cubic feet per minute. It rises from innumerable small orifices in an accumulation of mud and dirt, the rock being nowhere visible in the tank.

MAURESWAR, a village and the headquarters of a police circle, situated in *parganá* Darin Maureswar; latitude 23° 59′ 5″, and longitude 87° 48′ 20″. The village is situated upon the road leading from Surí to Murshidábád, and the Revenue Surveyor states

that it is surrounded by eighty tanks. The inhabitants are principally engaged in rearing silkworms and in silk spinning.

KENDULI, a small village on the north bank of the Ajai, situated in *parganá* Senbhúm, is celebrated as the birthplace of Jaideva, a Vishnuvite reformer and Sanskrit poet, the author of the celebrated *Gíta Govinda*, or songs in praise of Krishna. An annual fair in his honour is held in the village on the last day of the Hindu month of Mágh (the commencement of February), and is attended by upwards of fifty thousand persons.

BOLPUR, AHMADPUR, SYNTHIA, and MALLARPUR, railway stations on the loop-line of the East India Railway. These villages have rapidly risen in importance within the last twenty years, since the opening of the railway, and have attracted a great deal of the trade which formerly went by water to Kátwá and other trading towns on the Bhágirathí and Húglí.

VILLAGE OFFICIALS.—In Bírbhúm the indigenous village corporations of the Hindu system still retain considerable vitality, although the authority of the village officials has greatly decreased of late years. The following paragraph regarding the status of these officers, their duties, responsibilities, and remuneration, is taken from a report on the indigenous agency employed in the Census operations, dated 13th April 1872, and a further report by the Collector, dated 21st April 1873 :—

THE MANDAL is the village head, and his office dates from before the Muhammadan occupation of Bengal. Appointments were made not by election, but on the nomination of the *zamíndár* or of the ruling power. Usually the person paying the largest amount of revenue in a village was appointed *mandal*. He was recognised as the constitutional referee in all matters affecting the village community, and as arbiter of village disputes. His primary duty was to assist the *zamíndár* in measuring and ascertaining the boundaries of the lands held by each cultivator, and in the collection of revenue. He was held responsible for the peace of the village, and for bringing criminals to justice. No salary was attached to his post, but he was sometimes allowed to hold his lands at a slightly lower rate of rent than the other cultivators ; and annually, on the occasion of the *punyá*, or first rent-day of the year, he usually received some trifling present, such as a cotton cloth or a small sum of money. The *mandal's* office became hereditary, and remains so, but his position is now of much less importance

than it originally was. He is still looked to by the *zamíndár* to assist in the realization of rent, and is bound to co-operate with the police in the apprehension of offenders. But except in small agricultural villages, he no longer possesses his ancient influence over his fellow villagers. This is due partly to the increased centralization both in *zamíndárí* management and police administration, and partly to the spread of education. The title of *mandal*, originally bestowed on a selected person in each village, has been gradually assumed by all substantial, well-to-do husbandmen. (2) The *náib* is the representative of the landlord, and is paid by him. He looks after the *gumáshtás* or rent collectors, checks the accounts, and generally superintends the estate. (3) The *gumáshtá* is also paid by the *zamíndár*. He is employed in collecting rents, etc., and is also bound to send information to the police of all crimes. Besides his pay, he receives small presents from the husbandmen on the occasion of marriages or other important ceremonies. (4) The *chaukídár* is the village policeman, whose chief duties are to patrol the village at night, and to give information of all crimes, etc., at the nearest *thánd*. He is appointed by Government, and is supported by service (*chákrán*) lands set apart for that purpose by the *zamíndár*. (5) The *simánddár* is supposed to know the boundaries of the different villages. His post is hereditary, and he is paid by service lands. (6) The *hálshánd* assists the *gumáshtá* in the collection of rents, and is also paid by service lands. (7) The *purohit* or priest performs the various religious ceremonies of the village; he also receives a public remuneration. (8) The *kámár* or blacksmith; (9) the *dhobá* or washerman; (10) the *nápit* or barber; (11) the *máli* or gardener; and (12) the *kumár* or potter,—in addition to their own private employments, are also bound to assist in certain ceremonies, and are paid for such services by small grants of *chákrán* land.

MATERIAL CONDITION OF THE PEOPLE.—The general style of living in Bírbhúm District is poor. The ordinary dress of the men consists of a waistcloth (*dhutí*), the quality of which differs according to the circumstances of the wearer. The houses are usually mud-walled, but one or two more substantial brick houses are found in almost every village. A well-to-do shopkeeper occupies a house with five or six small rooms; an ordinary cultivator has two or three rooms at most. Rice, pulse (*dál*), vegetables, and fish form the food of the common people. The Collector estimates the cost of living for an average-sized household of a well-to-do shopkeeper at

about Rs. 15, or £1, 10s. 0d. per month; and that of an ordinary cultivator at from Rs. 4 to Rs. 5, or from 8s. to 10s. a month.

AGRICULTURAL.—The principal food-grain of the District is rice, of which two great crops are grown, viz.:—(1) *áus*, or autumn rice, sown about the months of Baisákh and Jaishtha (April and May), and reaped in Bhádra and Aswin (August and September); and (2) *áman*, or winter rice, sown in Jaishtha and Ashár (May and June), and reaped in Agraháyan and Paush (November and December). An earlier variety of *áman* rice is reaped in the month of Kártik, corresponding to the beginning of November. Both the *áus* and *áman* rice are divided into numerous varieties, and the Collector returns the following sixty-six descriptions of rice as growing in Bírbhúm District:—(1) *Aus gotá*, (2) *áus bhásá*, (3) *áus katkí*, (4) *áus sukní*, (5) *áus rámsál*, (6) *gadái sál*, (7) *mákrá neásí*, (8) *sálí dángá*, (9) *son peálí*, (10) *dubráj*, (11) *mahipál*, (12) *kayá*, (13) *sál kayá*, (14) *bara katkí*, (15) *chhota katkí*, (16) *dudh sál*, (17) *sindur mukhí*, (18) *mánik kalmá*, (19) *báns gajá*, (20) *láo sál*, (21) *háthi sál*, (22) *bara kalmá*, (23) *jatá kalmá*, (24) *pánch kalmá*, (25) *birutí*, (26) *kanak char*, (27) *kálájírí*, (28) *dudh kalmá*, (29) *bhut kalmá*, (30) *ajil kalmá*, (31) *noná dhán*, (32) *áus gurgurí*, (33) *jhinge sál*, (34) *parmánna sál*, (35) *pannai*, (36) *henchá sál*, (37) *khai mágur*, (38) *káli dubráj*, (39) *báns matí*, (40) *báns phul*, (41) *áus kalmá*, (42) *káli kalmá*, (43) *kusum kalmá*, (44) *dográ sál*, (45) *raghu sál*, (46) *dumur phul*, (47) *das-gutí*, (48) *ganu tulsí*, (49) *jhakru*, (50) *bádsháhí bhog*, (51) *ban gotí*, (52) *darká sál*, (53) *láu kalmá*, (54) *dubrá*, (55) *khudí khásá*, (56) *jire sál*, (57) *nagu*, (58) *gobind bhog*, (59) *jagannáth bhog*, (60) *gangájalí*, (61) *samudra báli*, (62) *grihastha págal*, (63) *charui mukhí*, (64) *guáthupí*, (65) *gotmaní*, (66) *rám sál*.

The green crops are gram, peas, and different kinds of *kalái*, all sown as cold-weather crops in Kártik (October—November), and gathered in Phálgun (February—March). Among oil-seeds, *til* is sown in Aswin (September—October), and cut early in Jaishtha (May); and mustard-seed is sown in Kártik (October—November), and cut in Phálgun (February—March). Fibre crops are not much cultivated in Bírbhúm District. Sugar-cane is largely grown; sown in Baisakh (April—May), and cut in the following Mágh (February—March). *Pán* is grown all the year round in quantities sufficient for local consumption.

The Collector reports that no improvements have taken place of late years in the quality of the rice grown in the District, but that

the area under rice cultivation has greatly extended within the last twenty years, large tracts of land formerly covered with jungle having been reclaimed and brought under rice. The solid preparations made from rice are as follow:—*Chirá*, paddy moistened, afterwards parched, and then pounded in a mortar and husked; sold by measure at the rate of two quarts for an ánná, or 1½d. *Muri*, paddy moistened, then boiled twice, afterwards husked by pounding in a mortar, and finally parched; this is very light, and sold by measure at the rate of nine quarts for an ánná. *Chául bhájá*, or parched rice, not sold in the bázárs. The one liquid preparation of rice made in Bírbhúm District is *pachwai*, or rice beer, drunk only by the low castes and aboriginal tribes, and sold for about three pice or a penny a quart.

AREA, OUT-TURN OF CROPS, ETC.—The present area of Bírbhúm, after recent transfers to and from the neighbouring Districts of Bardwán and Murshidábád, is 1·344 square miles. In 1871 the Collector returned it at 1,278,171 acres, or 1997 square miles; of which, at the time of the Survey, 1849-52, 871,846 acres, or 1362 square miles, were under cultivation. Rice monopolizes almost all the cultivated area. No statistics exist showing the acreage under the different crops; but the Collector is of opinion, speaking at a guess, that fifteen-sixteenths of the tilled land is under rice. The Collector estimates the out-turn for ordinary rice land, paying rent at the rate of Rs. 1/8 a *bighá*, or 9s. an acre, to be from 6 to 8 maunds of paddy per *bighá*, valued at from Rs. 5 to Rs. 7; or from about 13 to 17½ cwts. of paddy per acre, valued at from £1 10s. 0d. to £2, 2s. 0d. Land paying a rent of Rs. 3 per *bighá*, or 18s. an acre, ordinarily yields an out-turn of about 10 maunds of paddy, together with a cold-weather crop of, say, 3 maunds of wheat per *bighá*, equal to about 22 cwts. of paddy and 6⅝ cwts. of wheat per acre. The value of the produce of such land is returned at from Rs. 12 to Rs. 15 a *bighá*, or from £3, 16s. 0d. to £4, 10s. 0d. an acre. This is merely a rough calculation, and does not pretend to exactness. In the following pages will be found a more detailed account of the various crops grown on different kinds of land, with the rates of rent, cost of tillage, value of out-turn and of cultivator's profits, etc.

AGRICULTURAL STATISTICS.—In the autumn of 1872, Sir George Campbell initiated a series of agricultural statistical inquiries in four

into the condition of the rural population. Bírbhúm formed one of the four selected Districts, and the police circle (*tháná*) of Barwán was taken as a specimen area. A Deputy-Collector was appointed to the work; and the following pages represent the result of his inquiries, as embodied in a report from the Collector, dated 4th July 1873. I condense the following pages from that document, giving the English equivalents of the local weights and measures. The local maund in Bírbhúm differs considerably from the standard maund of other parts of Bengal, being only 60 lbs. instead of 82 lbs. avoirdupois.

GENERAL DESCRIPTION OF BARWAN POLICE CIRCLE.—This is the most easterly *tháná* of the District, and contains an area of about 105 square miles. Its population shows a larger proportion of Muhammadans and a smaller element of the aboriginal type than the tracts to the westward. The soil is alluvial, though somewhat higher in level than the alluvium of Murshidábád and the Gangetic delta to the eastward. It is drained by four rivers, the Mor, the Kandar, the Káná, and the Kuniá, which in the rainy season find their way through a network of creeks and swampy lakes into the Dwárká, and so into the Bhágirathí, a short distance above Kátwá. They are torrent streams rising in the hills to the westward, almost dry in the hot weather, and seldom causing inundations. One small marsh (*bil*) exists near Pánchthupí, into which the Mor is allowed to flow at times. The Census returns the population of the *tháná* at 64,173 souls, which, taking the area at 105 square miles, would give a pressure of 611 persons to the square mile,—a density considerably above the average of the District. This, however, might be expected, when the high proportion of cultivated land here is compared with the jungles in the western part of the District. Number of villages as returned by the Census, 228. There is only one really large village, viz. Pánchthupí. The tract is a purely agricultural one, rice being the chief staple. The *áman* or December rice crop suffices to feed the population, and probably allows of some export. *Gúr* (molasses) and oil-seeds are also produced, but are not exported, as the supply is only sufficient to meet the requirements of the tract. There is a small production of the ordinary pulses, such as *arhar*, *bút*, etc. These, with some mulberry cultivation, comprise the whole resources of the *tháná*. For cotton to clothe themselves, the inhabitants look to the marts of Agra and Cawnpur; while for salt, tobacco, metals, betel, and *pán*, they depend

on imports from Calcutta or the marts which line the banks of the Bhágirathí. The whole population supports itself either directly or almost directly by agriculture; and indeed those who have other occupations, such as the small shopkeepers, handicraftsmen, etc., also hold some plots of land. There is no separate class of labourers, nor does the *thánd* supply labour to other tracts. Agricultural labour, however, is to be hired among the class of small cultivators. For instance, a family of brothers may hold land insufficient to give occupation for them all, and in such a case some of them work as labourers for their neighbours.

The following table shows how the land in the *thánd* is distributed, with the area under the different crops, village sites, and details of the uncultivated area, water area, etc. I reproduce the figures as supplied to me.—See table on next page.

This tabular statement is a remarkable one. It shows that in an ordinary year, if the area under water and that occupied by village sites is deducted, eleven-twelfths of the remainder are actually productive, giving more than two and a half acres of tilled land to every adult male. Of this productive area, more than seven-eighths is land of which the staple crop is *áman* rice. The next most important product is mulberry, occupying about one-eighteenth of the cultivated area; then comes the land under cold-weather crops, which also produces *áus*, or autumn rice, still further swelling the rice area. Sugar-cane follows next, with about one thousand two hundred acres; while fractional areas are devoted to *arhar*, *san*, and miscellaneous crops. Of the uncultivated land, about one-third is classed as unfit for tillage, and about two-thirds are set apart as grazing land. The whole uncultivated area affords probably some sort of scanty herbage; but the area of grazing ground, taking that term in its widest sense, is small compared with that under the plough. On the other hand, the tank area is large, and tank water plays an important part in the irrigation of the *thánd*. The Collector has endeavoured, by comparison with the Survey records of 1851–52, to discover whether during the last twenty years the proportional area under cultivation has increased. The Revenue Survey in that year returned the area at 68,513 acres, of which 57,373 were entered as cultivated. But under this head were included village sites, tanks, garden and grazing land. It is impossible to say how much fell under these designations at the time of

[*Sentence continued on p.* 350.

Classification of Land in Barwan Police Circle.

Description of Land.	Acres.	Roods.	Poles.	*Bighás.*	*Káthás.*	*Gandás.*
Land under Crop.						
Rice land,	46,947	2	32	142,016	16	2
Sugar-cane,	1,207	1	24	3,652	8	1
Cold-weather Crops,	2,351	1	8	7,112	13	6
Dihi, Mulberry,	2,818	0	6	8,524	10	3
Máthál, Mulberry,	141	3	36	429	10	10
Vegetable land,	125	3	0	380	7	15
Jedángá land, growing Pulse Crops, such as *arhar*,	255	0	4	771	9	0
Orchard land,	498	1	30	1,507	15	9
Total,	54,345	2	20	164,395	10	6
Uncultivated Land.						
Land cultivated three years ago, but not since,	374	2	30	1,132	18	8
Land brought under cultivation within three years,	221	0	17	668	13	16
Uncultivable land,	884	1	8	2,674	19	18
Grazing land,	3,163	0	12	9,568	5	7
Total,	4,643	0	27	14,044	17	9
Village Sites.						
Bástu, or Homestead land,	2,053	0	17	6,210	12	18
Udbástu, or lands surrounding the Homestead,	75	2	37	229	1	17
Total,	2,128	3	14	6,439	14	15
Water Area.						
Tanks,	4,804	2	17	14,533	18	9
Kháls,	290	3	14	879	16	0
Rivers,	738	3	33	2,234	7	0
Total,	5,834	1	24	17,648	1	9
Grand Total,	66,952	0	5	202,528	3	19

Sentence continued from p. 348.]
survey, but it may be assumed to amount to the area now falling under these heads, or 11,613 acres. This would leave as the true area under crops, in 1852, about 46,000 acres, as compared with about 54,000 acres at the present day, giving an increase in twenty years of seventeen per cent.

SOILS.—Three kinds of soils are met with in Barwán *thánd*:—(1) *Máthiál* or *methel*, a clayey soil fit for pottery, splitting up in the hot weather, and tenaciously muddy in rain. (2) *Doras* or *beliá*, clay mixed with sand; it is heavy to work, and of a gamboge or dirty yellow colour. (3) *Báli*, pure sand; found on the banks or in the beds of rivers. It is unprofitable till a clayey silt has been deposited, when it bears a high value, and is chiefly used for vegetables. It has a reddish tinge, indicating doubtless its source, having been brought down by river action from the westward. The true red or laterite soil is not, however, met with in Barwán *thánd*.

DESCRIPTIONS OF LAND.—Cultivated *land*, as distinguished from *soil*, is divided as follows:—(1) *Sáli*, (2) *do*, (3) *jedángá*, (4) *olan*, (5) *dihi*, mulberry land, and (6) *máthál*, mulberry land. The soil of these various classes of land may be either *máthiál* or *doras*. Of *sáli* lands there are three kinds, which take up seven-eighths of the whole cultivated area of the *thánd*, the main crop being *áman* rice.

CULTIVATION OF FIRST-CLASS SALI LAND.—This land will bear three crops in the year,—a crop of rice, a crop of *khesárí* (lathyrus sativus), and a crop of *til* seed (*káshta til*). This *til* has a seed somewhat lighter in colour and larger than that of the *krishna til* or black *til* (sesamum orientale). The rice may be either sown broadcast, or planted out from a nursery; the low-lying land (*jalan*) is better suited for the former, and the higher (*dángá*) for the latter process. If favourable rain falls in the month of Chaitra (March—April), the field should be manured and ploughed five times. The seed is then sown broadcast and harrowed in. This should be finished before the end of Jaishthá (May—June). In Ashár (June—July), when the plants are about a foot high, the *áils* or field boundaries are trimmed, the grass growing on them cut down, and the rice is thinned by the plough and afterwards set up straight, the processes being called respectively *kharání* and *gachhání*. In Bhádra and Aswin (August—October) the crop must be weeded. In Kártik (October—November) the rice begins to flower. Irrigation is now needed, and if there should be no rain at this season, will require to

be repeated two or three times. After this no further care is wanted, except to watch the crop against thieves. By the end of Agraháyan (November—December), the crop ought to be ripe, when it is cut and carried to the threshing-floor, and the grain beaten out against a board. This method is adopted so as to save the straw for thatching purposes. The *khesárí* crop is sown in among the rice as it begins to ripen, in moist and muddy land. This crop requires no care, and ripens in Phálgun (February—March), when it is cut and threshed. Where a third (*til*) crop is raised during the year, the land requires to be manured and ploughed afresh three times. Early in Chaitra (about the middle of March) the *til* is sown broadcast. As the plants come up, two irrigations are necessary. The crop ripens early in Jaishtha (May), and should be off the ground in time to allow of manuring and ploughing for the next *áman* rice crop. Transplanted rice is the best crop to succeed *til*, for it is kept in its nursery till Ashár (June—July), after which it is planted out in the fields in holes about nine inches apart. After the rice is planted out, it must be weeded and earthed up in Bhádra (August—September); from this point the cultivation is the same as that of rice sown broadcast.

The cost of cultivation, value of out-turn, and net profits derived from first-class *sáli* land growing three crops are estimated as follows:—Expenses of cultivation—rent, Rs. 4. 4. 0 per *bighá*, or £1, 5s. 6d. an acre; cost of seed and cultivation of rice crop, Rs. 3. 9. 0 per *bighá*, or £1, 1s. 4½d. an acre; *khesárí* seed and threshing, Rs. 0. 6. 3 per *bighá*, or 2s. 4d. an acre; seed and cultivation of *til* crop, Rs. 2. 10. 0 per *bigha*, or 15s. 9d. an acre. Total expenses, Rs. 10. 13. 3 per *bighá*, or £3, 5s. 0d. an acre. The gross profits are thus returned:—4 *bis* unhusked rice, equal to 20 local maunds or 14 maunds and 26 sers standard weight per *bighá*, valued at Rs. 8, or 34½ cwts. an acre, valued at £2, 8s. 0d.; straw, Rs. 1. 8. 0 a *bighá*, or 9s. an acre; *khesárí*, 2 local maunds or 1 maund 18 sers standard per *bighá*, valued at Rs. 1. 8. 0, or about 3½ cwts. per acre, valued at 9s.; *khesárí* chaff, Rs. 1 per *bighá*, or 6s. an acre; *til* seed, 4 local maunds or 2 maunds 36 sers standard per *bighá*, valued at Rs. 6, or nearly 7 cwts. per acre, valued at £1, 16s. 0d. Total value of produce, Rs. 18 per *bighá*, or £5, 8s. 0d. an acre. This would leave a net profit of Rs. 7. 2. 9 per *bighá*, or £2, 3s. 0d. an acre. The rent has been put at Rs. 4. 4. 0 per *bighá*, or £1, 5s. 6d. an acre; but in fact the rent of land of this class is said by the

Deputy-Collector to vary in different parts of the *thánd* from Rs. 3 to Rs. 4. 4. 0 a *bighá*, or from 18s. to £1, 5s. 6d. an acre. The cost of cultivation is estimated on a fair average rainfall; should the rainfall be scanty, the expense of irrigation materially adds to the expenditure.

Sáli land of the second class is a little poorer than the above. The best *sáli* land lies a little lower than that of the second class, and therefore, when rain falls, gets all the silt of the higher levels. It is also easier to irrigate. *Sáli* land of the second class yields two crops, *áman* rice and *til*, the out-turn being about one-third less. The total expense of cultivation is returned at Rs. 8. 11. 0 a *bighá*, or £2, 12s. 1½d. an acre; and the value of produce at Rs. 11. 12. 0 a *bighá*, or £3, 10s. 6d. an acre. The net profit, therefore, amounts to only Rs. 3. 1. 0 a *bighá*, or 18s. 4½d. an acre. Third-class *sáli* land is situated still higher. The yield of rice is still less than that of second-class *sáli* land, and about half that of first-class land. The rent rates are returned at from Rs. 1. 8. 0 to Rs. 1. 12. 0 per *bighá*, or from 9s. to 10s. 6d. an acre; and the net profit estimated at Rs. 2. 7. 0 per *bighá*, or 14s. 7½d. an acre.

CULTIVATION OF DO LAND.—This bears the *áus* or autumn rice, and also the following crops:—*Bút* or gram (cicer arietinum), *musurí* (ervum hirsutum), peas, wheat, *tisi* or linseed (linum usitatissimum), mustard (sinapis dichotoma), *khesárí* (lathyrus sativus), *til* (sesamum orientale), sugar-cane. *Do* land is more coveted than *sáli*, and commands a higher rent, because there is a greater choice of crops, and therefore less risk of total failure. *Do* land is divided into two classes. In the first class, rice is either sown broadcast or (more usually) transplanted from the nursery. The process is the same as for *áman* rice; but the *áus* rice ripens earlier, and is cut in September or October. The land is then manured and again ploughed, and a cold-weather crop (any of those mentioned above, except *til* or sugar-cane) is sown broadcast and ploughed in. *Bút*, *musurí*, *tisi*, *khesárí*, peas, and mustard require only one irrigation; wheat requires to be irrigated three times. After the cold-weather crop is taken off the ground, the land is frequently again manured and ploughed, and sown with *til*. When this has been reaped, the time for rice sowing has come round again.

The cost of cultivation, value of produce, and net profit of first-class *do* land are returned as follow:—The rent is calculated at Rs. 4. 8. 0 per *bighá*, or £1, 7s. 0d. an acre; and the expenses of rice

land should yield the same out-turn of paddy as first-class *sáli* land, the value of the paddy and straw being returned at Rs. 9. 8. 0 per *bighá*, or £2, 17s. 0d. an acre. Thus the balance in favour of the cultivator from the rice crop alone would be Rs. 1. 9. 0 per *bighá*, or 9s. 4½d. an acre. To this must be added the net profit of the winter crop, and also of the third crop of *til* where one is sown. The following table shows the Deputy-Collector's estimates of the cost of cultivation, value of out-turn, and net profit for each crop, excepting sugar-cane, which will be mentioned separately afterwards :—

Name of Crop.	Cost of Cultivation.		Value of Produce.		Net Profit.	
	Per *bighá*.	Per acre.	Per *bighá*.	Per acre.	Per *bighá*.	Per acre.
	R. a. p.	£ *s. d*	*R. a. p.*	£ *s d*	*R. a. p.*	£ *s. d.*
Rice, . .	7 15 0	2 7 7½	9 8 0	2 17 0	1 9 0	0 9 4½
Bút, . .	2 13 0	0 16 10½	5 0 0	1 10 0	2 3 0	0 13 1½
Til, . .	2 10 0	0 17 9	6 0 0	1 16 0	3 6 0	1 0 3
Musurí, .	2 8 0	0 15 0	5 4 0	1 11 6	2 12 0	0 16 6
Peas, . .	3 3 0	0 19 1½	5 8 0	1 13 0	2 5 0	0 13 10½
Tisí, . .	3 3 0	0 19 1½	4 8 0	1 7 0	1 5 0	0 7 10½
Mustard, .	2 11 0	0 16 1½	4 4 0	1 5 6	1 9 0	0 9 4½
Khesárí, .	2 1 3	0 12 5½	2 8 0	0 15 0	0 6 9	0 2 6½
Wheat, .	3 3 0	0 19 1½	6 0 0	1 16 0	2 13 0	0 16 10½

N.B.—The whole of the rent, Rs. 4. 8. 0 per *bighá*, or £1, 7s. 0d. an acre, is charged against the rice crop.

Sugar-cane is also grown on *do* land, but as a single crop. For this cultivation, which is a very exhausting one, a large quantity of manure is needed,—a hundred and fifty maunds per *bighá*, or about sixteen tons an acre, being given if procurable. After manuring, the land is ploughed five times ; meanwhile a nursery is made on the muddy edge of a tank, which is kept well moistened, and planted with the top shoots of the previous year's canes. When the cuttings begin to throw out shoots, they are taken up and put in another bed prepared with earth and rich manure, generally in the cultivator's homestead land. Here they are carefully screened from the sun, and watered morning and evening. In Baisákh or Jaishtha (April—June), the plants are put down in the field in furrows two

feet apart, and at a distance of four or five feet in the furrows. They must be well watered and earthed up. Ten or twelve days afterwards, the earth between the rows should be dug up and heaped into ridges, channels for irrigation being cut across. This operation must be repeated twice, and the field hoed free from weeds. Towards the end of Srában (August), the trash is stripped off, and two or three plants tied together; the little bunch is called a *merá*. The stripping of trash must be repeated twice. By Aswin (September —October), the ridges should all be broken down and the soil levelled, trenches being cut three yards apart each way to allow the rain to run off. The beds thus formed, each three yards square, are called *gai*. In Kártik (October—November), the plant should be protected against storms, by tying the heads of three or four *merás* or bunches together, and thus enabling them to resist the force of the wind. Monthly irrigation is now necessary. From Phálgun to Chaitra (February—April), the canes come to maturity. The yield of one *bighá* is about eight *pálás*, a *pálá* being the day's yield of one sugar mill or *sál*. The morning after the canes have been crushed, the juice is boiled into *gur* or molasses. The refuse cane sticks are used as fuel to boil the *gur*, and the ashes make a good manure. The use of the mill is charged at two rupees or four shillings a day. The sugar-cane grown in Barwán *tháná* is of the variety known as *kájalí*. It has a dark purple stem when stripped of trash, and grows about seven feet high, with a circumference of about three and a half inches. Sugar-cane is by comparison a capitalist's cultivation. The expense of tillage is returned as follows :—Rent, Rs. 4. 8. 0 a *bighá*, or £1, 7s. 0d. an acre; cost of cuttings, Rs. 5 a *bighá*, or £1, 10s. 0d. an acre; cultivation charges, such as labour, manure, irrigation, etc., Rs. 28. 13. 0 per *bighá*, or £8, 13s. 0d. an acre. A fair out-turn is calculated to be 32 local maunds, equal to $23\frac{1}{2}$ standard maunds, per *bighá*, valued at Rs. 64, or about $55\frac{1}{3}$ cwt. per acre, valued at £19, 4s. 0d. The net profit, therefore, is about Rs. 25. 11. 0 per *bighá*, or £7, 14s. 0d. an acre.

Second-class *do* land is not so easily irrigated as the first-class, and is also inferior in yield. The same crops may be grown in this as in *do* land of the first class, or, instead of any of the cold-weather crops mentioned above, either onions or garlic. The cultivation of onions is conducted thus :—After the *áus* rice crop has been cut, the field is well manured and ploughed seven times. The seedlings are then planted in rows about a foot apart, and with

two or three inches between the plants in the same row. The earth must be kept continually banked up between the rows; and nine irrigations are required. The crop is ready in Chaitra (March—April). Garlic is grown in the same way. After onions, a crop of *káshta til* may be grown. The rent of second-class *do* land is returned at Rs. 3. 8. 0 a *bighá*, or £1, 1s. 0d. an acre, and the net produce of the rice crop is estimated barely to cover that rent. The expenses of cultivation of these cold-weather crops are said to be the same as those grown on the superior land, while the yield is less. The total net profit derived from the cold-weather crops on second-class *do* land is returned as follows:—*Bút*, Rs. 1 per *bighá*, or 6s. an acre; *til*, Rs. 1. 15. 0 per *bighá*, or 11s. 7½d. an acre; *musurí*, Rs. 1. 8. 0 per *bighá*, or 9s. an acre; peas, Rs. 1 per *bighá*, or 6s. an acre; *tisí*, Rs. 0. 3. 0 per *bighá*, or 1s. 1½d. an acre; mustard, Rs. 0. 6. 0 per *bighá*, or 2s. 3d. an acre; *khesárí*, Rs. 0. 4. 9 per *bighá*, or 1s. 9½d. an acre; wheat, Rs. 2. 6. 0 per *bighá*, or 14s. 3d. an acre. Sugar-cane grown on this land is estimated to yield a net profit of Rs. 10. 8. 0 per *bighá*, or £3, 3s. 0d. an acre. Onions and garlic are still more profitable crops. The Deputy-Collector estimates the cost of cultivation for a crop of onions to amount to Rs. 21. 5. 0 per *bighá*, or £6, 8s. 0d. an acre. Against this expense, the out-turn of produce is estimated at 30 local maunds or 22 standard maunds per *bighá*, valued at Rs. 37. 8. 0, equal to 52 cwts. valued at £11, 5s. 0d. per acre. The net profit, therefore, from this crop would amount to Rs. 16. 3. 0 per *bighá*, or £4, 17s. 0d. an acre. Garlic is usually sown in the same field as onions, but when grown separately, is estimated to yield a net profit of Rs. 15. 10. 0 per *bighá*, or £4, 13s. 9d. per acre.

