

superior: burning equal proportions of the two last, the furnaces were replenished once in seven minutes; with coal (not however of a very good quality) every fifteen. Coal has thus an advantage over wood fuel in something more than the proportion of 2 to 1, and when the superior performance of machinery driven by the former is taken into account, it is doubtful which is the more economical plan,—to navigate the Indus by means of coal from England, or the jungle now growing upon its banks.* The question resolves itself simply into one of expense, for there is wood enough on the banks of the Indus to keep two or more steamers constantly plying for years to come.

On this subject Captain Johnstone, the Controller of Government Steam-vessels, has made sundry experiments with steamboats upon the Ganges. The result is already before Government; but having obtained, through the kindness of that officer, a copy of his report, the nature and value of its contents are my apology for introducing it here:—

“Report, dated the 30th October 1837, on the relative Value of Wood and Coal, by Captain JOHNSTONE, R. N., Controller of Government Steam-vessels.

“On Friday, the 27th instant, I ordered the steam to be got up on board the *Experiment* flat, and ran for two hours on the ebb tide between Fort William and the reach below Budgebudge, and consumed $9\frac{1}{2}$ maunds of coal, making on an average 29 revolutions. I then returned with a flood tide, and in two hours consumed $11\frac{1}{2}$ maunds of wood, making on an average 21 revolutions. I also noted the time we were running the same distances under coal and wood steam; the periods were 90 minutes with coal, and 112 with wood. Great care and persevering attention were required in the stocking with wood to keep the steam up, and twice the engines were nearly at rest from the steam failing. Admitting that the revolutions of the wheel on the strokes of the pistons in the cylinder measure the steam expended in any given time, the coal would have supplied the

Cylinder	6,960 times.
The Wood	5,040 „

Making a difference of 1,920

measures, which, at 42 per minute, would have required $45\frac{1}{2}$ minutes longer of consumption of wood; to have completed which, at the rate

* Coal has been discovered on both banks of the Indus. The locality is the Salt Range, in the parallel of 32° N.; deposits extending in a longitudinal direction, but not in a north and south one. Ten specimens from the west bank, procured by Captain Burnes, have been analysed by Mr. Prinsep, and four of them pronounced to be the very purest form of mineral coal. Three forwarded by me, and discovered on the east bank, have not yet been examined.

of $11\frac{1}{2}$ maunds in 240 minutes, would have required $4\frac{1}{2}$ maunds nearly, which, added to $11\frac{1}{2}$, would make $15\frac{1}{2}$ maunds of wood to produce the same quantity of steam as $9\frac{1}{2}$ maunds of coal; but it has been seen that, owing to the weakness of the steam produced by the consumption of wood, to perform the same distance required $1\frac{2}{3}$ or one-sixth more time nearly, a detention most injurious to the interests of internal steam navigation."

CHAPTER X.

OF THE INUNDATION.

Like all other large rivers, the Indus is subject to a periodical increase of its water, during the continuation of which it inundates a large tract of country. The river rises in March, and falls in September. From Mittun upwards I have delineated the flooded district upon the chart, but in tracing their boundaries between that town and the sea, I labour under the disadvantage of having to draw my materials as much from hearsay as personal observation.

It may in this place be observed, that the Valley of the Lower Indus owes its abundant crops entirely to the river and its yearly swell. The soil of Sind is naturally poor, producing spontaneously the products of the desert, but, save within the belt of inundation, neither grain for man nor grass for cattle. Even here grass is scanty and coarse; a turf is a thing unknown on the banks of the Indus, and the islands in the stream below Bukkur are nothing more than naked sandbanks. Two consecutive crops exhaust the soil, unless manured. The Natives, it is true, liken it to gold, but the comparison would be more just if applied to the river, the cause of all its fertility. On the banks of the Upper Indus, the soil improves, and were such subject not irrelative to the object of this report, I might proceed to adduce the proof of this assertion, and to investigate the cause of so apparent an anomaly.

In some respects the annual swelling of the Indus is attended with peculiar phenomena: one year the country on its right bank is so deluged that towns and villages, though protected by strong dams, are threatened with inundation, while on the opposite side of the river there may be found, during the same season, a difficulty of irrigation. In thus distributing its favours, the stream exhibits more of constancy than caprice; for when once it has taken to either of the banks, it adheres for a series of years to the favoured side. Another circumstance merits notice. The Mississippi, when in flood, as we learn from Audabon, the talented American ornithologist, inundates the valley to a very large extent. At that season the Squatter and Lumbe river canoes pierce the

thickest recesses of the forest, while flat boats of great burden, and steamers of noble dimensions, are seen moored to stately trees, overhanging its banks. The Ganges, in the lower part of its course, overflows its banks in a similar manner to the Mississippi. During the south-west or rainy monsoon, when the former river is in flood, the whole of its Sunderbunds or Delta lands are, according to Rennel, submerged. With the Indus it is different: inundation is here more often *partial* than *general*, and at the height of the freshes the Persian wheel may be seen watering fields on the verge of its bank. The Khureef and Rubee (autumn and spring) harvests afford the most conclusive evidence in this case: the crops of the first are produced from an irrigated, and those of the latter an inundated soil; while the weight of the Khureef harvest is to that of Rubee nearly as 2 to 1.

On inspecting the accompanying chart of the Upper Indus, it will be seen that the river has double banks, or inner and outer ones: the first of these is as changeable as the navigable channels of the Indus, the latter as permanent as the river's course. The inner banks form its bed in the cold season, when the water is low, and the permanent hem in the floods and freshes of an opposite season. The following table will further illustrate this interesting feature of the Indus, though I believe it is one common to all rivers flowing through plains:—

Outer and Inner Banks of the Indus.

Parallel of Latitude.	Width of the River's Bed.		
	Dry Season S. Water.	Dry Flat.	Surface Water in the Freshes.
26° 28' N.	1,456 yards.	788 yards.	2,244 yards.
26 44	658 "	1,560 "	2,218 "
27 18	850 "	3,004 "	3,854 "

These double banks accompany the Indus, after it has left the mountains at Kalabagh, for the remainder of its course. Were they permanent or continuous, the inundation would be restricted to narrow and well defined limits, but as this is not the case, I will endeavour to point out where this barrier is broken or wanting.

From Attock to Kalabagh.—No inundation.

From Kalabagh to Mittun.—It may be generally remarked that in the northern part of the Upper Indus there is no inundation, while in the south or lower part of its course the flooded districts are of considerable extent, as a reference to the chart will show.

Mittun to Bukkur.—Neither on the east nor west bank of the river is there, in this division, an outer bank, and the consequence is that the country here is largely inundated. In the Mozarry district the floods

of 1837 were felt twenty miles back from the river; but in ordinary seasons twelve is the more usual measure of their width. On the opposite bank, the inundation about Subzulkote reaches to the edge of the desert.

Bukkur to Sehwan.—Though the permanent banks may be traced in this section, their outline is broken, and the low districts behind them overflowed in the freshes. South to Sehwan, inundation of the west bank is general, though the quantity of uncovered land exceeds that submerged. Chandkote, the most valuable province in Sind, is situated here, and its exuberant crops are to be attributed to its great command of water. Upon the opposite bank, between the river and the desert, is a strip of alluvium; the medial width of it four miles: this belt marks the extent of the flooded districts, but for some years past there has been scarce any inundation upon this side of the river.

Sehwan to Efflux of Fullailee.—The Hala Mountains for some distance below Sehwan prevent the river from expanding in a westerly direction, and a creeping hilly ridge serves the same purpose further south. On this side of the river the inundation is confined to a very narrow belt; on the opposite side, the desert opposes any outlet to the east, and here, though the inundated belt be wider than that upon the west bank, its breadth cannot be estimated at more than three miles.

Efflux of Fullailee to the Sea.—The Delta of the Indus may be said to commence from the efflux of the Fullailee: the lower portion of it only is under water, and the inundation here, as in the upper course of the river, is partial. The submerged part is a belt fringing the sea, measuring in width about twenty miles.*

CHAPTER XI.

FORDS OF THE INDUS.

There are, properly speaking, no fords in the Indus below Attock; that is, there is no spot in its course where their annual occurrence is so certain as to warrant a dependence on their existence at any particular period.

But that the Indus is at times fordable is certain, and, in the course of my inquiries on this subject, I have met with many individuals who

* These observations on the inundation of the Indus south of Mittun are given with much diffidence, as I have not had proper opportunity of inquiry. This does not apply to any remarks on this subject above Mittun.

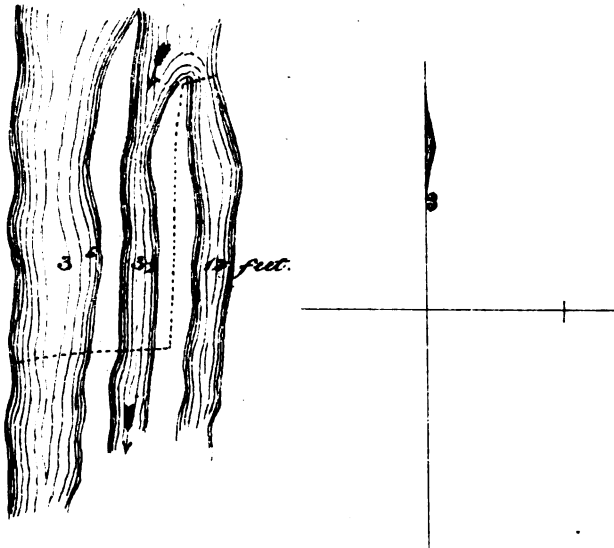
have assured me of their having done it. The practicability of fording the river being once admitted, the subject becomes one of importance, and viewing it in this light, I shall devote more space than I otherwise would to its consideration.

The months in which the river is fordable are December, January, February, and March; no instance is on record of its having been accomplished either north of Mittun or south of Hyderabad in Sind. The Indus, however, does not within the excluded tract run in a deeper channel than in that portion of its course where the stream is known to be fordable; but being less frequented by the boatmen, its capabilities are not so generally known.

The fords are discovered by the annual fleet of grain boats which descend in the cold weather from the upper provinces to Lower Sind. Some boats in this fleet are of so large a draft that their safe navigation calls for the most minute survey of the river's channels; and it is whilst so employed that the boatmen sometimes find they have crossed, almost unknown to themselves, from one bank of the river to the opposite, without once having had to swim.

During the dry season of 1836-37, I had frequent intimation of fords, but was not fortunate enough personally to discover one, for it so happened, that by the time I had got to the spot they had always disappeared. The subjoined sketch is taken down from a trustworthy person, whom I had sent to report on a suspected locality:—

Ford in the neighbourhood of Hala.



The centre channel is here the continuous one ; that on the east side was, however, the deepest, and discharged the most water, but its mouth was closed up by shoals : forty-two boats were lying above the ford, waiting for the channel to open. This was on the 27th of February. The dotted line shows the ford. On this subject I am glad to have the testimony of Dr. Gordon, the officer who went from Loodiana to Bombay with the Maharaja's late mercantile speculation. He tells me that some distance north of Hyderabad he came upon a shoal stretching completely across the river, where many grain boats, unable to pass over it, were lightening their draft, by transferring a portion of their cargo into smaller boats. Dr. Gordon, on finding more water above the shoal than the boats in his charge drew, held on his course.

The custom of bridging the Indus by boats at Attock has prevailed since the days of the Greek invasion.

The place most adapted for this purpose, whether viewed merely with reference to the river itself, or to the Afghan passes that lead down upon it, and which have been not unaptly termed the "Gates of Khorasan," is Bukkur Fort. Here we have a permanent channel, both banks of the river being faced by hard flint hillocks, while in the middle of the stream are some islets of the same material, on one of which is the fort, and contiguous to it, or rather adjoining it, another, containing the tomb of Peer Khaja Khizur. At no other spot below the mountains does the Indus present similar facilities for bridging. The channel here is as follows :—

Above the fortress the river widens to..... 1,244 yards.

In a line with the fort it is less, say..... 1,000 „

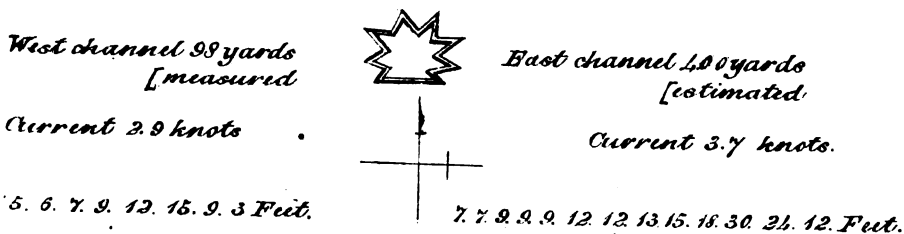
The channel between the fort and the west bank of the river is, by measurement 98 yards.

Ditto ditto on the opposite side of fortress, estimated at 400 „

Width of fortress and Isle of Khaja Khizur 502 „

1,000 yards.

DEPTH OF THE CHANNELS.



A spit projects from the north-west end of the fortress, and extends to within fifty yards of the west bank ; in this gut the current is four knots an hour ; the depths were 6, 6, 7, 7, 6, 6, 6, 6, 5 feet. At the time these measurements were made, the river had twelve feet more to rise ; in fact it was then at its lowest level.

Last June (1838) I had an opportunity of examining the bridge of boats at Attock : it contained thirty-six boats, and the river where they were moored had a width of only 540 feet. Its depth by measurements taken the preceding year was ten fathoms, and the current about six knots an hour. By comparing this account of the Attock bridge with the details of the river at Bukkur, it is evident that circumstances are greatly in favour of the former ; but surely, if a few untutored boatmen succeed so well at one place, we ought not to despair of our Engineers' success at Bukkur.

The chief, in fact the only difficulty, is mooring the boats, and to effect this the Sikhs use an anchor of a form the very worst that could be imagined, and which has no other recommendation than its antiquity, and, perhaps, the ease with which it can be dropped from the boats ; the figure is pyramidal, a skeleton of wood filled with stones. These uncouth machines, when once let go, cannot be recovered, and as the strength of the bridge is not proof against that of the current in June, July, August, and September, a new set has to be made as often as the bridge is required to be constructed. Now, were a lining of mooring anchors once laid down in place of these wooden baskets, and beyond, chain bridles attached to them, a bridge of boats could be put together in about as many hours as days and weeks are now consumed in preparations. The number of boats required to form the bridge would be built of a form the best that science could propose, and always kept in a state of readiness to haul out to their several berths, numbered as the buoys would be 1, 2, 3, &c. A bridge so formed would be a very solid construction, and able to brave, under proper superintendence, the strongest freshes in the Indus, whether abreast of Attock, or under the fort at Bukkur. Should it become necessary to destroy it, one end of the bridle chain has only to be slipped, and the mooring anchors are useless to an enemy. But little weight is due to the opinion of men who, not conversant with military affairs, cannot be expected to have clear ideas on such subjects ; but still I venture to hold the opinion that bridging the Indus at Bukkur is a practicable question. The difficulty would be to moor boats in the eastern channel ; but this once accomplished, the bridge might be made permanent, as the small western channel would serve for the navigation of the river.

CHAPTER XII.

OF A SITE FOR A FAIR.

While Government has it in contemplation to establish an entrepôt for trade on the banks of the Indus, it will not be irrelative to the subject of this Report briefly to say a few words on the locality of those towns where the mart is likely to be fixed. This question will, perhaps, be ultimately decided more by the existing foreign relations of the different towns at the time when this selection is made than with reference to their geographical position, or their local site. Shikarpoor has hitherto been excluded from the list of places best adapted to answer the purpose of Government, but, in the turn which current events may give to the political relations of Afghanistan, that town may yet become one of the entrepôts for the trade of Central Asia.

Shikarpoor is not destitute of collateral advantages. The large money transactions of its bankers,—the extensive and skilfully organized agency which they have diffused,—are known to all interested in these matters, though the advantages of such an establishment can only be duly appreciated by merchants themselves. With steamers upon the Indus, the proximity of the town to Bombay, the market for Europe goods, is favourable to its site as a mart, and were Bukkur fort in our possession, the British flag upon that fortress would win confidence by guaranteeing security.

The “Zeearut” of Khaja Khizur, a Peer alike worshipped by Mahomedan and Hindoo, adjoins the fort of Bukkur, and on the anniversary of a certain day in April, multitudes of both creeds flock to this shrine. Opposite, in the town of Rorec, is a place of pilgrimage of still greater sanctity, for here, say the faithful, is preserved a lock of the Prophet’s hair.

The distance of Shikarpoor from the river operates unfavourably to its becoming a commercial mart ; it lies eighteen kos inland of its port of Sukkur. From May to September inclusive, boats can come up to the town by means of a fine canal called the Sind, and were this work deepened, and connected with the Larkhana Canal, or the Noraub branch of the Indus, we should have an inland navigation throughout the year between Sehwan and Shikarpoor. It would traverse the richest portion of the Sindian territories, and make an intricate navigation of a hundred kos upon the main river. So admirably is the country adapted for this means of transit, that throughout the entire line not a single lock is necessary, save for occasionally cleansing out the canal. The returns would be great, and the outlay very moderate, compared to

that of similar works in countries where natural obstacles have to be surmounted, and labour is a more valuable commodity than in Sind.

The country around Shikarpoor is subject to inundation ; but west of the town, and contiguous to the suburbs, is a dry plain, where buildings to any extent could be erected.

I do not believe there is a healthy spot upon the banks of the Indus : in this respect there is little choice. Some towns have ailments peculiar to themselves, but from the day the river begins to fall, in September, to the end of November, asthma and fever are common from the mountains at Kalabagh to the sea.

Bukkur Fort and *Roree* are built upon hillocks of flint, which, though not high, render both these places more healthy than towns in the plain : the first is a fortified islet amid channel, and *Roree* overhangs the left bank of the river, with a depth of four fathoms water under its walls. As a depôt for military purposes, or an entrepôt for commerce, much could be written in favour of each of these places.

Mittun.—The geographical position of Mittun is superior to that of any town upon the Indus. In addition to commanding the navigation of both the Indus and Punjaub streams, it stands midway between the gates (as the Natives term them) of Khorasan, namely the passes of Bolan and Sakh-i-Surwar ; while immediately behind it are the entrances to the former pass, by the auxiliary routes of Assin and Hunund. The town is built upon a small artificial mound, and, when the freshes are in the river, is surrounded on three sides by water. It is two miles distant from the Indus, but from the middle of June to about the 22nd of September, boats can discharge or take in cargo immediately under the town, by means of a fine natural watercourse, navigable down to Baugala and Omerkote. South of Mittun is a dry plain, that fringes the above nulla ; and should this town be preferred for the site of a fair, it is on the banks of this stream that booths and other buildings should be erected. During the inundated months, camels cannot travel north or west from Mittun.

The inhabitants prefer well-water to that of the Indus. When the river has been falling for four or five successive days, to drink the nulla water is almost certain to bring on an attack of illness : this the Natives attribute, and I think very properly, to the vegetable matter which on such occasions must be brought into the watercourse by the drainage of the inundated districts.

Mittun, and the village of Chatchur, upon the opposite bank, can, taken together, supply forty boats of from 100 to 1,000 maunds burden.

I ought before to have said that cutaneous eruptions trouble the inhabitants of Mittun : the sores frequently become ulcerated, but though difficult to heal, the disease does not appear to affect the general health.

Dhera Ghazee Khan.—This town has been more than once endangered by the inundation. When Nuwab Jubbar Khan, the brother of Dost Mahomed Khan of Kabool, was Governor of the province, a wall that surrounded the town had to be thrown down to keep the water out; nor is there within a circle of many miles a spot exempt from its effect. Dhera Ghazee Khan is situated about four miles from the river, but, in the swell, like most of the other towns upon the Indus, it has a large navigable canal, by which it may be approached by boats for some months. Dhera Ghazee Khan has, however, advantages that it will be difficult to set aside: the town lies at the foot of a pass in the Sooliman Mountains, that leads both to Kabool and Kandahar, while it is equally central with respect to the Indian routes.

It is the largest town upon the Indus, and even under the Sikh rule it wears an appearance of increasing prosperity. Its merchants, though they do not speculate largely, have an extensive agency, and a considerable command of money. The country around yields heavy crops of grain, and the staples of cotton and indigo; while its home manufacture of silken stuffs, such as Gool-buddens, Timorees, &c. is only equalled by the manufacturing marts of Bhawulpoor and Mooltan. When to the above recommendations are added the fairs at Peer Abdul and Sakh-i-Surwar, I believe that, everything considered, Dhera Ghazee Khan, or rather some spot in its vicinity, will at once be considered as the most eligible place to lay the foundation stone of an Indian St. Meccreare. By a reference to the map it will be seen that Sakh-i-Surwar and Peer Abdul are towns in the district of Dhera Ghazee Khan. At each of these places a large Mala or fair is annually kept. That of Sakh-i-Surwar occurs in the Indian month Wysakh, answering to our March. It is held in honour of the Peer after whom the place is named. The fair lasts five days, and pilgrims from India's furthest shores come to prostrate themselves at the tomb of Sakh-i-Surwar; few come from the countries lying west of the Sooliman Range, and the followers of Brama outnumber those of Mahomed;—the aggregate of both cannot be much under 100,000 souls. Though commerce is not neglected, there is but little business done: a Khorasan or Afghan horse-dealer may now and then exchange an animal of his stud for the productions of India or the manufactures of Europe; but this Mala is essentially an assemblage for devotional and pleasurable purposes. But with such a material, and the example of the holy Mecca, it is easy to foretel that, when the fair is established, many individuals in this annual concourse of devotees will become as enterprising merchants as they are now zealous and bigoted Fakeers. Sakh-i-Surwar is twenty-four kos nearly directly west of Dhera Ghazee Khan; it is a considerable town, situated in the mouth of the pass. Firewood is abundant, and a mountain

rivulet supplies the town with water. At Peer Abdul-a-Zeearut, seven kos in a north-west direction from Dhera Ghazee Khan, a fair is held in February, similar to that of Sakh-i-Surwar.

Dhera Ismael Khan is never inundated from the river, but is yearly flooded by mountain torrents. The present town lies about a mile back from the river, and was built eight years ago, when the old Dhera was washed into the Indus. Dhera Ismael Khan is well planned, and when its skeleton streets are filled with occupants, they, for width and cleanness, will match with those of most Eastern towns. The houses are of mud or sun-dried brick, terrace-roofed, and rise from a ground platform of from one to two feet high; few are of more than one story. When I passed through it, in the middle of summer, the bazar was well frequented, but in the winter months it is much more thronged. The town is a sort of nucleus or rallying point for those pastoral tribes of Afghanistan who prefer a clement winter in the valley of the Indus to the severity of that which characterizes the mountain districts of their own land; carriage is thus almost unlimited, as some of these tribes rear camels for no other purpose than to put them out to hire. The Lohanas, who, from before the time of Baber, have been the great carriers and traffickers of these countries, still frequent Dhera Ismael Khan; the transit trade of India and Afghanistan is already fixed here; and if the routes radiating from the town are considered merely in reference to Kabool, then is Dhera Ismael Khan better situated for a commercial mart than towns lower down the river. These are all the places that present themselves as eligible spots for the establishment of commercial depôts west of the Indus; but should it ever become an object to Government to have the mart within their own frontier, then Leia, upon the Indian bank of the river, lying midway between the two Dheras, is its proper site.