JEDANGA LAND.—The third kind of land is termed *jedángá*. It is a high, poor land (*nïras*, or juiceless, is the word used to describe it), and is found near homesteads, and also in the open plains. The crops grown upon it are *arhar* (cytisus cajan), *son* or Indian hemp (crotolaria juncea), and *báigun* or *brinjal* (solanum melongena). Orchards or groves of mango, jack, and other fruit trees are also to be found on this land. Other crops are not grown. The land is difficult of irrigation, and bears but one crop in the year. The cultivation of *arhar* is conducted as follows:—In Chaitra (March—April), the land is well manured and ploughed twice. In Srában (July—August), the land is again ploughed; the seed is sown broadcast and harrowed in. In Bhádra (August—September), the crop is

weeded. In Mágh (January—February), the plant begins to flower, and requires to be irrigated once. The crop ripens in Phálgun (February—March), and is usually cut in the following month. The rent of this land is returned at from Rs. 1 to Rs. 1. 4. 0 per *bighá*, or from 6s. to 7s. 6d. an acre. The Deputy-Collector estimates the cost of cultivation, including rent, to amount to Rs. 3. 15. 0 per *bighá*, or £1, 3s. 6d. an acre. The out-turn is estimated as follows:— 3½ local maunds or about 2½ standard maunds of *arhar* per *bighá*, valued at Rs. 3. 8. 0, equal to 5½ cwts. per acre, valued at £1, 1s. 0d.; 10 bundles of dried *arhar* plants per *bighá*, valued at Rs. 1. 4. 0, or 30 bundles per acre, valued at 7s. 6d.; chaff, Rs. 0. 12. 0 per *bighá*, or 4s. 6d. an acre; total value of out-turn, Rs. 5. 8. 0 per *bighá*, or £1, 13s. 0d. an acre. Net profit, Rs. 1. 9. 0 per *bighá*, or 9s. 4½d. an acre.

For *son* or hemp cultivation, the field should be well manured and ploughed twice in Chaitra (March—April). Early in Jaishtha (May), after another ploughing, the seed is sown broadcast and harrowed in. *Son* is a rainy-weather crop, and comes to perfection in Bhádra (August—September). If the rains fall short, irrigation is needed. The crop is reaped in September. After cutting off the soft tops, the plants are steeped in water for a week, and the fibre is extricated by striking the plants upon the water and washing it free from the woody portions. The cost of cultivation is calculated at Rs. 4. 13. 0 a *bighá*, or £1, 8s. 10d. an acre, including rent, which is put down at Rs. 1. 4. 0 a *bighá*, or 7s. 6d. an acre. The value of the produce is said to be Rs. 8. 8. 0 per *bighá*, or £2, 11s. 0d. an acre. There is no trade, however, in the product, and the plant is only grown in very small patches of half a *bighá* or so, and the fibre used locally in the manufacture of rude string for domestic and agricultural uses. To grow *báiguns* or *brinjals* (solanum melongena), a nursery is first prepared in Ashár (June—July). The ground in which the plants are to be ultimately grown must be well manured, frequently ploughed, and ridged up with the hoe. In Srában (July—August), the seedlings are planted out three feet apart. Twelve irrigations are necessary, and the cultivation is consequently an expensive and laborious one. The expense of tillage, including rent, is returned at Rs. 10. 2. 0 per *bighá*, or £3, 0s. 9d. an acre. The average out-turn is 5 *káhans* or 6400 *báiguns* per *bighá*, valued at Rs. 17, or 15 *káhans* or 19,200 *báiguns* per acre, valued at £5, 2s. 0d. The net profit, therefore, amounts to Rs. 6. 14. 0 per *bighá*, or £2, 1s. 3d. per acre. Although apparently very

profitable, this crop is very scantily cultivated in the *thánd*, and is not exported. A few households only cultivate it, and sell the produce at the nearest market.

To prepare *jedángá* land for an orchard, it must be first well manured and ploughed. In Ashár (June—July), plantains are put in the ground about four yards apart, and young mangos and jacks planted among them. The plantains are for the purpose of affording shade to the young trees. It is necessary to water and to dig or plough up the land between the plants occasionally. When the young fruit trees acquire strength, the protecting plantains are cut down. There is another tree grown on *jedángá* land, called *ách* (mounda tinctoria), which attains a height of about twelve feet and a diameter of about six inches. The root yields a red dye, which is used by the weavers for their thread.

OLAN LAND.—Land covered with silt along the river banks. It is very fertile, but liable to inundation, as its name (*olan*, low) indicates. It is generally devoted to the growth of cucurbitaceous plants, such as the following:—*Tarmuz* or water-melon (cucurbita citrullus); *káṇkur* (cucumis usitatissimus); *láu* or gourd (cucurbita lagenaria); *uchhe* (momordica charantia); *karalá*, another variety of the preceding; *khero*, a species of gourd. For these crops, the land is first manured in Agraháyan (November—December), and twice ploughed. The ploughing is repeated in Phálgun (February—March). The seeds are then dibbled in, three or four together, in holes a yard apart, and the ground kept continually watered and free from weeds. The rent of this land is said to be from Rs. 3 to Rs. 4 per *bighá*, or from 18s. to £1, 4s. od. an acre. Taking the highest rate, the total cost of cultivation is estimated to amount to Rs. 9. 5. 0 a *bighá*, or £2, 16s. od. an acre; while the value of the crop is returned at from Rs. 12 to Rs. 14 a *bighá*, or from £3, 12s. od. to £4, 4s. od. an acre, according to the kind of vegetable grown. The net profit therefore varies from Rs. 2. 11. 0 to Rs. 4. 11. 0 per *bighá*, or from 16s. to £1, 8s. od. an acre.

MULBERRY LANDS are of two kinds, known as *dihi tut* and *máthál tut*. The first is high land near the village, and is particularly favourable to mulberry cultivation. Near Ganutiá, on the bank of the Mor, mulberry is said to be grown in *páiwastí*, or alluvial land. The mulberry is of two kinds, the *bágárí* and *kájalí*. The first has a large thick leaf; it is said not to be much liked by the worms, and is not given if the *kájalí* is to be had, which latter has a smaller

and softer leaf. For mulberry cultivation, the ground is first ploughed three times in Bhádra (August—September), afterwards dug up with the hoe, and well manured. In Áswin (September—October), the cuttings are planted, the ground watered, and the earth pressed down; in ten or twelve days the cuttings begin to sprout. In Kártik (October—November), the ground must be dug and the plants earthed up. In Chaitra (March—April), a top-dressing of mud from the bottom of a tank is spread over the field. During the hot weather irrigation must be kept up, and during the rains the field must be weeded monthly. In Bhádra (August—September) of the second year, the plants should be pruned. *Máthál tut* is high land in the open, away from the villages; it is not so strong as the *dihi* mulberry land. The mode of cultivation is the same. The Deputy-Collector estimates the cost of cultivation for *dihi* mulberry to be as follows:—For the first year—rent, Rs. 8 a *bighá*, or £2, 8s. 0d. an acre; tillage, etc., Rs. 20. 7. 0 a *bighá*, or £6, 2s. 6d. an acre: total, Rs. 28. 7. 0 a *bighá*, or £8, 10s. 6d. an acre. For the second year the cost of cultivation is materially less, and amounts to Rs. 9. 13. 0 a *bighá*, or £2, 19s. 0d. an acre. Total expenses for rent and tillage for the two years, Rs. 46. 4. 0 a *bighá*, or £13, 17s. 6d. an acre. The yield of leaf may be taken at 80 *bojhás* or bundles a year per *bighá*, or 240 *bojhás* an acre, fetching in fair years one rupee or two shillings per *bojhá*. The crop, however, is a very risky one, as, should the worms die, the mulberry leaf becomes a drug in the market. However, taking the above estimate as an approximate one, it shows a very handsome profit on the two years' cultivation, of Rs. 56. 14. 0 a *bighá*, or upwards of £17 per acre each year. The estimated yield of *máthál tut* is less, and is put down at 60 *bojhás* or loads per *bighá*, or 180 *bojhás* per acre. According to the Deputy-Collector, the rates of rent for *dihi* mulberry land vary from Rs. 5 to Rs. 8 per *bighá*, or from £1, 10s. 0d. to £2, 8s. 0d. per acre; and for *máthál* land, from Rs. 3 to Rs. 6 per *bighá*, or from 18s. to £1, 16s. 0d. an acre. In the above estimates, the highest rates have been taken. Orchards are sometimes planted in mulberry land, but the rent is so heavy as to be almost prohibitive of an investment which has to wait some years before it yields a profit.

VILLAGE SITES.—The rates for *bástu* or homestead land vary from Rs. 5 to Rs. 14 per *bighá*, or from £1, 10s. 0d. to £4, 4s. 0d. per acre, according to convenience of situation, nearness of water, and other considerations. *Udbástu*, or land about the homestead, is

let at three rates,—Rs. 2. 8. 0, Rs. 3, and Rs. 4 a *bighá*, equal to 15s., 18s., and £1, 4s. 0d. an acre. A few chilies and plantains are grown in the land about the homesteads; and cucurbitaceous plants, such as pumpkins and gourds, are trained on the thatch of the cottages. In or near the homesteads of two villages, the Deputy-Collector noticed a peculiar kind of cotton, known as *ban-kápás* (wild cotton) or *rám-kápás*. He describes it as a tall, woody bush, bearing a reddish flower, and a small boll with a seed pointed at one end, yielding a white cotton, and flowering all the year round. It is said that one large shrub will yield 3 local *sers* of uncleaned cotton, equal to $2\frac{1}{5}$ *sers* of standard weight, or 4 lbs. $7\frac{1}{8}$ oz. avoirdupois; and about 11 local *chhaṭáks* of cleaned cotton, equal to $8\frac{2}{5}$ *chhaṭáks* of standard weight, or 1 lb. $1\frac{1}{4}$ oz. avoirdupois.

LAND UNDER WATER.—Of the area covered with water, tanks are liable to assessment according to the description of land in which they are dug. They are for the most part made in *jedángá* and uncultivated land; the highness of level, which lowers the rate of rent for the former sort of land, and renders the latter unsuitable for tillage, gives value to a tank intended to irrigate lower lands. The tanks in this *thánd* are numerous, but foul. A vegetable known as *nalitá ság* is grown in small patches on the edge of the tanks.

UNCULTIVATED AND UNCULTIVABLE LAND.—Uncultivated land which was formerly cultivated falls within the *jamá* or rent-paying holding of the husbandman, and is assessed even though lying idle. Such land may have been left uncultivated owing to deposits of sand; or it may be of so high a level, or so situated in regard to water, as to make irrigation too expensive, and therefore only worth bringing under cultivation in years when there is a plentiful rainfall. Rent is nevertheless paid for such land, according to its class. The land classed as uncultivable is generally the highest land of all, and is usually a stiff clay. It often contains nodules of lime, and perhaps produces a scanty herbage. The cultivators are averse to any attempt to open up this small reserve of land, hitherto untilled, and view any such undertaking unlucky. In village Chohatpur, the Deputy-Collector saw a piece of land lying barren amid much cultivated land of the same quality of soil. The barren patch was somewhat higher than the surrounding land, but was irrigable from a neighbouring marsh. It bore marks of tillage; and the villagers said that an enterprising Muhammadan from another hamlet had commenced operations on it, but that within a week his children

and cattle all died, and he desisted from the inauspicious enterprise. Uncultivable land contributes somewhat to the stock of grazing land, though the yield of grass is scanty. It belongs to the landholders, who do not charge their cultivators for grazing their cattle upon it. The land entered as grazing land is not in the nature of regular grass farms. It consists of small plots of common attached to each village, and yielding a poor herbage. No rent is charged for the right of common over this, and there is a tacit understanding that it shall be reserved from cultivation by the *zamíndár*. Probably experience has taught that the area under grass of any sort is already at its minimum. This common land, and the chance herbage of uncultivated and uncultivable land, and of the *áils* or raised boundaries of the rice fields, afford all the grazing land available for the plough cattle of the *thánd*.

SUMMARY OF THE FOREGOING.—Having enumerated all the main products of the tract, it may be well to consider how they are consumed. As a rule, the mainstay of every cultivator is his rice land. Mulberry, sugar-cane, vegetables, and cold-weather crops are sold for cash to pay the rent; but the rice land yields the cultivator his daily food. Each husbandman endeavours to secure enough rice for himself and his household; but of late years seasons are said to have been bad, and the cultivator has fallen into the hands of the rice lender and village usurer. The system of rice advances is worked thus:—Those who borrow before the end of Bhádra (August—September) have to pay fifty per cent. interest in kind in Phálgun (February—March), or if they cannot pay then, additional interest in kind runs on at the rate of fifty per cent. per annum. Those who borrow after Bhádra (August—September) pay twenty-five per cent. only for the fraction of the year, and fifty per cent. for each succeeding year. Phálgun is the month for settling accounts with the rice usurer.

The Deputy-Collector estimates the average yield of rice of Barwán *thánd*, with its area of 105 square miles, at about 26,000 *pautís* of *áman* paddy and 1500 *pautís* of *dus* paddy, or 27,500 *pautís* in all. A *pauti* is 16 *bis*, or 80 maunds local weight. This calculation would therefore give the total yield of paddy at 1,650,000 standard maunds, equal to about 60,400 tons. If this estimate be correct, it would give about 26 maunds, or nearly a ton of paddy, or 13 maunds (about half a ton) of cleaned rice, per head of the population; or, supposing it all to be locally consumed, not far short

of 1½ *sers* or 3 lbs. of cleaned rice for the daily consumption of each person. The Deputy-Collector maintains that among a purely agricultural population, living mostly by outdoor labour, the average consumption all round exceeds this quantity. The Collector thinks, from inquiries made by himself, that this estimate is excessive, and is of opinion that an average daily consumption of 1 *ser* or 2 lbs. of cleaned rice per head would certainly not be under the mark. This, on a population of 64,000, would give a daily consumption of 3200 maunds, or 117 tons 3 cwts., equal to a yearly consumption of 1,168,000 maunds, or 42,757 tons. There would thus be a margin of some 500,000 maunds or about 18,300 tons available for export; and, judging from the traffic on the East Indian Railway, although it is impossible to say how much actually comes from Barwán *thánd*, the Collector believes that rice is exported thence in considerable quantities. No great staple is grown except rice. Next to rice in importance, but a very long way behind it, comes the mulberry cultivation. The leaf is sold to another set of people, who rear the silkworms, except when the cultivator's family follows that industry. In good silkworm years the crop is a very profitable one; but the cultivation is a hazardous one, as in the event of a disease among the worms the leaf is valueless. On the other hand, even a short crop of mulberry gives a large margin of profit, if only the brood of worms succeeds. The mulberry is an article of purely local consumption. The silk industry will be further noticed in a subsequent section of this Account. No indigo, cotton, jute, tobacco, or betel is grown within Barwán *thánd*. The Deputy-Collector reports the people to be much wedded to custom, and unenterprising as regards new crops. Even the potato, which has been naturalized in many places on the banks of the Ajai, has not found its way into this tract. The great link between Barwán *thánd* and the commerce of the outer world is the silk trade.

With regard to the rents given in the foregoing pages, it should be explained that the rates depend not on the particular crop grown, but on the kind of land; and the better descriptions of land grow more than one crop. Partly custom, and partly some innate fitness in the soil, have, however, appropriated certain crops to certain classes of land. The rents given appear high, and the rates entered are said to be those charged to a new tenant taking up land; but the Deputy-Collector states that even husbandmen with rights of occupancy pay rents but little short of those which have been set

down. All the figures, however, in the foregoing pages, of rates of rent, cost of cultivation, prices of produce, yield of produce, etc., must be accepted with great caution. The Deputy-Collector who gathered the information admits himself that, in the absence of any assistance from the *zamíndárs*, he had to depend greatly on the statements of the cultivators themselves; and they are not likely to have given an altogether impartial statement of their conditions of life.

CONDITION OF THE CULTIVATORS.—I now leave the special statistics of Barwán *tháná*, and return to the general Account of Bírbhúm District. A peasant's holding exceeding fifty *bighás*, or about seventeen acres of all descriptions of land, would be considered a large-sized farm; less than fifteen *bighás*, or five acres, is looked upon as a very small holding. A farm consisting of thirty *bighás*, or about ten acres of different descriptions of land, would be considered a fajr-sized, comfortable holding for a husbandman. The usual quantity of ground cultivated by a single pair of oxen is about fifteen *bighás*, or five acres; but the Collector reports that a peasant holding a small farm of this size would not be as well off as an ordinary retail shopkeeper; nor would it enable him to live so comfortably as Rs. 8 or 16s. a month in money would. As a class, the peasantry are said not to be generally in debt. The lands are chiefly held by cultivators with a right of occupancy. The Collector reports that about seven-eighths of the whole body of cultivators hold their lands with such rights; and that probably one per cent., in addition to ordinary occupancy rights, hold their land free from liability to enhancement of rent. The Collector reported that, up to 1870, 255 cases were instituted under the provisions of section xxiii. clause 6 of Act x. of 1859, for acknowledgment of rights of occupancy. Of these, 119 were decreed, 85 dismissed, and 51 struck off. During the same period, 1913 notices for enhancements of rent were issued by the landholders through the Court, but only 171 cases were instituted on these notices. Of these 171 cases, 101 were decreed, 42 dismissed, and 28 were struck off. The Collector reports that there is no class of small proprietors in Bírbhúm District who own, occupy, and cultivate their hereditary lands without either a superior landlord above or a sub-holder or *krishán* or labourer of any sort under them.

DOMESTIC ANIMALS.—Oxen and buffaloes are used for agricultural purposes; and sheep, goats, and pigs are reared for purposes of

trade. Besides plough work, bulls and bullocks are used as beasts of burden for drawing carts, or carrying packs of grain or other merchandise; they are also yoked in the oil-mills. Buffaloes are occasionally sold for purposes of sacrifice at the Durgá and Kálí *púját*, but otherwise they are kept merely for ploughing, or for their milk. Horses, ponies, and asses are very few in number. The goats and sheep are of an indigenous breed, and are mostly kept by Muhammadans. The he-goat is a frequent victim at Hindu *púját*, and his flesh is eaten; Musalmáns also eat the flesh of the female. Mutton is also to some extent eaten by Muhammadans. A few pigs are kept by Háris, Doms, Báurís, and other very low castes, for their own eating. The average value of the domestic animals is thus returned:—A good cow is worth from Rs. 17 or £1, 14s. 0d. upwards, according to milking qualities; a pair of oxen from Rs. 35 to Rs. 50, or from £3, 10s. 0d. to £5; a pair of buffaloes from Rs. 30 to Rs. 40, or £3 to £4; a score of sheep from Rs. 25 to Rs. 30, or £2, 10s. 0d. to £3; a score of kids six months old, Rs. 15 or £1, 10s. 0d.; a score of full-grown pigs from Rs. 60 to Rs. 80, or £6 to £8. In localities where the amount of grazing ground is scanty, it has to be supplemented by fodder of rice straw. This is given to cattle, chopped up and mixed with chaff, oil-cake, and water. This mash is called a *chhání*, and is given at early dawn every day. The animal is then worked till noon, when he is left till evening to pick up such herbage as he can find. In the evening, after sunset, he gets another mash. The oil-cake of mustard and *til* seed is considered best for cattle. The milch cows kept by well-to-do cultivators are fed in the same way, but have the whole day to forage for themselves. Salt is not given to plough cattle. Goálás, or cattle-keepers and milkmen, who have large herds cannot afford to diet their cattle with rice straw and oil-cake, but eke out the food got by grazing with cut grass and leaves of the *pipal báblá* and other trees. If other grazing runs short, they camp out beside a *bil*.

The Agricultural Implements in use in Bírbhúm District are of the ordinary description common in other parts of Bengal. The cost of a plough is estimated at Rs. 2. 5. 0, or 4s. 7½d., made up as follows:—The *murá*, or wooden share, 4 ánnás or 6d.; the *ish*, or wooden pole, 4 ánnás or 6d.; the *phál*, or iron sheathing of the share, 8 ánnás or 1s.; the tail of the plough, 1 ánna or 1½d.; the yoke, 6 ánnás or 9d.; the *ron*, or leather band fastening the whole together, 2 ánnás or 3d.; nose strings, etc. for the bullocks, 4

ánnás or 6d.; repairs, etc., 8 ánnás or 1s.: total, Rs. 2. 5. 0, or 4s. 7½d. A *mai*, or bamboo harrow and clod-crusher, costs 2 ánnás or 3d.; a *kodali*, or hoe, Rs. 1. 4. 0 or 2s. 6d.; a *kaste*, or reaping-hook, 2 ánnás or 3d.; a *phaura*, or long-handled spade, Rs. 1. 4. 0 or 2s. 6d.; a weeder, 1½ ánnás or 2¼d.; a small spade for digging holes (*pasuli*), 2 ánnás or 3d. This, together with Rs. 35 or £3, 10s. 0d. for a pair of plough oxen, makes a total cost for cattle and implements of Rs. 40. 4. 6 or £4, 0s. 6¾d. This capital is sufficient for the cultivation of what is technically known as a plough of land, equal in extent to about fifteen *bighás* or five acres.

Wages and Prices.—The Collector returns the current rate of wages for labourers and mechanics as follows:—Coolies, or ordinary day-labourers, Rs. 4, or 8s. a month; carpenters, Rs. 8, or 16s.; bricklayers, Rs. 8 to Rs. 10, or from 16s. to £1; and blacksmiths from Rs. 8 to Rs. 12, or from 16s. to £1, 4s. 0d. a month. As regards prices, the following table shows the average price of the best, ordinary, and inferior rice in each of the eleven years from 1860 to 1870, both in standard maunds and hundredweights:—

Average Price of Rice in Birbhum for the Years 1860 to 1870 inclusive.

Year.	Best Rice.		Ordinary Rice.		Inferior Rice.	
	Per Standard Maund.	Per Cwt.	Per Standard Maund.	Per Cwt.	Per Standard Maund.	Per Cwt.
	R. a. p.	*s. d.*	*R. a. p.*	*s. d.*	*R. a. p.*	*s. d.*
1860, . .	1 14 5	5 2¼	1 9 10	4 5	1 8 9	4 2½
1861, . .	1 8 9	4 2½	1 3 9	3 3⅜	1 1 9	3 0⅜
1862, . .	1 4 4	3 5⅝	1 1 4	2 11½	0 15 7	2 8
1863, . .	1 4 2	3 5¼	1 2 1	3 1	1 0 1	2 9
1864, . .	1 10 8	4 6⅝	1 9 2	4 3½	1 5 8	3 8⅜
1865, . .	2 0 2	5 6	1 13 11	5 1¼	1 11 9	4 9
1866, . .	4 3 4	11 6	3 9 6	9 9⅜	3 7 8	9 6
1867, . .	2 0 7	5 6¾	1 9 1	4 3¼	1 9 0	4 3
1868, . .	1 12 9	4 11	1 8 0	4 1	1 7 0	3 11⅛
1869, . .	2 8 2	6 10¼	2 3 9	6 1¼	2 0 7	5 6⅜
1870, . .	2 0 5	5 6	1 12 4	4 10	1 10 0	4 5

It will be seen that prices of rice have considerably increased since 1860. The following table, however, goes back for a much longer period, and compares the prices of rice and other products which prevailed in 1788 with those ruling in 1872. It is taken from a Bírbhúm price current of 1872; but for the sake of uniformity, the local maund has been converted into the standard Bengal maund of 80 *tolás* to the *ser*, and also into English hundredweights. It will be noticed that, while the ordinary and coarser descriptions of rice have greatly risen in value, the price of the finest quality of rice, of which there is but little consumption, is the same now as it was upwards of three-quarters of a century ago. *Kalái* and salt are the only other articles of produce in the list which have not increased in value :—

COMPARISON OF PRICES BETWEEN 1788 AND 1872.

	1788.		1872.	
	Per Standard Maund.	Per Cwt.	Per Standard Maund.	Per Cwt.
	R. a. p.	*£ s. d.*	*R. a. p.*	*£ s. d.*
Finest Rice, . .	1 9 0	0 4 3	1 9 0	0 4 3
Fine Rice, . . .	1 3 6	0 3 4	1 5 10	0 3 8¾
Common Rice, . .	1 0 9	0 2 10	1 4 5	0 3 5½
Common Paddy, . .	0 7 11	0 1 4	0 13 3	0 2 3¼
Kalái, ...	1 15 9	0 5 5	1 11 4	0 4 8
Salt, ...	4 8 10	0 12 5	4 7 0	0 12 1½
Oil, ...	8 11 10	1 3 10½	15 9 6	2 2 7
Ghi, or Clarified Butter,	12 2 3	1 13 2	27 5 2	3 14 8
Sugar, ...	6 13 3	0 18 8	10 14 8	1 9 9½

LAND TENURES.—The following account of the varieties of land tenure met with in Bírbhúm District (from the *tálukdár*, or tenure holder immediately next to the *zamíndár*, down to the actual cultivator of the soil) is compiled from a special report by the Collector, dated 21st April 1873. The tenures are divided into the following five classes :—(*a*) *Táluks;* (*b*) *ijárá*, or farms; (*c*) *jot jamá*, or cultivating tenures; (*d*) *chákrán*, or service tenures; and (*e*) *lákhiráj*, or rent-free tenures.

TALUKS.—A *táluk* is a right granted in perpetuity to collect rents of estates or parts thereof. Some were in existence at the time of the Decennial Settlement, and some were created subsequently. The former are either dependent or independent *táluks*, according as they do or do not include some proprietary right. Those created since the Decennial Settlement are called *patní táluks*. The following are the different *táluks* known in Bírbhúm District:—(1) *Istimrárí táluks*. These are *táluks* which were in existence at the time of the Decennial Settlement, and which, on account of their old standing, came to be recognised as granted in perpetuity at a fixed rental. (2) *Maurúsí táluks* are those which at their creation were made hereditary. (3) *Mukarrarí táluks* are those which had their rentals fixed in perpetuity at the time of their creation. (4) *Aimá*, (5) *bhátí aimá*, (6) *nánkár*, and (7) *madatmás táluks*. These are lands which were originally granted by the landholders either to relatives, learned persons, or officers of state as a means of maintenance, a small quit-rent being reserved. They are all independent *táluks*. (8) *Mukarrarí chak jamá táluks*. These are *táluks* forming a portion of villages leased at fixed rentals in perpetuity. (9) *Patní táluks*. These *táluks* have been created since the Permanent Settlement. They were first introduced on the estates of the Mahárájá of Bardwán, for the purpose of enabling him to collect his rents the more easily. The rights of a *patní tálukdár* are capable of being sublet to subordinate holders, with the exception that, on the sale of the parent *patní* for arrears of rent or other default, all subordinate tenures derived therefrom, such as *dar-patnís*, *se-patnís*, and *chaharam-patnís*, are extinguished.

IJARA OR LEASEHOLD FARMS.—These holdings vary in character, according to the special terms of each contract. They are generally, although not always, created for a fixed term of years. The chief characteristic is, that the holder of the tenure is not supposed to cultivate the estate himself, but merely collects the rents from the tenants. Farms are of several kinds, of which the following five are met with in Bírbhúm District:—(1) *Istimrárí ijárás;* granted before the time of the Permanent Settlement, and regarded as permanent, hereditary, and transferable. (2) *Maurúsí ijárás;* farms at the granting of which special provisos of inheritance are agreed upon. The amount of rent, although generally fixed, is not necessarily invariable. (3) *Mukarrarí ijárás;* farms granted at a fixed rate, generally on receipt of a bonus, or as remuneration for personal services.

(4) *Katkiná ijárás;* farms granted for the purpose of liquidating debts due to the lessee. The lessee or creditor collects the rents, and is also allowed as extra profit any rent derived from fresh lands coming under cultivation. (5) *Miádí ijárás;* farms for a term of years, the most common of all farms.

JOT JAMA OR CULTIVATING TENURES.—(1) *Istimrárí jots.* These tenures were in existence before the date of the Permanent Settlement. They are transferable, hereditary, and not liable to enhancement. (2) *Maurúsí jots.* These tenures are hereditary, but their rates of rent are not necessarily fixed in perpetuity. (3) *Mukarrarí jots* are also dependent upon the terms of the special agreement, and are, unless duly registered, liable to be rendered void upon the sale of the parent estate to which they belong. (4) *Khárijá kharidá jots.* These are holdings settled at a quit-rent, in consideration of a bonus or specified sum of money being paid to the grantor. They are hereditary and transferable. (5) *Bahar kharidá jots.* These differ from the last only in the fact that the holders had been in previous possession, but were paying the full rent until the special agreement was made. (6) *Gánthí pattá jots* are tenures held under agreements which do not specify any fixed term. The rents are liable to enhancement; but the tenants cannot be ejected at will, and their rights are transferable. Similar tenures, which had been held without special agreement for a certain number of years, have received a legal sanction, and are held to confer upon their holders a right of occupancy under the provisions of Act x. of 1859, the Rent Law of Bengal. (7) *Mánjhí jots.* These tenures are chiefly to be found in the Santál villages. In the Santál country, the headman of each village, known generally by the name of *mánjhí*, takes a settlement of his village for a specified term from the proprietor. He sublets it in patches to others, and derives thereby a profit. In some instances this tenure is said to have been in existence from time immemorial, and not to be based on any recently created right. (8) *Korshá jots;* another variety of *jot* tenures. They are of a subordinate nature, and take their rise from the superior tenants being unable or unwilling to cultivate their own holdings. The following varieties are to be found in this District:—(*a*) *Miádí pattá;* a cultivating lease for a fixed term of years, the lands reverting to the lessor at the expiration of the stipulated period. (*b*) *Adha bhág jot.* The main condition of this tenure is, that the tenant is to receive the ground free of rent, but to pay all the

expenses of cultivation, and give half the produce to the superior holder in lieu of rent, retaining the other half as a return for his expenses and labour. (*c*) *Hálkrishí jot;* a tenure similar to the last; but the lessor also finds most of the expenses of tillage, and the actual cultivator only receives one-third of the produce. (*d*) *Krishí jot;* a similar tenure to the last. The lessor provides all expenses except labour, and in return takes two-thirds of the grain and all the straw. (*e*) *Athára báise bhág.* In this case the cultivator provides plough, cattle, and all expenses of tillage, and receives nine-elevenths of the grain produced. The straw goes to whichever of the parties provides manure, whether tenant or lessor. (*f*) *Panchardhá bhág.* The tenant ploughs the land and finds the cattle, and the lessor provides the manure. The tenant receives three-fifths of the grain, and one-fourth of the straw to feed his bullocks. (*g*) *Thiká jot.* Under this tenure the cultivator is bound to supply a fixed amount of produce to the lessor, and to bear all the expenses of tillage. The lessor is free from all risks, such as bad seasons, etc. (*h*) *Korfá jots.* Tenants having rights of occupancy, but unable themselves to cultivate the entire extent of their holdings, sublet either the whole or portions of their lands to others, called *korfádárs.* These latter are merely tenants at will.

CHAKRAN OR SERVICE LANDS.—*Chákrán* or service lands are those granted rent-free by the *zamíndárs* or proprietors, as remuneration to particular persons for services to be rendered to them or to the village in their behalf. These lands derive their names from the particular class or kind of service for which they are granted; and in most cases the *zamíndár* or proprietor has the right to resume them on the failure of the holders to discharge their respective duties. These tenures are generally hereditary, but not transferable by the holders. The following are the principal kinds of *chákrán* lands found in this District:—(1) *Chaukidárí chákrán;* lands set apart for the maintenance of the village police. They are inalienable, and the incumbents hold them at the will of Government. (2) *Símánádár chákrán;* lands granted to *símánádárs, i.e.* persons who watch over the boundaries of a village, and whose duty it is to give information when any boundary dispute arises. These tenures are hereditary. (3) *Hálsháná chákrán;* lands given to persons who assist the *gumáshtá* in collecting the rents, etc. (4) *Purohit chákrán;* lands given to Bráhmans for the performance of *púiá* to the village idols, the charge of which falls on the *zamín-*

dár. (5) *Kámár chákrán;* lands given to the *kámár* or village blacksmith, who does smith's work for the *zamíndár*, and whose duty it is also to sacrifice the goats, etc. at religious festivals. (6) *Kumár chákrán;* lands given to the potters for the supply of earthen vessels at the village festivals, and to the *gumáshtá*, etc. (7) *Nápit chákrán;* lands given to barbers for their attendance at *púját*, and for doing sundry duties at other times,—shaving the *gumáshtá*, etc. Barbers also get remuneration from other persons than the *zamíndár* for doing similar duties. (8) *Málí chákrán;* lands given to the *málís* or gardeners for supplying garlands of flowers, etc. for offerings to the village idols. (9) *Dhobí chákrán;* lands granted to washermen. (10) *Ashtapraharí chákrán;* lands given by *zamíndárs* to persons who remain in attendance day and night at the *zamíndárí kachárí* or landholder's court, and who also serve the *gumáshtá* or other collecting officer of the *zamíndár*. The retention of the services of such persons is at the discretion of the *zamíndár*.

LAKHIRAJ OR RENT-FREE LANDS.—These may be divided into two classes: (*a*) Those originally granted for special services, from which the present holders may have become discharged; and (*b*) those of which the proceeds are devoted to special purposes. The principal kinds of *lákhirájj* lands in Bírbhúm are the following:—(1) *Debottar* lands. These are lands which were allotted by the original donor to defray expenses connected with the worship of some particular idol. They are generally held by a *sebáit* or trustee who represents the estate for a time. These lands are incapable of alienation. (2) *Bráhmottar* lands are those presented to Bráhmans by devout Hindus, either to prevail upon the recipient to settle himself in some particular place for the spiritual benefit of the donor's deceased relatives, or for the general purpose of the donor's own spiritual good. (3) *Mahattrán;* gifts of land to great or learned men of other castes than Bráhman. (4) *Khúshbásh*, or homestead lands, which are exempted from payment of rent in favour of meritorious persons invited to settle in a new village. These lands are hereditary and transferable. (5) *Vaishnavottar;* lands bestowed rent-free upon Vaishnavs or disciples of Chaitanya. They are hereditary and transferable. (6) *Pírán;* lands allotted to meet the charges connected with the maintenance of the tomb (*astánah*) of a Muhammadan saint or *pír*. A superintendent (*matáwalí*) has charge of the lands, and represents the estate for the time.

He has a life-interest in the property, but no power to alienate or encumber it, apart from any legal necessity connected with the establishment. (7) *Fakírán;* lands allotted for the maintenance of an establishment for providing food and shelter for *fakírs* or wandering Musalmán hermits. Such lands are in charge of a *matáwalí.* They are neither alienable nor capable of being charged with any encumbrance in the absence of legal necessity. (8) *Chirághí;* lands allotted rent-free to meet the charge of procuring lamps for and illuminating the mosque or tomb (*astánah*) of a Muhammadan saint or *pír.* These lands are also incapable of alienation. (9) *Nazarát;* lands bestowed rent-free with a view to meeting the charges for presents to the *pír's astánah* on festival days. (10) *Khayrátí;* lands, the proceeds of which are intended to be spent in the bestowal of alms. (11) *Khánábárí;* homestead lands bestowed rent-free on worthy Muhammadans to encourage them to reside in a village. (12) *Mullákí;* lands bestowed rent-free upon *mullás* or Musalmán religious teachers for their own maintenance, and also for the support of the *madrasás* or Muhammadan schools over which they preside.

RATES OF RENT.—In the pages showing the agricultural statistics of Barwán police circle, I have already mentioned the rates of rent paid for the different descriptions of land, as returned by the Deputy-Collector in 1872. These rates, however, do not refer to the whole of the District; and as most of the information on which the return was based was obtained from the cultivators themselves, it seems doubtful whether they are not overstated. The following rates of rent in different parts of the District, as paid by the actual cultivators for the ordinary descriptions of land, is from a report of the Collector, dated 10th August 1872. They show a lower scale of rent than those returned by the Deputy-Collector in his statistics of Barwán *thánd.* In the vicinity of Surí, the headquarters station, the rent of ordinary rice land is returned at from Rs. 1/4 to Rs. 2 per *bighá,* or from 7s. 6d. to 12s. an acre; while that of the best quality of land, yielding sugar-cane, cotton, pulses, or vegetables, besides rice in rotation, is returned at from Rs. 3 to Rs. 4 per *bighá,* or from 18s. to £1, 4s. 0d. an acre. Near Synthia, low rice land rents from Rs. 2 to Rs. 3 per *bighá,* or from 12s. to 18s. an acre; high rice land, from Rs. 1/4 to Rs. 2 per *bighá,* or from 7s. 6d. to 12s. an acre; best quality of land, from Rs. 2/8 to Rs. 4 per *bighá,* or from 15s. to £1, 4s. 0d. an acre. Near Ilámbázár, in the south

of the District, and along the banks of the Ajai, the prevailing rates are — for low rice land, from Rs. 1/8 to Rs. 3 per *bighá*, or from 9s. to 18s. an acre; high rice lands, from Rs. 1 to Rs. 1/8 per *bighá*, or from 6s. to 9s. an acre; best quality of land, from Rs. 3/4 to Rs. 4/8, or from 19s. 6d. to £1, 7s. od. an acre. The rates of rent at the time of the Permanent Settlement in 1793 are said to be about the same as those given above as ruling at the present day. The Rent Law of Bengal, Act x. of 1859, has not resulted in any general enhancement of rents in this District.

MANURE is generally used throughout the District. The Collector states that the quantity of cow-dung manure required for rice land is about 20 maunds per *bighá*, valued at Rs. 1, equal to about 45 cwts. per acre, value 6s.; and for sugar-cane lands, about 100 maunds per *bighá*, valued at Rs. 5, equal to about 11 tons, valued at £1, 10s. od.

IRRIGATION is carried on mainly from tanks, and by two methods. According to the first, which is called *chhení*, two men stand opposite to one another, having the water between them, and use a sort of scoop of matting, with a string attached to each of its four corners, as the instrument for raising the water. Each man holds two of these strings, slackening them so as to dip the scoop into the water. The body is then thrown backwards and the arms raised, a certain quantity of water is brought up in the scoop and tilted over into a channel leading to the field to be irrigated. Four men are required to work this instrument during the entire day, and can raise sufficient water to irrigate about one and a half *bighás*, or about half an acre. The height of the lift is about five feet. The second instrument is the *duní* or *drauní*. It consists of a trough with a bend in the middle, or rather towards one end, the two portions of the trough being of unequal length. The shorter end is closed, and is called the *ánkrá*. The whole moves upon a pivot; and to the end of the *ánkrá* is attached a rope, which is fastened to one end of an elevated lever, the other end of the lever bearing a counterbalancing weight. The *ánkrá* is dipped into the tank, and when filled, the weight is released and drags up the closed end, pouring the water through the open end of the trough into the irrigating channel. By this means two men can raise sufficient water in a day to irrigate a *bighá* of land, or about a third of an acre. The height of the lift, however, is less than by the other method. Well irrigation is not practised in Bírbhúm.

NATURAL CALAMITIES.—The District is not liable to natural

calamities, such as blights, floods, or droughts; and the Collector states that neither floods nor droughts have occurred in Bírbhúm, during the experience of the present generation, on a scale sufficiently large to seriously affect the general prosperity of the District. The District, however, suffered somewhat from scanty rainfall during the years 1865 to 1867, and again in 1873. During the famine year of 1866, the maximum price of common rice was Rs. 5 per maund, or 13s. 8d. per cwt.; and of paddy, Rs. 2/8 per maund, or 6s. 10d. per cwt. The great crop of Bírbhúm is the *áman* or December rice harvest; and in the event of the almost total loss of this, the *áus* or autumn rice could not in any way supply the deficiency, or enable the people to live through the year without suffering great distress, if not actual famine. The Collector adds, however, that in his opinion the means of transit at the disposal of the District are amply sufficient to avert the extremity of suffering, by importation from other Districts, and to prevent the danger of the isolation of any part in the event of famine.

Foreign and Absentee Proprietors.—In 1871 four Europeans were on the register as landed proprietors on the rent-roll of the District. In the same year there were seventy-two estates in the name of 256 Musalmán proprietors; but as many Muhammadans hold land jointly with Hindus, the amount of land revenue paid separately by each cannot be estimated. Forty-five estates, owned by 124 persons, are entered exclusively in the names of Muhammadan proprietors, who pay a total Government revenue of £1600, 16s. 0d. The total number of estates in the District in 1870-71 amounted to 510, paying a total Government rental of £73,558, 10s. 0d.

Roads and Means of Communication.—The principal lines of roads in Bírbhúm are returned by the Collector as under:—(1) Road from Surí through Dubrájpur to the Ajai, after which it passes into the Ráníganj Subdivision of Bardwán, and leads on to Ráníganj town; distance in Bírbhúm District from Surí to the Ajai, twenty-three miles. (2) Road from Surí to Synthia Railway Station, eleven miles in length. (3) Road from Surí to Nagar or Rájnagar, the ancient capital of the District, fourteen miles; and from thence round through Khairásol to Dubrájpur, a further distance of seventeen miles: total, thirty-one miles. (4) Road from Surí through Purandarpur to Ahmadpur Railway Station, thirteen miles in length. This is a Public Works road, and was intended to lead on to Kátwá, but was never finished; and beyond Ahmadpur the road or

track is reported by the Collector to be a perfect wreck. (5) Road from Bolpur Railway Station to Ilámbázár, on the north bank of the Ajai river, twelve miles in length. (6) Road from Surí to Nayá Dumká, in the Santál Parganás. This road is under the management of the Public Works Department; but only the first eight or nine miles of it, from Surí to the Mor river, are situated in Bírbhúm District. (7) Road from Purandarpur to the Ajai river, twenty miles in length. At the Ajai the road crosses into Bardwán District, and leads on to Bardwán town. (8) A road starting from the Mor river, in the east of the District, and leading past Lábhpur Police Station across the line of railway on to Ilámbázár, after which it enters Bardwán District, and runs on to Káksá and Sonámukhí; length of the road in Bírbhúm District, about thirty miles. The most important roads are those from Surí to Synthia and Ahmadpur Railway Stations; from Surí to Nagar; from Ilámbázár to Bolpur; and the roads towards Ráníganj in the south-west, and Nayá Dumká and Bhágalpur in the north-west. Besides the ones above enumerated, there are several minor roads and tracks between villages. In 1871-72 the metalled roads of the District were 98 miles in length, and the unmetalled roads 120, making a total length of 218 good roads, besides smaller tracks. Tolls are levied on five roads in Bírbhúm, and are farmed out by public auction. They yielded an income in 1871-72 of £875, 10s. 0d. The average cost of the local roads for maintenance and repair during the three years prior to 1871-72 is returned at £1884 per annum. Bridges have not yet been constructed where the roads cross the rivers, except over insignificant *nálás* or watercourses. In the dry weather all the rivers are easily fordable, and in the rains passengers and vehicles are conveyed across in ferry-boats. The public ferries are let out in farm; in 1871-72 they yielded an income of £56, 2s. 0d.

Besides the roads, the East Indian Railway, which intersects the District from south to north, affords means of communication. The railway enters Bírbhúm from Bardwán District a little beyond Bhediá Station, situated on the south bank of the Ajai, which river marks the boundary between the Bardwán and Bírbhúm Districts; the four stations within Bírbhúm being Bolpur, Ahmadpur, Synthia, and Mallárpur. A few miles beyond Mallárpur the line enters Murshidábád District. Total length of railway in Bírbhúm District, thirty-three miles. Since the opening of the railway, almost all the villages in the vicinity of the railway stations are

growing up into marts and centres of trade; Bolpur and Synthia have already become large trading villages, and are rapidly rising in importance.

MANUFACTURES.—The chief manufactures are silk, lac, *tasar*, and indigo. The following particulars of each of these industries are taken partly from the special report on the agricultural statistics of Barwán *thánd*, and partly from the Collector's Annual Report on the District for 1872-73:—

The silk-producing tract lies entirely in the east, and Ganutiá may be taken as its centre. Four species or varieties of the worm are known in Bírbhúm District,—the *bara palu*, an annual, which forms the greater part of the March crop or *band;* the *desí*, or common country worm; the *nistri*, with a cocoon very similar in appearance to the *desí;* and the China or *atkheli*, with a cocoon of the colour of burnt brick. Two kinds of mulberry are grown,—the *bara tut* or large-leaved, and the *chhota tut* or small-leaved mulberry. There are also a few tree mulberries in the District. The mulberry usually grown is the *chhota tut.* It is planted in raised fields banked and ditched all round, plentifully manured with cow-house litter, mud from the bottom of tanks, and the chrysalides of reeled-off cocoons. Fresh alluvion is the best land, and does not need manuring for two or three years. The breeding of the annual silkworm, which yields the best silk, is conducted in the following manner:—The cocoons are formed in March, or Phálgun-Chaitra, those formed the earliest being reserved for breeding purposes. The male chrysalis (*chakrá*) can be distinguished from the female (*chakrí*) by the sharper sound it gives when the cocoon is shaken, the body of the male chrysalis being smaller than that of the female, and consequently occupying less space in the cocoon. This testing process is called *pát bájána.* An equal number of males and females are selected and put in a flat basket or *dálá*, which is then covered with another basket inverted. The moths begin to emerge on the eighth day after the formation of the cocoon, and continue to emerge till the eleventh day. They come out during the night and early morning, not during the day. As the moths make their way out of the cocoons, they are put into other baskets, and the males and females for the most part pair spontaneously and at once. About the middle of the day, the males and females are separated, the males being thrown away, and the females placed on a cloth in a large basket. An hour afterwards they begin to lay eggs, and continue laying

during the night and till the afternoon of the following day. The eggs are then wrapped in three or four folds of cloth, and put in an earthen pot, which is covered over by a plastering of earth and cow-dung. The vessel is then hung up, and it is thought unlucky even to touch it. After the Saraswatí *pújá* in the following Mágh (January —February), the earthen pots are taken down and opened. The eggs then begin to hatch. The cloth is shaken over a *dálá*, and the little worms drop off into the basket. Those hatched each day are kept separate. The hatching extends over a period which varies from fifteen to twenty-five days, according to the temperature.

The worms are fed as soon as hatched,—during the first stage on the tenderest leaves chopped fine, then on whole leaves, and in the last stage the twigs are thrown in whole. The first moult takes place about five days after hatching, the successive moults being known as the *mathi-kalap*, the *do-kalap*, the *te-kalap*, and the *sád-kalap*. Food is given three times a day,—before dawn, at noon, and again about two hours after sunset. The worms are kept in baskets or *dálás*, which are placed in a wooden stand made to hold sixteen such baskets, one above the other; as the worms grow, they are placed in larger baskets, with fewer worms to each. The full-grown larva is about an inch long and three-fourths of an inch in girth, generally of a white colour with the usual black markings, but the white is tinged with varying shades of yellow and red in different worms. From about eight to twelve days after the last moult, the worms begin to form their cocoons, sooner or later according to the temperature. The yellowish appearance of the fluid silk, seen through the skin, indicates that they are about to spin. The worms are then placed in a tray called *táliyá*, which is partitioned off into spinning holes by slips of bamboo, and placed with its back to the sun, the warmth promoting the formation of the cocoon. After formation, the chrysalides which are not wanted for propagation are killed by exposure to the sun, and the cocoons are then ready for the market. Of this kind, twelve *káhans* ($1280 \times 12 = 15{,}360$) of cocoons will yield one local *ser* or $1\frac{1}{8}$ lbs. avoirdupois of spun silk.

The *nistri* worm is smaller than the above, and five breedings or crops (*bands*) are obtained during the year, of which those obtained in January and July are the best. Two crops or *bands* out of the five seem to be altogether neglected, and are called *chhorá* or refuse *bands* in consequence. The cocoon of the *nistri* is of a golden colour, but the yield is less than that of the *bara palu*,—sixteen

káhans (1280 × 16=20,480) of cocoons only producing one local *ser*, or $1\frac{1}{3}$ lbs. of silk. The eggs hatch in nine or ten days. In the cold weather the cycle of the worm is about sixty days, reduced in the hot weather to forty. The *nistri* has two black marks on its mouth. The *desí* or *chhota palu* also yields some five or six crops or *bands* during the year. In most respects it is very like the *nistri*, but it has no black marks on its body. Its yield of silk is about the same as that of the *nistri*. No estimate exists showing the total out-turn of cocoons or silk; but in Barwán police circle the number of cocoons reared is said to be less now than it was some years ago. This is supposed to be owing partly to a depressed state of the silk trade, and partly to the prevalence of disease among the worms. The insect is said to suffer from three maladies in Bírbhúm District, known as (1) the *chit rog*, (2) the *narmjá rog*, and (3) *katáse rog*. The first-named disease seizes the worm in its final stage. Those attacked turn quite hard, and die; and it is said that even the crows, who generally greedily devour the worms whenever they get a chance, will not eat those which have died of this disorder. The second attacks the worms when about to spin. Little white spots or pustules break out on the body, and the worm becomes torpid, and in two or three days melts away in corruption. The third disease may come at any stage of growth. Those worms which it seizes turn greyish, water runs from the mouth, and they ultimately rot away. All three diseases are believed to be eminently contagious. The second is said to be caused by the east wind; the other two are regarded as unaccountable visitations. The description does not seem to correspond with either that of pebrine or gattine, the maladies most dreaded in Europe. No remedies are adopted, and it is said that none have ever been tried.

From the silkworm traders the cocoons pass to the filatures. Sometimes a cultivator who grows the mulberry keeps worms as well, and also reels off the cocoons himself; but more generally the three operations of growing mulberry, rearing worms, and reeling silk are kept quite distinct, and performed by different persons. The cocoons used at the factories are either bought by contract direct from the breeders, or through *páikárs* or commission agents. The great centre of the silk trade in Bírbhúm District is at Ganutiá, on the north bank of the Mor, where the present factory was established in the last century by the 'adventurer' Mr. Frushard, under a contract for the supply of silk to the East India Company. This

factory still provides employment for thousands of people. It is owned by a large English firm in Calcutta, and superintended by European managers on the spot. Besides the parent factory, the surrounding country is dotted with numerous little tributary filatures. Two of the subordinate filatures, worked by European capital, are situated in Barwán police circle, one with a hundred, and the other with fifty-six pairs of basins; the larger of the two is worked by steam, and the smaller by the old method. For the crop or *band* of March 1873, these two factories employed 220 men and 56 women, making 276 hands in all. In addition to these, there are numerous little village filatures, worked by native families. The Deputy-Collector, when making his inquiries, found twenty of these small village filatures in Barwán *tháná*, with sixty-seven pairs of basins. The village filatures, with perhaps one pair of basins apiece, are situated in the peasant's homestead, and worked in a very rude way. The raw silk from the English factory finds its way to the Calcutta and European markets. The raw silk reeled in the villages is partly consumed locally, and partly sent to the Murshidábád silk market, and to the silk-consuming towns of the North-Western Provinces and the Panjáb. Some part also finds its way to the looms of Surat and Ahmadábád in the Bombay Presidency, or is worked up into *dhutí* fringes in the Central Provinces. The Bombay weavers buy a kind of raw silk called *bhursut*, woven from ten cocoons, and therefore thicker than the five or six cocoon thread which finds favour in the Calcutta market. The local fabrics of silk are plain piece goods; but very little silk weaving is carried on, the silk being usually sold in a raw state to the factories or the native dealers. The few *tántís* or weavers who do work silk fabrics are generally employed by silk dealers from Murshidábád, who make cash advances to them for the purchase of the raw silk, undertaking to purchase the fabric when finished at the market price of the day. Some weavers, however, are sufficiently enterprising to invest their little capital on their own account. The women aid them in setting out the woof and filling the shuttles.

The *tasar* or wild silk industry is not very largely followed in Bírbhúm, and is principally centred in the western parts of the District, and at Ilámbázár, on the north bank of the Ajai. The cocoons are brought in from the western jungles, where they are either reared by the aboriginal and semi-aboriginal tribes, or gathered from the forest trees. They are then reeled off and woven in the villages.

A considerable portion of this manufacture is carried on in a village near Surí, the headquarters of the District. In a report submitted to the Exhibition Committee, it is alleged that cocoons are kept over from one season to furnish a breed for the next. If this really be the case, a nearer approach to the domestication of the worm has been accomplished in Bírbhúm than is on record in other Districts. In all other *tasar* Districts the nucleus of each year's breed is sought fresh from the forests. The report in which this statement is made speaks of the cocoons as belonging to three classes,—'western,' 'northern,' and 'southern,'—terms which point to a renewal of the stock from time to time by recourse to the jungles which stretch north and south along the western boundary of the District.

Cotton weaving is also carried on to a certain extent; and this industry seems to have more vitality in Bírbhúm than is commonly supposed. In the western part of the District, the manufacture of the cloth is from home-grown cotton; while in the eastern tracts it is all, or nearly all, made from imported cotton. In the Barwán *thánd* the Deputy-Collector found 577 cotton looms. In this tract the cultivators buy in the market the cotton of the North-West Provinces, have it spun into rude yarn by the women, and take the yarn to the village weaver, who weaves it up into a coarse cloth under the eye of the owner, who, either in person or by his representative, always sits by to see that the yarn is not stolen. This method of working is called *baithani kám*, and the weaver is paid from two *pice* to three *pice* (or from three farthings to a penny farthing) for each yard of cloth produced. The usual breadth is one yard, and a man can make five yards a day. This would give a daily earning of from $2\frac{1}{2}$ *ánnás* to $3\frac{3}{4}$ *ánnás*, or from $3\frac{3}{4}$d. to $5\frac{1}{4}$d. The cotton-weaving castes are the *tántís*, *jogís*, *konrás*, and *kunáis*. A few use English yarn; but generally the process is as above described, and from the cotton of the North-West Provinces. The value of a cotton loom is about five rupees or ten shillings. In Barwán *thánd* the Deputy-Collector counted 3434 spinning wheels, which would give about one for every four houses in the tract. Some widows eke out a livelihood by spinning cotton. Spinning the Bráhmanical thread is usually confined to Bráhman widows. Besides the locally manufactured cotton cloth, there is a considerable importation of English piece goods into the District.

Another manufacture which is carried on to some but no very considerable extent is that of lac, the principal seat of the industry

being at Ilámbázár. The stick lac is brought in from the western jungles by low-caste or semi-aboriginal tribes. In this form it consists of small twigs of the *pipal*, *ber*, or *bar* trees, surrounded by cylinders of translucent orange-yellow gum, in which the insects are imbedded. The raw material, when brought in, is first broken by stone rollers, in order to separate the twigs from the gum. The gum is then placed in large earthen dishes, and allowed to soak in water for about fourteen hours. It is then well rubbed by the hand till the colouring matter has been thoroughly extracted. This consists of the dead bodies of the insects (coccus lacca) buried in the gum. These, when the fluid is allowed to stand in large vats, gradually precipitate themselves to the bottom. The water is drained off, and the sediment, after being strained on filtering paper, pressed, and dried, becomes lac-dye ready for the market. The gummy exudation of the insect in the meanwhile is carefully dried in the sun, placed in long bags, and melted over a strong charcoal fire. It is then squeezed out, either in thin sheets upon an earthen cylinder, when it becomes shellac, or in dabs upon a plantain stalk, when it is known as button lac. This latter kind is considered the superior of the two, and commands a higher price in the market than shellac. Messrs. Erskine & Co. have established a large shellac and lac-dye factory at Ilámbázár. There are, besides, some ten or twelve native factories in that village and its neighbourhood, but their produce is all more or less adulterated, which makes it difficult for the honestly manufactured article to command its proper place in the Calcutta and English markets. Lacquered articles and *churís* (lac bracelets) are made in large quantities at Ilámbázár. The former are of excellent workmanship, and the manufacture is said to be common in no other District of Bengal.

Indigo is manufactured in the south and west of the District, the greater part of the industry being in the hands of Messrs. Erskine & Co., who have eight indigo factories in Bírbhúm, besides several others in neighbouring Districts. In addition to these, there are several native indigo concerns in the District, which produce indigo generally of very good quality. Much more care and attention has been of late years bestowed on indigo manufacture by natives.

Minor manufactures and ordinary village handicrafts require no special mention. In the case of indigo, shellac, and lac-dye, hired labour is largely employed in the manufacture, but the other industries are chiefly carried on by the villagers on their own account and

in their own houses. The social condition of the manufacturing classes is said to be pretty good, the demand for labour being often greater than the supply. Among manufactures which were formerly carried on, but which have now become extinct, may be mentioned sugar-making, which was formerly conducted at Surul, and the weaving of a coarse description of cloth known as *garà;* both of these manufactures are said to have completely died out in Bírbhúm.

The following table shows the number of skilled workers, mechanics, and artisans in the District, as returned by the Census of 1872, under their respective trades, making a total of 17,364 men :—

MANUFACTURING CLASSES AND ARTISANS OF BIRBHUM DISTRICT, 1872.

	Male adults.		Male adults.		Male adults.
Indigo manufacturers,	2	Lime makers,	57	Cotton carders,	4
Lac workers,	4	Comb makers,	4	Cotton spinners,	2
Bricklayers (*Rájmistrís*),	435	Mat makers,	441	Silk weaver,	1
Brickmaker,	1	Basket makers,	712	Cotton weavers,	7531
Sawyers,	60	Toy makers,	13	Coir weavers,	5
Carpenters,	1064	Bead makers,	401	Dyers,	4
Thatchers,	45	Hookah makers,	41	Tailors,	182
Well-digger,	1	Musical Instrument makers,	9	Shoemakers,	918
Cart-builders,	72	Lacquered Ware makers,	124	Umbrella makers,	2
Blacksmiths,	1081	Makers of Leaf Plates,	16	Gunnybag makers,	2
Coppersmiths,	17	Carvers,	12	Net makers,	13
Braziers,	383	Gilders,	15	Silk spinners,	260
Tinmen,	3	Ivory carver,	1	Blanket makers,	26
Kalaigar,	1	Shell carvers,	545	Bookbinders (*daftrís*),	7
Goldsmiths,	1404	Caneworkers,	13	Painters,	38
Watchmaker,	1	Broom makers,	9	Total,	17,364
Potters,	1382				

COMMERCE AND TRADE.—The chief export of the District is rice, which is despatched by railway both up and down the line. The other exports, such as indigo, lac, raw silk, and oil-seeds, find their way mostly to the Calcutta market. The principal imports are salt, cotton, cotton cloth, pulses, tobacco, wheat, and metal ware. The District trade is carried on by permanent markets in the towns and large villages, and not by means of fairs. The principal trading villages and seats of commerce are Dubrájpur, Ilámbázár, Bolpur, Synthia, Puṛandarpur, Krinnáhár, and Muhammad Bázár. Surí, the headquarters town of the District, is unimportant from a commercial point of view. The crops of the District suffice to meet all the

local wants; and in the case of rice and oil-seeds large exports are made to other parts of the country. The exports far exceed the imports in value; and a considerable accumulation of money is said to be going on, consequent on the balance of trade being in favour of the District. Such accumulations are employed either as additional capital in trade, or invested in land.

CAPITAL AND INTEREST.—The rates of interest in different loan transactions are returned by the Collector as under:—In small transactions, in which the borrower pledges some article, such as ornaments or household utensils, as security, the current rate of interest is two pice per month for every rupee borrowed, or thirty-seven and a half per cent. per annum. In large transactions, where the lender is secured by a mortgage upon houses or lands, the rate varies from eighteen to twenty-four per cent. per annum. Large transactions, in which a mortgage is given upon moveable property, are not common in Bírbhúm District; but in such a case about twenty-five per cent. interest would be demanded. Agricultural advances to the cultivators are made in the shape of grain, and granted only for a short period of about three months or so till harvest. At harvest time, the *mahájan* receives back his grain in kind, with interest at the rate of twenty-five per cent. A person buying an estate would consider five or six per cent. per annum a fair return for the money invested. There are no large banking establishments in the District, and loans are chiefly conducted by village shopkeepers, who combine rice-dealing with money-lending.

IMPORTED CAPITAL.—The large silk factory at Ganutiá, in the east of the District, which was founded by Mr. Frushard towards the end of the last century, and Messrs. Erskine & Co.'s indigo and lac factories in the vicinity of Ilámbázár in the south-west, are conducted under European management and by means of European capital, and afford employment to large numbers of the labouring population. I have not been able to obtain any details of the amount of capital employed in the large silk factory at Ganutiá, etc.; but a general description of the factory, and some account of its early history, is given on a previous page. Indigo cultivation was first introduced into the District about 1795, when Mr. John Cheap, the Company's commercial resident in Bírbhúm, and Mr. David Erskine started a factory and founded the present firm of Erskine & Co. In 1872 this firm possessed eighteen working factories, namely, eight in Bírbhúm, five in Bardwán, and five in

Bánkurá. The total amount of floating capital yearly employed in working these factories varies from £5000 to £7500, according to the season, of which from £3300 to £4500 may be apportioned to Bírbhúm. The whole of Messrs. Erskine & Co.'s indigo is grown by *rayats*, who cultivate the plant under contract, labourers being only employed during the manufacturing season in July and August. In an average season, about four hundred men are daily engaged in manufacturing the dye in the eight factories in this District. Labourers thus employed earn from Rs. 3 to Rs. 5, or 6s. to 10s. per mensem. In the shellac and lac-dye factory of Messrs. Erskine & Co., from sixty to seventy labourers are daily employed when the factory is in full work. The men are not paid fixed daily or monthly wages, but according to the amount of work done. In shellac making, a hard-working man can earn from two to four ánnás, or from threepence to sixpence a day; in lac-dye working, where less skill is required, a man's average earnings are from two to two and a half ánnás, or from threepence to a fraction under fourpence a day. Messrs. Erskine & Co. estimate the total value of the manufactures in Ilámbázár and neighbourhood, including indigo, shellac, lac-dye, *tasar* silk, and lacquered work and toys, at about £18,500, of which £9000 may be set down to the account of imported, and £9500 to native capital. This total, however, does not include the native manufactured indigo, the value of which Messrs. Erskine & Co. estimate at from £5000 to £6000 per annum.