But to give full effect to these fairs it is desirable that two be established, one for the Lower Indus, and another for the Upper: the latter will supply, besides the markets of Eastern Afghanistan, those of Central Asia, beyond the Paropanesian chain; the other, by the roads of Kandahar and Khelat, will draw from Beloochistan, the districts around Herat, and the southern province of Persia, their staples of wool, assafœtida, and madder; while in return it can supply the whole of this extensive region with the growth of India, and manufactures of the British Isles, at a cheaper rate than can be done by any other route. Thus, should a general war in Europe exclude England from the Black Sea, an outlet almost equally good for the staples of her trade is offered by the Indus, with an entrepôt at Bukkur, and another in the Dherajat.

CHAPTER XIII.

THE INDUS, AND PUNJAUB RIVERS.

Travelling over the Punjaub in a westerly direction, when its rivers are in flood, a little above the parallel of Kalabagh, no less than five streams are crossed, each occupying a larger bed, and seeming to the eye a more important river than the Indus.

The Punjaub rivers, as is well known, fall into the Indus in one stream, and if we call our attention to the confluence of their united volume with the latter, the result is strikingly at variance with appearances and preformed opinions.

About the middle of May I examined both, when the relative size of the Indus and its Indian feeders stood as follows :—

<i>Indus or Sind.</i>	<i>Chenab or Punjaub.</i>
Width 608 yards, maximum current 4·8 knots.	Width 1,766 yards, maximum current 1·8 knots.
$\frac{1}{2}$ 1 1 1 1 $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ 2 2 $2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{1}{2}$ $2\frac{1}{2}$ 2 $2\frac{1}{2}$ 2 $1\frac{1}{2}$ 1 $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ fathoms.	$2\frac{1}{2}$ 2 2 $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ 2 $1\frac{1}{2}$ 2 $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ 2 2 $2\frac{1}{2}$ 2 $1\frac{1}{2}$ 2 $2\frac{1}{2}$ 2 $1\frac{1}{2}$ $1\frac{1}{2}$ $1\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ fathoms.
Discharge per second 91,719 cubic feet.	Discharge per second 68,955 cubic feet.

Here the principal cause of the disproportionate size of the Indus is the early commencement of its freshes. Indebted for its periodical rise principally, if not solely, to snow-clad mountains, an increase is first perceived in its stream when the sun comes into our northern latitude at the vernal equinox, in March; but the Punjaub rivers, depending for their's upon another and less constant source, namely the rainy season of Hindoostan, have their freshes later.

At the time of my examination in May, the Sutlej, the most eastern of the Punjaub rivers, was at its lowest level, while the Jhelum, the most western of the five rivers, and the one which has its source nearest to that of the Indus, had already shown signs of rising; from all which I am inclined to think that measurements made in July would give, if not an entirely different, a less disproportionate result in the amount of water discharged by the Indus and its Punjaub auxiliaries.

But that the Indus is a superior river to the Panjnad seems very clear, and among the collateral proofs of this, which may be urged, is the direct nature of its course compared with those of the Punjaub streams; also the dread in which the river is viewed by the Mohanas, who, were the choice left to themselves, would prefer dragging their boats twenty kos up the Chenab to half that distance upon the Sind.

Another circumstance connected with these two rivers is deserving of notice : in the Doab, or country lying between them, all canals are cut from the Sind in the month of July ; when both rivers are in flood, the surplus water of the Sind pours down into the Chenab, proving that though their beds for a distance of sixty miles are not more than ten asunder, yet that in their relative level there is a considerable difference.

It appears to me that Captain Burnes has erred in giving so large a fall as twelve inches a mile to the Punjaub streams, and but half that quantity to the Indus. In the dry weather, the latter river has decidedly a much stronger current than any of those streams ; and even in the freshes their current, as far as I have been able to observe the Punjaub rivers, is not so strong as that of the Indus. On the 27th of June this year the current of the Ravee at Lahore was not more than three knots an hour, and neither that of the Jhelum nor Chenab exceeded four.

CHAPTER XIV.

CONCLUDING REMARKS.

It has been matter of regret that so noble a river as the Indus should have no port accessible to vessels of burden. The disappointment is, however, more imaginary than real : if, indeed, the merchant is necessitated to employ ships of four and five hundred tons burden, such a class of vessels cannot enter the river, and he must land his goods at Kurachee, the only port in Sind open to vessels of this description ; but if, on the contrary, he prefer water carriage to a long portage, why not avail himself of Native tonnage ? In the fair season hundreds of boats frequent the mouths of the Indus ; they are the common coasting vessels of Kutch, and none of those engaged in the trade exceed, when laden, a draft of nine feet ; the average draft is six and seven. I believe that the principal mouth, namely the one that discharges the greatest body of water, will ever be found the least navigable, and that the port of the Indus, though it may fluctuate between the Lukput Creek and Kurachee, will always be situated in a secondary branch, discharging little or no fresh water, but connected with the main stream by a creek or navigable channel, open only to the flat boats of the river. But even admitting that a vessel drawing seven feet water could get upon the main trunk : nothing would be gained, as no other description of vessel than the

light-drafted steamer already noticed will be found to answer upon the Indus, and such vessels will also be able to keep up the communication between the sea-going craft and the main river. If, then, a portage is thus shown to be unnecessary merely to give free access to the river, it is equally useless by way of avoiding the difficulties of navigation in any particular part of its course. In my former report I did, indeed, advocate the plan, but I did so then from hearsay; now I give the result of my own observation. The navigation of the Delta is certainly intricate, but the difficulties are not so insurmountable as to render a portage desirable; nor does the river improve so much above it as I was at the time given to understand.

In one respect the authorities on the river have it in their power to confer a considerable boon on the navigation of the Lower Indus: the only obstacle in the river from which danger is to be apprehended, and which no attention can effectually guard against, is sunken trees. Now the river brings down none of these from the mountains; all come from the Shikargah or hunting preserves of the Sind Ameers; the supply might be cut off without material injury to these forests, or interfering with their Highnesses' amusements: let the Ameers but give an order that between the Shikargah and the river a clear belt of twelve yards wide be left, and in a few weeks their numerous foresters will have cut down a twelvemonth's fuel for our steamers, and ensured a path for the trackers. As these forests do not extend north of Sehwan, the operation would not require to be carried above that town, the jungle wood there being too small to affect the channels of the river.

APPENDIX.

TABLE No. I.
Comparison of Chronometers.

Dates.	Chronometers.		Difference.	
	No. 256.	No. 257.	1st.	2nd.
1836				
Dec. 27th.....	4 18 00	4 31 05	13 05	2.0
28th.....	4 13 30	4 26 37	13 07	2.0
29th.....	4 26 50	4 39 58.5	13 08.5	1.5
30th.....	4 11 15	4 24 25.5	13 10.5	2.0
1837				
Jan. 1st.....	4 12 35	4 25 49	13 14	1.7
2nd.....	4 36 05	4 49 21	13 16	2.0
10th.....	4 44 35	4 58 06.5	13 31.5	1.9
11th.....	4 42 35	4 56 08.5	13 33.5	2.0
12th.....	4 48 20	5 01 55.5	13 35.5	2.0
Feb. 15th.....	11 51 35	12 06 23.5	14 48.5	2.0
20th.....	11 18 30	11 34 31	15 01	2.5
26th.....	10 49 15	11 04 28.5	15 13.5	2.1
March 1st.....	10 48 00	11 03 19	15 19	1.8
5th.....	11 09 50	11 25 16	15 26	1.9
9th.....	4 38 00	4 53 32.5	15 32.5	1.8
April 9th.....	4 18 30	4 34 59	16 29	..
14th.....	4 02 21.5	4 19 00	16 38.5	1.9
17th.....	4 24 14.5	4 41 00	16 45.5	2.3
18th.....	4 00 12	4 17 00	16 48	2.5
19th.....	3 49 10	4 06 00	16 50	2.0
20th.....	3 54 37.5	4 11 30	16 52.5	2.5
27th.....	3 34 49	3 52 00	17 11	2.6
29th.....	4 00 14	4 17 30	17 16	2.5
May 19th.....	3 35 56	3 54 00	18 04	2.4
20th.....	2 51 53.5	3 10 00	18 06.5	2.5
1838				
July 16th.....	9 59 00	5 47 07.5	4 11 52.5	3.5
17th.....	8 03 00	3 51 05	4 11 55	2.5
18th.....	9 56 58	5 45 00	4 11 58	3.0
19th.....	9 43 00	5 30 59	4 12 01	3.0
20th.....	7 43 00	3 30 56	4 12 04	3.0

TABLES No. II.

From Mittun to Dhera Ghazee Khan.

[The Timekeepers were examined at Mittun, and again at Dhera Ghazee Khan. The following Table shows the result of each rate, while for the Longitude it gives a mean of both.*]

Stations.	Latitudes.	Difference of Longitude by			Longitude.
		Mithenkote.	Dhera Ghazee Khan.	Mean.	
No. 1..	28° 56' 23" N.	.....	.....	.....	.....
2..	29 04 38	03' 57" E.	04' 21" E.	04' 09" E.	70° 30' 34" E.
3..	29 12 49	10 45	11 10	10 37	37 22
4..	29 23 44	12 54	13 31	13 12	39 37
5..	29 31 53	25 36	26 20	25 58	52 23
6..	29 42 00	25 15	26 01	25 38	52 03
7..	29 53 00	28 34	29 20	28 57	55 22†
8..	30 06 02	27 34	28 34	28 04	54 29

Dhera Ghazee Khan to Dhera Ismael Khan.

[The Watches were examined at both these places, and the following Table gives the Longitude of the intermediate Stations, deduced from a mean of the old and new rates.]

Stations.	Latitudes.	Difference of Longitude by Route.			Longitude.
		Old.	New.	Mean.	
No. 1..	30° 33' 19" N.	02' 00" E.	01' 51" E.	01' 55" E.	70° 56' 24" E.
2..	30 56 49	01 00 W.	01 18 W.	01 09 W.	70 53 20
3..	31 09 09	01 10 E.	00 39 E.	00 55 E.	70 55 24
4..	31 24 55	04 42	04 24	04 33	70 59 02
5..	31 37 16	09 57	09 21	09 39	71 04 08
6..	31 42 30	05 03	04 24	04 43	70 59 12
7..	31 47 54	06 30	05 50	06 10	71 00 39

* Mittun was fixed from Roree.

† Indifferent.

TABLES IN WHICH THE GEOGRAPHICAL POSITION OF POINTS AND PLACES IN THE LINE OF THE INDUS, AS THEY STAND IN THE PUBLISHED MAPS, ARE COMPARED WITH THE OBSERVATIONS OF THE PRESENT MISSION.

TABLE No. III.

From the Sea to Mittun.

Places.	Latitude.		Longitude.	
	Map.	Mission.	Map.	Mission.
Baree Gorah	24° 12' 00" N.	24° 13' 20" N.	67° 54' 30" E.	67° 36' 00" E.
Efflux Hujamree	24 08 42	24 14 42	67 57 00	67 47 03
Tatta Bunder.	24 44 00	24 44 30	68 19 00	68 01 06
Hyderabad do.	25 22 00	25 22 04	68 41 00	68 23 03
Sehwan do.	26 22 00	26 22 35	68 09 00	67 55 17
Roree do.	27 43 29	27 41 59	68 56 00	68 55 39
Chatchur do.	28 53 29	28 52 07	70 31 00	70 27 57
Mittun do.	28 54 00	28 53 19	70 29 00	70 26 25

TABLE No. IV.

From Mittun to Attock.

Places.	Latitude.		Longitude.	
	Map.	Mission.	Map.	Mission.
Nowshera	29° 11' 00" N.	29° 12' 19" N.	70° 38' 00" E.	70° 35' 28" E.
Raik.	29 21 00	29 24 20	70 45 00	70 39 01
Sherroo	29 42 00	29 42 00	70 58 00	70 50 03
Dhera Ghazee Khan.	29 58 00	30 03 26	71 00 00	71 51 23
Dhera Deen Punah*....	30 40 00	30 33 19	71 06 00	71 00 24
Dhera Deen Punah†....	30 51 30	30 39 20	70 57 30	....
Leia	31 08 00	30 58 01	71 05 00	70 59 23
Rajun.	31 14 00	31 08 39	71 06 00	70 57 42
Khaheree	31 30 00	31 24 25	71 01 00	70 54 02
Bukkur	31 44 00	31 37 16	71 14 00	71 06 28
Dhera Ismael Khan	31 57 00	31 48 39	71 07 00	70 59 30
Kalabagh	33 07 00	32 57 36	71 49 00	71 35 23
Confluence of Sehwan ..	33 10 00	33 01 48	....	....
Attock	33 55 40	33 53 53	72 27 00	72 16 27

* East bank.

† West bank.

TABLE No. V.
SECTIONAL OR CROSS-RIVER SOUNDINGS.

Parallel of Latitude.	Soundings.	Width.
	<i>In the Delta, in the Months of December and January.</i>	Yards.
24° 17' N.	5 6 7 6 5½ 5 4½ 4 4 3 2 2 1½ 1½ 1 1½ fathoms.	—
19	½ 2 3½ 4 4½ 6 5½ 6 4 3½ 3½ 2½ 2½ 2 2 2 2½	734.
21	1½ 1½ 2 3 3½ 3½ 1½ 1½ 2 2 3 2½ 2½ 2½ 1 2 2½ 2	631
26	1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1½	455
28	1 1 1 1½ 1½ 1½ 2 2½ 2 2 2 2 1½ 1½ 1½ 1½	1,277
34	¾ ¾ ¾ ¾ 1 1½ 1½ 1½ 1½ 1½ 1½ 1½ 2 2 2 2½ 2½ 2½ 1 1 1½ ½	—
37	1 1 1 1 1½ 1½ 1½ 1½ 1½ 1 1 1½ 1½ 1 1 1 1½ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1½ 1½	841
44	1 1 1 1½ 3 3 3 4½ 3½ 3 2 1½ 1 1 1 1 ¾ ¾ ¾	691
47	½ ½ ½ ½ ½ ½ ½ 1 1½ 2 3 3½ 3½ 3½ 3	—
48	½ 1½ 1½ 1½ 2 2½ 4 1 1 1 3 3 3 3½ 2½ 2 1½ 1 1 1½	—
	1007 do. 1 1 1 1½	1,132
50	1 2 2½ 2 2 1½ 1½ 1 2 2 1½ 2 2 2 1½ 1½ ½ 2 1 1 1½ 2 ¾	—
	<i>Between the Delta and Sehwan, in the Months of January and February.</i>	
54	1 1 1½ 1½ 2 1½ 1 1 1½ 1 1½ 1½ 1½ 1½ 1½ 1½ 2 1½ 1	780
58	1 1 1½ 1½ 2 2 2 2 2 1½ 1 ¾ ¾ ¾ ¾ 1 ¾ : : : : : 1 1½ 1 1 1 2 1½ 1½ 1½ ¾ ¾	978
25 00	¾ ¾ ¾ 1 1 1½ 1½ 2 2½ 2 1½ 1½ 1	834
13	1½ 1½ 3 3 2½ 2 1½ 1½ 1½ 1½ 1 1	590
19	3 3½ 3½ 3½ 3 3 2½ 1½ 1½ 1 ½ ½ ½	400
22	¾ 1½ 1 1 1 1½ 1 1½ 1½ 1½ 1 1 1 1 1 1 ¾ ¾ 1 1½ 1½ 1½ 1½ 1½ 1½ 1 1½ 1½ : : : : : 1½ 2½ 2	—
25	4½ 3½ 1½ 2½ 1½ 1½ 1	518
31	1 1½ 1½ 1½ 1½ 1 1 1½ 1½ 1½ 1½ 1½ 1½ 1 ¾ ¾	460
35	½ ½ ¾ ¾ ¾ 1 1 1 1½ 1½ 1½ 1½ 1½ 2½ 2½ 2½	700
26 00	1 1½ 1½ 2 2½ 2 2 2 1½ 1½ 1½ 1½ 1½ 1½ 1½ 1	522
11	1 1½ 1½ 1½ 1 1 1½ 1 2 1½ 1½ 2 2 2 1½ 1 ½ ½ ½	600
16	3 4 4½ 4½ 3½ 2½ 2 ¾ ¾ ¾ ¾ ¾ ¾ 1 1 1 1½ 1½ 2 2½ 2½ 2½ 1 1 1 1 ¾ ¾ ¾ ¾ ¾ 1 1½ 1½ 1½ 2 2 1½	1,000

[illegible]

TABLE No. VI.

IRREGULARITIES IN THE BED OF THE INDUS.

Soundings.

	Fathoms.
Between Attock and Kalabagh there is at some places a depth of (in the freshes)	31
Between Kalabagh and Dhera Ismael Khan, under the mountains on the west bank, ditto	10
Between Dhera Ismael Khan and the sea (influence of the tide) never had a greater cast than	6
The result of a register kept at Hyderabad gives the mean depth in the freshes at about	4
But the common depth in the freshes is	2½

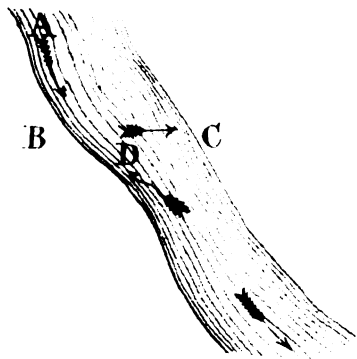
Current.

	Miles.	Yards.
The usual current in the freshes is	5	992
When the freshes are strong	6	1,272
The greatest measured velocity	8	323
Between Attock and Kalabagh, where the river is hemmed in by mountains, it is estimated in the freshes at	10	
In the dry season, usual	2	1,376
Ditto ditto, when strong	3	1,248

In a channel 1,855 yards wide, the current in the middle of July has been found to vary its strength in different depths, as follows:—

¼ fathom	=	2·7 knots.
½ "	=	3·4 "
1 "	=	4·7 "
1½ "	=	2·9 "
2 "	=	4·8 "
2½ "	=	5·8 "

By experiments with Massy's patent log machine, the ground current of the Indus has been found equal in velocity to that of its surface.



When the stream A encounters the bank at B, it is thrown off in the direction C; that part of the bed marked D is thus cut off from a further supply. An inequality in the level is the immediate consequence, to restore which a surface stream rushes up, as represented by the waved arrow in the figure; but as the water at the bottom of the space D runs off by the declivity of the river's bed, no equilibrium can take place, while a rotatory motion, fatal to the bank, is given to a large body of water in its immediate vicinity.

TABLE No. VII.
Tonnage upon the Indus.

Boats.	Kurwars from										No. of Boats.	Remarks.
	100.	80 to 90.	70 to 80.	60 to 70.	50 to 60.	40 to 50.	30 to 40.	20 to 30.	10 to 20.			
Doondees ...	7	33	47	50	70	70	100	100	150	627	Between the Sea and Bukkur. } Bukkur and Mittun.	
Doondees ...	..	..	..	..	..	..	..	11	..	11		
Zohruks ...	..	..	..	..	..	..	60	..	..	60		
Zohruks ...	..	..	..	..	..	..	..	107	..	107	} Mittun and Kalabagh.	
Duggas.....	..	..	..	..	..	..	10	..	..	10		
Duggas.....	..	..	..	..	..	..	..	46	..	46	Kalabagh and Attock.	
Total...	7	33	47	50	70	70	170	264	150	861	Sea to Attock.	

Abstract.

Upon the Lower Indus are. . . 627 boats, carrying 25,530 Kurwars.

Ditto Upper ditto . . . 188 ditto 6,550 ditto.

Ditto Attock ditto . . . 46 ditto 1,150 ditto.

Total. . . 861 ditto 33,230 ditto.

Deduct for old and worn out. . . 161 ditto 5,635 ditto.

Boats. . . 700, carrying 27,595 Kurwars,

available between the sea and Attock, in which neither fishing craft nor the boats of the Punjab rivers are included.

TABLE No. VIII.

Price of Boats at Pind Dadun Khan.

A Zohruk, cedar built, of 100 maunds, costs 100 Nanuk Shahee Rupees.

Ditto 200 ditto 200 to 225 ditto.

Ditto 300 ditto 300 ditto.

Ditto 400 ditto 350 ditto.

Ditto 500 ditto 450 ditto.

Ditto 600 ditto 475 ditto.

Ditto 700 ditto 500 ditto.

Ditto 800 ditto 500 to 600 ditto.

Ditto 900 ditto 600 to 700 ditto.

Ditto 1,000 ditto 700 to 800 ditto.

TABLE No. IX.

Hire of Boats.

On the Lower Indus, Doondees of 16 Kurwars, 1- $\frac{3}{4}$ -0 Korah Rupees per diem.

Ditto	ditto	35	ditto,	3- $\frac{1}{4}$ -0	ditto.
Ditto	ditto	40	ditto,	3- $\frac{1}{4}$ -7	ditto.
Ditto	ditto	38	ditto,	3- $\frac{1}{4}$ -0	ditto.
Ditto	ditto	60	ditto,	4- $\frac{1}{4}$ -0	ditto.

On the Upper Indus, Zohruks of 500 maunds, at 10 Rupees (Goondah) per month.

Ditto	ditto	700	ditto,	60	ditto.
-------	-------	-----	--------	----	--------

And in the same proportion for boats of a greater or less burden.

NOTE.—The Nanuk Shahee and Bombay Rupees are equal ; the Goondah is one anna short of the Nanuk Shahee.

127 Korah = 100 Rupees, Bombay.

18 Maunds = 1 Kurwar.

PRACTICAL REMARKS
ON THE
PLANTS OF SIND;

AND

**THE USES OF CERTAIN OF THE WILD PLANTS, IN MEDICINE,
THE ARTS, AND DOMESTIC ECONOMY.**

**ACCOMPANIED BY BRIEF NOTES RELATIVE TO ARTICLES OF CULTIVATION
SUITABLE TO SIND, TO WHICH ATTENTION MIGHT BE DIRECTED.**

BY THE LATE

ASSISTANT SURGEON J. E. STOCKS,

BOMBAY MEDICAL ESTABLISHMENT.

Submitted to Government on the 2nd March 1848.

THE PLANTS OF SIND.

GENERAL REMARKS.

THE following remarks are exceedingly imperfect, inasmuch as only a small part of the country has been visited, and nearly all the plants have been gathered in one year; nevertheless, they will afford some idea of the nature of the Flora, and the results are already curious enough.

About three hundred truly wild plants have been collected, of which one hundred, or a third of the whole, have not been previously noted in India. These are nearly all Arabian and Egyptian plants, sixty of them actually growing in those countries, and thirty being new, but referable to the Arabian type. The remaining two hundred are common to Sind, and most parts of India, and are identical with plants found in the Punjaub, in the sandy deserts to the east of Sind, and in Guzerat, more especially the dry northern parts of that province, from Ahmedabad up towards Deesa.

These facts are of value in considering the details of cultivation in Sind, when taken in connection with peculiarities in the soil and climate.

The productions of one country may be introduced, without fear of failure, into another, when the soil and climate agree to a great extent, and when the indigenous vegetation is similar.

There is no doubt that whatever is cultivated in Egypt, in Arabia, and in the countries bordering the Persian Gulf, may be grown with success in Sind; which cannot be said of any other province in India.

The common characters are *great summer heat*, but little tempered by rain; *great winter cold*; *a dry soil*; and *similar geological formations*.

These characters determine the wild vegetation, which is also similar. The indications for culture are therefore the same. It would be useless to detail all the plants hitherto observed in Sind; I hope to do that at some future time, when more perfect materials shall have been collected.

It will be necessary, also, to pass over the peculiarities of vegetation

in the different tracts of country,—an abundantly curious subject. It is enough to say that the salt soils are indicated by *Salsolas* and *Tamarisks*; the sandy soils by thorny *Acacias*; the clay soils by *Salvadoras*, and the rock by *Euphorbia Nereifolia*.

Two tables are added to these necessarily short remarks,—one of the Natural Orders, which shows a *proportionably* greater number of plants, when compared with the whole mass of Phænogamous Vegetation, than is the case in India proper; and the other containing Lists of Plants, pointing out the affinities of the Sind Flora.

NATURAL FAMILIES, forming a peculiar feature in the Vegetation, and which have a proportionably greater number of Species than is the case in Tropical India.

Cruciferae	The Cabbage Tribe.
Resedaceae	The Mignonette Tribe.
Capparidæ	The Caper Tribe.
Tiliaceæ	The Linden Tribe.
Malvaceæ	The Mallow Tribe.
Xygophyllaceæ	The Guaiacum Tribe.
Portulacææ	The Purslane Tribe.
Ficoideæ	The Mesembryanthemum Tribe.
Phytolaccaceæ Boraginææ	The Alkanet Tribe.
Chenopodeæ	The Goosefoot Tribe.
Polygonaceæ	The Rhubarb Tribe.

LISTS OF PLANTS, pointing out the Affinities of the Sind Flora.

ARABIA.

Plants actually found in Arabia.

Cleome Vahlia. (Fres.)	Salvia. (Several sp.)
Capparis Decaisnei. (Hochst.)	Phœnix dactylifera. (L.)
Cadaba farinosa. (Forsk.)	Solanum cordatum. (Forsk.)
Corchorus humilis. (Munro.)	Ochradenus baccatus. (Del.)
Neurada procumbens. (L.)	Cometes Surattensis. (L.)
Hedyotis aspera. (Heyne.)	Grantea. (Sp. 2, indet.)
Serræa incana. (Cav.)	Convolvulus Forskallii. (Del.)
Xygophyllum simplex. (L.)	„ microphyllus. (Sieb.)
„ album. (L.)	„ capitatus. (Vahl.)
Fagonia Arabica. (L.)	„ rhynchospermus. (Hochst.)
Tribulus pentandrus. (Forsk.)	„ arvensis. (L.)
„ alatus. (Del.)	Cuscuta Arabica. (Fres.)
Orygia decumbens. (Forsk.)	Seddera latifolia. (Hochst. and St.)
Baileria Hochstetteri. (Nab. E.)	Rhazya stricta. (Dec.)
„ acanthoides. (Vahl.)	Balsamodendron Roxburghii. (Arn.)
Boerhaavia dichotoma. (Vahl.)	Dodonæa. (Sp. indet.)
Aspheragus. (Sp. indet.)	Heliotropium Europeum (L.) var.
Asphodelus fistulosus. (L.)	„ Schimperii.
Ephedra alata. (Dec.)	„ brevifolium. (Wall.)
Forskalea tenacissima. (L.)	„ marifolium. (Ret.)

Arnibia Cuspidissima. (Alph. D. C.)	Tamarix Orientalis. (Forsk.)
Trichodesma Africanum. (R. B.)	Cleome droserifolia. (Del.)
Ehretia obtusa. (Hochst.)	Anticharis Arabica. (Enal.)
Heliophytum erosum. (Alph. D. C.)	Taverniera nummularia. (D. C.)
Phelipæa lutea. (Desf.)	Roseda Mediterranea. (L.)
Reaumuria hypericoides. (W.)	Mamordica balsamina. (L.)
Aizoon Canariense. (L.)	Catha (Sp. 1, indet.)
Lycium Europeum. (L.)	

Plants Arabian in type.

Cleome linearis. (J. E. S.)	Grewia affinis. (J. E. S.)
Cadaba heterotricha. (J. E. S.)	„ rigida. (J. E. S.)
Melbania sidæfolia. (J. E. S.)	„ salicifolia. (J. E. S.)
Balsamodendron pubescens. (J. E. S.)	Cynoctonum saxatile. (J. E. S.)
Cucumis amarus. (J. E. S.)	Acacia rupestris. (J. E. S.)
Heliotropium ophioglossa. (J. E. S.)	Pilogyne Cerasiformis. (J. E. S.)
Limeum Indicum. (J. E. S.)	Sericostoma pauciflora. (J. E. S.)
Scævola uvifera. (J. E. S.)	Blepharis Scindensis. (R. W.)
Eampylanthus junceus. (Edge.)	

EGYPT AND NUBIA.

A great number of the plants which grow in Arabia, and are enumerated as above, also grow in Egypt.

Cassia elongata. (Lem.)	Crotalaria Burhia. (Ham.)
Diplochonium Indicum. (J. E. S.)	Chaseanum affine. (J. E. S.)
Grangea Ægyptiaca. (D. C.)	Trianthema micrantha. (J. E. S.)
Didesmus panduræformis. (J. E. S.)	Heliotropium Niloticum. (A. D. C.)

AFGHANISTAN.

Monsonia Lauriana. (J. E. S.)	Antirrhinum glaucum. (J. E. S.)
Chamærops Ritchiana. (Griff.)	Statice. (Sp. indet.)
Plantago Ispaghula. (Rox.)	Malva. (Do.)
Gibsonia conferta. (J. E. S.)	Solanacea. (Do.)

This list will be much extended when the Hill Vegetation of Sind is studied.

PUNJAUB.

Cleome ruta. (Jacq.)	Leptadenia Jacquemontiana. (Dec.)
Ranunculus sceleratus. (L.)	Gisekia molluginoides. (R. W.)
Rumex conglomeratus. (Murray.)	Peganum harmala. (L.)
Capparis aphylla. (Rox.)	Periploca aphylla. (Dec.)
Cassia elongata. (Lem.)	Crotalaria Burhia. (Ham.)
Salvadora Persica. (L.)	Cassia obovata. (Coll.)
Salvadora Indica. (Royle.)	Potentilla supina. (L.)
Trianthema intermedia. (J. E. S.)	Farsetia. (Sp.)
Populus Euphratica. (Dec.)	} These plants, with several Compositæ convolvulacæ, &c. are found along the Euphrates.
Salsola. (Several sp.)	
Sueda. (Sp. indet.)	
Atriplex. (Sp. indet.)	

INDIA.

List of One Hundred Common Plants, found over a great part of India, and also abundantly in Sind.

Elatine æstivosa.	Striga orabanchioides.
Gynandropsis pentaphylla.	Physalis somnifera.
Abutilon Indicum.	Solanum Jacquinii.
„ tomentosum.	„ trilobatum.
Sida alba.	„ incertum.
Pavonia Zeylanica.	„ Indicum.
Gypsophila vaccaria.	Trichodesma Indicum.
Cardiospermum helicabulum.	Justicia bicaliculata.
Corchorus tridens.	„ repens.
„ acutangulus.	Boerhaavia procumbens.
„ trilocularis.	Celosia argentea.
„ fascicularis.	Aerna lunata.
Triumpetta rotundifolia.	Desmochæta lappacea.
Tribulus lanuginosus.	Achyranthes alternifolia.
Fagonia mysurensis.	„ aspera.
Portulaca meridiana.	Alternanthera sessilis.
„ oleracea.	Phoenix sylvestris.
„ tuberosa.	Cyperus pigmaeus.
Ammaunia vesicatoria.	Croton plicatum.
Luffa amara.	Amaranthus tenuifolius.
Lactuca sannoniosa.	Dæmia extensa.
Nereum odorum.	Cucumis pubescens.
Calotropis Hamiltonii.	Datura alba.
Cacculux villosus.	Zatalas pentaphylla.
Nymphæa pubescens.	Ipomæa pes capræ.
Nelumbium speciosum.	„ pes tigridis.
Argemone Mexicana.	„ pilosa.
Mimosa rubrecaulia.	„ reptans.
Cassia sophera.	Cressa Indica.
Tamarindus Indica.	Colonyction nuricatum.
Guilandina Bonduc.	Pharbitis nil.
Indigofera paucifolia.	Heliotropium supinum.
„ cordifolia.	Coldenia procumbens.
Prosopis spicigera.	Ocinum basilicum.
Acacia Arabica.	Leneas. (Sp.)
„ farnesiana.	Zapania nodiflora.
Zizyphus jujuba.	Aristolochia bracteala.
Glinus lotoides.	Euphorbia nereifolia.
Polycarpæa spaducea.	Phyllanthus Niruri.
Trianthema obscurata.	„ multiflorus.
Coccinea Indica.	„ Madraspatensis.
Citrullus colocynthus.	Caulinea Indica.
Mukia Scabrilla.	Commelina vulgaris.
Achmandra epigæa.	Typha Elephantina.
Xanthium Indicum.	Marsilea quadrifolia.
Eclipta prostrata.	Rhynchosia nuda.
Sarcostemma esculentum.	Cassia occidentalis.
Oxystelma esculentum.	„ tora.
Linaria ramosissima.	Tamarix Diæea.
Stemodia ruderalis.	Peplidium humifusum.

USES NOTICED IN THE FOLLOWING PAGES OF THE
UNDERMENTIONED WILD PLANTS, IN MEDICINE, THE
ARTS, AND DOMESTIC ECONOMY.

- I.—Timber Trees.
- II.—Plants used for Cordage, Mats, and Baskets.
- III.—Dye Plants.
- IV.—Gums and Gum-Resins.
- V.—Plants used in Tanning.
- VI.—Edible Plants.
 - „ Edible Fruits, &c.
- VII.—Drugs.
- VIII.—Plants yielding Soda.
- IX.—Fodder for Camels.
- X.—Plants used in Distillation.

I.

TIMBER TREES.

Scientific Name.	Sindee.	Remarks.
<i>Acacia Arabica</i> . (Wild.)	ببر Bubbur.	The principal wood in the Shikargahs ; grows very fine.
<i>Populus Euphratica</i> . (Dec.)	بهن Balum. بان Ban.	Much used in turning. The lacquered Hyderabad boxes are made of it.
<i>Dalbergia sissoo</i> . (Rox.)	تالي Talee.	The finest wood in Sind ; grows very large in the Larkhana and Schwan districts.
<i>Albizzia lebbee</i> . (Benth.)	سري Suree.	Has a fine dark heart-wood.
.....	کھو Khow.	The most remarkable wood in Sind ; grows in the hill country, and is used for making the beautiful and strong Native combs ; would succeed for wood-engraving, and for making mathematical instruments.
<i>Tamarix Orientalis</i> . (Forsk.)	گز Guz. گزلو Guz-lau. آسري Asree.	Grows on the hills of Sind ; height 20 to 25 feet, with a large trunk. Timber good ; yields the Tamarisk galls extensively used in calico-dyeing, and medicine.
<i>Tamarix diæea</i> . (Mox.)	لئي Lyee.	Grows in the salt and sandy plains and beds of rivers. Yields the Makee, or Tamarisk Manna. Is the chief firewood in Kurachee, and supplies a good part of the fuel for the river steamers.
<i>Capparis aphylla</i> . (Rox.)	کړر Kurrur. کړيل Kureel.	Though generally a bush, yet grows into a small tree, used in carpentry.
<i>Acacia farnesiana</i> (Wild & Benth.).	باور Bayer.	Grows very fine in Sind.
<i>Prosopis spici-gera</i> . (L.)	Kemdo.	
<i>Avicennia tomentosa</i> . (L.)	نمر Timmer.	} Grows to 25 feet. } Used for building boats and barges, and especially useful for the knees.
<i>Ceriops candolleana</i> . (Arn.)	چوري Chowree. کوري Kirree.	

Scientific Name.	Sindee.	Remarks.
<i>Tamarindus Indica.</i> (L.)	آمري Amree.	Wild and cultivated ; grows very fine, and wood is much used.
<i>Azadirachta Indica</i> (Ad. Juss.)	نم Nim.	Rafters and beams.
.....	لوهيرو Loheero.	Grows in the hills. An extremely heavy wood ; grows to a considerable size ; much used.
<i>Cordia latifolia.</i> (L.)	گيدوري Gêdooree.	} Tough wood ; much used.
<i>Cordia myxa.</i> (L.)	ليسوري Lésooree.	
<i>Cordia Rothii.</i> (R. & S.)	ليار Liyar.	
<i>Zizyphus vulgaris.</i> (L.)	بير Ber.	} Grow large.
<i>Zizyphus jujuba.</i> (L.)	بيرجانگري Ber jangree.	

II.

CORDAGE, MATS, AND BASKETS.

Scientific Name.	Sindee.	Remarks.
<i>Typha elephantina.</i> (Rox.)	پن Pun.	Indian Bullrush ; used for ropes, mats, and baskets ; also for making rude boats (Tinho تيرهو) ; used to cross the Indus during the inundation. From the pollen of this plant is made the Boor, Booree, or Boorattoo, much eaten by the Natives.
<i>Chamærops Rit-chiana.</i> (Griff.)	قيس Pfees.	A dwarf Palm, whose leaves, called Pforah قره are much used both here and in Afghanistan, more in manufacturing ropes, twine, sandals, mats, and baskets of all kinds.
<i>Crotalaria Burhia.</i> (Ham.)	درونو Drunnoo.	Makes good twine, and small ropes.
<i>Leptadenia Jacquemontiana.</i> (Dec.)	کپ Kip.	Much used for making ropes to bring up water from wells, for Persian wheels, and Moats ; water does not rot it.

Scientific Name.	Sindee.	Remarks.
Arundo karka ?	سر Sur.	Its reeds are extensively used for chairs and baskets, and its flowering stem is beaten into a fibrous substance, from which very <i>soft</i> rope is made ; much used by boatmen in tracking.
Calotropis Hamiltonii. (Wight.)	اک Uk.	The fibres of this plant are much used for nets, and the smaller kinds of ropes.

III.

DYE PLANTS.

Scientific Name.	Sindee.	Remarks.
Tamarix Orientalis. (Forsk).	ساکن Sakem. Name of <i>Galls</i> .	The galls from this plant are much used in dyeing calicos, instead of myrobalans.
Acacia Arabica. (Wild.)	ببر Bubbur.	Bark used to dye reddish brown.
.....	کھيرو Khaero.	Yields the Khayree chips, used in dyeing red ; grows in hills.
Melia azadirach. (L.)	نم Nim.	Bark used to dye red.
.....	قارو Pfärh.	Grows in the hills ; bark used to dye yellow.

Besides these are some dye-woods, which come from the hilly country about Khelat, among which is a beautiful yellow-wooded Berberry. Lac is found abundantly in Sind, and of good quality.

IV.

GUMS AND GUM-RESINS.

Scientific Name.	Sindee.	Remarks.
Balsamodendron Roxburghii. (Arn.)	گگر Guggur.	Bdellium of the Bible. Yields the Googul gum-resin, sold in England as East Indian Myrrh. (On the Botanical characters of the tree, uses of the gum-resin, &c., see a notice in the forthcoming number of the "Bom. Asiatic Society's Transactions.")

Scientific Name.	Sindee.	Remarks.
Acacia Arabica. (Wild.)	ببر Bubbur.	} All yield Gum Arabic of an inferior quality, used in medicine, calico-printing, ink-making, paper-making, &c.
Acacia rупes- tris. (J. E. S.)	كهوڙ Khor.	
?.....	كهونبت Khoonbut.	
?.....	كهيرو Khaero.	
Moringa ptereo- sperma aptera. (Gatu.)	سوانجره Swanjrah.	Horse Radish tree, <i>wild</i> and cultivated ; yields the red Mocheris gum sold in the Sind bazars.
Butea frondosa. (L.)	كيسو پهل Késoo phul, name of flowers, used in dyeing.	Yields the Kumur Kus, which much resem- bles Kino.

V.

TANNING.

Scientific Name.	Sindee.	Remarks.
Ceriops candol- leana. (Arn.)	چوری Chowree.	} Much used at Kurachee, and the skins are carried to Arabia by the Arab ships, and to Afghanistan by the Kafilas.
Rhizophora mu- cronata. (Lam.)	کنرو Kunro.	
Acacia Arabica. (Wild.)	ببر Bubbur.	Bark much used.
.....	كهيرو Khaero.	Yields the Khayree كهيري chips, used in dyeing calicos, and in tanning. It may be the Catechu ; but I have not seen it.

VI.

EDIBLE PLANTS.

Scientific Name.	Sindee.	Remarks.
1, <i>Green parts.</i> Nelumbium spe- ciosum. (Wild.)	پبن Pubbun.	} Water Lilies ; flower and leaf-stalks.
Nymphæa pubes- cens (wild).	کوني Koonē, or پوني Poonee.	

Scientific Name.	Sindes.	Remarks.
<i>Portulacæ oleracea.</i> (L.)	لونک Lōnk.	Purselane, Asag.
<i>Chenopodium album.</i> (L.)	جھل Jhil.	Goosefoot, Asag.
<i>Ipomæa reptans.</i> (Poir.)	نرو Naro.	Stem and leaf-stalks.
2, <i>Roots.</i>		
<i>Nymphæa pubescens.</i> (Wild.)	(For name of plant see preceding page.) لورھی Lorhee. Name of root.	The root; tubers of the <i>Nymphæa</i> are eaten, both raw, and roasted and boiled. They have a flavour between potatoes and chesnuts.
<i>Nelumbium speciosum.</i> (Wild.)	(For name of plant see above.) به Beh. Name of root.	The Rhizome of the <i>Nelumbium</i> is sold in every bazar in Sind. Besides these are other roots (Dhaneuro, Singho, &c.), chiefly from <i>Cyperacæ</i> .

Obs.—The Lorheen and the Beh are of great importance. They produce a considerable revenue, chiefly collected about Lake Munchur, and they are much esteemed by the Natives. They are enumerated in an old Sind Prophecy, together with *Fish*, as the three things which the opening of a particular line of canal would produce to the inhabitants along its banks.

3, <i>Wild Fruits.</i>		
<i>Cordia Robhii.</i> (R. and S.)	ليار Liyar.	
<i>Grewia affinis</i> (J. E. S.)	گانگی Gangee.	Four species of <i>Grewia</i> , which are very palatable, and might be improved by cultivation; one is called by the Natives the male of the three others.
„ <i>salicifolia</i> (J. E. S.)		
„ <i>rigida.</i> (J. E. S.)		
<i>Grewia</i> — ?..	گانگو Gango.	
<i>Tamarindus Indica.</i> (L.)	آمري Amree.	Truly wild in the hills; fruit called <i>Gidamree</i> گدامري
<i>Capparisaphylla.</i> (Rox.)	کړر Kurrur.	Fruits much eaten; when unripe called <i>Doro</i> دورو, when ripe <i>Pukko</i> پکو. The flowers are also eaten, and called <i>Pusse</i> پیسی.

Scientific Name.	Sindee.	Remarks.
<i>Capparis Decaisnæi</i> .	پانیرو Paneero.	Fruit pickled; its buds would make an admirable succedaneum for the Mediterranean capers.
<i>Momordica balsaminæ</i> . (L.)	کریلو جانگرو Kurelo Jangro.	Grows wild all over Sind; berry like gourd; eaten in stews, &c.
<i>Salvadora Persica</i> . (L.)	کبر Kubur, or کھاری جار Khareedjar.	The fruit of all these is called Peroo پیرون with some prefix. That of <i>Salvadora Persica</i> is called Kharee Peroo کھاری پیرون that of the <i>Salvadora Indica</i> is called Meetho Peroo; that of the <i>Solanum</i> , Ka(n) Peroo; that of the <i>Phyllanthus</i> , Peeka Peroo.
<i>Salvadora Indica</i> . (Royle.)	سادوی جار Sadneedjar.	
<i>Solanum incertum</i> . (Dun.)	کان پیرون Ka(n) peroo(n)	
<i>Phyllanthus multifloris</i> . (L.)	کاموھی Kamohee.	
<i>Coccinea Indica</i> . (W. and A.)	گولارو Golaro.	Fruit, called Gol گول eaten in stews.
Besides these are the Ranga and Khoonbhut, which grow in the hills; and the Julgozur and Gwen, which grow near Khelat.		
4, <i>Seeds, and Seed-like Fruits.</i>		
<i>Nymphæa pubescens</i> . (Wild.)	Name of plant Koonee.	Seeds, called Napo ناپو much eaten.
<i>Nelumbium speciosum</i> . (Wild.)	Name of plant Pubbun.	Achenia or nuts, called Pabooro پابورو and sold in all bazars.
<i>Cressa Indica</i> . (L.)	گون Goon.	Seeds ground, and the flour made into cakes; pure, or mixed with other flour.
<i>Achyranthes lap-paca</i> .	بھرت Bhurt (in East Sind). بھچٹی Bahchutty (in Lower Sind).	
.....	ساوری Sawree.	
5, <i>Miscellaneous.</i>		
<i>Typha elephantina</i> . (Rox.)	پن Pun.	Produces the Boor, Booree, or Boorattoo, which is the pollen of the plant; made up with water into cakes, and much eaten.
<i>Tamarix diæca</i> . (Rox.)	لی Lyee.	The Makee or Tamarisk Manna, used in confectionery, is secreted by this plant in the cold weather.

VII.

DRUGS.

Only those are enumerated which grow wild in Sind ; the very numerous Punjaub and Khorasan medicines are omitted.

Bazar Name.	Scientific Name.	Remarks.
1, <i>Purgatives.</i>		
ایرو Ayreo.	Probably Aloe Socotrina.	Aloes ; name of plant Put Khwar.
سنا مکی Suna Mukkee.	Cassia obovata. (Coll.) Cassia elongata. (Lam.)	Senna.
ترو جو پار Tru-jo-par. ترو جو گوشت Tru-jo-gosht.	Cucumis colocyntus. (L.)	Root and fruit used. Colocynth.
دها تورو Dhatoora.	Datura alba	Thorn-Apple.
2, <i>Emetics.</i>		
پنیر جو فوٹہ Puneer-jofotah.	Nat. family Solanaceæ.	Fresh berry.
گوساتو Gosato. کرمٹ Kirmut.	Cucumis amarus. (J. E. S.)	A small bitter gourd ; very powerful.
3, <i>Diuretics.</i>		
گوکھرو Gokhroo.	Tribulus lanuginosus. (L.) „ pentandrus. (Del.) „ alatus. (Del.)	} Dry fruit. The plant is called Trikundree, and the fruit has that name also.
ترکندری Trikundree.		
پالک جو بیج Paluk bij.	Spinachia tetrandra. (Rox.)	Fruit Spinage.
گدرو جو بیج Gidroo bij.	Cucumis melo. (L.)	Melon seeds.
آھو بیر Ahübēr.	Juniperus communis. (L.)	Fruit sold in all bazars ; Juniper grows on the hills.
4, <i>Tonics and Febrifuges.</i>		
مامیچہ Mameecha.	Slevogtia Orientalis. (Gries.)	Nat. family Gentianacea ; used in fever.