Income Tax.—The Collector in 1871 returned the estimated income of Bírbhúm District, as calculated for the purposes of the Income Tax Act of 1870-71,—that is to say, the total of all incomes over £50 a year,—at about £200,000, or twenty *lákhs* of rupees. This sum would yield a gross income tax of £6250 at the then rate of $3\frac{1}{8}$ per cent. The net amount of tax actually realized in Bírbhúm District in 1870-71 amounted to £5204, 8s. 0d. In the following year, 1871-72, the tax was reduced to one-third of its previous rate, and the minimum of incomes liable to assessment raised to £75 per annum. The net amount of income tax realized in the District in that year amounted to £1518, 18s. 0d.

Native Chronicles of Birbhum.—The following is an account of the history of the District from the legendary or native point of view. It was drawn up for me in Bengali by my *pandit*, Nabin Chandra Bandopádyáya, from local traditions, Sanskrit works, and

various family archives.[1] I do not attempt historical corrections; and the account of the foundation of the Muhammadan line of princes does not agree with that given by Mr. J. Grant in his celebrated Report, quoted in the first pages of this Account. The *pandit's* chronicle runs as follows:—

'A tradition relates the origin of the name Bírbhúm. It is stated that once upon a time the Rájá of Bishnupur went out to exercise his trained hawks in the mountainous districts of his kingdom. He threw off one of his birds in pursuit of a heron, then usually hunted with hawks. The heron turned upon its pursuer with great fury, and came off victorious. This unusual occurrence excited the surprise of the king. He imagined that it must have been owing to some mysterious quality in the soil; that the soil was in fact *vír máti* (*i.e.* vigorous soil), and that whatever might be brought forth by that soil would be endowed with heroic energy and power. Thereupon he named it Vírbhúmi, a name by which that mountainous region was ever afterwards known. Others, however, derive the name from the inhabitants themselves; for in old times this country produced many heroes, and so it acquired the name of Vír-bhúmi (Bírbhúm), or Land of Heroes.' [Another derivation gives the meaning of the word as Forest-land, as in Santáli, the aboriginal language of the country, *vir* or *bir* means 'jungle.'] 'The capital of the District is Surí, a corruption of Súrjya, a Bengali term for glory.

'Bírbhúm is bounded on the north by Monghir and Rájmahal (Bhágalpur), on the south by Bardwán and Pánchet (Bánkurá or Bishnupur), on the east by Murshidábád, and on the west by Monghir and Pánchet. At the time of the Muhammadan rule, the country was named Madáran by Abul Fazl. In old times the soil was ill supplied with water; and this, together with the fact that a large part of it was occupied by jungle, rendered it in a great measure unfit for cultivation. When Bírbhúm was in the possession of the Musalmáns, it was frequently invaded by a hill tribe called Jhár-bhundí. To put an end to these plundering excursions, Sher Sháh made over Surí to Adullá, the son of Badarullá. In 1540, Sher Sháh, with 500,000 Afgháns, defeated the Emperor Humáyun at Kanauj, and mounted the throne of Dehli. In the following year he came to Gaur (Bengal), and divided it into several Districts,

[1] *Annals of Rural Bengal*, by W. W. Hunter, vol. i. App. D, where the chronicle is to be found as originally printed.

over each of which he placed a distinct ruler. These governors had a superior, who adjusted disputes and acted as the Viceroy of Sher Sháh.

'To the east of Surí is the village of Akchokrá, where the Pándus are said to have taken refuge after their escape from Jatugriha. In this place one of the five brothers, by name Bhím, killed a monster named Hirambak' [probably a legend of the Aryan conquest of Bengal], 'and married his sister Hirimba, by whom he had a son called Ghatotkach, who played a conspicuous part in the battle of Kurukshetra, as mentioned in the Mahábhárata. By some accounts it is said that Akchokrá includes Nimái, Ghordaha, Ganutiá, and Kotersar, and that Bhím resided there with his wife and mother. There is a place in Bírbhúm called Deogarh' [now in the Santál Parganás], 'where Rám, on his way to Ceylon, left the god Siva. Another Siva, named Bakeswar, was placed in a village, which afterwards received the name of that god, and to which many worshippers still resort in the month of April in each year, to do honour to the deity. During the reign of the Baidya family, the kings of Bishnupur and Bardwán alone have a place in history. Of the kings of Bírbhúm—Lausen, Ichái Ghosh, Shangai, Gidhor' [some of these seem to have been aboriginal princes], 'Mallár Sinh, and Bir Sinh—we know little more than the names. The hills of Bírbhúm were inhabited by savage tribes, and it was only in the outskirts of the country that the minor kings could establish themselves. Two brothers, Bír Sinh and Chaitanya Sinh, came to Bírbhúm from North-Western India, subdued the mountaineers, and selected places as their capitals which still bear their names,—Bírsinhpur and Chaitanyapur. Fathi Sinh, who is said to have been the brother of Bír Sinh, subdued many places in Murshidábád, which now bear the name of *parganá* Fathipur, and are included in the District of Bírbhúm.

'Bír Sinh was the first Hindu king of Bírbhúm. He possessed a strong and athletic frame, and by his might subdued the inhabitants of the jungles, and thus extended the boundary of his kingdom. He deprived his brother of his territories, and built the capital of Bírsinhpur. Many kings and *zamíndárs* owned his power, and acknowledged him as their lord paramount. The ruins of palaces, forts, and tanks are still to be seen in Bírsinhpur, six miles west of Surí. The king lost his life in battle with the Musalmáns; and his queen, from fear of being maltreated by the enemy, drowned herself

in a pond, which is still named the Ránídaha (Queen's tank). Bír Sinh dedicated a temple to the honour of the goddess Kálí, and set up a stone idol. The Rájá also placed an idol, named Gopál, in the neighbourhood of Bírsinhpur; and the place being surrounded by a jungle, received the name of Brindában.

'The Bhils, Kols, Gonds, and other hill tribes' [aborigines] 'lived in the Magadha kingdom' [Behar and Bengal], 'and Bírbhúm was also included in it. The kingdom embraced a large extent of country, but does not appear to have been well governed, as even among the *zamíndárs* who lived within a short distance of the capital there were some who did not pay tribute.' [In other words, the Aryan conquest of Bengal was then only partial.] 'One rájá was exempt from tribute owing to the fact that he was a good sportsman. After the fall of the Magadha dynasty, the Páls assumed the supreme power; their original seat was Behar. The Baidya house succeeded the Páls. The Santáls of Bírbhúm inhabit the hills of Dumká, Jal-jhári, and Kumárábád. Their god was Boram (Máráng-Buru), to whom they offered human sacrifices. When a pestilence ravaged their country, however, they abandoned the practice, and instead offered goats, hogs, and other animals. The Boáliá, another hill tribe, worshipped the same deity. Some of them lived in Bardwán during the time of Rájá Kirtti Chandra, and were employed by him as porters. They still follow that occupation in Bardwán and Calcutta. The jungles to the north-west of Bírbhúm are inhabited by a savage tribe called Bírpur, who earn a livelihood by the sale of ropes made from the bark of the *chinodi* tree. They feed upon the flesh of monkeys, dogs, and hogs, and consider elephants worthy of their homage and worship. These savage hordes, together with the wild beasts of the jungles, were a continual source of alarm to the lowlanders. But as the country furnished those heroes whom the Hindu kings were accustomed to employ in their service, its inhabitants' [the wild tribes] 'were not exterminated.

'It is affirmed by some that the predecessors of Alí Náki Khán gained possession of Rájnagar by murdering Bír Rájá; but before recounting the events of his reign, it will be necessary to inquire as to the time when Nagar was established. It appears that the kingdom of Nagar was founded during the reign of the Baidya family, before the time of the Musalmáns; for it is to be observed, that when the Muhammadans obtained the throne of Bengal, the Súbahdár'

[viceroy] 'constructed a road from Deokot, east of Gaur, to Nagar, the chief town of Bírbhúm, for purposes of traffic. This was in the year 1205 A.D.

'Bír Rájá was descended from a noble Bráhman family. He made Nagar his capital, and enjoyed an unrivalled reputation for his valour and skill in arms. All the kings of the surrounding Districts owned him as their paramount. When the Patháns were at the height of their power, and were laying waste many fair provinces in Bengal, Bír Rájá stood forth to oppose them, and by his military tact and distinguished courage succeeded in freeing the country from the oppressor. Two Patháns, named Asad-ullá Khán and Joned Khán, one day presented themselves before the Rájá of Nagar. Their stature and manly bearing attracted his attention, and impressed him with such an idea of their prowess, that he resolved to take them into his service; and after their valour had been sufficiently put to the test, he raised them to the rank of commanders, and made them his confidential ministers. Under their administration, the country made great and rapid advances, and the people enjoyed the blessings of peace. In course of time, however, the Patháns became jealous of their master, and watched every opportunity to work his destruction. One of them, Asad-ullá, became enamoured of the beauty of the queen, and instigated her to favour their base designs. It is said that the king was fond of wrestling, and that he had a special building set apart for that purpose, where he engaged daily in the sport. On one occasion, when Asad-ullá presented himself there, the Rájá ordered his servants to refuse him admission. This roused the anger of Asad-ullá. He returned with his brother Joned, forced an entrance into the hall, and fell upon the king. A serious conflict now ensued; and it is difficult to say how it would have ended, had not Joned Khán, at the instigation of the queen, with whom he also was in love, attacked them both and thrown them struggling into a well. Although the servants and retainers of the king stood by, they were prevented from interfering by the queen, so that both the Rájá and Asad-ullá were drowned. The people mourned the death of their king, under whom they had long enjoyed happiness and prosperity.

'Joned Khán.—The queen now assumed the royal power, and raised Joned Khán to the rank of Díwán. The administration of affairs was placed entirely in the hands of the Pathán. Ere long the queen died, leaving a son as legal heir to the throne. After her

death the soldiers rose in mutiny, but were speedily brought back to duty by the Pathán. Joned died soon after, leaving the Government in the hands of Bahádur Khán. But before proceeding with his reign, a few facts may be stated regarding the early history of these Patháns. Their father died while the children were still young, leaving his widow totally unprovided with the means of subsistence. One day, while she had gone to beg some rice of her neighbours, a *fakír* made his appearance at her dwelling, and, apparently without any cause, beat one of the boys severely with his shoes. The screams of the child soon brought the mother to his aid, and on her demanding an explanation from the *fakír*, he consoled her by saying that he had not been beating but blessing her son, and that the time was not far distant when both brothers should sway the sceptre of Bengal. The youths, when arrived at manhood, set out on a journey to distant lands, and took every opportunity of making themselves expert in the use of arms. In the course of their travels they came to Bírbhúm; and we have already recounted their deeds in that country, and how they became kings.

'Bahádur Khán or Ranmast Khán (A.D. 1600–1659).—This prince commenced his reign in the month of Jaishtha, 1007 Bengali era. Under his rule the country had rest and peace, the population was considerably increased, and agriculture met with a full share of attention. He died in the Bengali year 1066 (A.D. 1659), leaving his throne to his only son, Khwájá Kamál Khán. Nothing is recorded of the latter, except that he beautified the capital and effected several other improvements throughout his kingdom. He died in the Bengali year 1104 (A.D. 1697), and was succeeded by his son Asad-ullá, one of the wisest and most pious kings of his time. Asad-ullá added to the number of the troops; and caused numerous tanks to be dug in the capital, by which means the miseries resulting from the scarcity of water were in a great measure avoided. He contrived to free his kingdom from the necessity of paying tribute to the Nawáb, to whom he rendered valuable assistance in time of war. Many mosques were dedicated to the honour of God, and much of his time was passed in religious services. He left two sons, Badyá-ul-zamán Khán and Azím Khán.

'Badyá-ul-zamán Khán.—This prince ascended the throne in the Bengali year 1125 (A.D. 1718), and obtained a *sanad* from Murshid Kulí Khán, the Nawáb of Murshidábád. It was about this time

that a new arrangement was made regarding the tribute paid to the Nawáb, 346,000 rupees being the amount agreed upon. During his reign, the Marhattás, under Bháskar Pandit, plundered the western countries, and eventually encamped in a place called Kenduá-dángá, or Ganj-murshid. But when the rainy season set in, they retired to Kátwá (Cutwa), accompanied by Mír Habíb, a Pathán. Badyá-ul-zamán, with his brother Alí Nakí and the Rájá of Bardwán, assisted the Nawáb in dispersing the Marhattás and driving them to Midnapur. Badyá-ul-zamán Khán had two wives. By the first he had two sons, Ahmad-ul-zamán Khán and Muhammad Alí Nakí Khán; and by the second, one, named Ásad-ul-zamán Khán. Besides these three, he had an illegitimate son, named Bahádur-ul-zamán Khán. Ahmad was of a religious turn of mind, and interfered in no way with the administration of the country. The second and third sons were powerful princes, and gained a high reputation for their courage and skill in arms. On a certain occasion, a *fakír* from the north, named Sai Ful Hak, made his appearance at the Bírbhúm court, and in course of time was admitted into the confidence of the king. The *fakír* possessed a good knowledge of the Kurán, and the king spent much of his time in hearing him read from the book. In process of time he became so much engrossed with his religious instructor, that the affairs of his kingdom were totally neglected; and his sons Nakí Alí and Ahmad set themselves to get rid of the favourite. With this view they made their way to Murshidábád. While they remained there, an occurrence took place which brought them under the notice of the Nawáb. One day an elephant of the Nawáb's was led to drink at a pond, near to which Ahmad happened to be standing. As the animal drew near, the driver called to the prince to move out of its way; but Ahmad, instead of heeding the order, took hold of the elephant by the tusks and threw it to a considerable distance. This feat amazed those that stood by, and ere long reached the ears of the Nawáb, who immediately summoned the brothers into his presence. On being asked the reason of their appearance in Murshidábád, the Patháns informed him of the influence of the *fakír*, and of the disorder likely to occur in their father's kingdom. The Nawáb gave them permission to murder the *fakír*; and acccordingly the brothers, hastening back to Nagar, put the *fakír* to death. Their father mourned his loss, and, slowly pining, died of a broken heart. His sons, too, felt ashamed of their

matter, nor to entertain any hopes of succeeding to the throne. They accordingly resolved to support their step-brother Asad as the rightful heir. With this intention they departed for Murshidábád, and informed the Nawáb of the affair. The Nawáb at first expressed reluctance, saying that it was illegal to raise the youngest to the throne while his brothers lived; but, on their earnest entreaties, he gave his consent, and the coronation of Asad-ul-zamán was performed with great pomp on their return home. The two brothers afterwards set out for Murshidábád, and remained in the service of the Nawáb. They distinguished themselves in a war with the Marhattás; and on one occasion, when Mír Jafar Alí's son-in-law had been carried off a prisoner and confined in an iron cage, they entered the camp of the Marhattás in disguise, and, having overheard their plans, attacked them unawares, and returned in triumph with the released captive.

'Suráj-ud-daulá ascended the throne of his grandfather as Viceroy of Bengal, and ere long found himself called upon to take up arms against the English. Two reasons are alleged,—(1) That the English had given refuge to Krishna Dás, the enemy of the Nawáb; and (2) that without any permission from the Nawáb, they had established forts in the countries under his control. Accordingly the Nawáb collected a powerful host, the command of which he gave to Alí Nakí Khán and Ahmad-ul-zamán Khán of Bírbhúm, along with Díwán Mánik Chánd, Bahar Mohan Lal, and Jafar Alí Khán. These marched against the English in the direction of Calcutta, and encamped at Bágh Bazár. The English fled to Howrah, Bálí, and the fort. The Nawáb attacked the fort, and carried it by storm. He placed the English prisoners under the charge of Díwán Mánik Chánd, and returned to Murshidábád. The Díwán treated the captives with cruelty, and shut them up, one hundred and forty-six in all, in the Black Hole, whence only thirteen came out alive. This was in the year 1756. After this victory of the Nawáb's, Alí Nakí Khán took possession of part of the enemy's country, and laid the foundation of Alípur, which is now the seat of Government' [the residence of the Lieutenant-Governors of Bengal]. 'Of all the great princes under the Nawáb, Alí Nakí Khán and his brother Ahmad-ul-zamán Khán were the most powerful, and rendered the most effectual assistance to their lord. On one occasion Suráj-ud-daulá wished Alí to inform him which

insult, implying that Alí would name some one of his own family, whom the Nawáb would then seize as a concubine.] 'The Pathán, enraged, replied that he accounted those most beautiful who bore any resemblance to his mother and her daughters. So saying, he raised his sword and struck at the Nawáb; but the blow missed the mark, and, coming down upon a stone pillar, split it in two. The attendants were so much taken by surprise, that they made no effort to protect their royal master. Probably also the known daring of the Pathán was sufficient to restrain any interference on their part. The brothers were, however, obliged to withdraw themselves from court for some time; but afterwards, having made their peace with the Nawáb, they were permitted to return, and were again received into the favour and confidence of their prince.

'Meanwhile Rájá Badyá-ul-zamán Khán of Bírbhúm had been defeated by the Rájá of Gidhor. Alí Nakí Khán thereupon led an army against his father's enemy, and, after a severe struggle, which lasted for six days, succeeded in driving his opponents from the field. The town of Deogarh came into the possession of the Pathán after the subjection of the hill tribes. It was and still is the seat of the Hindu god Baidya-náth. The devotees brought to its shrine many rich presents, to the value of about 50,000 rupees every month. Alí Nakí Khán left the god in the hands of the men of the place, called Pandás, from whom he exacted a tribute. Alí Nakí had a son who died while still a youth. His death preyed upon his mind and upon that of his brother Ahmád-ul-zamán Khán, the latter of whom put an end to his life on the 15th Magh 1169 B.E. (1762 A.D.). Alí Nakí gradually sank under these heavy losses, and passed the last two years of his life in extreme misery. He died on the 21st Phálgun 1171 B.E. (1764 A.D.), and was buried in front of his brother's tomb. The two brothers were possessed of noble qualities. They were gentle, brave, generous, and averse to sensual gratifications. Their father, the Rájá Baidya-ul-zamán Khán, spent the greater part of his life in the performance of religious duties, and at length died in 1178 B.E. (1771 A.D.), having suffered much in his declining years from the death of his sons. His surviving son, Asad-ul-zamán Khán, was already on the throne. Immediately upon his accession, which took place twenty years before his father's death, he adorned the capital, and placed in it many rich merchants, who added greatly to its commercial importance. Mír Jafar Alí Khán, the Nawáb of Bengal after the death of Suráj-ud-daulá, placed

the reins of Government in the hands of his son, who soon after his accession began to tyrannize over his subjects. He killed two daughters of the Nawáb; but while engaged in plundering their treasures, he was struck by lightning, and carried off along with his accomplices. Asad-ul-zamán, thinking this a good opportunity for taking up arms against the Nawáb, marched with a powerful army to Chunákhálí. The *zamíndárs*, vassals of the Nawáb, failed to make any resistance, and their lord was so much affected by the death of his son, that he could not put himself at their head. Accordingly, to prevent the advance of the Rájá of Bírbhúm, he sued for peace, and requested Asad-ul-zamán to be content with the Districts of which he had already taken possession. This, however, did not satisfy the Rájá, who proceeded across the Ganges. Upon this, the wife of the Nawáb, Marí Begam, sought the aid of the English, promising them a large tract of her husband's dominions in return. They consented, and immediately gave battle to the Rájá, defeated his immense host, and pursued him to the fort of Nagar. The siege of this fortress lasted several days, but at length the Rájá lost his bravest general, Afzál Khán. A treaty was afterwards concluded between the parties, the conditions of which were, —(1) That the English should have one-third share of the Rájá's rental. (2) That they should not interfere in the affairs of Bírbhúm. (3) That on all occasions of importance the Rájá should consult with the English. After this, Asad-ul-zamán regularly paid tribute to the Nawáb. He also gave a thousand *bighás* (330 acres) of land rent free to Munshí Anúp Mitra, in return for sums of money lent to the Rájá. He further bestowed on him 6500 *bighás* (2200 acres) as *jágír* for educating his son.

'Fourteen miles from Surí there is a village called Mallárpur. Mallár Sinh was its proprietor, a religious and popular man. He was imposed upon by a person who told him that the Rájá of Nagar intended to make him adopt the religion of Muhammad. He took this so much to heart, that without inquiry as to its truth he put himself to death. The Rájá was grieved on hearing of his death, and endeavoured to discover the perpetrator of the trick, but without success. Twenty miles from Surí, and north of Nagar, there was a vast forest called Sen-pahárí. The governor of this District was Ichhái Ghosh, who built there a large temple called Ichhái Mandir, and a fort called Syám Rúp Garh. He was attacked and

his fort with its temple and goddess fell into the hands of his enemy. Kendu Bilwagrám, or Kenduli, a village eighteen miles distant from Surí, was the residence of a famous Sanskrit poet named Jaya-deva Muni, and of a god, Rádhá Dámodar. The poet is said to have walked forty miles every day in order to bathe in the Ganges. The village is considered to be a sacred place by the Hindus, who assemble annually to the number of fifty or sixty thousand to offer worship at the shrine. A fair called Mágh Sankránti takes place here on the last day of Mágh in every year.

'Asad-ul-zamán Khán of Bírbhúm died of paralysis at Calcutta in 1184 B.E. (1777 A.D.). He was a liberal and powerful prince, and was held in high esteem by his subjects. He had a great desire to reign over the whole of Bengal, and for this purpose made many attempts at the supreme power, but in vain. His reign extended over a period of twenty-six years. After his death, his brother Bahádur-ul-zamán Khan besought the assistance of the English Government to raise him to the throne. At the same time, the widow of Asad-ul-zamán Khán, called Lál Bibí, together with her brother Muhammad Takí Khán, set up a rival claim, and contended that, as Bahádur was the illegitimate son of Badyá-ul-zamán Khán, the father of her husband, he could have no legal right to be prince. The English decided in her favour, and accordingly Lál Bibí was raised to the throne. Soon after this, however, Bhoton Sháh, an intimate friend of Bahádur's, devised a plan which deprived the widow of her power. He instructed the porter of Muhammad Takí to kill Bahádur's door-keeper, and to report that he had been commissioned by his master to cause the death of Bahádur himself. By bribing the servant, Bhoton managed to get his evil design carried into effect; and the English, believing the report, took the power from the hands of Muhammad and conferred it upon Bahádur. The widow was kindly treated by the new Rájá, and received a certain sum for her support. Bahádur-ul-zamán Khán died in 1196 B.E. (1789 A.D.), and was buried in the garden at Nagar. He left his son Muhammad-ul-zamán Khán as heir to the throne. Rádhá Krishna Rái was one of the Díwáns of the kings of Nagar. He resided at Purandarpur,—so named from the god Purandar, found under the earth,—and obtained fourteen hundred *bighás* (five hundred acres) of land from the Rájás as *jágír*.

'Muhammiad-ul-zamán Khán succeeded to the throne, with the consent of the English, in 1197 B.E. (1790 A.D.). During his

minority the affairs of state were entrusted to Díwán Lálá Rám Náth and Mr. Keating. When arrived at manhood, he assumed the reins of government, and ruled with wisdom and firmness. In person he was tall and powerful; and after his death his painting was sent to Calcutta. It was Lálá Rám Náth who effected the permanent arrangement for the revenues of Bírbhúm. He built the temple of Bhándesar Siva at a place called Bhándiban, six miles from Surí. A large tract of land was allowed him as *jágír*. Muhammad Daurá-ul-zamán Khán, the son of Muhammad-ul-zamán Khán, ascended the throne in 1209 B.E. (1802 A.D.), and received the *sanad* from the hands of the English in 1219 B.E. (1812 A.D.). He died in 1262 B.E. (1855 A.D.), leaving his son Muhammad Johar-ul-zamán Khán as his successor, who still lives. The Rájás of Bírbhúm built many mosques and forts, and dug tanks. Most of these are now in ruins. In the year 1261 B.E. (1854-55) the Santáls of Bírbhúm rose in insurrection against the English, but the disturbances were speedily quelled.' [An account of the Santál insurrection will be found in my Statistical Account of the Santál Parganás, —Deogarh, a large Santálí tract, having been separated from Bírbhúm subsequently to the outbreak.] 'Bírbhúm is a fertile country. Nagar was and still is famous for its mangoes and preserved fruits. The country is watered by the rivers Ajai, Mor, and Bakeswar.'

MUHAMMADAN PRINCES OF BIRBHUM.—The following list of the different Muhammadan Rájás of Bírbhúm is an extract from the Family Book of the Princes, and may be taken as a specimen of the chronological archives of native houses. The original is a Persian MS. obtained from the Rájá's palace :—

'This is the Family Book of the Rájás of Bírbhúm, setting forth the year in which each Rájá ascended the throne, how long he reigned, at what place he dwelt, and of what disease he died.

'I. Díwán Ranmást Khán Bahádur reigned from the beginning of Jaishtha, 1007 Bengal era (1600 A.D.), to 1st Kártik, 1066 Bengal era (1659 A.D.), when he died of fever.

'II. Díwán Khwájá Kamal Khán Bahádur, son of the deceased, reigned from 1066 Bengal era (1659 A.D.) to 1104 B.E. (1697 A.D.), and died of fever. His body was buried in the Great Flower Garden. He reigned thirty-eight years four months and thirteen days.

'III. Díwán Asad-ullá Khán, son of Díwán Khwájá, reigned from 1104 Bengal era (1697 A.D.) to 1125 B.E. (1718 A.D.). His reign was twenty-one years one month and twenty days. He

named his sons Azím Khán and Badyá-ul-zamán Khán his heirs, and died.

'IV. Díwán Badyá-ul-zamán Khán reigned from 1125 Bengal era (1718 A.D.) to 1158 B.E. (1751 A.D.). The days of his reign were thirty-three years. He named his four sons, Ahmad-ul-zamán Khán, Muhammad Alí Nakí Khán, Asad-ul-zamán Khán, and Bahádur-ul-zamán Khán, his heirs; and, with the consent of the other three, raised his third son, Asad-ul-zamán Khán, to the throne on the 1st Baisákh, 1159 Bengal era (1752 A.D.). He died in 1178 B.E. (1771 A.D.). Ahmad-ul-zamán Khán, eldest son of the Rájá, died before his father's eyes in Rájnagar on the 15th Mágh, 1169 Bengal era (1762 A.D.). His body was buried in the Great Imámbárah. Muhammad Alí Nakí Khán Bahádur, second son of the Rájá, died on the 21st Phálgun, 1171 Bengal era (1764 A.D.), at Rájnagar. His body was buried by the side of that of his eldest brother in the Great Imámbárah.

'V. Rájá Muhammad Asad-ul-zamán Khán Bahádur reigned from the 1st Baisákh, 1159 Bengal era (1752 A.D.), to 1184 B.E. (1777 A.D.). In 1184, having gone to the city of Calcutta, inhabited by many noble men, he fell sick of *kálej*, and died. His body was carried home and buried in the Great Flower Garden. The days of his reign were twenty-six years.' [*Kálej* is a sort of paralysis, caused, according to native ideas, by a bird casting his shadow on a person.]

'VI. Rájá Muhammad Bahádur-ul-zamán Khán reigned, after the death of his brother Rájá Muhammad Asad-ul-zamán Khán, from the beginning of 1185 Bengal era (1778 A.D.) to 1196 B.E. (1789 A.D.). The days of his reign were twelve years. During his lifetime he made his little son sign and seal all papers of state, and taught him all the duties and customs of a prince. In 1196 Bengal era (1789 A.D.), being sick of dropsy, he died in his country house at Husainábád. His body was borne to the royal city, and laid in the Great Flower Garden.

'VII. Rájá Muhammad-ul-zamán Khán, a minor, succeeded on the death of his father. He performed the offices of royalty, and sealed and signed the state papers. By reason of his being a minor, Mr. Keating was *sarbaráhkár*, and Lálá Rám Náth was Díwán. In 1197 Bengal era (1790 A.D.) he came of age, and obtained a *sanad* from the Government for the *ráj* of Bírbhúm. The days of his reign were twelve years. Being sick of *sanjar-potá*, he died

on the 5th Phálgun, 1208 Bengal era (1801 A.D.), in the Palace with the Twelve Gates. His body was buried in the Great Flower Garden.

'VIII. Rájá Muhammad Daurá-ul-zamán Khán reigned in the room of his father from 1209 Bengal era. He obtained a *sanad* for the *ráj* from Government in 1219 B.E. (1812 A.D.). Being afflicted with *sanjar*, he died in the royal city on the 17th Phálgun 1262 (1855 A.D.). He named his son Muhammad Johar-ul-zamán Khán as his heir, who is still living. His body is buried in front of the mosque in the market-place of the royal city.'

REVENUE AND EXPENDITURE.—Bírbhúm has made rapid advances in prosperity under British rule, especially of late years; but the numerous changes which have taken place in the area of the District since it was first constituted render it impossible to present a trustworthy comparison of the revenue and expenditure at different periods. As already stated in the first pages of this Statistical Account, when the administration of Bengal passed into the hands of the Company, Bírbhúm formed a dependency of Murshidábád. In 1787 the disorders of the country were such as to demand a more direct government, and in March of that year the two border principalities of Bírbhúm (including the greater part of the Santál Parganás) and Bishnupur were united into one compact British District. In 1790-91, before the time of the Permanent Settlement, the net revenue of the united District amounted to 999,415 *sikká* rupees, or £108,270 sterling; and the net expenditure on civil administration to 57,987 *sikká* rupees, or £6281. At the time of the Permanent Settlement in 1793, Bishnupur or Bánkurá was separated from Bírbhúm, and placed under Bardwán District. Owing to this transfer of a large area, the net revenue of Bírbhúm in 1820-21 had fallen to 722,292 *sikká* rupees, or £78,248; but the increasing wants of the administration had raised the civil expenditure to 110,131 *sikká* rupees, or £11,930. In 1850-51 the net revenue of the District amounted to 893,007 current rupees, or £89,300; and the expenditure to 237,196 current rupees, or £23,719. In 1860-61 the net revenue amounted to 937,955 current rupees, or £93,795; and the expenditure to 232,071 rupees, or £23,207. Subsequent to 1860, the District suffered another loss of area, by the transfer of Deogarh and other *parganás* in the west and north-west to the Santál Parganás. The revenue and expenditure, however, still continued to increase; and in 1870-71

the total net revenue of Bírbhúm District amounted to £102,841, and the net civil expenditure to £28,054. These figures well illustrate the great advances in material prosperity and civilisation which the District has made since it came into our hands. Notwithstanding the separation of Bishnupur and of portions of the Santál Parganás which originally were included within it, the net revenue of the District is now nearly the same as it was in 1790, while the expenditure has multiplied itself more than four times, having increased from £6281 in 1790, to £28,054 in 1870.

The following tables show the balance sheet of Bírbhúm District for the three years 1790-91, 1850-51, and 1870-71, in rupees and pounds sterling. In the first-named year the figures are for the united District of Bírbhúm and Bishnupur; in 1850 they include the revenue and expenditure of the portion of the Santál Parganás subsequently separated; in 1870 they are for the District as at present constituted. I have endeavoured to make the tables as trustworthy as possible, but those for the two first-named years should be looked upon as only approximating to correctness. The figures for 1870 may be accepted as accurate.

In the first table, the receipt side shows the land and *sáyer* revenue derived from the Bishnupur part of the District (making a total of 348,430 *sikká* rupees, or £37,751 sterling), distinct from the revenue of Bírbhúm proper. On the expenditure side of the account, however, no such distinction is shown.

[BALANCE SHEET, 1790–91.

Balance Sheet of the United District of Birbhum and Bishnupur for the Year 1790-91.

Revenue.	Country Currency.				Sterling.		
	Sikká rupees.	*ánnás.*	*gandas.*	*kauris.*	£	*s.*	*d.*
Land Revenue of Birbhúm, .	632,793	5	6	0	68,552	12	2
Land Revenue of Bishnupur,	7 86	8	5	0	37,460	4	2
Sáyer Revenue of Birbhum, .	7,454	7	10	2	807	11	4
Sáyer Revenue of Bishnupur,	2,644	2	4	1	286	9	0
Civil Court Fees, . . .	1,405	6	6	2	152	5	0
Civil Court Fines, . .	18	0	0	0	1	19	0
Criminal Court Fines, . .	456	0	0	0	49	8	0
Profit and Loss, . . .	7,618	5	1	3	825	6	4
Exchange (*báttá*), . . .	818	1	10	1	88	12	6
Sale of Intestate and Stolen Property, ...	386	5	0	0	41	17	0
Proceeds of Resumed Estates in Bishnupur, . . .	34	14	4	2	3	15	7
Total, .	999,415	7	8	3	108,270	0	1

Expenditure.	Country Currency.				Sterling.		
	Sikká rupees.	*ánnás.*	*gandas.*	*kauris.*	£	*s.*	*d.*
Collection Charges, . .	42,451	14	9	0	4,598	19	0
Zamíndárí Charges, . .	1,129	9	10	1	122	7	6
Civil Court Charges, . .	5,004	0	0	0	542	2	0
Criminal Court Charges, .	2,397	0	0	0	259	13	6
Pension, Charity, etc., . .	27	0	0	0	2	18	6
Miscellaneous, ...	6,977	15	7	0	755	19	0
Total, .	57,987	7	6	1	6,281	19	6

Balance Sheet of Birbhum District for 1850-51 (including Deogarh, since transferred to the Santal Parganas).

Revenue.	Current Rupees.			Sterling.			Expenditure.	Current Rupees.			Sterling.		
	R.	*a.*	*p.*	£	*s.*	*d.*		*R.*	*a.*	*p.*	£	*s.*	*d.*
Land Revenue,	764,217	12	0	76,421	15	6	Revenue Establishment,	44,512	10	0	4,451	5	3
Excise,	67,178	0	0	6,717	16	0	Excise Remittance,	22,008	13	4	2,200	17	8
Registration,	143	6	8	14	6	10	Civil Court Establishment,	64,186	8	8	6,418	13	1
Fines,	190	10	8	19	1	4	Criminal Court Establishment,	91,262	14	8	9,126	5	10
Commission on Money Orders,	17	4	8	1	14	7	Stamp Charges,	3,062	8	0	306	5	0
Cost of Pauper Suits,	34	10	0	3	9	3	Pensions and Charity,	5,409	0	0	540	18	0
Fees for Sale of Lands,	1,334	6	8	133	8	10	Reward for killing Wild Animals,	52	8	0	5	5	0
Profits from Government Estates,	9	8	0	0	19	0	Education Department,	195	0	0	19	10	0
Lapsed Deposits,	624	2	0	62	8	3	Interest,	2,001	3	4	200	2	5
Post Office Remittance,	3,160	9	4	316	1	2	Law Charges,	90	8	0	9	1	0
Stamp Department,	48,230	3	4	4,823	0	5	Post Office Remittance,	3,105	13	4	310	11	8
Police,	2,522	14	0	252	5	9	Miscellaneous,	1,309	1	4	130	18	2
Record Fund,	33	4	0	3	6	6							
Law Charges,	31	2	8	3	2	4							
Criminal Fees and Fines, etc.,	5,279	2	8	527	18	4							
Total,	893,007	0	8	89,300	14	1	Total,	237,196	8	8	23,719	13	1

Balance Sheet of Birbhum District for 1870-71.

	Revenue.		Expenditure.	
	Current Rupees.	Sterling.	Current Rupees.	Sterling.
	R. *a.* *p.*	£ *s.* *d.*	*R.* *a.* *p.*	£ *s.* *d.*
Land Revenue,	735,585 0 0	73,558 10 0	44,182 0 0	4,418 4 0
Stamps,	107,219 0 0	10,721 18 0	2,981 0 0	298 2 0
Excise,	60,619 0 0	6,061 18 0	2,803 11 4	280 7 5
Education,	18,365 15 4	1,836 11 11	31,470 10 0	3,147 1 3
Police,	...	...	53,020 0 0	5,302 0 0
Post Office,	16,161 12 8	1,616 3 7	19,430 13 4	1,943 1 8
Income Tax,	52,040 0 0	5,204 0 0	...	...
Civil Court,	2,919 0 0	291 18 0	95,232 14 0	9,523 5 9
Criminal Court,	3,598 0 0	359 16 0	8,199 12 8	819 19 7
Pound,	2,027 14 0	202 15 9	1,010 0 0	101 0 0
Ferry,	759 0 0	75 18 0	...	...
Tolls,	11,133 10 8	1,113 7 4	180 0 0	18 0 0
Zamíndárí dák,	2,350 12 8	235 1 7	1,724 0 0	172 8 0
Medical,	117 0 0	11 14 0	8,519 4 0	851 18 6
Jail,	1,487 1 4	148 14 2	6,645 4 8	664 10 7
Registration,	5,850 0 0	585 0 0	3,613 8 8	361 7 1
Town Tax,	7,058 8 0	705 17 0	862 4 8	86 4 7
Miscellaneous,	1,120 0 0	112 0 0	673 0 0	67 6 0
Total,	1,028,411 10 8	102,841 3 4	280,548 3 4	28,054 16 5

In this last table, the items of land revenue, education, police, post office, income tax, medical, and jails, have been taken from the reports of the Departments to which they belong for 1870–71. The other items were all furnished in a special report to me by the Collector in 1873. In converting rupees into sterling, I have calculated the *sikká* rupee at the rate of 2s. 2d., and the current rupee at 2s.

THE LAND REVENUE of the united District of Bírbhúm and Bishnupur in 1790-91, just previous to the Permanent Settlement, amounted to 979,123 *sikká* rupees, or £106,071. In 1870-71, with a very greatly diminished area, the 'current land revenue demand' of the District amounted to £73,558, 10s. 0d. Subdivision of estates has gone on rapidly during the present century. In 1790-91 the District formed one entire estate, registered in the name of a single proprietor, paying a land revenue to the Company of £106,071, 12s. 0d. In 1793, when the Permanent Settlement was formed, the Bishnupur portion was separated and placed under Bardwán. About this time the Bírbhúm family became involved in their circumstances, and portions of their estate were frequently sold by public auction, in satisfaction of the Company's revenue demands. So numerous were these sales, that in the years 1799–1800, Bírbhúm, instead of consisting of one single estate, was divided into 220 different *zamíndáris*, each paying its revenue direct into the Government treasury. These 220 estates were held by 233 registered proprietors or coparceners, paying a total land revenue of 693,682 *sikká* rupees, or £75,148, 16s. 0d.; average land revenue paid by each estate, 3153 *sikká* rupees, or £341, 11s. 6d.; average land revenue paid by each individual proprietor or coparcener, 2977 *sikká* rupees, or £322, 10s. 6d. Since 1800, although the District has been further reduced in area by the transfer of several *parganás* in the west and north-west, forming the present Deogarh Sub-District of the Santál Parganás, the number of estates in Bírbhúm has more than doubled, while the number of individual proprietors or coparceners has multiplied nearly tenfold. In 1870-71, 510 separate estates were entered in the District rent-roll as paying revenue direct to Government, owned by 2036 registered proprietors or coparceners. The total 'current land revenue demand' in 1870-71 amounted to 735,585 current rupees, or £73,558, 10s. 0d.; average amount paid by each estate, Rs. 1442. 5. 2, or £144, 4s. 8d.; average amount paid by each proprietor or coparcener,

Rs. 361. 4. 7, or £36, 2s. 7d. The following statistics show the extent to which the Rent Law of Bengal (Act x. of 1859) has been worked in Bírbhúm District. In 1861-62, 2977 original suits were instituted under the provisions of this Act, besides 3221 miscellaneous applications; in 1862-63, the number of original suits amounted to 1212, and of miscellaneous applications to 5655; in 1866-67, there were 978 original suits, and 5979 miscellaneous applications; and in 1868-69, 1013 original suits, and 5833 miscellaneous applications.

POLICE.—For police purposes, Bírbhúm is divided into the following eight *thánás* or circles:—(1) Surí; (2) Rájnagar; (3) Dubrájpur; (4) Kasbá; (5) Sákulipur; (6) Lábhpur; (7) Barwán; and (8) Maureswar. Protection to person and property has steadily increased. In 1840, besides 11,903 *chaukídárs* or village watchmen, the police force of the District consisted of 291 men, with 66 native officers; the cost of officering the force above the rank of *jamádár*, or head constable, being Rs. 8532, or £853, 4s. 0d. In 1860, the Collector states that the number of *chaukídárs* or village watchmen had decreased to 8772, the regular foot police numbering 190, and the native officers 99. The cost of officering the force in 1860 amounted to Rs. 13,920, or £1392. In 1861 a new District police was organized for Bengal; and the present police force consists of three distinct bodies—namely, the regular or District police; a municipal force for the protection of the towns; and a village watch or rural police. The total strength and cost of maintenance of each of these bodies in 1872 were as follow:—

THE REGULAR POLICE consisted of the following strength at the end of 1872:—1 superior European officer or District Superintendent, maintained at a salary of Rs. 700 a month, or £840 a year; 3 subordinate officers on a salary of upwards of Rs. 100 a month, or £120 a year, and 50 officers on less than Rs. 100 a month, or £120 a year, maintained at a total cost of Rs. 1715 a month, or £2058 a year, equal to an average pay of Rs. 32. 5. 9 a month, or £38, 16s. 7d. a year, for each subordinate officer; and 205 foot police constables, maintained at a total cost of Rs. 1361 a month, or £1633, 4s. 0d. a year, equal to an average pay of Rs. 6. 10. 2 a month, or £7, 19s. 3d. a year, for each man. The other expenses connected with the regular police are,—an average sum of Rs. 103. 5. 4 a month, or £124 a year, as travelling expenses for the District Superintendent; Rs. 150. 8. 0 a month, or £180,

12s. od. a year, for pay and travelling allowances of his office establishment; and an average of Rs. 375. 10. 8 a month, or £450, 16s. od. a year, for contingencies and all other expenses. The total cost of the regular police of Bírbhúm District in 1872 amounted to Rs. 4418. 5. 4 a month, or £5302 for the year; total strength of the force, 259 men of all ranks. The present area of Bírbhúm District is 1344 square miles, and the total population, as ascertained by the Census of 1872, is 696,945 souls. According to these figures, there is one policeman to every 5·19 square miles of the District area, and one to every 2305 of the population. The annual cost of maintenance of the force is equal to Rs. 39. 7. 2 per square mile of area, and Rs. 0. 1. 2 or about 2d. per head of the population.

THE MUNICIPAL POLICE is a small force, which consisted at the end of 1872 of 1 native officer and 23 men, maintained at a total cost of Rs. 140. 5. 4 a month, or £168, 8s. od. a year. This force is for the protection of the municipality of Surí, the headquarters town of the District; and its cost is defrayed by means of a house rate, levied upon the householders and shopkeepers carrying on business within municipal limits. The population of Surí is returned at 9001, giving one policeman to every 375 inhabitants. The cost of the municipal police in 1872, as compared with the town population, amounted to 3 ánnás or 4½d. per head of the population.

THE VILLAGE WATCH or rural police numbered 6824 in 1872, maintained either by the *zamíndárs* or by service lands held rent-free, at an estimated total cost of Rs. 133,483, or £13,348, 6s. od. Compared with the area and population, there is one village watchman or *chaukídár* to every ·19 of a square mile of the District area, or one to every 102 of the population, maintained at an estimated cost of Rs. 99. 5. 1 or £9, 18s. 7½d. per square mile of area, or 3 ánnás or 4½d. per head of the population. Each village watchman has charge of 23 houses on an average, and receives an average pay in money or lands of Rs. 1. 10. 6 a month, or £1, 19s. 10d. a year. Mr. D. J. M'Neile, in a report on the state of the village watch of Bengal, dated 22d May 1866, thus speaks of the *chaukídárs* of Bírbhúm:—'Village *chaukídárs* are found everywhere throughout the District, and are almost everywhere supported by service lands. There can be no kind of doubt that the present *chaukídárs* are the true modern representatives of the ancient village watchmen of the District, and that at the time of the Decennial Settlement those watchmen were employed in revenue matters as well as in police

duties. In the *zamíndárí* papers of the Bírbhúm estate for 1793, "*kotwáli*" lands are found in the accounts of one village after another, entered under the general head of *bázízamín* (or lands free of Government assessment), and no other lands are mentioned which can possibly be identified with the *jágírs* of the present *chaukídárs*. "*Kotwál*" was a common name in several Districts for a *zamíndárí* messenger or peon; and to this day some of the village police in parts of Murshidábád transferred from Bírbhúm are employed by the *zamíndárs* as messengers, and these constitute the very same section of the force which is now maintained by service land tenures in Bírbhúm. In 1816, the Magistrate of Bírbhúm, in a letter to the Superintendent of Police, described the village watch as follows:—"This *zilá* is one of the few which have had the advantage of a regular assignment of lands for the support of a body of village watchmen; and though there may be reason to suppose that part of the original assignment has been resumed, yet the number maintained is very considerable, and would be sufficient for the protection of the District if they were all solely employed in guarding the villages; but it is the more immediate duty of a large proportion of them to collect the revenues, and serve as guides and coolies. Besides the quantity of land set apart for each man, which varies considerably, they derive a considerable accession to their maintenance from contributions of grain made by the villagers."

'The *chaukídárs* are nearly all Doms and Háris. In a few villages they receive, in addition to their *jágírs*, a small remuneration in cash from the *zamíndár*. In most, if not in all places, their subsistence is eked out by contributions of grain collected from the villagers at harvest time.'

Including the regular District police, the municipal police, and the village watch, the machinery for protecting person and property in Bírbhúm District consisted at the end of 1872 of a total force of 7107 officers and men, equal to an average of one man to every ·19 of a square mile as compared with the District area, or one man to every 98 souls as compared with the population. The estimated aggregate cost of maintaining this force, both Government and local, and including the value of the rent-free lands held by the *chaukídárs*, in 1872 amounted to Rs. 15,682. 4. 0 a month, or a total for the year of £18,818, 14s. 0d., equal to a charge of Rs. 140. 1. 0 or £14, 0s. 1½d. per square mile of the District area, or Rs. 0. 4. 4 or 6½d. per head of the population.

WORKING OF THE POLICE.—During the year 1872, 1584 'cognisable' cases were reported to the police, of which 426 were discovered to be false, besides 83 which the police declined to take up. Convictions were obtained in 251 cases, or 23·35 per cent. of the 'true' cases; the proportion of 'true' cases being as 1 to every 648 of the population, and the proportion of cases convicted as 1 to every 2776 of the population. Of 'non-cognisable' cases, 2281 were instituted, in which process issued against 2852 persons, of whom 611, or 21·42 per cent., were convicted, the proportion of persons convicted being as 1 to every 1140 of the population.

The following details of the number of cases, convictions for different crimes and offences, in 1872, are taken from the Report of the Inspector-General of Police for that year. The cognisable cases were as follow:—Class I. Offences against the State, public tranquillity, safety, and justice—Offences relating to coin, stamps, etc., 1 case, in which 20 persons were placed on trial, but none finally convicted; offences against public justice, 8 cases and 4 convictions, 8 persons placed on trial and 5 finally convicted; rioting or unlawful assembly, 7 cases, 25 men tried and 9 finally convicted. Class II. Serious offences against the person—Murder by *dákáits*, 1 case, 1 conviction, 17 persons tried and 3 finally convicted; other murders, 8 cases, 5 convictions, 14 persons tried and 5 finally convicted; culpable homicide, 2 cases, 1 conviction, 2 persons tried and 1 finally convicted; rape, 4 cases, no convictions, 2 persons put on their trial; concealment of birth, 1 case, no conviction; attempted suicide, 4 cases, 1 conviction, 3 persons tried and 1 finally convicted; grievous hurt, 15 cases, 4 convictions, 8 men tried and 4 finally convicted; hurt by dangerous weapons, 9 cases, 4 convictions, 8 men tried and 5 finally convicted; kidnapping or abduction, 6 cases, 7 persons tried, no conviction; criminal force to a public servant or woman, or in attempt to commit theft, etc., 2 cases, no conviction. Class III. Serious offences against person or property—*Dákáití* or gang robbery, 4 cases, and 13 persons tried, but no conviction; robbery on the highway between sunset and sunrise, 3 cases, 5 men tried, no conviction; other robberies, 5 cases, 1 conviction, 10 persons tried and 2 finally convicted; serious mischief and cognate offences, 15 cases, 1 conviction, 13 men tried and 4 finally convicted; lurking house trespass, or housebreaking with intent to commit an offence, or having made preparation for hurt, 177 cases, 11 convictions, 33

men tried and 21 finally convicted; house trespass with a view to commit an offence, or having made preparation for hurt, 2 cases, 1 conviction, 6 persons tried and 3 finally convicted. Class IV. Minor offences against the person — Hurt on grave or sudden provocation, 1 case, 2 persons tried and convicted; wrongful restraint and confinement, 68 cases, 6 convictions, 41 persons tried and 8 finally convicted. Class V. Minor offences against property— Lurking house trespass or housebreaking, 29 cases, 7 convictions, 10 persons tried and 7 finally convicted; cattle theft, 80 cases, 18 convictions, 56 persons tried and 29 finally convicted; ordinary theft, 812 cases, 92 convictions, 337 men tried and 152 convicted; criminal breach of trust, 74 cases, 1 conviction, 29 persons tried and 1 convicted; receiving stolen property, 37 cases, 25 convictions, 63 persons tried and 38 convicted; criminal or house trespass, 73 cases, 8 convictions, 83 men tried and 54 convicted. Class VI. Other offences not specified above—Vagrancy and bad character, 7 cases, 3 convictions, 7 persons tried and 5 convicted; offences under the Excise Laws, 48 cases, 21 convictions, 79 persons tried and 64 convicted; offences under the Railway Laws, 32 cases, 6 convictions, 47 men tried and 43 convicted; public and local nuisances, 49 cases, 32 convictions, 49 persons tried and 33 convicted. Total of 'cognisable' cases reported during the year, 1584; of which 426 were declared to be false by the Magistrate, and 83 were not taken up by the police. Deducting these, there were altogether 1075 'cognisable' cases investigated, of which convictions were obtained in 251, or in 23·35 per cent. The total number of persons actually tried in 'cognisable' cases was 1009, of whom 501, or 49·65 per cent., were convicted, either summarily by the Magistrate or by the Sessions or High Court.

The number of cases instituted and of persons tried and convicted in 'non-cognisable' cases during 1872 is returned as follows: —Class I. Offences against the State, public tranquillity, etc. etc. —Offences against public justice, 45 cases, 118 persons tried and 84 convicted; offences by public servants, 9 cases, 11 persons tried and 7 convicted; perjury, false complaints, etc., 19 cases, 20 persons tried and 7 convicted; forgery or fraudulently using forged documents, 1 case, 3 persons tried, no conviction; offences relating to weighing and measuring, 1 case, 2 men tried, no conviction; rioting, unlawful assembly, affrays, etc., 12 cases, 26 persons tried and 22 convicted. Class II. Serious offences against the person—

Causing miscarriage, 1 case, no persons convicted. Class III. Serious offences against property—Extortion, 11 cases, 12 persons tried and 3 convicted. Class IV. Minor offences against the person—Hurt, 35 cases, 34 persons tried and 21 convicted; criminal force, 1472 cases, 615 persons tried and 260 convicted. Class V. Minor offences against property—Cheating, 70 cases, 30 persons tried and 4 convicted; criminal misappropriation of property, 19 cases, 14 persons tried and 6 convicted; criminal breach of trust by public servants, bankers, etc., 1 case, 1 person tried, no conviction; simple mischief, 158 cases, 137 persons tried and 69 convicted. Class VI. Other offences not specified above—Offences relating to marriage, 88 cases, 28 persons tried and 5 convicted; defamation, 27 cases, 17 persons tried and 6 convicted; intimidation and insult, 13 cases, 8 persons tried and 1 convicted; public and local nuisances, 2 cases, no conviction; offences under chapters xviii., xx., xxi., and xxii. of the Criminal Procedure Code, 44 cases, 38 persons tried and 29 convicted; offences under the Hackney Carriage Act, 6 cases, 6 persons tried and 5 convicted; offences under the Police Act, 3 cases, 5 persons tried and all convicted; offences under the Pound Act, 69 cases, 34 persons tried and 10 convicted; breaches of contract, 173 cases, 84 persons tried and 66 convicted; offences under the Postage Act, 2 cases, 2 persons tried, no conviction. Total of non-cognisable cases, 2281, in which 1245 persons were tried and 611 convicted; proportion of persons convicted to persons tried, 49·07 per cent.

Excluding 426 'false' cases, declared to be such by the Magistrate, and 83 cases refused to be taken up by the police, the total number of 'cognisable' and 'non-cognisable' cases investigated in Bírbhúm District in 1872 was 3356, in which 2254 persons were tried, and 1112 persons convicted, either by the Magistrate or by the Sessions or High Court; proportion of persons convicted to persons tried, 49·33 per cent., or one person convicted of an offence of some kind or other to every 627 of the District population.

Jail Statistics.—There are two jails in Bírbhúm District, viz. the principal jail at the civil station of Surí, and a lock-up at Synthia. The following are the statistics of the jail population of Bírbhúm District for the years 1857-58, 1860-61, 1870, and 1872. As explained in other District Accounts, the jail figures for the years 1857-58 and 1860-61 must, owing to a defective form of returns, be received with caution, and looked upon as only approximately

correct. Since 1870, however, an improved form of preparing the returns has been introduced, and the statistics for that year and for 1872 may be accepted as absolutely accurate.

In 1857-58, the first year for which materials are available, the daily average number of prisoners in the Bírbhúm jail was 359; the total number of civil, criminal, and under-trial prisoners admitted during the year being 844. The discharges were as follow:—Transferred, 56; released, 589; escaped, 3; died, 35; executed, 2—total, 685. In 1860-61 the jail returns show a daily average number of 365 prisoners; the total of civil, criminal, and under-trial prisoners during the year being 431. The discharges were—Transferred, 31; released, 428; escaped, 2; died, 21—total, 482. In 1870 the daily average jail population was 154, the total number of prisoners admitted during the year being 511. The discharges were—Transferred, 67; released, 462; escaped, 1; died, 4—total, 534. The sanitary condition of the Bírbhúm jail has greatly improved of late years. In 1857-58 the proportion of prisoners admitted to the jail hospital amounted to 135·65 per cent., and the deaths to 35, or 9·75 per cent. of the average jail population; in 1860-61 the admissions to hospital amounted to 74·52 per cent., and the deaths to 21, or 5·75 per cent. of the average prison population; in 1870 the admissions to hospital amounted to 161·68 per cent., while the deaths were only 4, or 2·59 per cent. of the average jail population.

The average cost of maintenance per prisoner in Bírbhúm jail, including rations, establishment, hospital charges, clothing, contingencies, and all other charges except the prison police guard, which is included in the general police budget, is returned as follows:—In 1854-55 it amounted to Rs. 40. 7. 8, or £4, 0s. 11½d. per head; in 1857-58, to Rs. 39. 14. 6, or £3, 19s. 9¾d.; in 1860-61, to Rs. 47. 8. 5, or £4, 15s. 0½d.; and in 1870, to Rs. 46. 14. 0, or £4, 13s. 9d. per head. The cost of the jail police guard in 1870 amounted to an average of Rs. 15. 1. 7, or £1, 10s. 2½d., making a gross total of Rs. 61. 15. 7, or £6, 3s. 11½d. per prisoner. The Inspector-General of Jails, in his Report for 1870, returns the total cost in that year of the Bírbhúm jail and lock-up at Synthia, including the prison police guard, but excluding cost of alterations and repairs, at Rs. 8814. 7. 1, or £881, 8s. 10d. Excluding the cost of the jail police guard, which is included in the general police budget of the District, the cost of the jail amounted to Rs. 6645. 4. 8, or £664, 10s. 7d.

Jail manufactures and industries have been carried on in Bírbhúm

for upwards of thirty years, and contribute a certain proportion to the cost of maintenance of the prison. In 1854-55, the receipts arising from the sale of jail manufactures, together with the value of stock remaining on hand at the end of the year, amounted to £130, 8s. 3d., and the charges to £82, 18s. 0d., showing an excess of credits over debits, or profit, of £47, 10s. 3d.; the average earnings of each prisoner employed on manufactures, to Rs. 4. 15. 2, or 9s. 10¾d. In 1857-58 the total receipts amounted to £178, 3s. 3d., and the charges to £168, 18s. 9d., leaving a surplus or profit of £9, 4s. 6d.; average earnings of each prisoner engaged on manufactures, Rs. 1. 10. 10, or 3s. 4d. In 1860-61 the receipts amounted to £320, 10s. 5d., and the charges to £240, 11s. 3d., leaving a surplus or profit of £79, 19s. 2d.; average earnings of each prisoner engaged in manufactures, Rs. 4. 4. 8, or 8s. 7d. In 1870 the total credits arising from jail manufactures amounted to £663, 3s. 9d., and the total debits to £514, 9s. 7d., leaving a surplus or profit of £148, 14s. 2d.; average earnings of each prisoner engaged in manufactures, Rs. 28. 9. 6, or £2, 17s. 2¼d. Deducting the profits derived from prison labour from the total cost of the jail, the net cost to Government in 1870 of the Súrí jail and Synthia lock-up amounted to £515, 16s. 7d.

The statistics of the prison population of the jail and lock-up in 1872 were as follow:—The daily average number of civil prisoners in jail was 0·77; under-trial prisoners, 14·86; labouring convicts, 253·60; and non-labouring convicts, 6·60,—making a total of 275·83, of whom 12·08 were females. These figures show one prisoner always in jail to every 2526 of the total District population, or one female to every 29,958 of the total female population. The total cost of Bírbhúm jail in 1872, excluding public works and prison guard, amounted to £1156, 14s. 6d., or an average of Rs. 41. 15. 0 or £4, 3s. 10d. per prisoner. The financial result of the jail manufactures during 1872 is as follows:—The total credits, including stocks remaining on hand at the end of the year, amounted to £1288, 8s. 0d., and the total debits to £1073, 13s. 9d., leaving an excess of credits over debits of £214, 14s. 3d. The actual money cost of the manufacture department during the year amounted to £812, 10s. 0d., and the cash remitted to the treasury to £886, 6s. 11d.; leaving an actual cash profit of £73, 6s. 11d., or an average of Rs. 5 or 10s. by each prisoner engaged in manufactures. Out of the 253·60 labouring convicts, 147·14 were em-

ployed in manufactures, the remainder being engaged in prison duties, or were in hospital, or weak and old, or otherwise unable to work. The prisoners actually engaged in manufactures were distributed as follow:—Gunny weaving, 19·45; gardening, 8·83; cloth weaving, 12·02; brickmaking, etc., 6·89; bamboo, rattan, and reed work, 3·61; oil-pressing, 9·86; spinning string or twine, 60·18; flour grinding, 1·44; making carpets, etc., 3·51; carpentry, 2·05; making blankets, 0·13; paper making, 2·11; iron-work, 1·43; rice husking, 1·05; grinding pulses, 0·69; tailoring, 2·37; yarn and thread spinning, 5·75; pottery, 4·19; miscellaneous, 2·97—total, 147·14.

EDUCATIONAL STATISTICS.—Education has rapidly diffused itself in Bírbhúm during the last few years. In the year 1856-57 there were only 3 Government and aided schools in the whole District, which number increased to 81 in 1870-71, the number of pupils having risen in the same period from 247 to 2810. This is altogether independent of 544 private and unaided schools returned by the Inspector in 1871, attended by an estimated number of 7103 pupils, but not under inspection by the Educational Department, and regarding which no details are available. Among the Government and aided schools, the greatest increase has been in the aided vernacular schools, which have increased from 1 in number in 1856-57 to 54 in 1870-71, the total number of pupils having risen from 76 to 1817 in the same period. That proportion of the cost of education in Government and aided schools which is defrayed by local contributions, schooling fees, etc., has considerably increased of late years. In 1856-57, out of a total cost of £423, 19s. 3d., the State contribution amounted to £257, 9s. 0d., or 60 per cent. of the whole; in 1860-61 the expenditure on Government and aided schools amounted to £1065, 18s. 10d., of which the State defrayed £500, 1s. 2d., or 47 per cent.; in 1870-71 the total cost of these schools increased to £3147, 1s. 3d., while the amount defrayed by Government was £1317, 15s. 9d., or only 41 per cent. The amount derived by fees, subscriptions, donations, etc., in the Government and aided schools amounted to £166, 10s. 3d. in 1856-57, £568, 13s. 10d. in 1860-61, and to £1836, 11s. 11d. in 1871. The comparative tables on pp. 412 and 413, compiled from the Reports of the Director of Public Instruction for the years 1856-57, 1860-61, and 1870-71, exhibit the number of Government and aided schools in Bírbhúm District in each of these years; the number and religion

of pupils attending them; the total cost of education, together with the amount contributed by Government and that derived from schooling fees, subscriptions, etc.—See tables on pp. 412 and 413.