Bazar Name.	Scientific Name.	Remarks.
نم Nim.	Azadirachta Indica. (Ad. Jass.)	Leaves and bark. } Fever, &c. Dried fruit. }
نموری Nimooree.		
هشوری Hishwork.	....	Very bitter roots of an Acanthaceous plant, which grows on the hills.
ترخ Tirkh.	....	Flowers of a hill plant ; very bitter, and used in fever.
مرو Murwo.	....	Ditto ditto ditto.
کربت Kirbut.	Guilandina Bonduc.	Seed used in fever.
حرمارو Hurmaro.	Ruta hurmala. (L.)	Cocci used.
5, <i>Demulcents.</i>		
مودهیری Moodheree.	Corchorus humilis. (Munro.)	Very mucilaginous.
مور Mour.	Labiatae	Mucilaginous seed.
نازبو بیج Nazbo bij.	Ocimum basilicum. (L.)	Ditto.
اسپنگر Ispungur.	Plantago Ispaghula. (Rox.)	Ditto.
لیسورو Lesooroo.	Cordia myxa. (L.)	Dried fruits ; small sepistans.
گیدورو Gedooro.	Cordia latifolia. (L.)	Ditto ; greater sepistans.
عناب Unab.	Zizyphus — ?	A sweet jujube, from the hills.
کاسنی Kasnee.	Cichorium intybus. (L.)	Seed-like fruit.
6, <i>Cooling Medicines.</i>		
سہار Sihar.	Rhazya stricta. (Dec.)	Leaves. } Dried flowers. }
سیور Sewur.	Nelumbium speciosum. (Wild.)	
نیلوفر Neelofir.	Nymphaeapubescens. (Wild.)	
.....		

Bazar Name.	Scientific Name.	Remarks.
كاموهی جوین Kamohee-jo-pun.	Phyllanthus multiflorus. (Rox.)	Leaves.
نرو Nuro.	Three undetermined species of Grantea.	Leaves.
نری Nuree.		
کولیر Kolmeer.	All sold in the Kurachee bazar is from Trichodesma Indicum, Heliotropium ophyoglossa, & Heliophytum erosum,—all in Boraginaceæ.	Leaves, &c.
گاوزبان Gauzaban.		
دراماهو Drammahoh.	Fagonia mysurensis. (Roth.)	Leaves and twigs.
.....	„ Arabica. (L.)	
مورپن Morpuna.	.....	Leaves.
دارو بیج Daroo bij.	Punica granatum.	Seeds.
کھوپن Khow puna.	.....	Leaves.
7, Heating Medicines.		
گوگل Googul.	Balsamodendron Roxburghii. (Arn.)	Gum-resin.
گگر Guggur.		
اھریو Alreo.	Lepidium sativum. (L.)	Seeds and herb.
دھرر Dhurrar.	Cleome inoschata. (J. E. S.)	Herb.
کاتھوری Kathooree.		Being hot, are given for all disorders arising from cold; also as preventives. Used chiefly in the cold season. Are much given to horses, camels, oxen, &c.
اھریج Ahur bij.	Sinapis ramosa. (Rox.)	
جامبو بیج Jambo bij.	Ernea sativa. (D. C.)	
سرایج Suray bij.	Sinapis glauca. (Rox.)	
8, Carminative.		
پنیرج فوٹہ Puneer-jafotah.	Nat. Family Solanaceæ.	Dried berries.

Bazar Name.	Scientific Name.	Remarks.
قودنه Pfoodnah.	Mentha arvensis (L.), and viridis. (L.)	Grow in the hills.
جان Jan.	Well-known Umbelliferous seeds, Coriander, Cummin, Fennel, Aniseed, &c.	
ول جان Wall Jan.		
دهانا Dhana.		
ودف Wudf.		
جیرو Jeero.		
9, Anthelmintics.		
دارو جوکل Daroo-jo-kul	Punica granatum. (L.)	Pomegranate bark ; from root.
توت جوکل Toot-jo-kul.	Morus alba. (L.)	Mulberry bark, from root.
پیتپاپر Peet papur.	Butea frondosa. (L.)	Seed.

Obs.—The juice of *Aristolochia bracteola* (ناگیل Nagēl) is used against maggots in wounds, and against snake-bites.

10, <i>Astringents</i> .		
ساکن Sakun.	<i>Tamarix Orientalis</i> . (Forsk.)	Galls.
کمرکی Kumur kus.	<i>Butea frondosa</i> . (L.)	Resembles Kino.
جمون Jumoo(n).	<i>Jambosa vulgaris</i> . (D. C.)	Bark.
موچرس Mocheris.	<i>Moringa pterocarpum</i> .	Gæta (gum).

Obs.—The walnut bark is brought into Sind from Khelat and Muscat in large quantities, and is masticated by women to preserve and redden their gums. It is called Musagہ

11, <i>Miscellaneous</i> .		
سونپات Sonpat.	<i>Antirrhinum glaucum</i> . (J. E. S.)	Powdered leaves snuffed up for bleeding of the nose.
ادیرے جے دینے Aderay-jadenay.	<i>Solanum Jacquinii</i> . (Wild.)	Used in cough, and in fumigation against decayed teeth.
کنرو Kinro.	<i>Gynandropsis pentaphylla</i> . (D. C.)	Used in oil, against crabs and lice.

Bazar Name.	Scientific Name.	Remarks.
واهو Waho.	<i>Trianthema intermedium.</i> (J. E. S.)	Used as an abortifacient and preventive.
زامر Zamir.	<i>Cocculus villosus.</i> (D. C.)	Pains in head.
چون Chown.	<i>Cassia absus.</i> (L.)	Seeds used (as all over the Eastern World) for all inflammation of the eyes. The kernels are put into the inflamed eye, made up with water.
پانیرو Paneero.	<i>Capparis Decaisnei.</i>	Leaves epispastic.

VIII.

PLANTS YIELDING SODA.

Scientific Name.	Sindee.	Remarks.
<i>Salsola.</i> (Sp. indet.)	کھاری لانی Kharee lanee.	Yields the well-known Sujjee Khar by incineration. This impure carbonate of soda is extensively used in soap-making, calico-dyeing, washing, &c. Similar plants yield soda all over the world.
<i>Salsola.</i> (Sp. indet.)	کوئی لانی Kontee lanee.	Yields the Kauree Khar, an inferior article, but used for the same purposes.

IX.

CAMEL FODDER PLANTS.

The Camel rejects but the few following plants :—

Sindee.	Scientific Name.
سیور Sēwur.	سیار Sihar. <i>Khazya stricta.</i> (Dec.)
پنیر Puneer.	An undetermined Solanaceous plant.
اک Uk.	<i>Calotropia Hamiltonii.</i> (Wight.)
تھوھر Thuhur.	<i>Euphorbia nereifolia.</i> (L.)

It is worthy of remark that the camel eats the *Nereum odorum* (زور جور Zowr Jowr), a remarkably poisonous plant, which in nearly every case proves fatal to him, as troops during the march have often found, to their great inconvenience. It eats all of the following greedily :—

Sindee.	Remarks.	Scientific Name.
اشک لانی Aout lanee, or Ushuk lanee.	.....	Sueda. (Sp. in-det.)
منهولانی Mittho lanee, or Samundur lanee.	.....	Ditto.
گهرو لانی Gahro lanee.	Called also Lano لانو and Lana لا	Salsola. (Sp. in-det.)
کھاری لانی Kharee lanee.	.....	Ditto.
کوتی لانی Kontee lanee.	.....	Ditto.
گدھالانی Put lanee, or Gudha lanee.	Are chiefly salt plants.	Xygophyllum simplex. (L.)
چھوٹی لانی Fysur lanee.	.....	Trianthema micrantha. (J.E.S.)

Sindee.	Scientific Name.
جھل Jhil.	Indigofera pauciflora. (Used for Hindoo tooth-brushes.)
کپ Kip.	Leptadenia Jacquemontiana. (Dec.)
ببر Bubbur.	Acacia Arabica. (Wild.)
حاجیرو Hajeero.	Mimosa tubucaulis. (Lam.)
درو Drunoo.	Crotalaria Burhia. (Ham.)
باور Bayer.	Acacia farnesiana. (Wild.)
کندو Kundo.	Prosopis spicigera. (L.)
مودھیری Moodheree.	Corchorus humilis. (Munro.)
تیمر Timmer.	Avicennia tomentosa. (L.)
چار Chawr.	Agiceras majus. (Gatu.)
گون Goon.	Cressa Indica. (Retz.)
وکن Wukkun.	Zapania nodiflora. (L.)

Sindee.	Scientific Name.
کبر Kuber, or کھاری جار Kharee djar. سادوی جار Saduee djar.	Salvadora Persica. (L.) Salvadora Indica. (Royle.)
تک Tik.	Eclipta prostrata. (Rox.)
کوتک Kotuk.	Glinus lotoides. (L.)
ملیرو Mulleero.	Amaranthus tenuifolius. (Rox.)
کاندیرو Kanderero.	Alhagi Maurorum. (Town.)
واہو Waho.	Trianthema intermedia. (J. E. S.)
جری Juree.	Atriplex. (Sp. indet.)

X.

PLANTS USED IN DISTILLATION.

The bark of the *Acacia Arabica* is always used in making the Native spirits, as in Upper India the bark of the *Acacia ferruginea*, and in Guzerat the bark of the *Acacia leucophlæa*. The distiller's receipts are curious enough. Goor or Sind dates are always added to the *Acacia* bark, with the addition of from thirty to forty other ingredients, which are the most nasty and disgusting bazar drugs,—as Cubebs, Myrobalans, Pellitory, Asgund, Mocheris, &c., mixed with spices, as Cinnamon, Cloves, Ginger, Mace, Nutmeg, &c.,—the whole making a most abominable compound.

**BRIEF NOTES RELATIVE TO ARTICLES OF CULTIVATION
SUITABLE TO SIND, TO WHICH ATTENTION MIGHT
BE DIRECTED WITH ADVANTAGE.**

Details of cultivation, and suggestions for improvement, should be based upon the following facts :—

Sind is an extra-tropical country.

1. The average temperature of whose summer months rises to 95° Fahr., and whose winter months have an average temperature of 60°.

The highest temperature of the hottest days in summer frequently rises to 110°; less frequently to 120°. The lowest temperature of the night in winter is a few degrees below freezing (32°); and, *what is more important with regard to vegetation*, the temperature of a winter day (average) ranges between 80° and 40°.

Many places have occasionally as high a temperature, but none such a continuance of hot weather (owing to the deficiency of rain), whence arises the high summer average.

The winter of Algiers, with an average summer temperature higher than any recorded !

The above remarks do not apply to Kurachee, whose temperature is kept more uniform by the sea, and whose meteorology (though extremely interesting in a medical and sanatory point of view) is not valuable in connection with cultivation on a large scale.

They apply to Sind, from Hyderabad to Shikarpoor, including the fertile districts of Larkhana and Sehwan, and those parts which are supplied with water from the Indus, and its branches.

2. Which is almost out of the range of the monsoon.

3. Whose overflowing river makes up, to a certain extent, for the deficiency of rain above noted.

4. Whose soil is plastic clay, most strongly impregnated with salt ; quickly covered with the fertile warp of a river ; remarkably charged with fertilising matter when (naturally or by canals) it is brought within its influence, and as quickly reduced to a barren sand when the river is diverted, or never brought near it.

In many parts, also, are rocky formations, chiefly of carbonate of lime.

5. Where the Date tree from the equator northwards first ripens, and brings its fruit to perfection in any quantity.

6. Where the Apple begins to produce eatable fruit with little attention,—a transition from the difficulty of obtaining that fruit in India, to the ease and perfection with which it is cultivated in Khorasan.

7. Where that remarkable family of plants the Balsam trees first

begins, from the equator northwards, to yield a copious supply of gum-resin, useful in the arts and in medicine.

8. Where the Pomegranate is capable of bearing a fine and delicious fruit.

9. And yet the Mango does not fall off in excellence.

10. Where in the heat of summer tropical grains and fruits are cultivated, while in the cold and bracing winter extra-tropical and European grains, pulse and vegetables, may be grown with no perceptible deterioration.

11. Where the indigenous vegetation is one-third Arabian and Egyptian, and two-thirds Indian.

The following are a few of the articles to which attention might be directed :—

Names of Articles.	Considerations on which founded.
Aloes	Climate, and especially affinity to Socotra, as shown in the similar plants found in both countries. Moreover, because it grows wild in Sind, and excellent aloes is already made from it.
Dragon's Blood Tree	Climate, and affinity to Socotra, where this plant grows wild.
Flax	The peculiar soil and climate of Sind would be very suitable to the production of good fibre from this plant.
Egyptian Cotton	Similarity in soil and climate. Moreover, Cotton succeeds in proportion to the quantity of lime in the soil, as proceeds by analysis of soil and plant. This is found all over Sind, and a wild Cotton (<i>Gossypium obtusifolium</i> , Rox.) is found perfectly wild all over the rocky ground in Sind.
Egyptian Wheat	Similarity in soil and climate. This wheat thrives in the poorest soil.
Olive	Cultivated all over Egypt and Syria, whose climate, soil, and productions resemble those of Sind. Moreover, it delights in a limestone soil. It grows wild on the higher hills of Beloochistan.
Carob Tree	Grows admirably in the driest parts of Egypt, Syria, and Arabia, and is one of the most important productions of these countries. It yields food to man, and fodder to beasts, with but little attention, in the most barren situations. It has been tried in Tropical India,

Names of Articles.	Considerations on which founded.
	but it has not succeeded, <i>because it requires a certain amount of cold</i> during a part of the year, and will not bear the constant stimulus of tropical heat. It is not a tropical plant. Whole forests should be planted with it, and every well should have one or more standing by its side.
Gum Arabic Trees. (Acacia Nilotica, and Seyal.)	Climate and soil, and the fact that the Babool (a nearly allied species) flourishes admirably in Sind, and produces, with two or three other trees of the same genus. A considerable amount of gum sold in the bazar.
Manilla Gram. (Arachis Hypoœa.)	Not yet introduced into Sind, where it would thrive.
Myrrh, Frankincense, Ephorbium, Galbanum, Ammoniacum, Sagaporum, Assafoetida, Tragacanth, Mastich.	The climate of Sind (especially the higher parts of it) seems particularly suited to the development of the odoriferous and fœtid gum-resins which require a certain amount of cold. This is confirmed by the Googul tree yielding abundance of that gum-resin in Sind, by the occurrence of three kinds of Assafoetida, and a kind of Mastich in the elevated Beloochistan Hills, and by the Tamarisk yielding manna all over Sind, which Dr. Royle and other authorities deny ever occur in India, or out of Arabia and Persia.
Date Palm	Should be especially attended to. It has already obtained a certain degree of perfection in Sind, and about Khyrpoor and Sukkur yields excellent dates. Good varieties might be obtained, and attention directed to its culture. Much barren land might thus be covered with lofty trees of long duration, from which collateral advantages would follow.
Liquorice Plant	Cultivated in Khorasan, and would succeed well. It is much used in substance and extract by the Natives.
Rhubarb	Grows naturally in a very loose, sandy soil. Plants of the same natural family begin to be more abundant in Sind than in Tropical India.
Indigo	Now left to Native enterprise, which will never produce a good article. If European method and intelligence were brought to bear upon the culture, the result would be as it was half a century ago in Bengal.
Shiraz and Lafia Tobacco.	These fine Tobaccos would certainly succeed admirably

Names of Articles.	Considerations on which founded.
	in the congenial climate of Sind. Sind produces much Tobacco, but the rude mode of sweating spoils the article.
Hemp	Grows well in Sind, and if it ever should be found advantageous (politically or financially) to grow hemp for its fibre, then Sind would be a very proper climate.
All the most valuable Clovers, Lucerns, Lupins, Peas, Vetches, Tares, Mustards, and Rapes.	Would succeed in the winter months. Egypt and Syria, and the South of Europe, have many such whose congeners, and in some cases the identical plants, are cultivated already.
Madder	Would grow well, as it does in Mooltan and the Punjab.
Lac	Specimens of the Sind Lac might be sent to England, to see if of good quality. Any quantity could be supplied.
Tanning Plants	Nothing is more desired in England than a substitute for Oak bark, whose supply is gradually failing. In the Mangrove forests on the mouths of the Indus, and in the large Babool forests on the banks of the river, Sind has abundance of tanning barks, now wasted. The barks themselves could not be sent with profit, owing to their bulk ; but it would be extremely easy to send extracts of them, made in the country. In 1831, 40,000 cwt. of Acacia extract was shipped for England at Hobart Town, and it forms a considerable trade. The Mangrove extract would be well worth a trial ; it performs its office in half the time of Oak bark. The extracts must be made in earthenware vessels, as iron utensils communicate a principle which makes leather brittle, and coloured. Both these barks are much used by the tanners of Sind.

BRIEF NOTES
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RELATIVE TO THE

DIVISION OF TIME, AND ARTICLES OF
CULTIVATION IN SIND;

TO WHICH ARE APPENDED

REMARKS ON THE MODES OF INTOXICATION IN THAT
PROVINCE.

BY

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Submitted to Government on the 2nd March 1848.

DIVISION OF TIME, AND ARTICLES OF CULTIVATION, IN SIND.

DIVISION OF TIME.

As in India, so in Sind generally, we find two kinds of years, viz :—

1st, the Moslem (Arabic) Hijree, or Lunar Year.

2nd, the Hindoo, or Luni-solar.

The former requires no description, being the most simple of all divisions of time, and well known as the year used by all Musulman nations.

The latter is a more complicated arrangement.

The months are calculated according to the revolutions of the moon ; but the seasons are rendered subservient to both the solar and the lunar year. For this purpose, an embolismal month is added to one of the three seasons successively, every third year : at such times the season into which the intercalary month is inserted contains five instead of four lunar months.

The ancient Hindoos had six Ritu, or seasons, viz :—

- 1, Hemanta, "Winter" months.
- 2, Shíshíra, "Freezing" months.
- 3, Wasant, "Spring" months.
- 4, Gríshina, "Hot" months.
- 5, Warsha, "Rainy" months.
- 6, Sharad, "Cold" months.

In Modern India the year is portioned out into three seasons of four months each, viz :—

1st, the cold season, or Winter.

2nd, the hot season, or Summer.

3rd, the rainy season, or Monsoon.

The Sindees, however, reckon only two seasons, viz :—

1st, Siyaro ; or the cold season, six months in duration, from Assú to Phaggun, included.

2nd, Unhálo, or Arhár, the hot season, which contains the rest of the months.

In India, moreover, the Adhikmása or embolismal month is always intercalated during what we should call the summer, or between March and September; and when two months of the same name occur, the first is called Prathama, and the second Dwitiya, to distinguish them from each other.

But in Sind the embolism does not appear to be confined to any particular time.

Astronomical calculations are conducted both by Sarsudh and Pokarná Bramins. Their almanacs are made up every year, but not much used by the people in general, as the Priest prefers writing them in Sanscrit, in order to render them unintelligible to the vulgar, and to constitute himself the sole explainer of their contents.

The era usually met with in official and revenue papers in Sind is the Fuslee; but in books, inscriptions, and Moslem compositions generally, the Hijree date is preferred. The Hindoos in Sind use the Sambat, or Vikramáditya's era, which begins with the death of that monarch at Ujjam, A. C. 57. They are of course aware of the existence of the several Hindoo Yoga or periods, and know that the present is the Kali Yoga (called by them the Kal-Jugu), although they rarely if ever assume its commencement as an era.

The following comparison of the Sindee with the Sanscrit names of the months will prove that the former are easily derivable from the latter :—

Sindee.	Sanscrit.	English.
1st.—Kattí.	Kártika.	October-November.
2nd.—Nahrí.	Márgashirsha.	November-December.
3rd.—Poh.	Pansha.	December-January.
4th.—Mágh.	Mágha.	January-February.
5th.—Phaggun.	Phálguna.	February-March.
6th.—Chait.	Chaitra.	March-April.
7th.—Waishákha.	Waishákha.	April-May.
8th.—Jeth.	Jeshtha.	May-June.
9th.—Akhár.	Asharha.	June-July.
10th.—Sáwan.	Shráwana.	July-August.
11th.—Baddo.	Bhadrapadas.	August-September.
12th.—Assú.	Ashwina.	September-October.

The Sambat begins on the 1st of Kártika.

The Indian astronomical year commences on the 1st of Chaitra, as does the Sháliváhan era; but this is not in general use in Sind. As regards calculations of eclipses, declinations, &c., and even the common almanacs, the Bramins throw so much difficulty in the way of research, that we have not hitherto been able to discover anything worth mentioning.

The Hindoo as well as the Arabic week begins with the Sunday; but the days, as in India, are differently named by the Hindoos and Moslems. We append a list of them:—

Hindoo.	Moslem.
1, Artar (Sun's day).	Achár.
2, Sumar (Moon's day).	Súmar.
3, Mangal (Mars' day).	Angaro (firebrand).
4, Budhar (Mercury's day).	Arba (fourth day).
5, Vrispat (Jupiter's day).	Khamís (fifth day).
6, Sukrawár (Venus' day).	Jummo.
7, Chenchar (Saturn's day).	Chanchar, or Chámchar.

The minor divisions of time are,—

1st.—Pahar, watches; of which there are eight in our twenty-four hours.

2nd.—Gharí, hours; equal to about twenty-four minutes of our time.

3rd.—Pal, moments; of which there are sixty in the Gharí.

CROPS IN SIND.

The crops are two in number, viz:—

1st.—Rubia : the vernal crop, sown in the autumnal months of Baddo, Assú, and Kattí, brought forward (as in India) by the heavy dews and the cool nights that prevail during the winter, and reaped in the spring about Phaggun and Chait.

2nd.—Khareef : the autumnal, sown in the summer months of Jeth, Akhár, and Sáwan, brought forward by the flooding of the river, and cut after the inundation subsides, or about the months of Kattí and Nahrí.

In submitting the following list of grains and other productions, we have only to remark that it is necessarily an incomplete one, and that our means of procuring information are very limited. It is only by travelling about the province, and by making inquiries among the cultivators, that anything like a perfect list could be collected. We hope however that, as a basis for future inquiry, it may be of some little utility.

In the accompanying tables, the first column contains the common Sindee appellation of the different productions, and next to it is the Sindo-Persian synonyme, as used in the province in official and revenue papers. When there is an English name for the production, it is inserted in the third column; or, if none such exist, we give the term generally understood throughout Hindoostan. The fourth column contains the

scientific name of the plant, and in the fifth is the season in which it is cut.

The following is a list of the articles of cultivation which we have enumerated, viz :—

1, Grains (Gramineæ).....	10 kinds.
2, Pulse (Leguminosæ)	7 „
3, Oil Seeds	6 „
4, Greens and Vegetables	11 „
5, Gourds (Cucurbitacæ)	10 „
6, Dye Plants	6 „
7, Cordage and Clothing	3 „
8, Tobacco and Sugar	2 „
9, Intoxicating Plants	3 „
10, Medicines	4 „
11, Condiments	5 „
12, Fruits	21 „

Total 88 kinds.

We have preferred the Lár to the Siro dialect in the Sindee column, and have generally selected the most popular word. When two terms are given, the reason is that both are equally well known.

A superficial glance at the Persian portion will be sufficient to prove that it is a different dialect from the Persian spoken in Persia : many words are freshly coined ones ; a considerable portion is composed of obsolete terms ; and not unfrequently a word is perverted from its original meaning. Such as it is, however, it is used throughout Sind and Beloochistan, Mooltan and Buhawulpoor, the Brahooee Country, and the greater part of Khorasan.