SIR GEORGE CAMPBELL'S EDUCATIONAL SYSTEM.—During Sir George Campbell's administration of Bengal, a vast expansion of primary education, under a system of village teachers, took place. At the end of 1872-73 there were in Bírbhúm 129 Government and aided schools, attended by 4439 pupils, as against 81 schools and 2810 pupils at the close of 1870-71. Besides these, the Education Report for 1872-73 gives details of 17 unaided schools, attended by 445 pupils, making a total of 146 schools inspected by the Department, and attended by 4884 pupils. This is exclusive of uninspected unaided schools, which in 1871 were estimated by the Inspector to amount to 544, attended by 7103 pupils. The tables on pp. 414 and 415 exhibit the Educational Statistics of Bírbhúm District for 1872-73, for the schools inspected by the Educational Department. It will be observed, that although the number of schools receiving Government aid has largely increased since 1870, yet the expenditure has greatly decreased. This apparent discrepancy is explained by the fact that the increase has been in the lower-class inexpensive vernacular schools, and that less money has been devoted to the higher-class schools.—See tables on pp. 414 and 415.

The following paragraphs, condensed from the Report of the Inspector of Schools for 1872-73, further illustrate the condition of education in this District. The area of Bírbhúm is 1344 square miles, with a population of 696,945, inhabiting 2478 villages; average density of the population, 518 per square mile; villages per square mile, 1·84. The total number of inspected schools at the end of 1872-73 was 146, or one school to every 4774 persons, to 16·9 villages, and to every 9·2 square miles of area. The pupils attending school numbered 4884, or one pupil to every 143 of the inhabitants, or 0·28 to every square mile of area. Although the number of pupils was so much larger in 1872-73 than in previous years, the attendance would have been yet greater but for the ravages of the epidemic fever which prevailed in the south and south-east of the District.

HIGHER-CLASS ENGLISH SCHOOLS.—The Government *zilá* school in Bírbhúm is one of the best in Bengal. On the 31st March 1873 it contained 270 pupils, the daily average attendance being 195,—

school amounted to £619, 11s. 10d., and the expenditure to £575, 6s. 0d. The fees of the lower classes have been reduced, and now stand as follow:—For the first and second classes, Rs. 3, or 6s.; third and fourth classes, Rs. 2, or 4s.; fifth and sixth classes, Rs. 1, or 2s.; seventh class, 8 ánnás, or 1s. By this reduction in the rate of fees, the lower classes received a considerable accession of pupils. The attendance does not appear to have been so good as it should be, but this is attributed to the epidemic fever. The first three classes are instructed in Sanskrit. A Persian and Arabic master has been appointed, and the Committee hope thereby to induce the Muhammadan community of Surí and its environs to send their children to the school. Physical training has been introduced into the school, under the supervision of the sixth master, who studied for six months at Húglí in the Civil Service Class. Great credit is due to the managers of the schools for their activity and energy in carrying out the orders of Government, as well as for the changes they have effected and the extra expenses they have incurred, in face of the reduction of both Government grant and fees. The vernacular, minor, and free scholars are, with one ception, reported on favourably. The services of the vernacular scholars are being utilized as monitors to teach arithmetic and the vernacular in the lower classes; but this scheme is as yet but an experiment. The other higher-class English schools are not reported on so favourably. The Surul school has no first or second class; in other words, it is a higher-class school no longer. It has only 26 boys on the rolls; but this again is owing in a great extent to the epidemic fever. The Hitampur school contains 55 boys. The following is the result of the entrance examinations to the Calcutta University as regards this District. From the Surí Government school, eighteen candidates presented themselves for examination, of whom five passed in the first division, five in the second, and five in the third, while seven failed. From the Hitampur school, out of two candidates, one passed in the first division, and one failed. The Surul school sent up no candidates. The Bírbhúm mission school sent up six candidates, all of whom failed. This school has since been closed.

GOVERNMENT MODEL SCHOOLS.—There are two of these schools in Bírbhúm, at Purandarpur and Tántípárá. The latter school has 63 boys on its rolls. The former has only been recently established;

[*Sentence continued on p.* 416.

Return of Government and Aided Schools in Birbhum District for the Years 1856-57, 1860-61, and 1870-71.

Classification of Schools.	Number of Schools.			Number of Pupils.											
				Hindus.			Muhammadans.			Others.			Total.		
	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71	1856-57	1860-61	1870-71
Government English Schools, .	1	2	1	120	224	133	9	4	5	...	1	...	129	229	138
Government Vernacular Schools, ...	1	...	2	41	...	76	...	...	5	1	...	...	42	...	81
Aided English Schools, . .	...	5[1]	21	...	385	663	...	14	31	...	...	...	...	399	694
Aided Vernacular Schools, . .	1	4[2]	54	71	236	1717	5	49	85	..	...	15	76	285	1817
Aided Girls' Schools, . . .	...	...	3	...	...	68	...	...	...	...	...	12	...	...	80
Total, . . .	3	11	81	232	845	2657	14	67	126	1	1	27	247	913	2810

[1] Three of these schools are erroneously returned by the Educational Department as within Murshidábád District.

[2] Two of these schools are also returned by mistake as being within Murshidábád.

RETURN OF GOVERNMENT AND AIDED SCHOOLS IN BIRBHUM DISTRICT—*continued.*

CLASSIFICATION OF SCHOOLS.	Cost to Government.			Amount realized by Fees, Subscriptions, and Private Contributions.			Total Cost.		
	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.	1856-57.	1860-61.	1870-71.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government English Schools, . . .	221 4 9	343 14 0	261 12 0	153 2 0	256 11 7	321 8 9	374 6 9	600 5 7	583 0 9
Government Vernacular Schools, . . .	20 10 4	...	51 10 8	3 4 4	...	19 11 2	23 14 8	...	71 1 10
Aided English Schools,	...	124 5 8	540 4 2	...	265 12 5	950 14 11	...	387 9 1	1483 1 3
Aided Vernacular Schools, . . .	15 13 11	32 1 6	427 3 8	10 3 11	46 9 10	494 14 5	25 17 10	78 4 2	922 9 6
Aided Girls' Schools, .	...	...	37 5 3	...	...	50 2 8	...	...	87 7 11
Total, . .	257 9 0	500 1 2	1317 15 9	166 10 3	568 13 10	1836 11 11	423 19 3	1065 18 10	3147 1 3

Return of Schools in Birbhum District in 1872–73, inspected by the Educational Department.

Classification of Schools.	Number of Schools.	Number of Pupils on 31st March 1873.	Number of Masters.	Receipts.				Total Expenditure.	Average Cost to Gov't of each Pupil.	Average Total Cost of each Pupil.
				From Government.	From Local Funds.		Total Receipts.			
					Fees and Fines.	Other Local Sources.				
Higher Schools—				£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Government,	1	270	9	174 6 0	401 0 0	...	575 6 0	575 6 0	0 12 11	2 2 7¾
Aided,	2	81	10	71 18 0	58 0 0	116 18 0	246 16 0	237 8 0	0 17 9	2 18 7½
	3	351	19	246 4 0	459 0 0	116 18 0	822 2 0	812 14 0	0 14 0½	2 6 3½
Middle English—										
Aided,	8	247	23	196 18 0	94 2 0	251 8 0	542 8 0	545 12 0	0 15 11¼	2 4 2
Unaided,	2	36	2	...	2 16 0	17 18 0	20 14 0	20 16 0	...	0 11 6½
	10	283	25	196 18 0	96 18 0	269 6 0	563 2 0	566 8 0	...	...
Middle Vernacular—										
Government,	2	76	5	35 12 0	15 6 0	0 12 0	51 10 0	50 0 0	0 9 4¼	0 13 2
Aided,	9	377	22	143 4 0	104 10 0	111 12 0	359 6 0	357 12 0	0 7 7	0 19 11
	11	453	27	178 16 0	119 16 0	112 4 0	410 16 0	407 12 0	0 7 10¾	0 18 0
Lower Vernacular—										
Aided,	2	59	3	16 10 0	5 10 0	16 18 0	38 18 0	39 0 0	0 5 7	0 13 2½

RETURN OF SCHOOLS IN BIRBHUM DISTRICT IN 1872-73—*continued.*

CLASSIFICATION OF SCHOOLS.	Number of Schools.	Number of Pupils on 31st March 1873.	Number of Masters	RECEIPTS. From Government.	From Local Funds. Fees and Fines.	From Local Funds. Other Local Sources.	Total Receipts.	Total Expenditure.	Average Cost to Gover't of each Pupil.	Average Total Cost of each Pupil.
				£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Primary Schools—										
Aided,	103	3270	108	171 14 0	231 4 0	53 10 0	456 8 0	456 10 0	0 1 0½	0 2 9½
Unaided,	15	409	15	...	17 6 0	2 8 0	19 14 0	19 14 0	...	0 0 11½
	118	3679	123	171 14 0	248 10 0	55 18 0	476 2 0	476 4 0	...	...
Girls' Schools—										
Aided,	2	59	4	24 8 0	1 16 0	25 16 0	52 0 0	52 0 0	0 8 3¼	0 17 7½
Total of Government and Aided Schools,	129	4439	184	834 10 0	911 8 0	576 14 0	2322 12 0	2313 8 0	0 3 9	0 10 5
Total of Inspected Unaided Schools,	17	445	17	...	20 2 0	20 6 0	40 8 0	40 10 0	...	0 1 9¾
Total of Government Aided and Unaided Schools,[1]	146	4884	201	834 10 0	931 10 0	597 0 0	2363 0 0	2353 18 0	...	...

[1] This table is altogether exclusive of the unaided schools not inspected by the Educational Department. The number of these uninspected schools was returned by the Inspector in his Report for 1871-72 at 544.

Sentence continued from p. 411.]
it was transferred from Párbatípur during the year under report. In consequence of the epidemic fever, the pupils fell off from thirty to only five or six, and the fees fell off to Rs. 1 or 2s. per mensem. Many of the pupils died of the fever.

MIDDLE-CLASS SCHOOLS.—The eight aided middle-class English schools are reported on very favourably; the Dwárká school, however, was closed in consequence of the epidemic fever and the neglect of the managers. The Ráipur school suffered greatly from the same fever, and the schoolhouse was burned down, together with the greater part of the village. Seven candidates presented themselves from the middle-class English schools at the minor scholarship examination, but only three passed. Of the nine aided middle-class vernacular schools, that at Surí, under the management of the leading inhabitants, is reported to be the best; it contains 199 pupils, of whom 24 are Muhammadans. The Sháhpur, Mangaldihí, Háthiá, and Benuriá schools have suffered severely, both numerically and financially, in consequence of the epidemic fever. None of the candidates from these schools passed in the first division in the vernacular scholarship examination. The middle-class *páthsálás* are simply cheap middle-class vernacular schools, and seem to be equally successful. They are called middle-class *páthsálás* simply because they receive aid from the *páthsálá* funds. The committees will now be able to transfer them to the grant-in-aid fund.

GIRLS' SCHOOLS.—There are three girls' schools in Bírbhúm, of which two receive grants in aid under the regular rules; the third is aided under the *páthsálá* system. The Surí girls' school is under the management of the Baptist Mission. The girls are instructed in both English and Bengali.

PRIMARY EDUCATION.—For education of this class, there were, in 1872-73—(1) Twenty-nine improved *páthsálás*, costing £115, 9s. 10d., attended by 904 pupils, of whom 62 were girls; (2) seven night *páthsálás*, costing £17, 10s. 0d., attended by 183 pupils, averaging nineteen years of age; and (3) sixty-four aided indigenous *páthsálás*, costing £157, 17s. 0d., attended by 2084 pupils, of whom 12 were girls. The first class of these schools is reported as doing well; and the Deputy-Inspector is of opinion that they will very soon compete on equal terms with middle-class vernacular schools. All the schools to the east of the District were affected more or less by the epidemic fever; many of them were transferred to more healthy

localities. The night-schools are only intended for those whose occupations debar attendance at the day-schools, to which they are generally attached. The rudiments are only taught in these schools. On the subject of the third class of schools, the District Magistrate reports as follows:—

'Previous to the 30th September 1872, there were in the District 392 boys' Bengali *páthsálás*, 16 *maktabs*, 3 Sanskrit *tols*, and 1 girls' *páthsálá*,—in all 412 indigenous village schools, instructing in the first rudiments some five thousand scholars. Under the operation of the orders of the 30th September, monthly grants, amounting to Rs. 204. 8. 0 (£20, 9s. 0d.), were during the remainder of the year under report (1872-73) assigned to 43 existing and 21 newly established *páthsálás*. Both these have been considerably increased since the end of the year. The system of allotment, experimentally adopted when fixing the amount of grant, was an attempt to combine a consideration both of the number of scholars and of the quality of instruction imparted.' The Deputy-Inspector described the details of the scheme as follows:—'With a view to carry out the modified system of payment by results, the *páthsálás* ought to be divided into three classes. Those teaching boys up to the primary scholarship course should be placed in the first class; those teaching reading, writing, and simple arithmetic, in the second class; and those teaching only writing and arithmetic, in the third class. In classifying the *páthsálás*, the number of students ought to be considered, equal importance being attached to the quality of education imparted and the numerical strength of the school. To illustrate what I mean, I would give the *guru* of a *páthsálá* which has forty pupils, and the head boys of which study the primary scholarship course, a reward of Rs. 5 (10s.) a month. Another *páthsálá* which teaches the same course may have twenty boys only; the *guru* of this ought to receive only three-fourths of Rs. 5, the maximum grant. Thus, for quality of instruction, the *guru* would receive half the amount of the maximum grant, Rs. 2/8 (5s.), while for numerical strength he would receive one-fourth the grant, Rs. 1/4 (2s. 6d.), making Rs. 3/12 (7s. 6d.) in all.' This system has been carried out, and the new schools have been subjected to a close supervision. The Deputy-Inspector reports that the actual distribution of money to existing *páthsálás* has imparted such a stimulus to professional *gurus* and others, that new *páthsálás* are springing up every day, and applications daily come in for grants.

The middle and lower classes frequent these schools, of which one is a *maktab* (Muhammadan village school), but a few sons of the wealthy village merchants or small landholders are also to be found in them. The children of the lower orders do not continue in the *páthsálás* for any length of time; for as soon as they have acquired a little knowledge, they are compelled to leave in order to assist their parents in cultivation, tending cattle, or attending their shops. The teachers of these schools were formerly generally Káyasths, but lately Bráhmans have found it worth their while to follow the occupation. The *gurus* are reported competent to teach writing and simple arithmetic. Mental arithmetic and Suvankarí formulæ (mathematics) are well attended to; but few books are used except the Guru Dakhiná and the Chánakuya *slokás* or Sanskrit texts. Many *guru-mahásays* are introducing books into these *páthsálás*; but the Inspector doubts whether this will be an improvement on oral instruction in such schools.

PRIMARY SCHOLARSHIPS.—A general examination for the selection of successful candidates was held on the 14th February 1873. The examiners were the head-master of the Government school, the head-master of the Surí vernacular school, and the Deputy-Inspector. Forty-six candidates appeared; and the four scholarships were distributed to four pupils of the Gopálpur, Bharbuná, Tekarbetá, and Bhawánípur improved *páthsálás*.

INSPECTED UNAIDED SCHOOLS.—Of these, the middle-class English school at Bolpur is the most important. The unaided *páthsálás*, twelve in number, which appear in the returns of the Education Department for 1872-73, have been reported on preparatory to the grant in aid. The Sanskrit *tols* do not appear to flourish. In the three existing *tols* there are but twenty-eight students, who devote their time to the old system of logic and Hindu law.

MUHAMMADAN VILLAGE SCHOOLS OR MAKTABS.—These are estimated to number fourteen or fifteen at most in Bírbhúm District, attended by about eighty or ninety students; but it appears that a system of private family education is also pursued, a duty which Muhammadans are more inclined to recognise than Hindus. The Muhammadan students of the Bengali *páthsálá* at Baruán, which is under a Hindu master, are taught gratis in Urdu and Persian by a well-to-do Muhammadan gentleman. Although the proportion of Muhammadans attending Government schools in Bírbhúm is small, the Inspector is of opinion that the Musalmán community of Bír-

bhúm, as a whole, is as well if not better educated, as far as reading and writing goes, than the mass of Hindus. Itinerant *munshís* wander from village to village, and are hospitably entertained. In return, they instruct the youth of the hamlet for a short time, and then pass on to another village. The instruction thus afforded is very desultory and variable, but the industry of the teachers is great. Their work is a labour of love. And although, from the uncertain presence of the tutor, these classes escape our notice, much good is done, and much solid information in the rudiments of knowledge is imparted.

Postal Statistics.—Another example of the prosperity of the District is the marked increase in the use of the post office of late years. Between the years 1861-62 and 1870-71, the number of letters received at the Bírbhúm post office has increased by 149 per cent., having risen (including newspapers, parcels, and books) from 30,964 in 1861-62, to 62,633 in 1865-66, and to 77,302 in 1870-71. The number of letters, newspapers, parcels, and books despatched from the District increased from 25,641 in 1861-62 to 75,539 in 1865-66. I have not yet succeeded in obtaining the number of letters, etc. despatched in 1870-71. The postal receipts have more than doubled since 1861-62; and in 1870-71 the post office had become almost self-supporting. In 1860-61 the total postal receipts amounted to £727, 13s. 5d., and the expenditure to £1305, 3s. 6d.; in 1865-66 the receipts were £911, 4s. 0d., and the expenditure £1067, 14s. 11d. In 1870-71 the receipts had increased to £1616, 3s. 7d., exclusive of £13, 17s. 10d., receipts from sale of stamps for official correspondence, making a total of £1630, 1s. 5d. The expenditure in that year amounted to £1943, 1s. 8d. The following table, showing the number of letters, newspapers, etc., received at and despatched from the Bírbhúm post office, for the years 1861-62, 1865-66, and 1870-71, is compiled from a return furnished to me by the Director-General of Post Offices.—See table on next page.

Fiscal Divisions.—The following list of the Fiscal Divisions (*parganás*) comprised within Bírbhúm District is compiled partly from a list furnished to me by the Collector, partly from the Board of Revenue's *parganá* Statistics, and partly from Captain Sherwill's Revenue Survey Report. The figures should be looked upon with caution, and as only approximating to correctness. The jurisdiction of the District has been altered since the publication of the Survey Report and of

Postal Statistics of Birbhum for the Years 1861-62, 1865-66, and 1870-71.

	1861–62.		1865–66.		1870–71.	
	Received.	Despatched.	Received.	Despatched.	Received.	Despatched.
Letters, ...	27,065	25,237	54,783	73,091	71,190	*Materials not received for this column.*
Newspapers, . .	2,636	198	5,875	1,514	4,261	
Parcels, ...	260	178	936	889	1,196	
Books, ...	1,003	28	639	45	655	
Total, . . .	30,964	25,641	62,233	75,539	77,302	...
Sale of postage stamps, . . .	£375 5 7		£455 9 3		£920 3 5	
Cash collections, .	352 7 10		455 14 9		696 0 2	
Total receipts, . .	727 13 5		911 4 0		1616 3 7[1]	
Total expenditure,	1305 3 6		1067 14 11		1943 1 8	

[1] Exclusive of £13, 17s. 10d., receipts from sale of stamps for official correspondence. Official or service stamps were introduced in 1866.

the Board of Revenue's *parganá* Statistics, and several transfers have been made from Bírbhúm to other Districts. The most important of these are the transfer of *parganás* Sárath Deogarh, Kundit Karayá, Mahmúdábád, and Pabboá, to the Santál Parganás, which now comprise the Sub-District of Deogarh. These have been eliminated from the list. Other and minor transfers to and from the Districts of Bardwán and Murshidábád have also taken place, but I have no information as to the area of these tracts, nor of the *parganás* to which they belong. The figures in the following list, showing the area, number of estates, amount of Government land revenue, population, etc., in each *parganá*, are taken from the Board of Revenue's return; all other information is condensed from Captain Sherwill's Revenue Survey Report. It will be observed that the Collector returns several *parganás* which are not mentioned either in the Board of Revenue's Return or the Survey Report. The explanation of this is probably that they are very small tracts, which now form integral portions of the larger Fiscal Divisions, and that their area, land revenue, etc. are included in the larger *parganás*:—

(1) ABHIRAMPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(2) AKBARSHAHI: area, 17,634 acres, or 27·55 square miles; 25 estates; Government land revenue, £1572, 16s. od.; population, 12,272; Subordinate Judge's Court at Surí and Rámpur-hát. This is a small but closely-populated and well-cultivated *parganá*, of which only about one-fifth is not (1852) actually under tillage. The cultivated portions are nearly level, with a good and fertile soil, producing abundant crops of rice, sugar-cane, barley, mustard, gram, and a little wheat. The country is prettily wooded with groves of mango and palm trees; the villages are neat, substantially built of mud, and thatched with rice straw. Cattle are plentiful, and the land is generally irrigated. Of the area of the *parganá*, 813 acres are occupied by forest and jungle, and 2111 acres by tanks and river beds. The number of tanks that are met with at every step indicates the extent to which irrigation is practised. The Dwárká passes through the *parganá* from west to east, and the Mor skirts its southern boundary for about a mile. The water from these rivers is not used for the purposes of irrigation.

(3) ALINAGAR: area, 38,019 acres, or 59·40 square miles; 27 estates; Government land revenue, £4018, 14s. od.; population, 30,335; Subordinate Judge's Courts at Dubrájpur and Amdahará. The Revenue Surveyor (1852) states that one-fifth of the total area of this *parganá* is uncultivated, being overrun in many spots by coarse grass and low bushes, especially along the banks of the Bakeswar river, which flows through the northern portion of the tract. The western half of the *parganá* is undulating; the eastern half lies lower, and is well cultivated, producing indigo, rice, mulberry, and the other ordinary crops. A good road from Bardwán to Surí passes from south to north through the *parganá*.

(4) AMDAHARA: area, 5065 acres, or 7·91 square miles; 1 estate; land revenue, £496, 10s. od.; population, 3595; Subordinate Judge's Court at Amdahará. A small, thickly-populated *parganá*: the land is low lying and well cultivated, producing abundant crops of rice, sugar-cane, indigo, mulberry, etc.; the villages are large and well built.

(5) AMROL: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(6) ANANDNAGAR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(7) AZMATSHAHI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(8) BAHARAN: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(9) BANHAT: area, 154 acres, or ·24 of a square mile; 1 estate; Government land revenue, £32, 4s. od.; population, 1175; Subordinate Judge's Court at Rámpur-hát.

(10) BARA TALUK: area, 23,549 acres, or 36·79 square miles; 9 estates; Government land revenue, £1535, 14s. od.; population, 8455; Subordinate Judge's Court at Dubrájpur. This *parganá* is not mentioned in the Revenue Survey Report.

(11) BARBAKSINH: area, 41,856 acres, or 65·40 square miles; 48 estates; Government land revenue, £4585, 2s. od.; population, 41,445; Subordinate Judge's Courts at Amdahará and Kándrá. A well-occupied tract of low country, filled with numerous large and well-built villages. The land is highly cultivated, and rice, indigo, mulberry, Indian corn, and *manduá* are raised in great quantities. A patch of high gravelly soil, which is hopelessly sterile, occupies an area of 4424 acres in the western portion of the *parganá*, and extends as far as Surul, a large village situated close to the high ground, and near the ruins of an old commercial residency of the East India Company. The principal villages in the *parganá* are Surul, Sarandí, Jalandí, Bargáon, and Kálnai. At Surul, two good roads cross each other, one leading from Bardwán to Surí, the second from Ilámbázár to Kátwá.

(12) BAZI BARDWAN: not mentioned in the Revenue Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(13) BEHOROL: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(14) BEINTALI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(15) BHADRAPUR: area, 247 acres, or ·39 square miles, but

surveyed with *parganá* Sháhzádpur; 1 estate; Government land revenue, £127 (so returned in the Board of Revenue's Statistics, but this must be a mistake); population, 180; Subordinate Judge's Court at Rámpur-hát.

(16) BHATSALA: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(17) BHARKANDA: area, 20,884 acres, or 32·63 square miles; 10 estates; Government land revenue, £1792, 6s. 0d.; population, 20,340; Subordinate Judge's Court at Amdaharà. A *parganá* in the south of the District. The Revenue Surveyor states that the land is well cultivated, but much encumbered with troublesome patches of a coarse grass, and with small low marshy tracts. The villages are small and mean as compared with those farther to the north and east. Nearly one-tenth of the area of the *parganá* is said to be occupied by tanks. In the village lands of Sankarpur, which has an area of 863 acres, there are 111 tanks, occupying 167 acres: 46 of these tanks are so close to each other that mere footpaths along the crests of the high bank separate one tank from another. During the heats of summer, when many of the tanks dry up, the *zamíndárs* take the opportunity of digging out the black mud from the bottom of these reservoirs, which, from its being highly charged with shells, animalculæ, and decayed animal and vegetable matter, forms an excellent manure. The productions of the *parganá* are rice, indigo, mulberry, and Indian corn. Mango trees are met with in abundance among the fields and in the villages, but only as scattered trees, and not in *topes* or groves. The Sál or Sálká *nálá* flows from west to east through the southern portion of the *parganá*. At Bhabánandpur there is (1852) an indigo factory, near the Surí road which traverses the *parganá* from south to north.

(18) BIRAMPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(19) CHANDRAPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(20) CHUNAKHALI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(21) DADSHAHI: not mentioned in the Survey Report or in the

Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(22) DHAWA: area, 76 acres, or ·12 of a square mile; 1 estate; Government land revenue, £16, 18s. od.; population, 25,000 (?); Subordinate Judge's Court at Rámpur-hát. This little *parganá* was surveyed with *parganás* Akbarsháhí and Khatangá; it is (1852) entirely cultivated.

(23) DHENA: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(24) FATHIPUR: area, 14,394 acres, or 22·49 square miles; 15 estates; Government land revenue, £1903, 8s. od.; population, 16,280; Subordinate Judge's Court at Amdahará. This is a well-occupied tract of low country, filled with numerous substantial and well-built villages; the country is level and well cultivated, and during the rainy season presents an unbroken plain of green growing rice extending for many miles. Sugar-cane, indigo, mulberry, and Indian corn are also raised in great quantities.

(25) FATHISINH: area, 1155 acres, or 1·80 square mile; 2 estates; Government land revenue, £140, 14s. od. (?); population, 1790; Subordinate Judge's Courts at Margrám and Amdahará. This *parganá* is not mentioned in the Revenue Surveyor's Report.

(26) GOPALNAGAR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(27) GOPINATHPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(28) GOKILTA: surveyed with *parganá* Swarúpsinh; separate area as returned by the Board of Revenue's Statistics, 1706 acres, or 2·67 square miles; Government land revenue, £325, 2s. od. (?); population, 1355; Subordinate Judge's Court at Amdahará. This *parganá* is interlaced with those of Fathipur, Kutabpur, Purandarpur, and Khargáon; they all possess the same characteristics as ascribed to Fathipur (No. 24), viz. that of a low-lying fertile country, containing numerous large and well-built villages, and yielding abundant crops of rice, indigo, and mulberry. A good road from Surí to Kátwá (Cutwa) crosses these *parganás* from west to east; another road crosses this at right angles, leading from Ilámbázár to Ganutiá and Barhampur.

(29) HARIPUR TAPPA: area, 66,012 acres, or 103·14 square miles; 38 estates; Government land revenue, £1643, 10s. 0d.; population, 27,156; Subordinate Judge's Courts at Surí and Dubrájpur. The Revenue Surveyor's Report states that the northern half of the *tappá* is considerably elevated above the southern half, and is densely covered with forest; the southern portion is under fine rice cultivation, with patches of Sakwá jungle on the summits of the ridges that traverse the *tappá* from east to west. These ridges extend for ten, twelve, or fifteen miles, then sink gradually to the level of the country, and rise again a few miles farther on. Their general height is from sixty to a hundred feet, but farther to the eastward they fall to thirty or forty feet above the level of the country. The valleys formed by these ridges average about five miles in width from the crest of one ridge to the crest of another. The summits of the ridges are invariably covered with a forest of *sakwá* trees, a species of shorea, with naked rocks of quartz, felspar, gneiss, dykes of greenstone, hornstone, occasional actinolite *kankar*, and nodular ironstone: the latter, when disintegrated, forms the pisciform iron gravel which is found so plentifully spread over the country, and which makes the finest natural roads. The best soil is the lowest portions of the valleys between the ridges, about a mile in width, on which are raised abundant crops of rice, *manduá*, mustard seed, gram, pulses, sugar-cane, and barley. Mango and tamarind trees, palm trees, the plantain, *bárgát*, jack, *bel*, and American aloe are found in the vicinity of nearly all the villages, which are generally built in the valleys. On the slopes of the ridges are seen the chákoltá tree, phœnix or small date tree, *aonla*, ebony, *mahuá*, *jáman*, *ber*, *karandá*, mimosa, catechu, and the lofty and handsome *dumurá* tree. The *jámun* or damson forms a low scrub-wood round tanks and swamps. The principal places in the *tappá* are Nagar, Tántípárá, and Chándpur. The two first-named towns have been already described on previous pages of this Statistical Account. The main road from Surí to Deogarh traverses the *tappá* from east to west, and it is also intersected by numerous village roads. Cattle are very plentiful, but horses are almost unknown.

(30) HORPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(31) HUKAMAPUR TALUK: area, 15,491 acres, or 24·20 square miles; 1 estate; Government land revenue, £145, 8s. 0d.; popula-

tion, 7,975; Subordinate Judge's Court at Surí. Captain Sherwill, in his Revenue Survey Report (1852), states that one-third of the *parganá* is covered with *sakwá* jungle, which supplies the neighbouring station of Surí with firewood and charcoal. The Mor river divides the *parganá* into two unequal portions, and flows between two stony ridges of hillocks, the distance from the crest of one ridge to the crest of the other being five miles. In the valley of the Mor there are some substantial villages, surrounded by fine fields of rice, sugar-cane, barley, mustard, and gram. Handsome mango groves are also planted near the villages, which swarm with long-tailed white monkeys, called *lángurs*. On the north bank of the Mor river, close to a small hamlet called Tangsulí or Meherpur, is a bed of sandstone and shale, with minute seams of coal. The highroad from Surí to Deogarh runs through the *parganá*, and is traversible by wheeled carriages.