**ARTICLES OF CULTIVATION IN SIND, PARTICULARS OF
WHICH ARE GIVEN IN THE FOLLOWING PAGES.**

- I.—Grains.**
- II.—Pulse.**
- III.—Oil Seeds.**
- IV.—Vegetables and Greens.**
- V.—Gourds.**
- VI.—Dye Plants.**
- VII.—Clothing and Cordage.**
- VIII.—Tobacco and Sugar.**
- IX.—Intoxicating Plants.**
- X.—Medicines.**
- XI.—Condiments.**
- XII.—Fruits.**

I.

GRAINS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
نگلی Nangulí.	مندوه Mandwah.	Nachnee and Ra-gee.	Eleusine Coracana. (Gætu).	Khareef.	
جوارى Juwári. <i>s.f.</i>	جوارى Jawári.	Indian Millet; Turkey Millet; Negro Corn.	Sorghum vulgare. (Rands.)	Ditto...	Kurbee.
سارى Sarí. <i>s.f.</i> سار Sarí. <i>s.f.</i>	شالى Shali.	Rice Paddy....	Oryza sativa. (L.)	Ditto...	Two varieties, white and red: the white is called Súdá Sí; the red is called Súdá Sí. Many varieties of this grain, e. g. Motiyo, Ganjo, Trimi-niyim, Kánbrú (red), Sathri-yo, Kamod, Ratariyo (white).
كرنگ Kirang. <i>s.m.</i>	گال Gál.	Kungnee	Seta Italica. (R. B.)	Ditto.	
باجهر Bájharí. <i>s.f.</i>	باجرى Bájri.	Bajree	Penicillaria vulga-ris. (Beauv.)	Ditto.	
مكائى Makái. <i>s.f.</i>	باجرى Bájri.	Maise	Zeamays. (L.) ..	Ditto.	
ساو Sáou. <i>s.m.</i>	باجرى Bájri.	Sawa and Sha-moola.	Panicum frumenta-ceum. (Rox.)	Ditto.	

ڪڻڪ Kank ^a . s. f. گندم Gil ^{un} . s. m.	گندم Gandum.	Wheat	Triticum (V. M.)	vulgare.	Rubia. ..	Varieties white and red (Thori and Panbon). There are many other kinds, as Goji, Tandar, Kodanu. The toasted grains eaten by the people are called Dhani.
چينو Chinú. s. m.	ارزن Arzan.	Common Millet.	Panicum miliaceum. (L.)	Ditto.		
جو Jau. s. m.	جو Jau.	Barley	Hordeum hexastichon. (L.)	Ditto		The green barley is called Khoif; corrupted from the Persian Khavid خروید

Obs.—The straws of these grain-bearing plants, and the green parts of the Pulse, enumerated in the next table, together with Fenugreek, and some other fodders, are given to oxen and horses;—oxen reject few articles. Favourite camels get also various dry and wet fodders, as Kurbee, Fenugreek, Indian Cress, and the green parts of the three Mustard-oil plants; Cotton seeds are given to oxen, and Oil-cake to camels, oxen, and sheep.

II.

PULSE.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
ماهر Mál ^h . s. f.	ماش Másh.	Oorud	Phaseolus radiatus. (Rox.)	Khareef.	
چورو Chaunro. s. m.	لوبيا Lobiyá.	Chowlee	Dolichos sinensis. (L.)	Ditto.	
ول Wall ^u . s. m.	لوبيا Lobiyá.	Wall	Lablab vulgaris. (Sari.)	Ditto.	

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
منگه Mung ^u . s. m.	منگ مونغ	Moong.....	Phaseolus mungo. (Rox.)	Khareef.	
چنو Chano. s. m.	نخد	Bengal Gram...	Cicer arietinum. (L.)	Rubia.	
مٹر Matar ^u . s. m.	مسنگ	Chickling Vetch.	Lathyrus sativus. (L.)	Ditto ..	Very extensively cultivated.
مهر Mohar ^u . s. m.	مدس	.....	Phaseolus aconitifolius.	Ditto.	

Obs.—These grains, when split, are called Dál; when ground, the flour is called Atto.

III.

OIL SEEDS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
پواری-جو-بج Powári-jo-bij	تخم گل معصفر Tukhm-i-Gul-i-muāsfir.	Koosumba; or Safflower Seeds.	Carthamus tinctorius. (L.)	Rubia....	The grain-like fruit of the Safflower (commonly called the seed) is often eaten.
جامبو Jámbo.	جانبه	.....	Eruca sativa. (Lam.)	Ditto....	The green parts of the three Mustard-oil plants are eaten as greens, and used as fodder.
سرخ Sarih ^u .	سرخاف	.....	Sinapis glauca. (Rox.)	Ditto....	

Indes.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
آهرو Ahur ^h .	خردل Khardal.	Rae	Sinapis ramosa. (Rox.)	Ditto.	
تیر ^h Tir ^h .	کنجد Kunjid.	Til, or Ginglee...	Sesamum Indicum. (L.)	Khareef.	Not so easily congealed as coconut oil.
تیل Till ^h .					
هیران ^h s. m. Hérán ^h s. m.	بیدانجیر Bed ánjir.	Castor Oil Plant.	Ricinus communis. (L.)	Perennial.	Oil called Heeran-jo-tel, or more generally Arandi-tel (from the Hindoostanee). It is easily congealed.

Oil.—The oil of the Safflower seeds, of the Mustard seeds, and of the Til is extracted by a wooden pestle, working in a wooden mortar, and driven by oxen and camels. The residuum, or oil-cake, is called Khur, and is universally used for oxen, camels, goats, and sheep. The oil of the Ricinus is extracted by boiling.

The Powári-jo-bij is also called Khoimbe-jo-bij, Khoimbo being the name of the plant. There is a wild seed which is also called Powári, but it is of no use.

IV.

VEGETABLES AND GREENS.

Indes.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
ثوم ^h Thúm ^h s. f.	سیر Sir.	Garlic	Allium sativum. (L.)	Rubia chiefly.	
بصر ^h Basar ^h s. f.	پیاز Piyáz.	Onion	Allium cepa. (L.)	Ditto.	
موری ^h Múrí. s. f.	ترب Turb.	Radish.....	Raphanus sativus. (L.)	Ditto.	
وانگ ^h Wangan ^h s. m.	بادانجان Bádánján.	Egg Plant, or Brinjal.	Solanum melongena. (L.)	Ditto.	

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
گجارجا ^m . s. m.	زرڊڪ	Carrot	<i>Daucus carota</i> . (L.)	Rubia chiefly.	Called Pittai Gajar, or Sindee Gajar, to distinguish it from the Sweet Potatoe, which is called Gajar.
گجارجا ^m Láhori.	زرڊڪ لاهوري	Sweet Potatoe..	<i>Batatas edulis</i> . (Ch.)	Ditto...	Láhori, being supposed to have come from the Punjaub.
گوكرو ^m . s. m.	شالغهم	Turnip	<i>Brassica rapa</i> . (L.)	Ditto.	
چوكو ^m . s. m.	ترشك	Country Sorrel.	<i>Rumex vesicarius</i> . (L.)	Ditto.	
پالڪ ^m . f. s.	اسفناج	Spinage	<i>Spinachia tetrandra</i> . (L.)	Ditto.	* An Arab medicinal term, derived from the Greek.
مېٺي ^m . s. f.	شمليد	Fenugreek	<i>Trigonella Fœnugræcum</i> . (L.)	Ditto.	
سوا ^m . s. f.	سبٽ	....	<i>Umbelliferæ</i>	Ditto.	

Obs.—The leaves of the three Mustard-oil plants are also boiled, and eaten as greens.

V.
GOURDS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
Kaddú. <i>s. m.</i> کدو	Kaddú. کدو	Pumpkin	Lagenaria vulgaris. (Ser.)	Khareef chiefly.	
Iráo. <i>s. m.</i> ایراو					
Meho. <i>s. m.</i> میہو	Kachreh. کچرہ	Dilpasand ....	.....	Ditto.	
	Dilpasand. دِلپَسَند				
Wango. <i>s. m.</i> ونگو	Máshúreh. ماشورہ	.....	.....	Ditto.	
Cháuhó. <i>s. m.</i> چاہو	Hinduwanéh. ہندوانہ	Water Melon ..	Citrullus vulgaris. (Sch.)	Ditto.	
Hindáno. <i>s. m.</i> ہندانو	Tarbúzeh. تربوزہ				
Karélo. <i>s. m.</i> کریلو	Karelah. کریلہ	.....	Momordica charan- tia. (L.)	Ditto.	
Gidhro. <i>s. m.</i> گدرو	Kharbúzeh. خربوزہ	Melon	Cucumis melo. (L.)	Ditto ..	Several varieties, as Dimmin- shahi, the Kachi (Kutch) Gidroo, &c.
Túrí. <i>s. f.</i> توری	Khiyár. خیار	.....	Luffa pentandra, and acutangula. (Rox.)	Ditto.	
Chibbur ^s . <i>s. m.</i> چبر	Raushanak. روشَنک	.....	.....	Ditto.	
Bádirang ^s . <i>s. m.</i> بادرنگ	Bádarang. بادرنگ	.....	.....	Ditto.	
Rebhri. ریبری	.....	.....	Trichosanthes an- guina. (L.)	Ditto.	
Kadotrí. کدوتری					

VI.

DYE PLANTS.

Sindes.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
Nir ^s s. m. نیر	نیل	Indigo	Indigofera tinctoria. (L.)	Rubia ..	Fermented in pukka vats, called Houz حوض Blues, greens, and blacks.
Khoi ⁿ bo. s. m. کھوینبو	Gul-i-Muā ^s -far. گل معصفر	Safflower	Carthamus tinctorius. (L.)	Ditto ..	The petals are the parts used. Before drying, they are subjected to a thorough beating with sticks.—Reds & Pinks.
Kesú phal ^a کسونیل	Gul-i-Muā ^s -far. گل معصفر	Palasi, Dak, Pullus, Purrus.	Butea frondosa. (L.)	Perennial.	The flowers are the parts used.—Yellows.
Mendí. s. f. مندی	Haná. حنا	Henna (leaves).	Lawsonia alba. (Lam.)	Ditto ..	Not used for calicos, but for woollens and hair-cloths; used also for staining the hands, beard, & hair.—Buff.
Darhú. s. m. دارو	Anár. انار	Pomegranate rind.	Punica granatum. (L.)	Ditto ..	Rind of fruit used for calicos; called in Sindee Chodi چودی in Persian Post Anár.—Yellows.
Manyunth ^s s. f. منیونث	Rodang. رودنگ	Madder	Rubia tinctoria. (L.)	....	Said to be grown in Upper Sind?

Obs.—1. The flowers of the Cotton are used as a Kucha dye.

2. The Lac is found plentifully throughout Sind on the Bubbur (Acacia Arabica), and Ber (Zizyphus vulgaris). It is used for hair, cloths, and woollens.

3. Many other dyes are imported. Turmeric (Haid) is beginning to be introduced; Walnut bark (Musag) is introduced from Afghanistan and the Persian Gulf, and is used by women to tinge their gums.

VII.

CLOTHING AND CORDAGE PLANTS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
سيني Siní. s.f.	سن San.	Taag-sun Bengal-sun.	<i>Crotalaria juncea</i> (L.)	Khareef..	Fibre separated by steeping in ponds and tanks.
سجاردو Sujjádó. s. m.	سن San.	Ambaree. (False Sun.)	<i>Hibiscus cannabinus</i> . (L.)	Ditto ..	The names of this and the foregoing plant are often improperly confounded.
واون Wáun ^u . s. m.	درخت پنبه Darakht-i-Pambeh.	Cotton	<i>Gossypium herbaceum</i> . (L.)	Ditto ..	Seeds sold in all bazars, to feed oxen. <i>Gossypium obtusifolium</i> (Rox.) grows perfectly wild all over the limestone formation in Sind.

The Cotton itself is called in Sindee Kapahu گپاھ and in Persian Pambeh پنبه
 The seeds are called in Sindee Kákáro (s. m.) ککرو in Persian Pambeh dāneh دانه پنبه
 The capsule or pod is called in Sindee Kápáso (s. m.) کپاسو
 There are several kinds of Cotton, e. g. Sindee, Kachi (Kutchee), Narmú, Viláyatí, &c.
 Many wild plants in Sind yield excellent twine and rope.

VIII.

TOBACCO AND SUGAR PLANTS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
ڪمانڊ ڪمانڊ ^u . <i>s. m.</i>	نیشکر Naishakkar.	Sugarcane	<i>Saccharum officinarum</i> . (L.)	Khareef . .	There are several varieties, <i>e. g.</i> Kamánd Acho (white), and Gáro (red). The best kind is called Chándukai چاندکاي from Chánduko, the country about Larkhana, which formerly was the property of the Belooch tribe called Chándujo.
تمباک ٽماک ^u . <i>s. m.</i>	تنباکú Tanbákú.	Tobacco	<i>Nicotiana tabacum</i> . (L.)	....	The first crop is called نیری Néri; the second is gathered about a month later, and is inferior; its name is Banti (s. f.) بانت or Bajara. There are several varieties: the chief are, 1st, Shikarpuri, of which there are two kinds, Talkh (bitter) and Mittho (sweet); 2nd, Sindee, a dark and inferior article. All the Sind tobacco is sweated in cocks, and covered with mats, preventing the access of air. Hence its inferiority when compared with American.

IX.

INTOXICATING PLANTS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
بھنگہ Bhang ^a . s. f.	کنب Kanab.	Hemp.....	Cannabis sativa ...	Rubia	The most celebrated kind in Sind is called Bubukái Bhang, from the town of Bubak, near Lake Munchur. It is very strong.
پوسٹ Post ^a . s. f.	کونکار Koknár.	Opium Poppy ..	Papaver somniferum. (L).	Ditto ..	Vide end of these remarks for a detailed account of the different "Modes of Intoxication" practised in Sind.
ڈھاتورو Dhatúro. s. m.	نبرق Nabrak.	Thorn Apple ...	Datura alba. (L.)	Ditto ..	Partly wild, and partly cultivated about houses. There are two varieties, Acho (white) and Káro (black) ; the last rare.

X.

MEDICINES.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
جان <i>Ján' s. f.</i>	اجود	.....	<i>Ptychotis ajowan</i> (L.)	Rubia ..	Seeds carminative.
اسپنگر <i>Ispangar' s. m.</i>	اسپنول	Issufgool; Esufgool.	<i>Plantago Ispaghula</i> (Rox.)	Ditto ..	Seeds demulcent.
اهريو <i>Ahariyo. s. m.</i>	هاله	Halim	<i>Lepidium sativum</i> (L.)	Ditto ..	Seeds used in medicine; plant itself is given to camels, to fatten them.
سونأ مككى <i>Soná Makkí.</i>	سنا	Tinivelly Senna.	<i>Cassia elongata</i> (Lem.)	Ditto ..	Leaves purgative. <i>Senna</i> similar to that of Aleppo grows wild in Sind.

XI.

CONDIMENTS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
ودف <i>Waduf' s. f.</i>	باديان	Souf. (False Fennel.)	<i>Foeniculum panmori</i> (D. C.)	Rubia ..	Used in Pillaus, cooling and tonic.

فودنو Phúdino. s. m.	پودنه Púdnēh.	Mint	<i>Mentha viridis.</i> (L.)	Ditto ..	They also extract an essential oil from it.
مرچ Mirch. s. m.	نفل Filfil.	Red Pepper ..	<i>Capsicum frutescens.</i> (L.)	....	Not so much used as in India.
دالو Dháno. s. m.	گشنیز Gashniz.	Coriander	<i>Coriandrum sativum.</i> (L.)	Rubia ..	Used in made dishes.
جبرو Jíro. s. m.	زیره Zírah.	Cummin	<i>Cuminum cyminum.</i> (L.)	Ditto ..	Used in Pillaus; considered inimical to the fetus, and used as an abortifacient, and also as a preventive against pregnancy.

XII.

FRUITS.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
انجیر Anjír. s. m.	انجیر Anjír.	Fig	<i>Ficus carica.</i> (L.)	....	Would repay care and attention. The purple skinned figs are very rarely met with.
توت شہتوت Tút. Shahútút.	توت Tút.	Mulberry	<i>Morus nigra.</i> (L.)	....	Very well suited to the climate. Might be planted extensively along the canals.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
صوف <i>Súf. s. m.</i>	سبب <i>Síb.</i>	Apple	<i>Pyrus malus. (L.)</i>	....	A small, tasteless fruit, like the Summer Apple of England.
فارو <i>Pháruho. s. m.</i>	فاله <i>Fáleh.</i>	Phulsa	<i>Grewia Asiatica. (L.)</i>	....	A very fine fruit in Sind. Many wild species are found on the hills, whose fruit is palatable, and could be much improved by cultivation.
انب <i>Amb. s. m.</i> امو <i>Amú. s. m.</i>	انبه <i>Ambah.</i>	Mango	<i>Mangifera Indica. (L.)</i>	....	Thrives exceedingly well, and would repay attention. There are many varieties, <i>e. g.</i> Ratan Shiddi, Patasho Godahu, Mar, Watar, Makhan, Suraho, &c.
دراكه <i>Drakht. s. f.</i>	انگور <i>Angúr.</i>	Grape Vine	<i>Vitis vinifera. (L.)</i>	....	In speaking Sindee, Drakha is used for the country grape, as opposed to the finer fruit brought down from the northward. The Khishmish, or dried grapes, are not prepared in Sind.
بر <i>Ber. s. m.</i>	كنار <i>Kunár.</i>	Jujube	<i>Zizyphus vulgaris. (L.)</i>	.....	Many varieties exist, one very large one, called the Sufu Beru or Makkáf Beru. The wild Jujube (<i>Zizyphus jujuba</i>) is called Beru Jan-guro.
جمو <i>Jamú.</i>	.....	Rose Apple	<i>Jambosa vulgaris. (D. C.)</i>		

ليمۇ. s. m.	ليمه	Lime	Citrus bergamia. (Rino.)	....	
زيتۇن. s. m.	.....	Guava	Perdium pyrifera. (L.)	....	Properly speaking, Zaitun signifies the Olive; it is improperly applied to the Guava.
نارىگى. s. m.	نارىگى	Sweet Lime.....	Citrus limetta. (Risso.)	....	Much cultivated. It is also called Sangatari in Sindee. The Orange does not appear to be cultivated.
نارىل. s. m.	نارىل	Cocoa Palm ..	Cocos nucifera. (L.)	....	About Kurachee only, where it might be extensively planted on salt soil with advantage.
سيتافىل	.....	Custard Apple..	Anona squamosa. (L.)	....	Found only in the garden belonging to the late Meer Nusseer Khan, near Hyderabad.
بيجورو. s. m.	ترنج	Pompelmoun; Pummalo ?	Citrus decumana. (L.)	....	Ditto ditto; occasionally called Turanj by learned Sindees.
كيورو. s. m.	موز	Plantain	Musa Paradisiaca. (L.)	....	Kewiro is both the fruit and the tree. The former is also called Kewire-ji-phari. The Hindoos use the leaves as eating plates, and call them Kewire-ji-patal.
دارۇھو. s. m.	انار	Pomegranate ..	Punica granatum. (L.)	....	Very well suited to the climate; would repay care and attention.

Sindee.	Persian.	Common Name.	Scientific Name.	Season.	Remarks.
گیدوری Gedúrí. s. f.	خرپستان i. e. Ass's Dugs.	Greater Sepistan.	<i>Cordia latifolia</i> . (L.)	....	Fruit called Geduro.
لیسوری Lesúrí. s. f.	سگ پستان i. e. Bitch's Dugs.	Smaller Sepistan.	<i>Cordia myxa</i> . (L.)	....	Fruit called Lestiro. A wild species (<i>Cordia Rothii</i> , R. and S.), called Liyari, is sometimes introduced into gardens.
کویت Kawítu. s. m.	.....	Wood Apple ..	<i>Feronia elephantum</i> . (Corr.)	....	Rind of fruit used for anuff-boxes.
تار Tár s. f. کچی Khají. s. f.	نخل Nakhl.	Date Palm	<i>Phoenix dactylifera</i> , and <i>sylvestris</i> . (L.)	....	Much might be done towards improving this useful fruit in a country so well suited to it. When on the tree, the fruit is called جارگه Jarikha (s. f.) or دوكو Danuko (s. m.).
امری Amrí. s. f.	نوبرندی Tamr-i-Hindí; i. e. Indian Date.	Tamarind.....	<i>Tamarindus Indica</i> . (L.)	....	Wild and cultivated; the fruit is called Gidamree.

REMARKS ON THE MODES OF INTOXICATION IN SIND.

WINES.—The wines, properly speaking, are of two kinds, viz :—

- 1, Kishmishí.—Made of dry grapes.
- 2, Angúrí.—Made of the Sind grape, at Hyderabad, Sehwan, and Shikarpoor.

Both the above are either pure, or mixed with a spirit extracted from raw sugar.

LIQUEURS.—Of the liqueurs, I am acquainted with only seven varieties, viz :—

- 1, Dárú^a, or Sheráb^a Soufi.—An extract of aniseed, colourless, expensive, and not much drunk; the spirit in it is generally Gur-brandy.
- 2, Gulábí Sheráb^a.—Made of Gur or other spirit, and perfumed with roses.
- 3, Kaysarí Sheráb^a.—Made as above, and coloured and perfumed with saffron.
- 4, Muskí Sheráb^a.—Containing musk and other ingredients.
- 5, Karne-jo-Sherab^a.—Made of the flowers of a shrub called Karno, and Gur-brandy.
- 6, Sherab^a Turanjí.—Made by pouring spirit upon citron peel.
- 7, Sherab^a Misrí.—A composition of spirits, sugarcandy, and other ingredients.

ALCOHOLS.—The two spirits in most general use are,—

- 1, Kattal^a-jo-dárú, date-brandy.—An article well known throughout the Eastern World.
- 2, Gur^a-jo-dárú.—An alcohol distilled from raw sugar.

The above are drunk by the poor. Those that cannot afford the best kind drink the inferior description, here called Píchak.

OPIUM.—Opium was much eaten before the time of our taking Sind: it is now less common, owing to the increased expense.

Preparations of the *Cannabis sativa* are almost universally used by the lower orders: it is probable that to this habit we may attribute the impotency so common among them, and the consequent corruption of morals. The following are the common forms, viz :—

- 1, Bháng^a, or Sukho, or Sawíá.—The small leaves, husks, and seeds of hemp, ground and mixed up with water, milk, and other additions.

2, Gánjo.—The inflorescence of the hemp before the gum has been expressed ; smoked in a water pipe, till a peculiar contraction of the throat is felt.

3, Charas.—The gum of the hemp (rarely eaten, except when prepared as a sweetmeat) ; generally smoked like Gánjo.

All the three preparations above enumerated are considered highly aphrodisiac, and frequently produce madness, delirium tremens, catalepsy, and other diseases.

MĀĀJUM.—There are many intoxicating sweetmeats termed Māājums, and generally used by the higher classes. Some of these preparations are made up of as many as twenty or thirty different ingredients. The basis of all of them is milk (or ghee) and sugar ; the intoxicating matter, Charas, Gánjo, Bhang, Opium, Datura, and Poppy Seeds ; the condiments, Cloves, Mastich, Cinnamon, Aniseed, Cummin, Cardamoms, &c. &c.

TADHAL.—Tádhal is the generic name for the cooling preparations of Bhang, poppy seeds, and other such articles, drunk during the hot season by the wealthy. The Bhang is believed to have great refrigerating powers, and to neutralise the effects of heat.

The seeds used in preparing these articles are,—

1, Khashkhash ; the Poppy Seed.—It can scarcely be called intoxicating, but aids in producing that peculiar drowsiness which constitutes the delight of the votaries of hemp.

2, Dháturo, the seeds of the *Datura stramonium*.—An active poison, only used by those upon whom hemp, by constant usage, has lost its effects. The Halwái, or sweetmeat makers, are in the habit of mixing up this seed with their Māājums.

NOTES
RELATIVE TO THE
POPULATION OF SIND;
AND THE CUSTOMS, LANGUAGE, AND LITERATURE OF
THE PEOPLE; &c. &c.

BY
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Submitted to Government on the 31st December 1847.

POPULATION OF SIND, &c.

THE Musulman portion of the population of Sind may be divided into two great bodies,—

I.—The Sindee proper.

II.—The naturalised part of the community, viz. the Syuds, Afghans, Beloochees, Africans, Memons, and Khwajas.

The Sindee may be considered as the descendant of the original Hindoo population, converted to Islamism during the reign of the Beni Umayyeh Khaliphs.

The Native annals distinctly mention that Mahomed bin Kasim, the Arab General, found a large and flourishing kingdom in Sind, guarded by a well appointed and efficient army. From the same sources we gather that during the age of ignorance (*i. e.* the time which elapsed between the rise of Christianity and Islamism) emigration had taken place on a large scale from Arabia to Sind; and as, besides other evidence, we may remark that the traditions of Kurdistan, Persia, and Afghanistan all agree in asserting that they were either colonised or conquered by wandering tribes from the great peninsula, there is no reason why Sind may not at a remote age have been overrun by wanderers from Arabia.

The province was easily conquered by the Moslem invaders, and was by them entrusted to a family of Sind converts, whose descendants are still settled in the country. After a long series of invasions by all the hill people from the north and east, it fell into the hands of the Talpoor race of Beloochees, who governed it for about sixty years.

The Sindee is taller and more robust than the Native of India. He is of dark complexion, and tolerably strong and muscular; but idle, apathetic, notoriously cowardly and dishonorable, addicted to intoxication, unclean in his person, and immoral in the extreme. His character has been debased by constant collision with the more hardy and valorous hill tribes, who have always treated him as a serf; and by his perpetual dependency upon Hindoo Shroffs and Banyans, who have robbed him, and impoverished him to the utmost. The Native histories praise him for his skill in tracking footsteps, and divining by means of

sheep's bones (Phanniya-jo-ilm); his chief occupations, at present, are cultivation, fishing, and hunting. There are few learned men amongst the Sindees, their great Akhunds (or instructors) being at present four in number, viz. Miyan Mahomed of Mathara, Miyan Mahomed of Sehwan, Miyan Ibrahim near Omerkote, and Ali Mahomed of Tatta. They generally instruct gratis, and the course of study lasts from fifteen to twenty years. The student begins with Arabic grammar and syntax; then proceeds to Mankit (logic), and reads from two to five elementary works; next to Ma-ani-bayan (or rhetoric), and reads from one to three books in it. The pupils are then considered sufficiently learned to study the Koran, with its different Tapsir (or commentaries). The Hadees, or traditional sayings of the Prophet, and other branches of education, viz. theology, astrology, magic, alchemy, mathematics, geomancy, &c. &c. are occasionally studied. Females of the highest rank are taught to read (though not to understand) the Koran, and are instructed in the different religious works translated into the Sindee tongue; but they are not allowed to write, for the reason prevalent throughout the Moslem world.

The religion of the Sindee is almost universally the Hanifee form of Islamism; a few of them belong to the Sheea sect, but the latter is too inconsiderable in number to be very troublesome. The Kulhora family did much harm to the country, by encouraging the emigration of Syuds, Moollas, and a host of religious locusts, who did little more than take from the people all they could, and flocked in from Bokhara, Shiraz, Hindoostan, and other directions. As many of the Talpoors were Sheeas, their protégés were of the same faith, but the tenets of Tashayu suffered considerably, as usual, by coming into collision with those of the Sunees.

There are many large clans or families of Sindees; the chief are:—

	Bhíriyo.	Bhalái.
A	Bahman.	Bahban.
Arísar.	Bhambro.	Bararo.
Abra-Dáoch.	Badí-poto.	Bákro.
Agim.	Baghdo.	Bhojo.
Amro.	Burbulí.	Bakhiyár.
Ahmedání.	Bádal.	Burdí.
Agár.	Bhand.	Boro.
Achhro.	Bákur.	Burdár.
Akro.	Bhopatání.	Behan.
Abro.	Bútro.	Báran.
	Bhugíyo.	Bambho.
B	Binto.	Bhánái.
Bukíro.	Bhatí.	Berand.

Bodhí.
Bhopat.
Bahár.
Báu.

C

Chahán.
Chániyo.
Chhoretho.
Chhedíyo.
Chaghdo.
Chanbán.
Chandveno.
Chhutto.
Cháran.
Chhortiyo.
Channo.

D

Dero.
Dáyo.
Dhokí.
Dapher (or Shikári).
Dudh.
Dúdo.
Dád-poto.
Dars.
Dado.
Dáraz.
Dhagar.
Dachar.
Dador.
Damkí.
Dadhar.
Dáro.
Dháro.
Dákho.
Dakak.
Dublo.
Dunyo.
Dhággar.
Daherí.
Dúákar.

Deto.
Depar.
Dáochh.
Dínejo.
Dagar.
Dall.
Dambhar.

G

Gaphelo.
Gahlo.
Gaddo.
Giddar.
Gayan.
Garye.
Gel.
Guggo.
Gand Saghar.
Gídar.
Garmo.
Gungo.
Gaicho.
Gagan.
Ghanno.

H

Hále-poto.
Háliyo.
Hinorjo.
Hamátí.
Helayo.
Halleyo.
Hákit.
Hamírako.
Hálo.

I

Isanpoto.
Iakujo.
Iakro.
Iebar.
Iagiyo.
Imát.

Iagsí.
Iuneio.

J

Jahejo.
Júno.
Jhabro.
Jhangasujál.

K

Kokáryo.
Kangár.
Káchhelo.
Khalífor.
Khákí-hálo.
Kháher.
Káho.
Kishmishí.
Kiyan.
Kán.
Khachur.
Kháro.
Kháwar.
Karkulí.
Kánro.
Kodar.
Khuskh.
Kanánd.
Kas.
Kátiyár.
Káuth.
Karyo.
Kakar.
Kírijo.
Káko.
Kebbar.
Khohar.
Kátiyán.
Kándro.
Kubbar.
Kabharo.

		Máchhí.	Rajiro.
		Mangrujo.	Ráno.
I.		Mangnijo.	Rúnjho.
Ládo.		Máhiyun.	Ráthor.
Labhán.		Mindbro.	Rangí.
Logo.		Mahesar.	Rajsí.
Lageto.		Musó.	Rámdeh.
Lako.			Rániyo.
Lang.			
Lákhiyo.		N	
Lándar.		Númryo.	S
Lákho.		Notyár.	Sammo.*
Lodhiyo.		Nor.	Sumro.*
Lángáh.		Náhujo.	Satthio.
Lallang.		Natáni.	Sadhar.
Laddí.		Naréjo.	Sodho.
Landri.		Náích.	Sánd.
		Nágno.	Súfi.
			Saho.
M		O	Shoro.
Mahmat.		Othár.	Shikári(or Dapher).
Mahí-poto.			Sáho.
Mange-poto.		P	Sudar.
Memán.		Pahwar.	Sadehar.
Manahí.		Paran.	Sagho.
Mangnáno.		Parbátiyo.	Sopár.
Mashaíkh-poto.		Parrár.	Shaitáni.
Mor.		Paró.	Sangí.
Máliyo.		Patáfi.	Satpuryo.
Malár.		Parosar.	Sakhéráni.
Mehar.		Parah.	Sáhar.
Multáni.		Pallí.	Sáhim.
Mazdujo.		Pahor.	Sehro.
Mírakhor.		Pussújo.	Samejo.
Machhor.		Pússáyo.	Sipio.
Maharo.		Parahar.	Sehto.
Manáhí.		Pallah.	Sorangi.
Mandhor.			Sámtiyo.
Mándar.			Siddik-poto.
Mahmúd.		R	Siyál.
Mocho.		Rajér.	Shado.
Merí.		Ramzán-poto.	Sholáni.
Maháno.		Ráhú.	

* The Sammo and Sumro formerly ruled the country, and are now labourers and cultivators.

Sátar.	Táro.	Varo-poto.
		Vidhriyo.
T	U	Vikaro.
Tihbo.	Utho.	Vaijáro.
Tájú.	Udhejo.	Vikyo.
Tájeyo.	Unnar.	
Teno.		W
Thaim.	V	Warso.
Tumyo.	Vighyámál.	Wangiyár.
Túno.	Vahíro.	

The Sindhee dialect is a language perfectly distinct from any spoken in India. It is used, with many varieties, from the northern boundary of Kattywar as far north as Bhawulpoor, and extends from the hills to the west, to the Desert which separates Sind from the eastern portion of the Indian peninsula. These limits will agree with the Moslem accounts of the extent of empire belonging to the Rae or Hindoo rulers of Sind. Its grammatical structure is heterogeneous, the noun and its branches belonging to the Sanscrit, whereas the verb and adverb are formed, apparently, upon the Persian model. The dialect abounds in Arabic words, which, contrary to the usual rule in India and Central Asia, constitute the common, not the learned names of things, as Jabal, a hill; Basar, an onion (in Arabic, Basal); Abbo, a father; Thum, garlic (from the Arabic Fum); Shay, a thing; Kull, all; &c. Pure as well as corrupted Sanscrit words, perfectly unintelligible to unlearned Natives of the Indian peninsula, are perpetually occurring in Sind, as Sanee, sir; Kukkur, a cock; Jas, victory; Apar, endless; &c.

The only literature contained in it may be briefly described as religious and poetical, the former being translations of Arabic works on divinity, moral tales, &c., the latter being the popular traditions of the country, cast into rude and unartificial verse. In almost all cases the books have been composed by Sindee Musulmans (as opposed to Beloochees, &c.), and are written in the Arabic character, called the Naskhi. These works are, generally speaking, difficult, and barely intelligible to the Hindoo Moonshees, Mehtas, and Kardars of Sind, and probably this may be the reason why they have hitherto been so little heard of by Europeans. The Hindoos, as will afterwards be explained, have a totally different alphabet, and their own works written in it. To conclude this part of the subject, the only branch of learning valued or cultivated by the Sindee is Arabic. It is not often that he attempts Persian, and the extraordinary difficulty he finds in mastering the most simple arithmetical operation has always rendered him useless as a writer or accountant.

The Sindees being all Moslems, no distinction of caste, properly

speaking, exists amongst them. The Koree (weaver), Dedh, and Chamar (workmen in leather), Chuhro, and Bale-Shahee (sweepers), and Dapher or Shikaree (huntsmen), however, as in all Musulman countries, are considered low and vile. They always marry into their own trades, and the two latter are not generally suffered to live inside the villages and towns.

Among the Dapher or Shikarees, a curious custom prevails: although Moslems, they eat carrion, live in the different Shikargahs, and are not allowed to enter a mosque. When, however, one of this class wishes to become a good Musulman, he lights four fires, and stands in the middle till sufficiently purified by the heat: the Kazeer then causes him to bathe, and put on fresh clothes, and finally teaches him the Kalmeh. He then enters into the Machhi class.

REMARKS ON THE CLASSES NATURALISED IN SIND.

The different classes naturalised in Sind are as follows:—

1st.—Syuds.

4th.—Slaves.

2nd.—Afghans.

5th.—Memons.

3rd.—Beloochees.

6th.—Khewajas.

The Syuds.—The four great families of Syuds settled in Sind are the Bokharee, Matharee, Shirazee, and Lekhirayee. They are all of the Sheea or Rafizee persuasion, and have been settled in the country for upwards of one hundred and fifty years. Some of them are learned men, and are much respected by the people. Under the Kulhora dynasty they became possessed of much property, but the Talpoors, although of the same religious persuasion, rather patronised literature and the arts than wasted their property upon priests.

Afghans.—The Afghans or Puthans are generally found about Hyderabad, and towards the north. Many of them have been settled in the country for some generations, and are possessed of landed property. In personal appearance, strength, and courage, they far surpass the common Sindee. Their nation has frequently attacked Sind, and invariably succeeded in the enterprise. The two most celebrated invasions in later times are, 1st, that under Sirdar Madad Khan Meerzaee about eighty years ago; and that of Shah Soojah, who, however, did not penetrate into the country much beyond Shikarpoor.

Beloochees.—The Beloochees are a mountain tribe, which inhabits the extensive tract of wild and barren country from the Hala Mountains eastward to the confines of Western Persia. When the Talpoor Ameers succeeded the Kulhora dynasty, numbers of their families and dependents settled in the country, and received the reward of their services in land and pensions. The tenure of their Jageers seems to be a rude form of the feudal system. Every chief of a clan was expected

to attend his superior in time of war, and it was a point of honour for each to bring as many vassals into the field as he could muster, though no fixed number was laid down. Another reason of the aggrandisement of the Belooch Zumindars was that the Talpoor Ameers, being mutually jealous and fearful of one another, each strove to attach a greater number of followers to himself, by gifts of land, and other grants.

In our old descriptions of Sind, as for instance those of Captain MacMurdo, &c., the Belooch is generally called a Sindee. The former, however, is a far superior being: he is fairer in complexion, more powerfully formed, of more hardy constitution, and, when intoxicated, sufficiently brave in battle.

He has his own ideas of honour, despises cowardice, and has no small share of national pride. At the same time, he is addicted to intoxication, debauched in his manners, slow in everything except the cunning of a savage, violent, and revengeful; his manners are rough in the extreme; his amusements are chiefly field sports and drinking, and his food is coarse and distasteful. The Beloochees of Sind, in religion, are Hanifée Moslems, though many of them towards Persia are Sheeas; and it was chiefly by seeing so many Tránís at their Court that many of the Talpoors were induced to desert the religion of their forefathers. Their dialect is very little known: it differs considerably from that of the Hill People, and, as far as I can discover, contains no literature, except the productions of their Bhats or bards. Very few Sindees understand it, and the Belooch always converses with the people of the plains in the Sindee tongue.

Another name for the Belooch race is Mirmichee. It is not a light or insulting expression (as Jat applied to a Sindee, or Kirar to a Hindoo), but occurs in their different songs and rhymes. So, for instance, in the old prophetic verses, supposed to allude to the conquest of Sind by the British, and said to have been uttered by the Samoeé or Haftan to Jam Tumachee, it occurs thus:—"Káre Kabáre, Jhero lagando chepahar; *Mirmichi Máre*, sukh Wasandí Sindri." (Near the village of Karo Kabaro, a place between Omerkote and Shahdadpoor, a battle will take place during eighteen hours; the Mirmichee will be defeated, and Sind will enjoy happiness.) As a people, the Beloochees are unusually illiterate, and several of the Talpoor family were unable to read or write.

There is not, I believe, in all Sind a single learned Beloochee; even the Ameers contented themselves with a knowledge of Persian and Sindee, with writing books of poems composed for them, and sending to Persia for works which they never perused. As it was with Europeans during the middle ages, the Beloochee prefers the

pleasures of the chase to any other ; thinks the training of a hawk a more enviable acquirement than reading or writing ; and would rather be able to cut a sheep into two parts than be master of all the sciences ever studied in Bagdad or Bokhara.

The chief clans of Hill People settled in the plains are :—

	B	Gádhái.	Lohání.
Bágrání.		Gorchání.	Lakakar.
Bangulání.		Gabol.	
Bugtí (Bhoogtee).			M
Babur.		H	Mari (Murree).
Badrání.		Holání.	Mir-jat.
Bahrání.			Manikání.
Baharání.		J	Mandrání.
Badání.		Jakráni.	Magsí.
Budhání.		Jamálí.	Muzarí.
Barphat.		Joyo.	
Bhúrgarí.		Jat.	N
Buldí.		Jiskání.	Nizámání.
		Jalbání.	Notání.
C		Jalálání.	Not-kání.
Chandiyo.		Jutoi.	Nahání.
Cholání.		Jádání.	Nodání.
Cháng.		Juráwár.	Nidámání.
Chhalgerí.			
Chángání.		K	R
		Kaprí.	Rind.
D		Kalphar.	Rájer.
Dhonkái.		Karmítí.	
Dedo.		Khoso.	S
Domkí (Doomkee).		Kaloí.	Sháhwání.
			Sálámání.
G		L	Sarkhání.
Gungání.		Loghári.	
Gorphánd.		Lashári.	T
Gopáng.		Lúnd.	Tálpúr.
Giskorí.		Lajwání.	Thoro.

Slaves.—The slaves are generally domestic or household, not predial or rustic, as amongst the Hindoos of India. Formerly great numbers of Zanzibarees, Bombasees, and Hubshees (Abyssinians), &c. found their way into Sind by Muskat, and other parts of Arabia. They were generally imported and sold young, and fetched from Rs. 40 to Rs. 150 ; but the Abyssinians were worth sometimes as much as Rs. 400 or

Rs. 500, especially the females. All of them are celebrated for their thievish, drunken, and fighting propensities: under the Native rulers they were almost as troublesome as the Siddees of Kutch. They were treated as inmates of the family, and lived so comfortably that emancipation to them was rather an evil than a benefit. In some cases they rose to distinction, and, as confidential servants of the princes, exercised no small authority over their inferiors. Of this class was the Siddee Hosh Mahomed, the favourite attendant of Shere Mahomed. All this class became Hanifee Musulmans, and, generally speaking, married females of their own caste. The male Siddees of one family usually took to wife the female slaves belonging to it, and did not connect themselves with the property of another master. The children of slaves were of course slaves, and manumission appears to have been rarely practised, except for religious motives.

Occasionally a Sinddee Moslem would marry a Siddyanee, and the half-caste offspring is called a Guddo. A Quadroon, or the offspring of such half-caste, and a Sinddee father, is called a Kambrani.

Memons.—Many Memons are found settled in Sind, especially about Hyderabad, Sehwan, and Kurachee. They doubtless were originally Kutchee Hindoos, who became Moslems, and probably emigrated to Sind during the Kulhora rule. Their avocations are trade, agriculture, and breeding camels; their dress is that of the Sinddee, and their faith that of Abu Hanifec. Some of them are very learned men, and they have done more than any other class to introduce the religious sciences into this country. I have noticed this class of people, as they have either abandoned or never adopted the heresy so common among their brethren in Bombay, viz. the system of depriving the females of their pecuniary rights in wills and inheritances. The Sind Memon always adheres to the word of the Koran; leaves one-fourth of his property to his wife, if he has no issue by her, and one-eighth should he have issue. His daughter, moreover, claims half the portion of property allowed to a son. No class of people in Sind is more highly spoken of than the Memon.

Khwajas.—There are but few Khwajas settled in this part of the world. Their own account of their origin, &c. is that they originally emigrated from Persia; and it is almost certain that they fled from their native country when the Ismaeliyeh heresy (to which they still cleave) was so severely treated by Halaku Khan. They differ from the Ismaeliyehs in one essential point, viz. whereas that people only believe in seven Imaums, the Khwajas continue the line up to the present day. They are therefore heterodox Sheeas, as they reject Abubekr, Omar, and Osman, and reverence Ali, Hasan, Hasein, Zainul Abidin, Mahomed-i-Bakr, and Imaum Giasari Sadik. The Khwajas, male and female, all

wear white, red, and coloured clothes, avoiding dark blue, the usual hue of the country. They have their own Mukhee in Kurachee, and never go to the Moslem Kazees to settle their religious differences. Under the Mukhee are a number of inferior officers, called Warees, and their probity (among their own caste) and strictness of life are highly spoken of. Their present Imaum, Agha Khan, now a pensioner of the British Government, has done much towards injuring these poor people, by his rapacity, and ill-judged extortion.

Hindoos.—The Hindoo portion of the community occupies in Sind the same social position that the Musulmans do in India. As in Arabia, Afghanistan, and other portions of Central Asia, the Hindoo of Sind is merely employed in trade, and in ministering to the religious wants of his fellow castemen. We therefore find among them none of the outcasts (as Purwarees, Mangs, Korees, Pasees, Chandalas, &c.) so numerous in their own country. It is very probable that few or none of the Hindoo families which existed in Sind at the time of the first Moslem inroad have survived the persecution to which they were subject; and it is most likely that by degrees they were either converted to Islamism, or emigrated to another land. The present race is almost entirely of Punjaabee origin, as their features, manners, religion, ceremonies, and opinions, as well as their names, sufficiently prove. But although from the country of Nanak Shah, few of them are really of the Sikh persuasion, though most of them have a tendency that way. The fact is, the latter religion is so confused, and intermingled with Hindooism, that we can scarcely discern where the distinction begins or ends.

As, however, they still persist in dividing themselves into castes, I may follow their own plan, in enumerating the chief subdivisions, and add a short description of each.

Bramins.—Of the Bramins we find two chief castes, which do not intermarry, viz. 1st, Pokarno; 2nd, Sarsudh.

The Pokarno are Shewaks (or worshippers) of Maharaj, an Avatar of Vishnoo, and are therefore pure Hindoos. They eat no flesh, and wear the turban, not the Sind cap; they shave their beards, and dress very like the common traders, or Soucars. The Pokarno considers himself superior to the Sarsudh, as the latter will eat from his hand; moreover the Pokarno generally can read, if not understand, Sanscrit, and is skilled in drawing out the Janam-patri or horoscopes of children, &c. His knowledge of astrology is, however, very confined. Few of this caste learn Persian, or undertake business of any kind, public or private. The Pokarno takes the affix Das, Ram, Chund, Rae, Mal, Jee, and Misr, before or after his name; as Misr Sukhdeojee, Taro Misr. They live by instructing the Hindoos in their Dharma or

religious duties, by deciding horary questions, writing out the Tripno, or astrological aspect of a man's fortunes, and other such impositions. They are much respected by their inferiors in caste, and even by those who profess the Sikh faith. To the sanctity of their name and origin, they add the prestige of a tolerably strict life, never drink spirits, and never marry out of their own caste.