(32) ICHHAPUKUR or INCHHAPUKUR TALUK: area, 10,190 acres, or 15·92 square miles; 10 estates; Government land revenue, £1718, 12s. 0d.; population, 12,965; Subordinate Judge's Court at Amdaharā. This *parganá*, together with those of Swarúpsinh, Sháhzádpur, and Jawas Ibráhimpur, situated in the north-east of the District, where it abuts on Murshidábád, have their lands so interlaced that a single description of the whole will suffice. The tract of country which they occupy is the richest and most fertile portion of the whole district, yielding abundant crops of rice, mulberry, Indian corn, and *manduá*. A large proportion of the land is occupied by mulberry plantations for the rearing of silkworms. Silkworm breeding and silk spinning gives occupation to about one-sixth of the whole population. Six European and numerous native filatures are (1852) situated within these *parganás*, those conducted by natives being on a very small scale. The principal European filature is at Ganutiá, upon the banks of the Mor river. The establishment belongs to an English firm in Calcutta, and is superintended by a European gentleman on the spot. This factory has already been described on a previous page. The Mor river and several of its branches flow through the southern portion of the tract occupied by these *parganás*. The road from Surí to Barhampur also crosses it from west to east. In many places the roadside has been planted for miles with banian and *pipal* trees. The villages are substantial, numerous, and thickly populated. The principal large villages, for

there are no towns, are Ganutiá (described on a previous page), Belgáon, Baroái, and Deká.

(33) ICHHAPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(34) JAHANABAD: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(35) JAWAS IBRAHIMPUR: area, 915 acres, or 1·43 square mile; 2 estates; Government land revenue, £75, 12s. od.; population, 585; Subordinate Judge's Court at Rámpur-hát. This small *parganá* is interlaced with those of Ichhápukur, Swarúpsinh, and Sháhzádpur, and the description of Ichhápukur (No. 32) applies equally well to the whole number.

(36) KANKJOL: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(37) KANTAGARIA: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(38) KASHTAGARH: originally surveyed with *parganás* Maureswar-dari and Swarúpsinh; the Board of Revenue's Statistics return the separare area of Káshtagarh at 965 acres, or 1·51 square mile; 9 estates; Government land revenue, £134, 2s. od.; population, 490; Subordinate Judge's Court at Rámpur-hát.

(39) KASIPUR: area, 368 acres, or ·58 of a square mile; 1 estate; Government land revenue, £6, 12s. od.; population, 1562; Subordinate Judge's Court at Amdahárá. This small *parganá* is not mentioned in Captain Sherwill's Revenue Survey Report.

(40) KHIRNI: area, 20,822 acres, or 32·53 square miles; 17 estates; Government land revenue, £937, 8s. od.; population, 13,806; Subordinate Judge's Court at Dubrájpur. This *parganá* is situated in the south-west of the District. In 1852 the Revenue Surveyor reported that three-fourths of its entire area were under rice cultivation. The *parganá* lies much lower than the other western *parganás* and *tappás*, has a more level surface, a better soil, and is well watered by two small streams. The stony ridges mentioned as occurring in Haripur *tappá*, which is situated to the north, are also met with in this *parganá*, and as usual are covered with *sakwá* jungle. The *parganá* abounds with substantial villages,

inhabited by an almost exclusively Hindu population. The principal crops are rice, sugar-cane, mustard, *janirá*, gram, and pulses. Mango and palm trees abound. A portion of the Nagar wall or entrenchment passes through the northern part of the *parganá*. Tolerable roads for wheeled carriages traverse the country in every direction.

(41) KHARGAON: area, 17,662 acres, or 27·60 square miles; 16 estates; Government land revenue, £1044, 14s. od.; population, 13,072; Subordinate Judge's Courts at Rámpur-hát and Amdaharà. The area of this *parganá* is interlaced with that of Fathipur, Gokiltá, Kutabpur, and Purandarpur. These five *parganás* form a well-occupied tract of low country, filled with numerous substantial and well-built villages. The country is level and well cultivated, and during the rainy season presents an unbroken plain of green growing rice, extending for many miles. Sugar-cane, indigo, mulberry, Indian corn, and *manduá* are also raised in large quantities. A good road from Surí to Kátwá (Cutwa) crosses the *parganás* from west to east; another road crosses this at right angles, and leads from Ilámbázár to Ganutiá, and thence to Barhampur.

(42) KHARSENKA: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(43) KHATANGA: area, 52,184 acres, or 81·54 square miles; 58 estates; Government land revenue, £4874, 6s. od.; population, 30,609; Subordinate Judge's Court at Surí. The Revenue Surveyor (1852) states that one-third of the area of this *parganá* is uncultivated, being covered with jungle. The remainder is thickly populated, well cultivated, and, generally speaking, a fine level country. In the western portion of the *parganá* the land is high, and is occupied by the high wooded ridges mentioned in the description of Haripur. These ridges penetrate into this *parganá* for seven miles, when they terminate, and are not met with farther east, except at Synthiá, where a high ridge on the right bank of the Mor river, about a mile in length and a few hundred feet in breadth by about sixty feet in height, represents the last out-crop of these ridges. In the northern portion of the *parganá*, a considerable area is occupied by high unproductive ridges and jungle, but the central, eastern, and southern portions are low lying and highly cultivated, producing rich crops of rice, barley, sugar-cane, *janirá*, mulberry, Indian corn, and betel leaf. Mango groves, palm trees, jack, banian

and *pipal* trees are planted near the villages. The whole of the crops are irrigated from numerous tanks, and also from the rice fields themselves, each field being a reservoir in itself, as a raised bank is constructed round it in order to retain the rain water. The water thus collected can be conducted from the higher to the lower fields at the pleasure of the agriculturist. The Mor river divides the *parganá* into two unequal portions, and flows from west to east. Its breadth is fifteen hundred feet on an average, but during eight months of the year only a fractional portion of the bed is occupied by a small stream of water, and the stream is consequently useless for all purposes of navigation. The stream is fordable everywhere during the dry season. The principal towns are Surí, Kumaipur, and Purandarpur. Surí is the capital of the District, and is a civil station for a Judge, Collector, Magistrate, Civil Surgeon, Post-master, and their subordinates. The town and station are situated upon the summit and immediate extremity of a gravel-covered granite and gneiss ridge, the slope of which enables a system of drainage to be carried out in the native town. Suri produces striped cotton table-covers, the colours of which are very brilliant and durable, towels, white table-cloths of all sorts, mosquito nets, palanquins, and furniture. In the villages of Simuliá, Harishkopá, and Bishnupur there are (1852) small indigo factories; at Harishkopá there is also a sugar manufactory. The *parganá* is intersected with very good roads, fit for wheeled conveyances,—first, the high military road from Barhampur, which, passing through Surí, leads to the Grand Trunk Road; second, a good road from Bardwán to Surí; third, a tolerable road from Surí to Jangipur on the Bhágirathi; and fourth, a good road from Surí to Deogarh through the Belpátá hills.

(44) KRISHNA-NAGAR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(45) KUMAR PRATAP: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(46) KUTABPUR: area, 29,286 acres, or 45·75 square miles; 59 estates; Government land revenue, £4236, 2s. 0d.; population, 33,636; Subordinate Judge's Court at Amdahará. The area of this *parganá* is much interlaced with that of Khargáon, Fathipur, Gokiltá, and Purandarpur; and a description of these *parganás*, their products, etc., is included in that given for Khargáon (No. 41).

(47) MAHANANDA: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(48) MAJKURI: area, 599 acres, or ·94 of a square mile; 14 estates; Government land revenue, £50, 16s. 0d.; population, 800; Subordinate Judge's Court at Rámpur-hát.

(49) MALLARPUR: area, 23,351 acres, or 36·49 square miles; 5 estates; Government land revenue, £1795, 16s. 0d.; population, 7955; Subordinate Judge's Court at Rámpur-hát. The Revenue Surveyor's Report (1852) states that about one-fourth, or the western portion of the *parganá*, is overrun with jungle lying upon the iron beds; the remainder is an extensive and unbroken sheet of rice cultivation. The *parganá* also produces sugar-cane, *janirá*, Indian corn, gram, and barley; and along the banks of the Dwárká river, which flows for about three miles through the *parganá*, garden vegetables are raised in great abundance. Besides the Dwárká, the *parganá* is watered by several sluggish streams, flowing in deep clayey beds, generally impassable except by bridges, or at the constructed *ghát*s or fords. The soil of the *parganá* is affected by its proximity to the iron beds, and contains a great quantity of clay in its composition. Irrigation tanks occupy about one twenty-fourth part of the whole superficial area of the *parganá*. The principal place is Mallárpur, a fine substantial Bengali village, but filled with putrid tanks. Mullárpur is now a station on the loop-line of the East India Railway. Numerous village roads and tracks also intersect the country, but few of them are fit for wheeled conveyances.

(50) MAMDANI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(51) MANOHARI: not mentioned in the Survey Report, or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(52) MANOHARSHAHI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(53) MAURESWAR DARI (NORTH): this *parganá* is divided into two portions, north and south, by *parganá* Mallárpur; aggregate area of both northern and southern portions, 93,821 acres, or 146·60 square miles; 1 estate; Government land revenue, £5721, 2s. 0d.;

population, 20,890; Subordinate Judge's Courts at Márgrám, Amdaharâ, and Nayá Dumká. With regard to the northern portion of the *parganá*, the Revenue Surveyor (1852) states that it is thinly populated, from the fact of its being much overrun with jungle, and from its possessing a poor, dry, and stony soil. Its area is fifty-six square miles, about one-third of which is covered with jungle and hills. The surface is much broken and undulating, and forms a portion of the Bírbhúm iron beds. Wherever the ore is found in any abundance, it is smelted in a rude manner by the natives. The soil in such localities is not fitted for the plough, or for the growth of any crop. There are nevertheless considerable patches of land where crops of rice, sugar-cane, barley, mustard, Indian corn, and *janirá* are raised. The jungle is peculiarly stunted and small, being constantly cut down by the charcoal makers, who supply the iron forges with fuel. The Dwárká river flows through the *parganá* from north-west to south-east. It is a deep, narrow stream, impetuous during the rains, but with only a small stream of pure water during the hot weather. Many years ago, an English speculator in iron, with the intention of erecting water-mills for the purpose of crushing the iron ore, built a substantial stone dam across the Dwárká a mile south-east of the village of Deochá, but the first fall of rain in the hills at the source of the river swept the whole mass of masonry away, leaving only the strong piers that were built into the banks. Good hard gravel roads intersect the tract.

(54) MAURESWAR DARI (SOUTH): area, estates, land revenue, etc., included with the foregoing. The Revenue Surveyor's Report states that the southern portion of *parganá* Maureswar Dari is a well populated tract, with a good soil, abundantly watered by tanks and small marshes (*jhils*), and producing large crops of rice, mulberry, Indian corn, sugar-cane, mustard, linseed, *kalái*, and gram, with a small quantity of wheat and pulses. The surface of country is level, and picturesquely diversified by mango and palm plantations. The villages are very numerous, with substantial mud houses, each village being surrounded by tanks, varying from twelve to a hundred in number, the water from which is used for purposes of irrigation. The principal village is Maureswar, situated upon the road leading from Surí to Murshidábád, surrounded by eighty tanks; one mile to the west of the village is a small *jhil*, about a mile in length. Many of the Hindu inhabitants are engaged in rearing silkworms, the produce of which is sold either in the cocoons or in

the shape of thread. The colour of the silk is a golden yellow. There is (1852) a European silk factory at Udnagar, just outside the boundary of the *parganá*, on the bank of the Mor river. There is also an indigo factory at Gumuá. The highroad from Surí to Barhampur passes through the *parganá* from west to east. The loop-line of the East Indian Railway also runs through the west of the *parganá*. A high flood in the Mor river, which forms the boundary of the *parganá*, lays a great portion of the land under water.

(55) MAURESWAR SABAK: area, 39,639 acres, or 61·94 square miles; 10 estates; Government land revenue, £5329, 14s. 0d.; population, 30,927; Subordinate Judge's Courts at Rámpur-hát and Amdaharâ. Captain Sherwill, in his Revenue Survey Report, remarks that the whole of this *parganá* may be said to be thoroughly cultivated. It is level, abundantly supplied with water from tanks, small *jhils*, the Bakeswar *nâdí*, and a few other smaller streams, and also possesses an excellent soil. The villages are numerous, substantial, and well built. The principal crops of the *parganá* are rice, mulberry, indigo, etc. At the village of Baran, in the north-eastern shoulder of the *parganá*, the Mor river bifurcates; the peninsula between the two arms of the stream is covered with fine villages. From this spot, which lies rather lower than the surrounding country, the Mor river, which has hitherto confined its waters to one bed, spreads out first into two branches, and, after running farther eastward, into five or six others, which during the rainy season often inundate the intermediate country. In some places tracts of sand have been left, impoverishing the soil; in others the alluvial deposits brought down by the river have had a beneficial effect upon the land. The only break in the level of the country is at Synthiá, a village on the north-western boundary of the *parganá*, which is situated on a high and isolated gravel bank about a mile in length. To the north of the village a good section has been effected by the water of the Mor in the high gravel bank, presenting the following appearance:—On a level with the bed of the river the bank is composed of a very tough arenaceous conglomerate, composed of pink quartz sand connected with a ferruginous cement, capped by a layer several feet thick of a coarse gravel, composed of rolled pieces of white and translucent quartz, pisciform iron ore, and a few pieces of decomposing felspar; the whole firmly embedded in a ferruginous sand, which is again covered with nodules of *kankar*. The bed of the river is in places quite black with magnetic iron dust, which

clings in clusters to a magnet. The road from Surí to Kátwá (Cutwa) on the Bhágirathí river passes through the southern portion of the *parganá* from west to east. There is (1852) an indigo factory at Saikpur.

(56) MOHANPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(57) MUZAFFARPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(58) MUZAFFARSHAHI: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(59) NAWA NAGAR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(60) NANI; area, 32,787 acres, or 51·23 square miles; 14 estates; Government land revenue, £1584, 18s. od.; population, 18,115; Subordinate Judge's Courts at Rámpur-hát and Surí.

(61) PUDRA: this *parganá* is not mentioned in the Board of Revenue's Statistics, but the latest map shows it as within Bírbhúm District; and I take the following particulars from the Revenue Survey Report. It must be remembered, however, that the figures refer to 1852. Area, 23,143 acres, or 36·16 square miles; 104 villages; Government land revenue, £1535, 13s. 4d.; population, 14,268. This is a small *táluk* in the extreme west of the present District, and bounded on the south by the District of Bardwán, from which it is separated by the Ajai river. Of the total area, only about one-third was under cultivation in 1852, the remaining two-thirds being either covered with *sakwá* jungle or by moderately high undulating land or gravel, or stony ridges unfit for cultivation. The Hinglá *nadí* flows through the *táluk*, entering the northern boundary from Kundit Karayá; it flows into the Ajai near the south-eastern boundary of the *táluk*. Several large and flourishing villages are situated on the banks of the Hinglá *nadí*, the inhabitants of which raise fine crops of rice, mustard, sugar-cane, and *janirá*. The principal villages are Hazratpur, where there is a Muhammadan mosque, and Rasuán, Jamálpur, and Pálpai, containing old Hindu temples. Sakarákunda, an ancient village, that is marked on most of the old maps as a place of importance, has dwindled down to a

small hamlet. A short distance to the north-west of this hamlet is a warm spring, with a temperature of 85°. The spring rises in a sedgy pool, and flows away in a feeble stream to the south, joining the Hinglá *nadí* after a course of two miles. On the banks o the pool is a curious old Hindu cut stone temple, which (1852) is fast falling to ruin.

(62) PURANDARPUR: area, 8824 acres, or 13·79 square miles; 4 estates; Government land revenue, £926, 4s. od.; population, 9854; Subordinate Judge's Court at Surí. The area of this *parganá* is much interlaced with that of Khargáon, Fathipur, Gokiltá, and Kutabpur; and a description of these five *parganás*, products, etc., is included in that given for Khargáon (No. 41).

(63) RADHABALLABHPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(64) RAJSHAHI: area, 204 acres, or ·32 of a square mile; 1 estate; Government land revenue, £41, population, 617; Subordinate Judge's Court at Rámpur-hát. This small *parganá* is not mentioned in the Revenue Survey Report.

(65) RASULPUR: not mentioned in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(66) ROKANPUR: surveyed with *parganá* Swarúpsinh. The Board of Revenue's Statistics return the separate area of Rokanpur at 2383 acres, or 3·72 square miles; 2 estates; Government land revenue, £300, 2s. od.; population, 6021; Subordinate Judge's Court at Rámpur-hát.

(67) SAMASKAR: not mentioned either in the Survey Report or in the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(68) SWARUPSINH: area, 54,626 acres, or 85·35 square miles; 35 estates; Government land revenue, £7932, 4s. od.; population, 37,000; Subordinate Judge's Court at Amdaharé. The area of this *parganá* is much interlaced with those of Ichhápukur, Jawas Ibráhimpur, and Sháhzádpur; a description of the tract comprising these four *parganás* is included in that given for Ichhápukur (No. 32).

(69) SENBHUM: area, 60,096 acres, or 93·90 square miles; 11 estates; Government land revenue, £5527, 6s. od.; population, 40,231; Subordinate Judge's Courts at Amdaharé and Dubrájpur. This *parganá* is in the extreme south of the District bordering on

Bardwán, the Ajai river forming the boundary-line. The Revenue Surveyor (1852) states that only about two-thirds of the entire area of the *parganá* are cultivated, the remaining third being covered with jungle or occupied by tanks, etc. The patch of jungle is situated near the Ajái river between Ilámbázár and Surul, and extends for six miles east and west. The principal productions of the *parganá* are rice, indigo, mulberry, sugar-cane, and Indian corn. The waters of the Ajai, which river is a quarter of a mile wide at Ilámbázár, are prevented from flooding the southern portion of the *parganá* by an embankment extending along and parallel to the course of the river for four miles. A similar embankment protects the lands on the opposite bank of the river in Bardwán District. A good road runs through the *parganá* from Ilámbázár towards Surul and Surí.

(70) SHERPUR: surveyed with *parganá* Swarúpsinh. The Board of Revenue's Statistics return the separate area of Sherpur at 2662 acres, or 4·16 square miles; 9 estates; Government land revenue, £519, 14s. od.; population, 2767; Subordinate Judge's Court at Rámpur-hát.

(71) SHAH ALAMPUR: area, 49,034 acres, or 76·62 square miles; 11 estates; Government land revenue, £5363, 14s. od.; population, 47,007; Subordinate Judge's Court at Dubrájpur. The Revenue Surveyor (1852) describes this as a thickly populated, well cultivated, and highly productive tract of country, of which only one-fifth is incapable of cultivation, and that mostly to the north, where the gravel ridges intrude themselves into the *parganá*. The southern and central portions are nearly level, with a light grey soil, well suited to the growth of rice and sugar-cane, which form the staple crops of the *parganá*. Between the hot springs at Tántipárá in Haripur *tappá* and Dubrájpur in this *parganá*, occasional out-crops of gneiss are met with; and to the immediate south of the town of Dubrájpur, large, naked, and picturesque masses of granite and gneiss protrude through the soil, occupying altogether about a square mile in area. These granite rocks are described in my account of the town of Dubrájpur, on a previous page. The physical aspects of the *parganá* are very pleasing. Numerous substantial villages are seen standing in the midst of vast sheets of cultivation, interspersed with picturesque groves of mango and palm trees. The Ajai river forms the southern boundary of the *parganá*, separating it from the District of Bardwán. During the hot and cold weather months, or from October to June, the river is not navigable; but during the

rainy season, from June to September, boats are floated down to Krishnapur *ghát* in Bardwán, laden with coal and charcoal from *tappá* Kundit Karayá. A large quantity of firewood and small timber is also floated down from the same tract of country. The Hinglá *nadí* enters the *parganá* from Pudrá, and falls into the Ajai at the village of Chapelá. The Sál *náld*, another small stream, flows through the *parganá* from west to east, and its waters are largely used for purposes of irrigation. The *parganá* boasts of many fine villages (the principal of which, Dubrájpur, has been described on a previous page), markets, bázárs, and Hindu temples.

(72) SHAHBAZPUR : not mentioned in either the Survey Report or the Board of Revenue's Statistics, but returned as a separate *parganá* by the Collector.

(73) SHAH ISLAMPUR: surveyed with *parganá* Khargáon. The Board of Revenue's Statistics return the separate area of Sháh Islámpur at 1030 acres, or 1·61 square miles ; 1 estate ; Government land revenue, £92, 18s. od. ; population, 3991 ; Subordinate Judge's Court at Amdahará.

(74) SHAHZADPUR : area, 4299 acres, or 6·72 square miles ; 7 estates ; Government land revenue, £704, 8s. od. ; population, 15,003 (?) ; Subordinate Judge's Court at Rámpur-hát. The area of this *parganá* is much interlaced with that of three others,—Ichhápukur, Jawas Ibráhimpur, and Swarúpsinh ; a description of the tract comprising these four *parganás* is included in that given for Ichhápukur (No. 32).

(75) SIBPUR : this *parganá* is not mentioned in the Board of Revenue's Statistics, but the latest map shows it as within Bírbhúm, lying to the north of the Ajai river. The Revenue Surveyor also returns it as a *parganá* of Bírbhúm District, and I take the following particulars from his Report. It must be remembered, however, that the figures refer to the year 1852. Area, 12,643 acres, or 19·75 square miles ; 42 villages ; Government land revenue, £1335, 10s. 8d. ; population, 5530. A well-populated tract of low country, filled with large and substantially-built villages, and closely cultivated, yielding good crops of rice, mulberry, sugar-cane, etc. Four and a half miles of embankments protect the country from the inundations of the Ajai river. Principal villages, Sibpur, Chandanpur, and Maulí.

(76) SUPUR TALUK : area, 140 acres, or ·22 of a square mile ; 3 estates ; Government land revenue, £14 ; population, 14,429 (?) ;

Subordinate Judge's Court at Amdaharâ. This small *parganá* is not mentioned in the Revenue Survey Report.

(77) ZAIN-UJIAL: area, 43,655 acres, or 68·21 square miles; 34 estates; Government land revenue, £4857, 12s. od.; population, 35,904; Subordinate Judge's Court at Dubrájpur. The Revenue Surveyor states that a considerable area of this *parganá* is uncultivated and incapable of cultivation. To the north-west nearly ten thousand acres are occupied by *sakwá* jungle and stony gravelly ground, but the southern and eastern portions are highly cultivated, and possess a good soil, from which, with the aid of irrigation, are grown fine crops of rice, wheat, sugar-cane, mustard, and *musurí*. About one twenty-fifth of the whole area of the *parganá* is taken up by tanks, excavated for the purposes of irrigation. The tract is watered by the Bakeswar and Sál streams running from east to west, which contain water in their beds all the year round. The water from these streams is but sparingly used for the purposes of irrigation.

The foregoing 77 Fiscal Divisions, according to the statistics furnished by the Board of Revenue, contain a total area of 831,569 acres, or 1299·33 square miles, comprising 514 estates, paying a total Government land revenue of £74,998, 6s. od., with a total estimated population of 616,287 souls. The figures for many of the individual *parganás* mentioned above exhibit several manifest discrepancies, and the totals, although approximating to accuracy, do not agree with those obtained from more recent and trustworthy sources. Thus the Surveyor-General returns the total area of the District at 1344 square miles; the Bengal Land Revenue Report for 1870-71 returns the number of estates entered upon the District rent-roll at 510, the 'current land revenue demand' for that year being set down at £73,558, 10s. od. The Census of 1872 returned the total population of Bírbhúm District at 696,945 souls.

CLIMATE.—As in other Districts of Lower Bengal, the year in Bírbhúm is divided into three seasons—hot, rainy, and cold. The first usually lasts from the middle of March to the middle of June, the second from the middle of June to the middle of October, and the third from the middle of October to the middle of March. They do not always correspond to these limits, as frequently the rains do not set in before the end of June, and the cold weather not before the middle of November. During the months of April

and May, the heat is for the most part very intense; the beginning and termination of the rainy season are generally oppressively close, cloudy, and sultry. The cold season is moderately cold and bracing, almost always with a calm and clear sky. The heat, however, in the sun's rays is considerable. The Civil Surgeon, in 1871, returned the average annual mean temperature of the District for the preceding ten years at 77·25° Fahr., and the average annual rainfall for the same period at 54 inches. The Annual Report of the Meteorological Department returns the monthly rainfall in Bírbhúm in 1872 as follows:—January, 0·07 inches; February, 2·48 inches; March, *nil;* April, 1·62 inch; May, 5·09 inches; June, 3·28 inches; July, 12·74 inches; August, 10·37 inches; September, 5·77 inches; October, 9·42 inches; November, 0·10 inch; December, *nil.* Total for the year, 50·94 inches.

MEDICAL ASPECTS: ENDEMIC DISEASES.—The Civil Surgeon reports that the only endemic diseases, properly so called, prevalent in Bírbhúm District, are leprosy and elephantiasis. These diseases may be ascribed, first, to causes of a general character, such as squalor and poverty, innutritious, unwholesome, and non-nitrogenous food, foul air and impure water, exposure to the weather at all seasons, etc. etc.; secondly, to causes of a local nature, such as the intense radiation of heat from a gravelly and sandy soil reposing on gneiss and granite rocks lying close to the surface, telluric emanations, and the use of water impregnated with mineral matter and every variety of putrid vegetation. Cholera, however, owing to its regular occurrence year after year in some parts of the District, may be said to have become endemic, and the particular tracts in question to be the foci where the disease originates and spreads to other places in an epidemic form. Indeed, the Civil Surgeon reports that the soil of some of these localities, from constant absorption of the dejecta and excreta of cholera patients, appears to have become saturated with the germs of the disease, and that the drinking water of the people is in many instances poisoned by the percolation of these and other impurities through the soil. Fevers of an intermittent and remittent type are never absent from the District at certain seasons of the year, particularly at the close of the rains. In certain particularly unhealthy tracts fever may be said to have become endemic from purely local causes of a preventible nature, such as dense overcrowding, pools of putrid stagnant water overgrown

with rank vegetation, and accumulations within and around the villages which become prolific sources of fever and other zymotic diseases, particularly splenetis and bowel complaints. The Civil Surgeon reported in 1871 that no improvement in the sanitary condition of the District had been effected in recent years, by drainage of swamps, increased cultivation, the cutting of forests, etc. The Municipal Committee, composed of the principal European and native residents, had commenced some efforts to carry out sanitary improvements in the native town and bázár of Surí. Efforts were also being made to induce the wealthy native landed proprietors to introduce similar sanitary improvements in the villages on their estates.

EPIDEMICS.—Epidemic cholera is prevalent in some part of the District almost every year, but to a comparatively limited extent. In proportion to the number attacked, however, the mortality is very great, more especially in those tracts most notorious for the filthy condition of the villages and the impure character of the drinking water used by the people. The classes chiefly attacked are the very poorest castes, such as Chámárs, Háris, Doms, Bágdís, and Dhángars, who are notoriously filthy in their habits, and who live for the most part in an atmosphere poisoned by mephitic and malarious exhalations. During the sixteen years prior to 1871, the Civil Surgeon reports that smallpox in an epidemic form only made its appearance once, namely, in 1866. The epidemic lasted from January to the end of April, and was of a most malignant character. The disease was introduced into Bírbhúm from Bardwán District. It attacked all classes indiscriminately, but principally and in its most virulent form those residing in the most crowded and filthy parts of the Surí bázár and villages in the interior. No returns were received showing the number of people attacked and the proportion of deaths for the whole District. In Surí town the proportion of the population affected was 6·948 per cent., and the mortality 2·768 per cent.

EPIDEMIC FEVER.—Until within the last few years, Bírbhúm had not been liable to the ravages of epidemic fever, and indeed the District has long been famed for its salubrity. But the fever which for so many years past has been afflicting the Bardwán and Húglí Districts has at last extended to Bírbhúm. It first made its appearance in April 1871, in the alluvial tract of country adjoining Bardwán. It rapidly increased, and during the cold weather of 1872-73 raged with intense violence. The number of

reported deaths in Bírbhúm District from fever alone in 1872 amounted to 12,906. An able special report on the fever as it affects Bírbhúm has been drawn up by the Civil Surgeon, dated 15th April 1873. Although I have given a lengthy description of the fever in my Statistical Accounts of Bardwán and Húglí Districts, there is such a diversity of opinion among medical authorities as to the causation of the fever, and the circumstances which Dr. Barker has carefully recorded are so important, that I reproduce the following paragraphs almost *verbatim* from his report :—

'HISTORY OF THE EPIDEMIC FEVER.—This District has long been famed for its salubrity. Fevers, although not unknown, were neither frequent nor difficult of cure. The first mention of the fever at present devastating the country was briefly made by my predecessor in his Annual Report for the year 1870, as follows :—"Fever also was very prevalent in some parts of the District, and particularly in villages situated south-east of Surí and bordering on Bardwán. No reports as to the extent to which the disease prevailed have been submitted by the police." It will thus be seen that so far as this District is concerned, the fever is of recent origin, and that it first appeared in the alluvial tract of country adjoining Bardwán. The south-eastern part of Bírbhúm is thickly populated, and the land is lower and the soil more alluvial and richer than in any other part of the District. The fever at first did not appear to have attracted much attention, but it was prevalent in this locality for several years, and I ascertained that it had caused much mortality. The natives attributed the first outbreak (which occurred near the Ajai river in 1869) to the want of good water. There is an old bed of the river Ajai there, which I was told was supplied with water from the main stream every year in the rainy season, but that during the past three or four years there had not been a single good flush (*bán*), and consequently the water in the old stream, *Kánáa Nadí*, had become bad, and the cause of the fever. When I examined this locality in October 1872, I found the above-mentioned watercourse almost dry, with pools of water here and there. The bed seemed to have been deeper at one time, but it is now filled up with silt and sand washed into it from the surrounding country, or brought down and deposited by the main stream. From April to September 1871, the health of the people even in these places appears to have been good. Sickness then gradually increased, and by October the fever had spread to most of the

villages east of the railway, as far north as Lábhpur police circle, and also to a few villages south-west of the East Indian Railway line. As the cold weather advanced, the fever began to abate, and subsided in March 1872; but many persons had perished, and many more were left in a delicate state of health, with shattered constitutions, dropsy, diarrhœa, or enlarged spleen.

'In July 1872 the fever appeared again in the south of the District, and very soon afterwards it was evident that a much larger tract of country was affected; and by September it had spread as far as Maureswar in the north and Purandarpur to the west. The only portion of the District that was really free from the epidemic was the tract of country to the west of Surí, which it may be noted is higher and more sparsely populated than other parts. It is also necessary to record that in the Lábhpur police circle some villages which suffered much from fever in 1871 were only slightly affected, and that only at the beginning of the fever season in 1872, and neither the sickness nor the mortality was by any means so great as in the previous year. The epidemic was most intense in the following five localities, namely, Supur, Sháhjápur, Etandá, Kasbá, and Batkar. The following tables show the mortality from all causes in 1872.—See tables on next two pages.