The Sarsudh worships Mahadeva (or Shiva), and Bhowanee, his Sakti. The latter deity is known to them by many names and forms, e. g. Durga, Devee, Parwutee, Kalee, and Singhawanee (the "Rider of the Lion"). Most of the Tirthas, or places of Hindoo pilgrimage in Sind, are sacred to the latter deity,—as Hinglaj; the Maklee Hills, near Tatta; Dhara Tirth in the Lukkee Hills, near Sehwan; &c. The Sarsudh only abstains from certain kinds of flesh, as that of the cow, tame fowls, and other impure meats; he eats the deer, kid, sheep, wild birds of most species, fish, and onions. The meat is always bought, as most castes of Hindoos in Sind will not kill any animals themselves. The Sarsudh marries in his own caste. As regards dress, he wears the clothes of a Soucar or Hindoo merchant, and shaves the beard; he is not distinguished by any peculiarity in the Tilak, or sectarian mark. So also the Pokarno places on his forehead a perpendicular or horizontal mark indifferently; whereas in India the former distinguishes the worshipper of Vishnoo from the Shaivya, who is known by the line across the brow. Most Sarsudhs wear a white turban, whereas the Pokarno prefers a red one; and the former will occasionally assume the costume of an Amil (or an individual in civil employment), whereas the latter, as a rule, never does. There are considerable numbers of this caste at Hyderabad, and Sehwan or Sewistan. Few of them learn Persian, but confine themselves to Sanscrit, and the Gurmukhee writings; and it is very rare to find any of them engaged in Government business. The Sarsudh has very little astrological knowledge, but he makes up for his deficiency in that line by a rather rude succedaneum. The mode by which he divines futurity is as follows: the questioner goes to the Bramin, and makes some inquiry respecting his future fortunes. The seer holds his breath for a short time, and, the more effectually to prevent respiration, closes his nose with one hand. After a little delay, he pronounces upon the issue of the affair, and receives a small sum for his trouble. This style of prediction is called Nashkan Koran, and is generally practised in Sind, although it would almost appear to require more power of imposture in the practiser, and more credulity in the dupe, than most men are capable of.

Kshatriya.—Of the Kshatriyas we find but a few who lay claim to the honours of that caste; and here I may observe, that it is general throughout India for the different castes of fighting Shudras, whose pecu-

liar Dharma or religious duty it is to engage in war and plunder, to call themselves Kshatriyas, although, according to Hindoo history, all that race was annihilated by divine wrath. So the Nair of Malabar, who is notoriously of servile caste, will describe himself and his ancestors as belonging to the royal or fighting division; wears the Janco or thread of the twice born, and demean himself accordingly. The Kshatriya of Sind is almost invariably a Wanee or Banyan, who becomes a follower of Nanak Shah's faith. He is therefore a common Sikh, and, by the rules of his religion, ought not to be bound by any distinction of caste. He refuses to touch meat, unless the animal has been killed according to the form called Jhatko, *i. e.* a single stroke of the sword across the neck, whilst the words "Bol Khalsa, wah gurnkí fath" are pronounced. This the Kshatriya generally does himself, or gets some other fellow-casteman to perform for him. The Kshatriya in Sind generally engages in trade: very few of them are Amils, and their studies are usually confined to Gurmukhee, and the writings of the Gooroos. They wear no peculiar costume, and do not necessarily shave or wear the beard; they are either deists, or worshippers of the Hindoo Deities indifferently, and feed like the Sarsudh Bramins.

Waishya.—Of the Waishya, Wanee or Banyan caste, we find one great family, viz. the Lohano. It is, as usual, divided and subdivided almost *ad infinitum*, but the distinguishing features of the race are still sufficiently prominent. In treating of the Lohano caste, we describe the main body of Hindoos in Sind.

The Lohano wears the thread of the twice born, though a very imperfect specimen of the Waishya race. He eats meat, drinks spirits, and will not object to fish and onions. Some are Vishnavahs, or followers of the Vaishnya faith; others worship the different incarnations of Shiva and his Sakti; some, again, are of the Sikh faith; whilst others venerate the river (Indus) god and his Wuzeer, under the respective names of Jenda Peer and Udhero Lall. Their devotions are neither frequent nor regular; they generally content themselves with attending the different Mela, Jat, and Darsan (*i. e.* different kinds of religious fairs and meetings), where much more licentiousness than devotion is to be met with.

The Lohano's prayers, if they can be so called, are usually in the Punjaabee, rarely in the Sanscrit or Persian languages.

They are said to have a few works in the Sindee tongue, written in the Khudawadee character, but they are very unwilling to show or sell them to Europeans.

Gooroos.—The Gooroos (or religious instructors) read and explain books to their followers; and the Lohanos who engage in trade always keep their Vahiyun or books in the rude and all but illegible Sindee character. In their spoken dialect they are fond of words of

Sanskrit, instead of Arabic or Persian origin; their names of the days of the week also differ from those used by the Musulmans. The two faiths are mixed up together in an unusual way in Sind: the Hindoo will often become the Murid of a Moslem, and *vice versâ*. So Agha Khan, the Imaum, or visible head of a branch of the Ismaeliyeh heresy, has a number of Hindoo followers, who reverence him, and pay the usual sum (one-eighth of their gains), as if they belonged to the same caste. So, also, the same Peers or saints buried in different parts of the country are not only respected by individuals of both religions, but, moreover, the Hindoos will all have one name for each, and the Moslems another. Thus the former venerate the river god under the name of Jenda Peer, whereas the latter call him Khwaja Khizr; so also Udhero Lall becomes Shaikh Tahir; Lalu Jasraj is converted into Peer Mungho (Muggur Peer); Raja Bhartaree is called Lall Shahbaz; &c. And of course the Hindoos claim those worthies, most probably with more justice than the Moslems, who have merely altered the name for their own purposes. By this style of proceeding, it is not difficult to make out the number of these saints said to be buried in Sind, viz. 125,000. Contrary to the practice of high caste men in India, here we find that Hindoos who have been forcibly made Moslems, and compelled to be circumcised, to say the Kalmeh, attend the mosque, and eat the flesh of the cow, can be admitted into their original Dharma by going through certain ceremonies, and paying highly for the luxury.

Classes of Lohano.—The Lohano may be divided into two great classes, according to their several occupations,—1st, the Amils, or Government servants; 2nd, the Soucars, Hathwara, Pokhwara, &c., i. e. merchants, shopkeepers, agriculturists, &c.

Amils.—The Amils have adopted the Musulman costume, wear the Topee, the beard long, the Sutthan or drawers, and only shave the crown of the head. They do not, however, trim the mustachios according to the Sunnat, often will put on the Tilak or sectarian mark, and wear the shirt with a gore across the left breast, whereas the Moslems always have the opening down the right side. The former, too, have not adopted the Tohar or circumcision, and neither eat nor intermarry with the followers of Mahomed. Like other Lohano, they eat the same meat as the Sarsudh Bramin, buy flesh from Musulmans (as it is unlawful for them to kill anything), and drink water from the hand of their inferiors in caste. Their marriages are expensive, and seldom cost less than five or six hundred rupees; consequently many remain single till late in life. They seldom take more than one wife, unless that one be barren; and dislike, though will not refuse, to marry a widow. In the Khudabadee caste of Lohano, if a girl becomes a widow

early in life, the deceased husband's brother generally marries her : the practice is occasionally, though rarely, met with among the other divisions of that race. The ceremony preliminary to marriage is called *Manyno*, or *betrothal* : it is conducted by the intervention of a *Sarsudh* and a *Zajik* (musician), and their wives. The two males enter into a treaty with the father of the intended bride, and the females conduct matters between the women of the two families. If agreed upon, they wait for the first lucky day, and then send to the sister or sister-in-law of the bridegroom a dish of sweetmeats, and cocoanuts, and a few rupees. This and a few other ceremonies being duly concluded, both parties patiently await the means of matrimony. The nuptial ceremony is a matter of no small consequence : it lasts from nine to thirty days ; a large sum is expended in feasts ; Bramins and Goroos attend, to read out the different formulas ; and lastly, the bride is taken to the bridegroom's house. It would be too tedious to enter into the minutiae of this ceremony, and as some of the proceedings are of a very peculiar nature, I therefore refrain from any detailed description of them.

As regards education, the *Amil* begins with going to a Bramin, where some ceremonies are gone through, and the Sanscrit alphabet read to him. He then attends some *Akhund* or teacher, and reads from morning till night, with a short break about the middle of the day. The first book is the *Babnamo* or spelling book ; next a short collection of verses, called the *Sat Kitabee* ; then the *Gulistan* of Saadi ; lastly the *Tusha* of Harkaran. He also translates Persian into Sindee *vivá voce*, learns to write the former tongue, and begins arithmetic. When he has acquired the elements of the latter study, he is introduced into one of the *Dufturs* by some relation, and there puts into practice that of which he has learned the theory. The rules of arithmetic generally known are *Jumma* (addition), and *Khora* or *Zarb* (multiplication) ; the other simple operations are performed rather by guesswork than by rule. The Persian, spoken and written, is of the most solecistic description, and both in point of pronunciation and handwriting is inferior even to the Indian jargon formerly so generally used. A most unintelligible kind of *Shikastah* or running hand is the only one of the seven kinds of writing known in Sind, and Native words are introduced almost *ad libitum*.

As regards the general appearance and character of the *Amil*, we may describe him as a more robust and a better looking man than the common Sindee, and account for the difference by referring it to his meat diet, and indulgence in spirits instead of *Bhang*. He is rather acute than talented, and evinces much readiness in accounts, and in managing money matters. Even the *Ameers*, with all their hatred and

contempt for Kafirs, could not collect or dispose of their revenues without the aid of Hindoo Amils. Thus probably arose the Kardar system, which, though totally of a different nature, is in Sind what the Patel and his little republic are in different parts of India. But although the Native rulers had checks over their officers which we have not, we find that no Ameer could ever consider himself safe from the most impudent frauds. To conclude this part of the subject, I may safely assert that in no part of the Eastern world, as known to us, does there exist a more scheming, crafty, or dangerous race, than these Hindoo Amils. They are held by no oath, fear no risk, and show no pity when in pursuit of gain; they hesitate not to forge documents, seals, and orders, for the most trifling advantage; show a determined fondness for falsehood, and unite the utmost patience in suffering to the greatest cowardice in action.

Soucars, &c.—Some of the Setts or Soucars wear the costume of the Amil, others are dressed like the common Hindoo shopkeepers and agriculturists. The clothes of the latter are a turban, an Angurkho (or long cotton coat), a Lung or Poteyo (*i. e.* a Dhotur), a Kamarbund, and a Bochan or handkerchief thrown over the shoulders. They shave the beard, but do not trim the mustachios; wear the Janeo and Tilak, and shave the crown and back of the head, so as to leave merely a Choti (or lock on the pole), and Chuna (or bunches of hair on both sides). When in mourning, they shave the mustachios and the Chuna. For education, the trader goes to a Wajho (or Hindoo teacher), who teaches him the Sindee (not the Arabic) alphabet, reading and writing, together with a little arithmetic and book-keeping. After a year or two, he is supposed to have finished his studies, and begins to learn business by practice. It is needless to say that these individuals prove themselves uncommonly acute, and show the same aptitude for business as their brethren in India. Some of them, as for instance the Shikarporee merchants, wander all over Central Asia, and it is commonly said in Afghanistan that everywhere you meet with a Jat and a Kirar (or Sindee Banyan). Their staple articles are cloth and Hundees, especially the latter, and large fortunes used thus to be acquired. Under the British Government their system of remittances has been all but done away with. The Shikarporee Hindoos are as notorious for the depravity of their females as for wealth and commerce; in fact their caste fellows in other parts of Sind have often taken the subject into serious consideration.

The names of the Amils, merchants, shopkeepers, and other members of the Waishya class are usually of Sanscrit derivation, and the different affixes, Mal, Chund, Rae, Ram, Das, Lall, &c., are generally added to the individual's name. But these words do not

denote, as they frequently do in India, any difference of caste : the son of a Ram or Lall may be called Chund or Mal, and *vice versâ*.

The Shudra Division.—Of the Shudra or servile caste, we find several varieties. They all have adopted the Janeo and Tilak, and intermarry in their own castes. The Wahun exercise the craft called in Persian Nukhudpazi, and subsist by preparing and selling different kinds of toasted grains. The Sonaro or Targar is, properly speaking, a mixed caste, descended from a Bramin father and a Shudra mother. In Sind, however, he is considered as one of the servile race. Like his brethren in almost all countries, he is distinguished for a superior degree of craftiness, and is usually a wealthy man for his station in life. The Hindoo females in Sind wear a profusion of ornaments, and the Moslems have imitated the custom, though the latter do not use so many different kinds of decorations as the former.

A list of the Geha (or jewels) in common use would contain about two hundred words, many of them pure Sindee, others borrowed from Hindoostan and Persia.

The Khatee or dyer caste is a large one in this country, as coloured clothes are generally used by Hindoos and Moslems. They generally live at some distance from the large towns, and the reason for their so doing is said to be that they derive therefrom a greater facility in charging high for the article dyed. Many of them, however, are found in the towns, and there is no religious prejudice against them. It is most probable that they find it necessary to live near the wells from which the sweetest water is procured, and establish their manufactories accordingly.

The Sochee or shoemaker will not dress or tan leather ; he buys it of the Moslem Mochee (or tanner), sews it, and, if required, embroiders it with silk.

The Hujam generally comes from about Jeysulmere, but he is of Sindee extraction, and wears the dress of his own country, though his turban is generally of the Jeysulmere form.

The above are the chief Shudra castes in Sind : they worship Mahadeva and Devee, and they have no priests but Bramins. The names of the Shudras may be known by the absence of the affixes Ram, Mal, &c., and the use of the appellation of the caste after the individual's own name, *e. g.* Teju Wahun, Pursu Sonaro, Haru Khatee, Khatta Sochi, &c.

Sikhs.—Besides these different classes of Hindoos, there are a few of the nondescripts called Sikhs, resident at Hyderabad, Sehwan, and other places in Sind. They have separated into two grand divisions, viz. the Lohano Sikh, and the Akalee or Khalsa. The main difference seems to be that the latter will eat some meats (as for

instance that of the domestic fowl) which the Lohano will not touch; and, on the contrary, the former in cases of mourning will shave their faces, whereas the latter will never allow a razor to touch their hair or beards. The Sikhs are easily recognised by the fairness of their complexions, and by a peculiar look and general appearance. Their devotions are in the Punjaabee language, and their holy books (as the *Adi Grunth*, the *Dashama Grunth*, and the *Panj Grunth*) are composed in that dialect, and written in the *Gurmukhee* character. Those sacred volumes are generally placed in *Dhurumsalas*, or places devoted to their reception, and a *Fakeer* (called an *Udhasee*), with a *Murid* (or young follower, technically termed a *Tahlio*), are placed to watch over and preserve the books.

Religious Mendicants.—Of religious mendicants we find the *Shanasee*, *Jogee*, *Gosaen*, and *Jungam*, though the latter is very rare. The four former are originally of *Bramin* origin; the *Jungam* is generally a Native of *Hindoostan*. The *Shanasee* has ochre-coloured (*Geru*) clothes; and wears a turban, not a cap. He is, strictly speaking, a religious mendicant, subsists by begging, and by the alms of his *Chelas*. He is also a kind of venal sorcerer, and acquires great consideration by the sale of his *Mantras* and *Jantras*. The *Shanasee* worships *Mahadeva*, and never marries. He sometimes commits suicide, by ordering his pupils to bury him alive (a rite called *Guffah*); but if he dies in the course of nature, he directs his body to be disposed of either by *Dhartidak* (*i. e.* burying in the earth), or *Jaladak* (*i. e.* throwing into water). The former is generally, the latter only occasionally practised. The following is the usual way of performing *Jaladak*:—A *Dillo* (or pot) full of sand is fastened to each arm and leg of the corpse; it is then carried into a boat, till the mourners get to deep water, and the body is there cast in, with many ceremonies.

The *Jogees* also have ochre-coloured clothes, but wear caps instead of turbans. Their habitations are called *Astan*, and they live by the same means as the *Shanasee*. They pierce a large hole in the lobe of the ear, and are therefore called "*Kana-phar*" or the *Ear-splitters*. When dying, they are not allowed to lie down, but placed in a sitting position, leaning forward on a *Beragin* (a wooden pillow). For the *Jogee's* tomb they dig a pit, fill it half full of salt, place a *Pahori* (mattock) in the corpse's hand, and then seat it upon the layer of salt, in the position called *Patrole* (or cross-legged), with the arms resting on the *Beragin*. Salt is then again thrown over the body, and earth above it. Some great men of the caste have a tomb of bricks, and a lamp lighted before it.

The *Gosaen* has many *Chelas* in *Sind*. He appears like the *Shanasee*, lives by alms and presents, and often amasses a considerable sum of money. He is generally thrown into water when dead.

The Ogar resembles the Jogee, as the Gosaen does the Shanasee. He carries a bit of hollow stick, fastened by a thread round the neck, and invariably blows through it before undertaking any action whatever.

The Jungam, being an Indian, not a Sindee beggar, requires not to be described here.

None of the four classes above described wear the Janeo. Their names are thus distinguished: Natgur Shanasee; Surajgur Gosaen; Goruknath Jogee; Sarasatinath Ogar; &c. &c. They all worship Mahadeva, Goruknath (a son of Mahadeva according to their account), and Babakinath, a peculiar Avatar of Goruknath, worshipped at Hinglaj, and so called from the Sindee word Babakan (to boil up), because when a votary approaches the holy spot, the mud boils up of its own accord.

The Hindoo females in Sind appear to be fond of intrigue, especially among their own people; possess a considerable share of personal beauty, and seldom, if ever, become common prostitutes. The Musulmans, on the contrary, seem to have little objection to entering the bazar, and, like the Moslems in many parts of India, appear to consider it rather an honorable occupation than otherwise. The reason of this point of superiority in the Hindoo over the Musulman probably is, that in the first place the former exercises a stricter surveillance over his females; and secondly, he seldom drinks Bhang, and is accustomed to a more substantial diet. It is not the custom for respectable individuals of either religion to travel about with their women, or to take them to foreign countries; they usually leave them under the charge of their parents and friends. In places where this practice is universal, as for instance in Shikarpoor, it is not unusual for a husband to return home after a long sojourn in foreign lands, and find his wife with a small family of her own. The offended party, however, seldom allows these incidents to interfere with the domestic tie, and after inflicting a mild chastisement, thinks no more about it, and treats the fatherless offspring with a truly paternal kindness.

All the Hindoos, with the exception of the religious mendicants only, burn the bodies of their dead. No one is allowed to die in his bed, otherwise one of the males of the family who has attended upon the deceased becomes in a state of impurity, and must visit some well known Tirtha, as for instance Narayensar in Kutch, Dhara Tirth, &c. The sick man, when near death, is placed upon a Chanko, Lapan, or Poto (*i. e.* a spot smeared with cowdung), and when in the last agony, Gunga water, Sherbet of Tulsee leaves, &c. must be poured into his mouth. If the dying man be rich, copious alms are then distributed to the poor; but if not sufficiently wealthy, a little wheat and ghee are considered sufficient. The mourners then bring seven pieces of pure

wood, as that of the tamarisk tree, &c. to make up the Acharni (or bier). Immediately upon this Jowaree stalks are placed, then some white Khadee cloth ; next a layer of cotton ; then a piece of Bafto (or fine cotton cloth) ; and lastly the corpse, in a Kafan (a kind of shroud) : over the body, a shawl, a piece of Kinkob, Mushroo, Gulbadan, or Khudbaf should be thrown ; and it is tied down with Jota, or fine string of Sara (probably the Arundo Karka). Perfumes and flowers are then thrown over the corpse, and after a few short ceremonies the bier is raised by four of the nearest relations, who are relieved of their burden by the other friends of the deceased at certain intervals. When arrived at the Masan (burning-place), they throw a potful of cold water over the body, and place it upon a pyre of wood, generally Babool ; a Bramin and other religious characters then approach, place a piece of money and other articles in the corpse's mouth, and then the four relatives who first raised the body light the pyre at the corners. The mourners then retire till the corpse is consumed, after which they walk round the pyre three times, bathe, and return home. A vast variety of ceremonies then follows, and the routine is not usually finished before twelve days. The widow shaves her head only once. The fine distinctions of death during the Uttarayan and the Dakhshanayan do not seem to be recognised ; and the Sutee rite also appears unknown to the Sind Hindoo, although it doubtlessly was practised in the olden time.

EXTRACTS FROM ROUGH NOTES

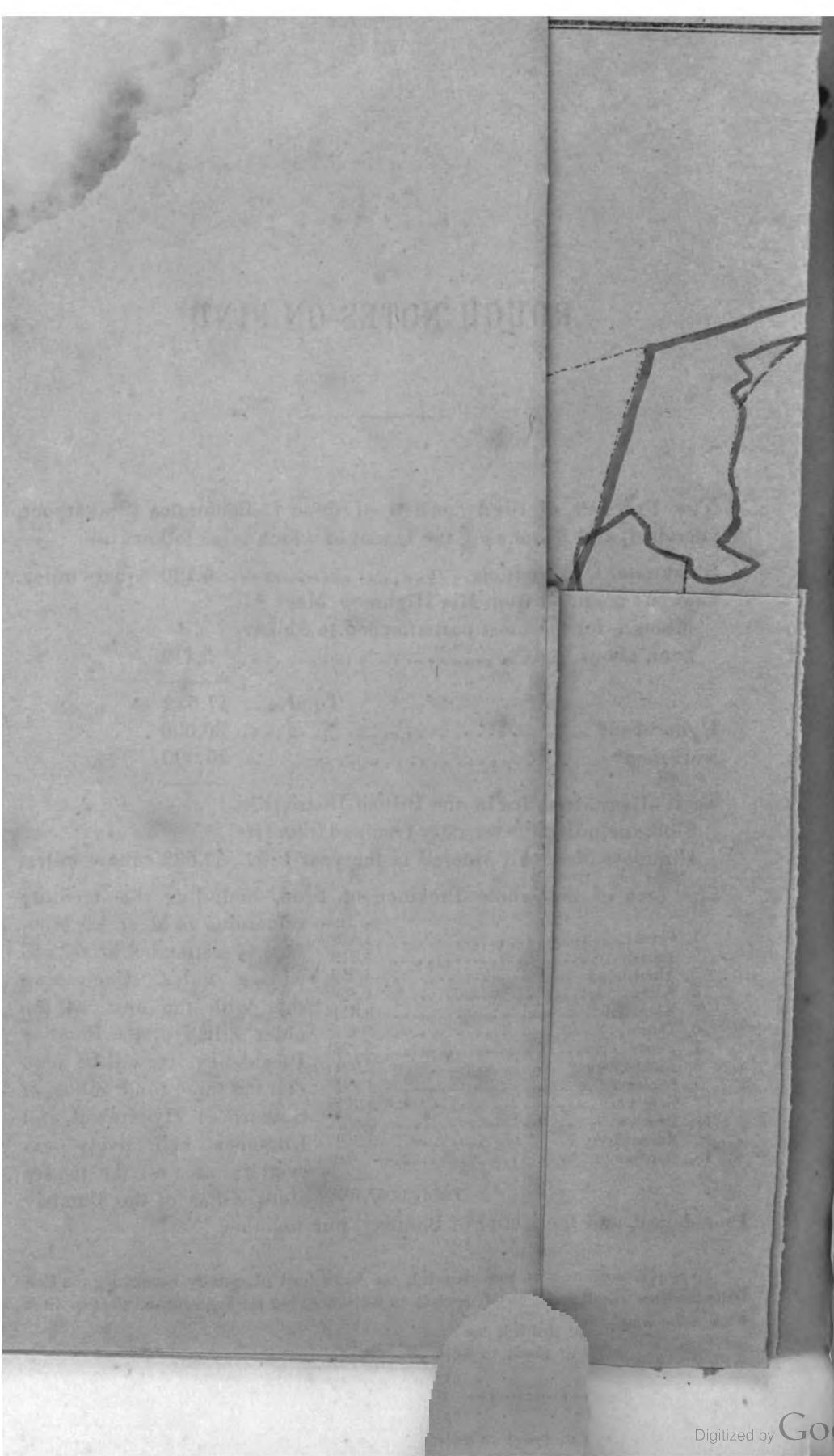
BY

MR. H. B. E. FRERE,

COMMISSIONER IN SIND,

CONTAINING INFORMATION WITH REFERENCE TO THE RELATIVE SIZES OF THE THREE ZILLAS INTO WHICH THE BRITISH DISTRICTS IN THAT PROVINCE ARE DIVIDED, AS COMPARED WITH THE OLDER ZILLAS OF THE BOMBAY PRESIDENCY; ACCOMPANIED BY AN EXPLANATORY MAP; ALSO AFFORDING A BRIEF REVIEW OF THE MODE IN WHICH THE CRIMINAL ADMINISTRATION OF SIND IS CONDUCTED.