'The fever appeared to be most intense in large and old villages, where manure and filth have accumulated for years; but it was not confined to the places where sanitation was most deficient, or restricted to villages built on low or alluvial tracts. On the other hand, it was not severe in many large villages devoid of any attempt at sanitation, and as unhealthy looking as any of the villages where hundreds had fallen victims to the disease. Again, the small villages did not escape, and a few suffered severely.

'TYPE AND CHARACTER OF FEVER.—This fever is in every respect identical with malarious fevers that prevail elsewhere. It is, however, of a more tenacious and fatal character than I have seen in other parts of India, and in this District, I believe, has proved more quickly fatal than in Bardwán or Húglí. As a rule, when it first invades a village, it is either of a mild character, or the people are better able to withstand the attack, for they soon recover, and the deaths are few. The next year, in addition to the greater prevalence of fever, there is marked weakness and loss of appetite, the spleen enlarges, and the people have the pale, waxy look so characteristic

[*Sentence continued on p.* 444.

STATEMENT SHOWING THE DISEASES FROM WHICH MORTALITY OCCURRED IN 1872.

NAMES OF POLICE CIRCLES (*thánds*).	Cholera.	Small-pox.	Fever.	Bowel complaints.	Suicide.	Murder.	Accident.	Snake-bite.	Other causes.	TOTAL.
Surí Town and Police Circle, .	16	3	1,751	10	3	...	...	3	95	1,881
Rájnagar, ...	3	...	217	1	...	...	...	2	34	257
Dubrájpur, ...	63	1	1,522	19	3	...	...	7	171	1,786
Kasbá, ...	43	1	2,949	3	...	2	...	2	60	3,060
Lábhpur, ...	147	4	1,651	...	...	...	...	8	166	1,976
Barwá, ...	164	4	741	125	3	...	3	20	41	1,101
Sákulipur, ...	...	19	1,898	13	...	...	1	4	173	2,108
Maureswar, ...	290	...	2,177	279	5	1	...	8	12	2,774
Total, .	726	32	12,906	450	14	3	4	54	752	14,941

STATEMENT SHOWING THE MONTHLY MORTALITY IN EACH THANA (POLICE CIRCLE) IN 1872.

MONTHS.	Suri Town and Police Circle.	Rájnagar.	Dubrájpur.	Kasbá.	Sákulipur.	Lábhpur.	Barwá.	Maureswar.	TOTAL.
Population, .	104,107	30,985	137,255	122,417	61,842	71,945	64,173	104,221	696,945
January, ...	60	17	56	135	342	165	47	115	937
February, . . .	27	12	34	71	136	162	40	77	559
March, ...	56	14	31	70	116	147	47	91	572
April, ...	95	25	70	141	76	151	67	113	738
May, ...	46	5	61	60	27	92	27	57	375
June, ...	31	3	28	23	4	48	33	48	218
July, ...	50	6	45	40	20	61	19	76	317
August, ...	245	33	170	279	92	254	158	43	1,274
September, . . .	288	27	284	488	189	274	148	428	2,126
October, ...	271	25	164	307	297	159	140	456	1,819
November, . . .	390	44	510	709	474	219	155	565	3,066
December, . . .	322	46	333	737	335	244	220	703	2,940
Total, .	1,881	257	1,786	3,060	2,108	1,976	1,101	2,772	14,941

Sentence continued from p. 441.]
of malaria. Then come dropsy, diarrhœa, death! But this rule does not hold good in some of the villages, such as Supur and Sháhjápur. In these villages the fever broke out suddenly, and assumed a severe type from the beginning, running a rapid and fatal course. It was a most melancholy sight to see nearly the whole village laid up with fever at the same time. I can liken it to nothing but simultaneous blood-poisoning. In the village of Supur and a few others the mortality has been very great, as the following table of registered deaths will show. But I regret to state that the table is far from correct, for the actual mortality has been much greater.—See table on opposite page.

'It is much to be regretted that no separate machinery exists for the collection of vital statistics. The present one could be improved by making one of the most intelligent *chaukídárs* in each village responsible for the registration of all deaths. It would be easy to give him an extra piece of land for this extra work. Again, it must be borne in mind that there is a palpable fallacy in the mode of calculating the percentage of mortality which can scarcely be avoided; for, notwithstanding the deaths and the number of people that have emigrated, the population, according to the Census, is still retained for the calculation of the percentages. For example, although only 378 deaths were registered in Supur in the year ending 31st March 1873, the village on that date did not contain more than half the population it did in the corresponding period of the previous year. Thus, if an actuarian calculation was possible, the percentage of deaths to strength would be nearer 30 than 12·62 per cent., as entered in the table.

'No caste or class of persons are able long to resist the poisonous element. At first, the rich and well-to-do, and the Doms, Háris, and Bágdís enjoyed a certain immunity, but now the fever affects all alike. It is worthy of note that in the midst of the pestilence, where hundreds were laid low from fever, some individuals enjoyed perfect immunity. Again, persons who had resisted the fever in 1871 succumbed in 1872. Strong, vigorous men fell victims in the same house where weak, feeble persons escaped. Lastly, while in certain families none died, in others nearly all perished.

'The symptoms do not differ from those of other malarious fevers, with the exception that there is more marked prostration and a greater

[*Sentence continued on p.* 446.

TABLE SHOWING THE MORTALITY FROM FEVER IN CERTAIN VILLAGES, BETWEEN JUNE 1872 AND MARCH 1873.

Name of Village.	Police Circle (*thánd*).	Population.	Deaths from Fever during last six months of 1872.	Deaths from Fever in January, February, and March 1873.	Percentage of Mortality for nine months.
1. Supur, . .	Kasbá Surul	2995	331	47	12·62
2. Shájápur, . .	do.	1100	167	...	15·18
3. Ráipur, . .	do.	2600	122	15	5·26
4. Kasbá, . .	do.	1100	80	13	8·45
5. Islámpur, . .	do.	885	49	1	5·64
6. Baidyapur, . .	do.	445	34	1	7·86
7. Manoharpur, .	do.	835	47	14	6·82
8. Náchan Sháhá, .	do.	850	47	3	5·88
9. Beluriá, . .	do.	1260	48	3	4·04
10. Báhárí, . .	do.	2945	83	17	3·39
11. Chandanpur, .	do.	895	43	2	5·02
12. Kákhutiá, . .	do.	962	42	4	4·77
13. Mirzápur, . .	do.	1535	69	7	4·95
14. Uchlaran, . .	Sákulipur, Bhang Chhatra	1427	21	6	1·89
15. Pákurháns, .	do.	1288	32	13	3·49
16. Bájrá, . .	do.	508	31	8	7·67
17. Ekhudhárá, .	do.	372	54	2	15·05
18. Ghází Dángá, .	do.	105	26	4	28·57
19. Etandá, . .	do.	985	140	11	15·32
20. Jahánábád, .	do.	464	42	7	10·56
21. Mahádebpur, .	do.	267	49	2	19·10
22. Singí, . .	do.	1306	72	10	6·27
23. Kumar Sirshá, .	Dubrájpur, Sháhpur	1125	64	1	5·77
24. Bátkar, . .	do.	1332	76	3	5·93
25. Sirshitá, . .	do.	519	60	1	11·75
26. Dhánsá, . .	do.	305	39	...	12·78
27. Bansanká, . .	do.	764	65	6	9·29
28. Mangal Dihí, .	do.	952	83	7	9·45
29. Ilámbázár, . .	Ilámbázár	4073	68	5	1·79
30. Ghurs? , . .	do.	1307	39	14	4·05
31. Kayrá, . .	do.	693	71	7	11·25
32. Ahmadpur, .	Lábhpur	1024	74	5	7·71
33. Chahatá, . .	do.	1969	31	3	1·72
Total of 33 villages, .	.....	39,192	2299	242	6·48

Sentence continued from p. 444.]
tendency to congestion of the internal organs. At first there is a feeling of lassitude and general depression, then comes the usual train of suffering indicative of intermittent fever. Sometimes the fever returns daily, at other times every second or third day, but more frequently its attacks are irregular. For instance, it often occurs on two consecutive days, then ceases for two days, recurs for two days, and then disappears. An attack generally lasts from seven to ten days; occasionally it assumes a remittent form. After a period varying from ten days to three weeks, the fever returns and goes through the same course, leaving the patient weaker than before. Then comes another interval, and another attack of fever, with increasing debility and loss of appetite. Now, probably for the first time, is seen or felt a general fulness of the left side, or palpable enlargement of the spleen or derangement of the liver. These attacks continue to recur notwithstanding proper remedial measures, and gradually (sometimes rapidly) the patient becomes more and more prostrated, anæmic, or dropsical, and at last succumbs to these complications, or is carried off by diarrhœa. Occasionally the lungs become affected, and more rarely cerebral congestion supervenes, and generally ends fatally in the first or second attack. Many, however, are able to resist the more serious complications, by care, judicious treatment, or innate strength of constitution, and recover after one or two attacks. Others, again, battle with and obtain a temporary victory over the fever, but succumb a few months after to another seizure.

'SANITARY STATE OF THE DISTRICT.—The porosity of the soil, the natural lie of the land, and the rivers, streams, and rivulets that traverse the country, afford ample facility for draining the District. That the small fall of rain can be rapidly carried off, there is no question; but it must be borne in mind that here, as in other parts of Bengal, the staple crop is paddy, which requires a large quantity of water for successful cultivation. As the soil is porous and the rainfall small, the people adopt the ingenious expedient of dividing the field into numerous little plots, and of making *bandhs* or ridges higher than those observed elsewhere, so as to retain the proper quantum of water. The highest ridges are made on the highest plots of ground, and the superfluous water is allowed to run off by little sluices from the higher to the lower fields, and at last passes into a tank or swamp at the lowest level. By these simple means

the quantity of water required for each field is adjusted to a nicety. Thus, although the nature of the soil and the conformation of the land is unfavourable to the lodgment of water, every effort is made to retain it for the growth of paddy. As rice fields are injurious from the extensive evaporation and organic matter given off, it may be argued that Bírbhúm District is capable of generating malaria in considerable quantities. The rocky soil of Bírbhúm is not favourable to vegetation, and consequently there are but few trees and very little underwood. As the latter is most injurious when excessive, this source of malaria is absent. Some soils are more unhealthy than others. Gravelly soil, like that found in Bírbhúm, is as a rule most healthy; but the underlying laterite to a certain extent impedes the percolation of water, and thus we find the gravel after a few showers of rain in a saturated condition. The water, in fact, rises through the permeable sand and gravel, owing to mechanical obstruction to its downward progress; but this state disappears in a few hours, and does not seem to exert an injurious influence. The fact of scarcely any organic matter being found either on the surface gravel or on the rock laterite below it, is a proof that it must be washed away, or that the soil is like a sieve, and allows the vegetable matter a very free passage to a lower stratum. Every particle of manure put on the land disappears in this way in a short time, being washed through the sieve-like soil. The question as to whether the iron in the soil exerts a baneful influence, as stated by some eminent medical men, I think may be answered in the negative, judging from the previous healthy state of the District.

'I now come to the villages. The majority of these are built on slightly elevated spots,—these sites being chosen more on account of their barrenness than from any sanitary advantage. The soil in these villages, originally gravelly, may now be said to be alluvial, and saturated with manure and filth of all kinds, and of course a most fruitful source of malaria. In the first place, in order to manure the land, every bit of filth or cow-dung is carefully stored in a pit very near the gate or compound, sometimes inside the *bárí*, or on the side of a tank. Here ashes, sweepings, scales and bones of fish, refuse of vegetables, and other rubbish are also thrown, and at certain seasons of the year a heap five or six feet in height may be seen near every dwelling. Just before the rains, this rubbish is transported to the fields. How long this system of collecting manure has been going on it is difficult to ascertain,—perhaps for

the last twenty or thirty years. But this very plan, adopted to ensure a good crop, and worse in a sanitary point of view than retention of stagnant water in the fields, has saturated the soil round about the houses until the earth may be said to be reeking with dung, and unable to absorb any more. Here we have an abundant source of noxious gases. Every ray of heat, every shower of rain, induces a constant and vigorous evolution of ammoniacal and other gases. I ask, is it surprising that fevers and other diseases cling to such localities? The difficulty is not how to account for disease, but to explain its absence hitherto in such developing-beds. The above practice no doubt is sufficiently appalling, but it is not all. There are numerous tanks and ponds in every village, originally fifteen or twenty feet deep, but now not more than ten, owing to the deposition of animal and vegetable matter, or decay of rank weeds or leaves thrown, washed, or blown into them. These tanks contain the *drinking water of the people*, and the water in some of them in dry weather is actually as thick as pea-soup. I do not think it possible that this water could possibly dissolve or hold in solution, chemical or mechanical, any more organic or mineral matter. The sides of these tanks and ponds are sometimes used to store manure, but oftener are resorted to by children to ease themselves. I have also on several occasions seen men and women avail themselves of convenient places to solicit nature. Human as well as animal ordure may be seen in by-lanes. The streets are narrow, and have been worn down so as to form a hollow and act as drains or water-ways in the rains; and they perform this duty very effectually, for a village after a few showers looks comparatively clean. Generally the streets conduct the rain water to the tanks; occasionally the water is directed into a field.

'From the above description of a village, it will be gathered that the rain water, as it passes along the streets, carries with it quantities of all kinds of animal and vegetable matter, from human ordure, animal and fish bones, to urine, filth, and decayed substances in a fine state of subdivision; all are dissolved or washed along, to be eventually deposited in the ponds and tanks from whence the *drinking water is derived.* It must not be forgotten that the sides of the tanks also contribute something, and that not a little impurity is derived from the bodies and clothes of persons who bathe and wash their linen in the tanks. Thus, although pure water can be obtained from the rocky soil, every possible filth is permitted to

contaminate that taken by the inhabitants. These tanks, from the deposition of the above impurities, are lined with an impervious coating of black clay and silt, which prevents the water from percolating through the lining to the stratum of rock or soil below. Thus the water is retained as it were in a metallic basin, and during the rains the water is often flush with the surface of the earth. This is no proof that water lies near the surface, for not only are the floors of the houses not damp, but I have frequently dug holes five or six feet deep only a yard from these tanks, and found no water. The theory of water-logged soil, therefore, does not hold good here. Further, I have been present on several occasions when new tanks were being made, and observed that while an old tank, perhaps only fifty feet off, had water in it within a few feet of the surface, there was no appearance of water in the new one, which had been excavated to the depth of fifteen or sixteen feet.

'The natives seem to be aware of the impervious properties of the silt that lines the tanks, for, irrespective of the expense, they are unwilling to clean them. Probably experience has taught them the fact that they would have no water in the dry season if they cleaned the tank and removed the black clay. As a rule, these tanks are never cleaned until the deposit has rendered the tank shallow and useless. Then perhaps some *zamíndár* may take the trouble of cleaning it and removing the silt to his fields. There are a few trees, generally mango, tamarind, or of the fig tribe, in and around each village. There are also a few topes of trees in spots unsuited to paddy cultivation, but scarcely any are found in the fields. Wood is scarce, and consequently most of the trees are disfigured by having had large branches cut off.'

'CAUSES OF THE FEVER.—Without attempting to account satisfactorily for the cause of this fever in Bírbhúm, or trying to invent a new theory, I must say that I do not believe that any one of the proposed theories explains the mystery. Perhaps a variety of circumstances, each potent in itself, may have combined to generate the destructive element, in the same way as certain proportions of certain materials are required to make fulminating powder. That the fever was not of indigenous growth, there can be no question. My reasons for arriving at such a conclusion are negative ones, and are briefly these :—

'(1) This District has hitherto been remarkably free from malarious disease.

'(2) Its geological formation is opposed to malaria, being rocky below and porous on the surface, with only a couple of feet of soil.

'(3) The physical features of the country being characterized by gentle undulations, are favourable to drainage.

'(4) The climate is hot and dry, the air contains a very small proportion of water, and the rainfall is moderate.

'(5) There is very little vegetation, properly so called, the soil not being congenial for underwood and shrubs.

'(6) The villages, with few exceptions, are small, and situated on exposed places.

'(7) Although some of the most densely populated villages suffered considerably, the sickness and mortality were not confined to them.

'(8) The early history and subsequent progress and spread of the fever proves it could not have originated here.

'(9) The villages near the dry bed of the Ajai and those on the low lands and alluvial tract appear to have been first affected, but the fever has steadily extended to the villages on the higher sites on the laterite formation.

'(10) Some of the villages that suffered in 1871 were not much affected in 1872.

'(11) Although rice cultivation and the practice of making *bandhs* or ridges to retain the rain water in the fields is one of the most fruitful sources of malaria, yet there has been no change in this process for ages.

'(12) There is a consensus of opinion that the fever is of malarial origin; with this view I concur.

'(13) There is sufficient insanitation in the villages to account for any amount of sickness; but as this state has long existed, it may be said to be a normal condition, and cannot of itself account for the outbreak.

'(14) A casual observer, judging from the water in tanks, might have concluded that the land is water-logged, but I think I have proved the fallacy of this conclusion.

'(15) There is no proof that the people are worse off now than they were a few years ago, or that the cost of living has been enhanced, or that the produce of the soil is less than it was.

'Under these circumstances, it is difficult to arrive at a just conclusion regarding the etiology of the fever. Without knowing the exact cause, it is not possible to point to a remedy. It is

clear to me that medicine, though it will relieve the fever, will not cure it so long as the cause remains. Besides the broad fact that local insanitation is most favourable to the development of the fever, nothing tangible is proved. Drainage is a point on which some of our most eminent men rely as a means of prevention, but to me it seems doubtful. On the other hand, it is possible the disease may wear itself out, or the people become proof against it.

'In conclusion, I beg to say I am of opinion that the fever was *imported* into the District by one of the several modes of conveyance which are known to us. In this instance I believe *water* to have been the medium of communication. There are several points in the history of the epidemic which lead to this conclusion. I will add that it appears to me to be one of those cases where most of the local conditions necessary for the development of fever are present, say in Húglí, and where periodical fevers occur and run a regular course every year; and that from some yet undetermined cause a new element was introduced, which rendered the fever more severe, and imparted to it the property of extending itself to places distant from the original source. The same kind of malarious fever has suddenly appeared and spread in other parts of India and Europe, and then as suddenly disappeared; and this, I believe, will be the course of the present epidemic. The fever will spread, leave one spot to appear in another, and then break out again in the original locality, and probably at no distant period disappear as if worn out.

'MEASURES ADOPTED TO AFFORD RELIEF.—As soon as I became aware of the prevalence of fever in the District, which was in August, I asked the Magistrate to be good enough to instruct the police to forward me a return every week, showing the number of fever cases and deaths in each village. Some weeks elapsed before anything like proper reports were submitted; but in the meantime I forwarded quinine, fever and tonic powders, purgatives, and spleen pills to all the *thánás* and outposts, with plain directions how to use them, and with instructions to distribute them, through the *chaukidárs*, to the persons suffering from fever in the different villages. Subsequently the *gumáshtás* or head-men of villages were asked to co-operate; and later still three intelligent constables were trained how to treat the fever, and sent to the most sickly localities, and directed to travel about from village to village and distribute medicines. In this way some good was done.

'In August I sent the police native doctor into the interior, with

instructions to travel about and treat the sick. I also applied for more medical subordinates, but only one could be spared. Ultimately I was compelled to make the best use I could of the local medical practitioners; but if I could have been provided with a proper staff, the relief would of course have been much more effectual.

'The following table shows the localities of the different dispensaries established, the number of persons who received aid to the end of December 1872 and the first three months of 1873, and the dates each dispensary was opened and closed:—

STATEMENT SHOWING EPIDEMIC FEVER DISPENSARIES, AND NUMBER OF PERSONS TREATED.

Name of Village or Dispensary.	Date of Establishment.	Number of Persons who received aid to end of December 1872.	Number treated from 1st January to 31st March 1873.	Total.	Date of closing Dispensary.
Supur, . . .	Sept. 7, 1872	2831	2054	4885	
Ráipur, . . .	Nov. 29, 1872	2245	4765	7010	
Shájápur, . .	Sept. 7, 1872	1933	1321	3254	
Pákurhás, . .	Dec. 5, 1872	1495	4038	5533	
Uchkaran, . .	Nov. 25, 1872	2380	8235	10615	
Bámunkhán, .	Dec. 28, 1872	...	2444	2444	
Bájrá, . . .	Dec. 5, 1872	178	4174	4352	
Etandá, . . .	Nov. 25, 1872	...	3316	3316	
Kasbá, . . .	Nov. 26, 1872	479	942	1421	Feb. 9, 1873
Bhángchhatra, .	Oct. 21, 1872	1088	370	1458	Jan. 27, 1873
Ilámbázár, . .	Nov. 25, 1872	773	782	1555	
Bátker, . . .	Nov. 11, 1872	909	140	1049	Jan. 17, 1873
Sirshá, . . .	Nov. 30, 1872	398	375	773	Feb. 3, 1873
Kundalá, . .	Nov. 14, 1872	915	...	915	Jan. 20, 1873
Lábhpur, . .	Sept. 9, 1872	215	...	215	Oct. 21, 1872
Chahatá, . .	Dec. 16, 1872	100	172	272	Feb. 15, 1873
Pánchthupí, .	Nov. 26, 1872	362	134	496	Jan. 23, 1873
		16,301	33,262	49,563	

'The following table shows the diseases and result of treatment. Each native doctor received written instructions, was directed to visit the unhealthy villages within a radius of three miles of the dispensary, to treat the sick found there, and was also furnished with a set of prescriptions for making mixtures, etc.

STATEMENT SHOWING THE DISEASES TREATED AT THE EPIDEMIC DISPENSARIES.

NAME OF DISEASES.	In 1872.					First three Months, 1873.						
	Admitted.	Cured.	Unknown.	Died.	Remaining.	Remained.	Admitted.	Total.	Cured.	Unknown.	Died.	Remaining.
Intermittent fever, . . .	12,238	9,850	...	16	2,372	2,372	19,105	21,477	16,224	4,637	38	578
Remittent fever, . . .	777	634	...	8	135	135	2,581	2,716	1,151	1,537	16	12
Disease of spleen, . . .	2,051	1,391	...	...	660	660	6,174	6,834	4,063	2,564	10	197
Disease of liver, . . .	12	10	...	..	2	2	47	49	13	34	...	2
General dropsy, . . .	44	20	...	....	24	24	735	759	485	243	13	18
Diarrhœa, ...	180	150	...	2	28	28	644	672	473	179	10	10
Dysentery, ...	255	205	...	3	47	47	902	949	660	262	12	15
Cholera, ...	234	128	...	70	36	36	256	292	172	17	93	10
Constipation, ...	109	105	...	...	4	4	466	470	359	110	...	1
Lung disease, ...	47	27	...	1	19	19	236	255	157	83	1	14
Skin disease, ...	25	23	...	...	2	2	690	692	489	176	...	27
General debility, . . .	22	10	...	...	12	12	187	199	117	79	...	3
Other cases, ...	307	252	...	3	52	52	1,239	1,291	861	366	16	48
Total, . . .	16,301	12,805	...	103	3,393	3,393	33,262	36,655	25,224	10,287	209	935

'In addition to the above number of persons treated, about twelve thousand others received aid from the Magistrate and myself, making a grand total of 61,563 persons treated. I visited the majority of the villages that suffered from fever, and distributed a three or four days' supply of medicine to each sick person as I went along. For some time I had no one to help me to inspect or control native doctors; the sickness in the station was also great; and as the police native doctor was in the interior, I had only one native doctor in the station to aid in attending to the jail, police, and dispensary hospitals, and in packing up and forwarding medicines to the *thánás* and the different dispensaries. About the middle of December, with the sanction of the Commissioner of the Division, I engaged an apothecary to inspect the dispensaries in the south and east. His services were dispensed with early in April; and about a week after, an inspecting medical officer was appointed, when the fever had subsided and half of the dispensaries had been closed.

'The people did not appear to suffer much from want of food, and consequently only two food depôts were opened by the Magistrate,—one at Uchkaran, and one at Supur. There are some forlorn persons in every village where the fever has been severe; these are chiefly widows or orphan children, whose husbands or fathers have died, and left them destitute. They are fed by or become the servants of the richer natives. If this fever continues, there will be an increasing number of these persons, who will require food and clothing, and who must be provided for.

'TREATMENT OF THE FEVER.—On the subject of treatment I have not much to contribute. The path has been so thoroughly and so frequently explored by experienced medical men, that there remains little to add. I have discovered no specific for this fever, and have come to the conclusion that we can do little to check its progress unless treated in its first stage. Then large doses of quinine, such as 10 or 15 grains per dose, often cure the disease. But once the constitution has become impaired from repeated attacks, it is very difficult to effect a cure, and the majority are likely to succumb. I have found the chloride of ammonium in large doses very useful in restoring secretions and in relieving internal congestions. Food and nourishment are of great use in the treatment; but unfortunately the appetite is so much impaired that enough nourishment cannot be taken, retained, or digested. I have advised those who could afford it to drink two, and even three, and in one case four *sers* of milk daily,

which has frequently produced a marked improvement. The addition of a little soda enables the patient to retain the above large quantity of milk, and also prevents diarrhœa, which is very common during its use. Brandy or ammonia in these chronic cases will not compare with *milk*. Local complications require early attention. If quinine disagrees, it should not be continued. Tonics and iron should be persevered with for a long time; but unfortunately it is difficult to persuade a native to continue treatment after he is able to eat and digest his food and to do his work. I have found arsenic and aconite useful in this as in other fevers, when quinine could not be borne or failed to afford relief.'

Since the date of this report (April 1873) the epidemic has greatly abated, and the number of fresh cases is not very numerous. The disease, however, clings to some villages with much obstinacy, and it will be long before these will cease to need careful medical treatment.

NATIVE MEDICAL PRACTITIONERS.—The Civil Surgeon states that there are no regularly educated *kabirájs* (native practitioners who have not been educated in our schools) in Bírbhúm District. Those who practise as such are mere quacks. Their chief weapons in combating serious disease are of a most dangerous character, and in many instances prove more injurious to the health of the patient than the illness itself. Many of those who recover under their treatment do so with constitutions completely shattered for life. Opium, arsenic, crude mercury, or the most virulent preparations of it, aconite, *dhaturá*, etc., are freely employed by the *kabirájs* in the treatment of disease. Many efficacious and harmless indigenous vegetable drugs are also used, but it is very rarely that they are judiciously administered. In serious diseases, especially fevers, their system of treatment consists in enforcing extreme abstinence from food on their patients to an extent almost amounting to starvation, while at the same time the most potent drugs are being administered. Of late years the poorer classes have begun to appreciate the value and benefit of European medical treatment, and freely resort to the Government charitable dispensaries. The attendance at the Bírbhúm charitable dispensary at Surí has increased from two hundred in 1853, the year in which it was established, to upwards of six thousand in 1872-73.

GEOLOGY.—The following brief account of the geology of Bírbhúm District is quoted from the Civil Surgeon's Report, dated 15th

April 1873:—'The country in the south-east of the District is a flat alluvial plain. The soil is a dark clay, or sand and clay, and in some parts almost entirely composed of silicates. Advancing towards the west, and for some distance before the East Indian Railway line is met with, patches of reddish clay and gravel are seen, and gradually the ground rises, and becomes irregular and broken. Here calcareous nodules, called *ghutin*, are found mixed with an ochrey clay, coarse sand, or ferruginous gravel. Proceeding farther westwards the ground becomes more elevated, and broken into irregular ridges from the action of water, and insensibly passes from the coloured clays to a reddish-brown gravel and laterite rock. In some places a few feet of alluvial deposit cover the laterite; in other parts coarse sand and *ghutin* are seen through a break under a few feet of ferruginous rock, doubtless of recent formation. The country has thus a gentle undulating and uneven or irregular character, with rounded ridges interrupted by furrows or waterways.

'The laterite is of two kinds, viz. in the form of gravel and of rock. The surface of the ground to the depth of four or five feet is composed of reddish-brown gravel, varying from the size of coarse sand to that of a marble, very few pieces of a larger size being found. These pebbles externally are water-worn, and smooth and shining, and of a dull reddish-brown colour (from peroxide of iron); internally they are softer and of a darker hue. The gravel consists of clay and fragments of different kinds of rocks, such as quartz, felspar, and gneiss, which are impregnated with the oxides of iron. They are supposed by Mr. W. T. Blanford, who examined a similar series of rocks elsewhere, to be the product of denudation and transportation from neighbouring hills, and not merely fragments of the underlying rock, which is gneiss.

'Below this loose bed of red gravel, at a depth of from four to eight feet, is the rock laterite, which varies in thickness from 6 to 20 or 30 feet. This laterite, when first exposed, is rather soft, though it is with difficulty cut; but after some time it becomes hard and foveolar like a honey-comb, owing to chemical change from atmospheric action. This rock is considered by the above-named geologist to be formed *in situ*. The appearance and peculiarity of the rock is strongly in favour of this opinion, viz. that it is part of the underlying rock, modified and coloured by the iron derived from the red gravel above it. In some places this rock is found

on the surface, and may extend laterally for several hundred feet in one block, and is then of a darker colour, no doubt from absorption of oxygen. After cutting through this rock, a yellowish soapy felspathic clay is found, which gradually merges into a greyish blue, light yellow, and even a dull white colour, mixed with particles of quartz and scales of mica. Below this, at variable depths, gneiss is found. Granitic veins traverse the District in many places, and occasionally crop up at the surface, the dip being at various angles and the strike from east to west.

'There is a curious mass of granite at Dubrájpur, about 15 miles south-west of the Civil Station of Surí. The rock rises perpendicularly to the height of 30 or 40 feet, and is broken up or split into numerous irregular massive fragments from the action of sun and rain. The blocks are rounded, water-worn, and of a dark brown colour externally, but when freshly broken, present a light brown or reddish colour. A few large granite boulders are found in the vicinity, and would seem to indicate transportation; but I think there can be no question that they are part of the same block of rock above described, and that the District at some early period was subjected to tremendous denudation. About eight miles west of Surí, sulphurous springs are found in the Bakeswar stream; some are hot and others are cold springs, and both kinds are found within a few feet of each other. It is curious to see the hot water bubbling up so near the cold spring. The water when first taken out of the springs has a strong odour of sulphur, but if kept in an open vessel for a few hours, it loses much of this sulphurous character, showing that the sulphur is not held in solution.'

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BARDWAN, BANKURA, AND BIRBHUM.

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