Submitted to Government on the 29th November 1853.



ROUGH NOTES ON SIND.

THE Province of Sind consists of three Collectorates (Shikarpoor, Hyderabad, and Kurachee), the extent of which is as follows:—

Shikarpoor Old Districts..... 6,120 square miles.

Districts resumed from His Highness Meer Ali

Moorad, for the most part attached to Shikar-

poor, about 5,412 „

Total.... 11,532 „

Hyderabad* 30,000

Kurachee* 16,000 „

Total of square miles in the British Districts in

Sind, including the territory resumed from His

Highness Meer Ali Moorad in the year 1852. 57,532 square miles.

The area of the whole Province of Sind, including the territory

	Sq. Miles.	
1, Surat	1,629	remaining to Meer Ali Moo-
2, Broach	1,319	rad, is estimated at 60,240
3, Ahmedabad	4,356	square miles. Comparing
4, Kaira	1,869	this with the area of the
5, Khandesh	9,311	older Zillas of the Bombay
6, Tanna	5,477	Presidency, it will be seen
7, Poona	5,298	that the three Sind Zillas of
8, Ahmednuggur	9,931	Shikarpoor, Hyderabad, and
9, Sholapoor	4,991	Kurachee collectively ex-
10, Belgaum	5,405	ceed in area all the twelve
11, Dharwar	3,837	older Zillas of the Bombay
12, Rutnagherry	3,964	
13, Bombay	18	
Total....	57,405	

Presidency, and the island of Bombay, put together.

* Since this measurement was recorded, the large tract of country comprising the East Delta has been transferred from Hyderabad to Kurachee, but the aggregate of the two Zillas remains the same.

The relative proportions of the Bombay and Sind Zillas are, perhaps, better shown by the annexed sketch, on which I have drawn the three Sind Zillas, and within their area have protracted, on the same scale, six of the Bombay Zillas, including the three largest, and a portion of a seventh ; still the unoccupied area within the limits of Sind affords, it will be seen, ample room for the five Bombay Zillas which are not therein protracted.

The concentric circles in the accompanying map, drawn at intervals of twenty-five miles, show the distances in the case of each Zilla from the head quarter station : tabulated they give the following results :—

The extreme portions of the Bombay Zillas are within circles of the following radii, from their respective head quarter stations :—

	Radius in Miles of circle which would include the extreme portions of the Zilla.
Broach.....	50
Surat and Tanna, each.....	75
Khandesh, Ahmednuggur, Poona, and Sholapoor, the largest Bombay Zillas	100

Sind.

Shikarpoor	125
Hyderabad.....	175
Kurachee	150

From the above facts, it will be evident how greatly the Sind Zillas exceed in area those of the largest class in our old provinces. In population and revenue they rank lower, and would be reckoned in the Bombay Presidency as Zillas of middling, or small size.

* * * * *

In no part of the Presidency could a district similar to Sind, however poor, or thinly populated, be divided into less than three Zillas, or Collectorates.

The people are principally Mahomedans, in the proportion of about four Mahomedans to one of any other caste. This is a peculiarity in which the population is quite dissimilar from that of any part of Bombay. The people are generally peaceable and well disposed, though far less civilized than the generality of Indian populations.

The excellent Police has nearly put a stop to gang robbery, and all the more daring violations of the rights of property ; cattle-stealing, however, hardly regarded by the people as a crime, and murders, generally arising from quarrels about women, are commoner crimes than in India, and occur, perhaps, oftener in the thinly inhabited and

almost desert districts near the frontier than in the populous districts on the banks of the river.

As shown in the margin, the area of Sind considerably exceeds, and that of the three Zillas is only a few hundred square miles less than, the area of the whole of England and Wales put together.

	Sq. Miles.
Area of the three Collectorates of Sind, as above shown	57,532
Total area of Sind	60,240
Area of Hyderabad Zilla	30,000
Area of Scotland	26,014
Area of England and Wales	57,813

Under the present system, criminal justice is administered by the following officers, having powers of criminal jurisdiction higher than those of a Magistrate in India :—

Sixteen officers (Deputy Magistrates, generally detached, and in charge of districts) with powers to dispose of all cases requiring less than seven years' imprisonment: all sentences above one year are subject to the confirmation of the Commissioner.

Four officers (three Magistrates, and the Deputy Collector Thur and Parkur) with powers to dispose of all cases (including cases involving capital punishment): sentences of above seven years' imprisonment require the confirmation of the Commissioner; sentences of death, or transportation for life, are subject to the approval of Government.

The Commissioner has no original jurisdiction.

In other words, there are four Courts, with powers equal to those of a Session Judge's Court in the old Bombay Zillas, and sixteen Courts with power to pass, subject to the confirmation of an officer in the province, sentences of the same extent as a Session Judge in Bombay can pass, without necessity for confirmation.

With reference to the crimes which usually come before these tribunals, and the sentences they are in the habit of passing, it may be observed that the limit of seven years' imprisonment is seldom exceeded, except in cases of such gravity as to come under the head of capital offences. In this point of view it may be stated, that there are four Courts for the trial of murders, and other capital offences, and sixteen for the trial of crimes of minor gravity.

This number of courts has not been found by any means too great; indeed, notwithstanding the fact that the powers of the Magistrates' Assistants at detached stations (the Deputy Magistrates) far exceed those of the same rank of officers in India, the great evil most loudly complained of, and one of the great obstacles to a good system of criminal justice, is the immense distances which parties and witnesses have to travel to reach the court of justice.

Hence it will be found necessary to increase the judicial powers of Native officers much beyond what is usual in India. A commencement

has been made, at first in the face of grave doubts on the part of all local officers, as to whether the experiment of vesting the Natives of Sind with judicial powers would succeed ; but so marked have been the good effects, that I do not find a single dissentient voice on the subject, and all are desirous to see those powers gradually extended.

* * * * *

The numbers of convictions, in which sentences were passed, which would have been beyond the power of a Magistrate in Bombay, were as follows, in each of the three last years :—

In 1850	301 cases.
In 1851	148 „
In 1852	178 „
Total of three years	627 cases.
Average per annum	209 „

These numbers do not include acquittals, except in capital cases ; the total number of *trials* of such cases must therefore have been much greater.

The average numbers of criminal TRIALS, including acquittals, before each of the Sessions Courts of the Bombay Presidency, during the last two years, for which I have the returns, were,—

In 1849..	180 cases.
In 1850..	219 „
Total in two years	399 cases.
Average for one year	199 „

LISTS OF, AND BRIEF INFORMATION IN REGARD TO,
ALL
CHIEFS AND PERSONS OF IMPORTANCE,
RESIDING WITHIN
THE KURACHEE, HYDERABAD, AND SHIKARPOOR
COLLECTORATES.

PREPARED BY
CAPTAIN H. W. PREEDY,
COLLECTOR AND MAGISTRATE OF KURACHEE;

CAPTAIN A. B. RATHBORNE,
COLLECTOR AND MAGISTRATE OF HYDERABAD;

AND
MAJOR P. GOLDNEY,
COLLECTOR AND MAGISTRATE OF SHIKARPOOR.

Submitted to Government on the 31st December 1847.

CHIEFS &c. IN SIND.

CHIEFS AND PERSONS OF IMPORTANCE RESIDING IN THE KURACHEE COLLECTORATE.

AT KURACHEE.

SYUD SADIZ SHAH, head Kardar, son of Syud Ismael Shah, formerly one of the principal Nobles of the Hyderabad Court. The family came originally from Persia to Sind, in the reign of Noor Mahomed, Kulhora.

NAOMULL HOTHCHUND, Merchant, ex-Kardar.—His family came originally from Sehwan, but they have for four generations been located at Kurachee, where they have always been considered the principal mercantile firm in this part of Sind. The services rendered by Naomull and his family to Government have been so numerous and so great, that some years ago he was most strongly recommended by Sir H. Pottinger to the then Governor General, Lord Auckland, for a pension. The change of administration, however, prevented this being granted.

KHEMCHUND WULUD WISSUNDAS, Merchant.—Wissundas, the father of Khemchund, was a shrewd, intelligent man, and did us good service on our first coming to Sind. Khemchund, his son, lacks much of his father's talents, and of his perseverance and attention to business.

HUNSAJ, KUTCHEE NUGGUN, JOSEE, ASSA MULL, TAROO MOOKEE, and **MOOAB ALI KHWAJA**, are the principal traders in Kurachee.

IN THE PURGUNA OF GHORABAREE.

JAN MAHOMED, of the tribe of Kulmuttee Beloochees, principal Zumindar of the Purguna Peer Dinah, of the Peer Zadah Tribe, Zumindar.

SYUD SUMMA BATHEE, Zumindar.

IBRAHIM BOODAREE, Zumindar.

NIBBOO BOODAREE, Zumindar.

NATHA BUNYA, Zumindar.

MAHUMNA NAREE, Zumindar.

SYATREE PURGUNA.

SYUD ALLA RUKKIL SHAH, Zumindar.

SYUD MEEA SHAH, Zumindar.

SYUD JAN MAHOMED BAHDAEE, Zumindar.

SYUD SHAIKH OOSMAN, Zumindar, and Peer in charge of the Tomb of Peer Putta. A man of great influence in Syatree.

SHAIKH MUMMOO, Zumindar.

CHUTTANEE BUNYA, Zumindar.

SAKRA PURGUNA.

HAJEE KHAN WULUD IBRAHIM KHAN, Kulmuttee, Jageerdar.—The Kulmuttee or Kurmuttee tribe of Beloochees came originally from Hul-lub, on the frontiers of Persia. On their march towards Sind, they took possession of Kurmut, in Mukran, where they remained for a considerable time, and from which place they derive their name. From Kurmut they gradually extended themselves towards Sind, until, finding themselves strong enough to cope with the Burrey tribe, which then occupied the districts lying between Kurachee and the Hubb river, they crossed that stream, and dispossessed the Burrey of their lands. After their conquest, the Kurmuttees settled on the banks of the Mulleer river, whence they extended themselves into Sakra, where their Chief now resides, and where he obtained a Jageer, on condition that when his services might be required he should muster his tribe for the defence of Tatta. The father of the present Chief, Ibrahim Khan, raised his clan, and, joining with the Jokeeas and Noomreeas, threatened to attack our camp in 1843, when hostilities commenced. The confederates, however, dispersed without waiting to be attacked, on a smaller force moving out against them. This being one of the old Sinddee Tribes, His Excellency the late Governor re-granted the Jageer, on the death of Ibrahim Khan, to his son Hajee Khan, and his six brothers, free of the deduction of one-fourth which is paid by all other Jageerdars on their lands being re-granted. The Kurmuttee tribe can muster about four hundred men.

KABOOL WULUD JAFFER, formerly Urbah, or Chief Zumindar of Sakra.

SYUD RAJ MAHOMED, Zumindar.

DEWAN SOOJAN SING, Zumindar.

CHUTTA BHOOKHERA, Zumindar.

WULEE MAHOMED LUGAREE, Jageerdar.

MUNDEE RAM, Zumindar.

IN GARKA.

SYUD LOOTF ALI SHAH, and his brother ALI BUKSH; the former Kardar of Syatree, the latter of Sakra.

Zumindars: SHAIKH GOOL MAHOMED, AIL BUNYA, MEER ALI, Jam, or Chief of the Jokeeas.

The Jokeea tribe is of Rajpoot origin; they formerly occupied a mountainous district named Kungara, north of Shah Bilawul, whence about a hundred and fifty years ago they descended to the Valley of the Hubb river, and, as their numbers increased, gradually spread themselves over the lands lying between the Hubb and the Mulleer rivers.

Their first Chiefs were of no celebrity, but in the reign of Goolam Shah Kulhora, Beejar Jokeea, who was a sepoy in the service of that prince, obtained the Chieftainship, and title of Jam, for the following services:—The district of Sakra, including Darajah, and Souree Bunde, was at that time governed by a Hindoo Rana, or Chief, named Arjoon, a man of great bodily strength, and possessing great influence in the Delta. Goolam Shah was anxious to dispossess him of his territories, but having no just pretence for attacking him, he was anxious to have him assassinated. This, however, it was no easy matter to accomplish, as the Rana was noted as a brave and powerful man, and being on his guard, he had constructed a temporary building on an island, to which he repaired every night with a few followers, to sleep. Beejar Jokeea, however, undertook to accomplish his destruction, and having collected about twenty resolute men of his own tribe, he and they swam over at night to the island where the Rana reposed, and making a sudden onslaught, sword in hand, killed him and all his followers, before they recovered from their surprise.

Goolam Shah, on hearing of his success, seized upon the Rana's lands, and appointed Beejar Jam of the Jokeea tribe; and the latter, having obtained great renown by his exploit, easily obtained an acknowledgment of his supremacy from the whole tribe. Being of a restless, intriguing disposition, Jam Beejar soon contrived to involve himself in quarrels with his neighbours: the Kurmutees he dispossessed of the Valley of the Mulleer river; having gained a victory over the Noomreeas near the Hubb river, he compelled them to move further north, and he and his followers occupied the whole of the lands lying between the Hubb and the Gharra Creek.

Jam Beejar was succeeded by his son Moorad Ali, whose son, Meer Ali, is the present Jam (1847). In the beginning of February 1843, the Jam was directed by the Ameers to muster his tribe, and, in conjunction with the Kurmutees and Noomreeas, to occupy the town of Kurachee,

and, if possible, to drive the British out of their camp. The Chiefs assembled their men, but the news of the victory at Meeanee so damped their ardour that they did not dare to approach within forty miles of Kurachee.

After the victory of Hyderabad, the Jam came in and made his Salaam, and the Jageers which he had held under the Ameers were restored to him. In addition to these Jageers, the Jam had the privilege of levying customs and transit duties on all merchandize passing from Kurachee to Tatta; on all imports and exports at Gharra, and a rupee per maund on all the ghee manufactured in the districts occupied by his clan. He also claimed the spirit contract at Gharra, which, since the conquest, amounted in value to between two and three thousand Hyderabad rupees per annum. All these privileges and claims were conceded to him, and he enjoyed the proceeds arising from them, amounting to about Rs. 6,500 per annum, until the abolition of the customs and transit duties, when, at his request, and as compensation for the loss he sustained, a Jageer of 8,000 beegas was granted to him in Garka by his Excellency Sir Charles Napier.

The Jam is, however, still dissatisfied, on account of His Excellency having refused to grant him the whole of the district lying between the Hubb and the Gharra Creek, on the east and west, and between Cape Monse and the mountains whence the Mulleer river takes its rise, on the north and south, a space of about *three thousand square miles!* to which he has no manner of claim beyond that of occupancy by his clan at the time of the conquest.

Since the Jageer in Garka was granted to him, I have also discovered that the liquor contract at Gharra belonged properly to his nephew, Chakur, whose Jageers were forfeited on account of his neglecting to make his Salaam prior to the 24th May 1844. The Jam has therefore received 2,500 beegas in excess as Jageer, beyond what he is entitled to. This fact has lately been brought to my notice by Chakur. As the land had been made over to the Jam before this was known, I would not recommend its resumption, especially as the Jam is an old man, and without heirs. On his death, the whole of his Jageers will revert to Government. In addition to the Jageer in Garka, the Jam possesses a Jageer in the Ghorabaree Purguna, and at Binda, in the Hyderabad Collectorate.

BERONATH OF TATTA.

SYUD NUJJUF ALI SHAH, Zumindar.

SALEH MAHOMED, Zumindar.

LAIK DINNA, Zumindar.

GOOLAM HOOSSEIN, Moonshee.

PEETAMBERDAS, Moonshee.
 SYUD SABUR ALI SHAH, Sucklaee.
 SYUD NUSSEH SHAH, Mulkbaner.
 SYUD TAJ MAHOMED, Sherazee.
 SYUD BAKUR ALI, Madnoee.
 SYUD ROSHUR ALI, Madnoee.
 ASSUN WULUD GUNDA, Merchant.
 ALI BUKSH, Merchant.
 DOORA PUNJAUBEE, Shroff.
 KHEMCHUND WULUD FITTOK, Shroff.
 ETOO CHOWDRY, Bhatia.
 KAZEE YEBYAH.
 KAZEE ABDOO RAHIM.

SEREE PURGUNA.

HAJEE HILLYA, Zumindar.
 FUKKURCHUND, Zumindar.
 GOOLAM LA, nephew of MEER ALI JAM, Jageerdar.

SONDA.

MOOLLA SIDIZ, Zumindar.
 MOOLLA GOOLAM HOOSSEIN.

JERRUK.

ALLOO JERRUK, Zumindar.
 HASHIM JERRUK, Zumindar.

KOTREE.

SYUD MAHOMED SHAH.
 SYUD MOOLANA.

MALIK AHMED KHAN, Jageerdar, and Chief of the Noomurdee, or Noomreea clan. This Chief can trace back his descent through fifteen generations. The tribe appears originally to have been of Rajpoot origin. The first of the family whose name has been recorded was Essub Khan, who, accompanied by his eight brothers, set forth from Rajpootana, and after many adventures arrived at Kedje, in Mukran, where they were well received by the Chief of that place.

After sojourning for some time at Kedje, the Noomreea or Noomurdee (literally nine men) brothers assassinated the Chief of the place, on account of a gross insult offered to the elder brother by the latter. In

consequence of this, they were obliged to fly the country, and they returned to the western frontier of Sind, where they settled and intermarried with the inhabitants of the country. In a few years they became a very numerous and powerful tribe, and gradually obtained possession of the whole of the hill country lying between the Pabb Mountains and the Indus on the east and west, and between the Mulleer and Bharun rivers on the north and south. For many years fierce contests were maintained between them and the Khosas; but the latter were eventually driven beyond the Bharun river. This happened about seventy years ago, since which time the Noomreeas have held undisturbed possession.

AHMED KHAN, the present Chief, is an old man of about seventy-five years of age. He was highly esteemed by the Ameers, who did him the honour of marrying two ladies of his family,—Meer Noor Mahomed married his sister, and Meer Kurrum Ali married one of his daughters. He has three sons,—Sobdar, Pahai Khan, and Izzut Khan. He has also another daughter, married to the Jam of Beila, whose sister is married to his eldest son Sobdar. He generally resides at Humlanee, in the hill country, where his brother, Mahomed Khan, resides with him. Ahmed Khan has had the good sense to relinquish his claim to all the hill lands occupied by his tribe, which are lying waste, in consideration of which Sir Charles Napier granted him in Jageer the whole of the land which he or his people had cultivated in the hills within the last five years, amounting to 2,500 beegas.

This Chief also possesses extensive Jageers near Kotree and Ryla, in Ghorabaree. He formerly enjoyed the privilege of collecting customs and tolls on the river at Kotree. On the abolition of customs, he received a grant of 600 beegas of land near Boodapoor, as compensation for the loss of his customs and tolls. The village of Kotree, and the gardens near it, formerly belonged to Ahmed Khan, but the latter being required for Government purposes, the Chief readily relinquished them, and obtained other gardens above and below Kotree in exchange.

SOBDAR KHAN, eldest son of Ahmed Khan, usually resides at Kotree. The Noomreea tribe is still divided into nine different families, who intermarry with each other, and with the Jokeeas.

Four Chiefs of this tribe still levy Mith, a kind of blackmail, on all merchandize passing between Sehwan and Kurachee, and between Kurachee and Kotree, by the hill routes. Their names are MEER KHAN and JOORNA KHAN, who reside at Dooba, near the Bharun river; and DHEEGEE KHAN and MOOJEED KHAN, who reside at Dummaj. The rates at which Mith is paid to these Chiefs is three annas per camel-load between Sehwan and Kurachee, and one anna and a half between Kurachee and Kotree and *vice versa*. In consideration of this Mith, the

Noomreea Chiefs guarantee the safety of the whole of the merchandize, camels, and attendants, and, should anything be lost, are bound to make it good. They detach two or more of their followers as guides with each Kafila, who receive two rupees each for the trip between Kotree and Kurachee, and four rupees each between Seliwan and Kurachee. These guides are expected to supply the travellers with wood and water on the march.

IN BADA.

ALI BUKSH, Jageerdar.

IN RYLA.

ALI, Zumindar.

BOOLAT KHAN, Jageerdar, cousin of Ahmed Khan, Noomreea.

JEENUD KHAN, son of ditto.

KULKUMEAH, Zumindar.

WUDDERA BEG, of Bada, Zumindar.

WULLEENAH BEG, of Bada.

TAJ MAHOMED, Peer Zada of Oonerpoor.

JAM SHORAH, of Boodapoor.

NOOR MAHOMED.

MULLOO and KANOTE NUDDERAH.

IN MAHAJANDA.

SHAH MILL KUTCHEE, Zumindar.

MAHOMED MAHAJUNDA, Zumindar.

MAHOMED OOTERA, Zumindar.

EYDAS BUNYA, Merchant.

NUPPAREE WULUD DOOLENA, Merchant.

IN LUKKEE.

SYUD GOOL MAHOMED SHAH,

SYUD SALEH MAHOMED SHAH,

SYUD ALI AKBAR SHAH,

SYUD CHUTTUN SHAH, of Sunn,

SYUD SHAHBOODEEN, of Bumbera,

SYUD BANOOSH SHAH, of Amree,

SYUD OOMED ALI SHAH, of Tatta.

} Zumindars.

IN SEHWAN.

SYUD GOOMUN SHAH, } In charge of the Tomb }
 SYUD PURRIL SHAH, } of Lall Shahbaz. } Zumindars.

KAZEE MAHOMED.

SHAIKH NIBBUNDA, }
 SHAIKH WULWOO, } Treasurers at the Tomb of Lall Shahbaz.

CHOTHRAM, Head Kardar, formerly confidential Moonshee of Meer Nusseer Khan.

SHAMDAS, Bunya.

LALOO, Shroff.

REHWA, Shroff.

LALLA JEYTAMUND GOOLABROY RESURDAS, of the Ranajee Tribe.

IN JANGHAR.

SYUD KAMI SHAH, Zumindar, formerly Head Kardar of Sehwan, under the Ameers' Government.

MEERZA BAKUR, formerly a confidential servant of Meer Shahdad.

BILLUND SHAH, }
 BUDDER SHAH, } Zumindars.
 HYDER SHAH, }

BHAWUL KHAN RIND, }
 GOOL MAHOMED RIND, } Jageerdars.
 SYUD KUSBUR ALI SHAH, }

IN BOOBUK.

MUGDOOM GOOLAM HYDER, }
 MUGDOOM FAZUL MAHOMED, }
 NUSSEER MAHOMED, } Zumindars.
 YAR MAHOMED YAMATEE, }
 PEER MAHOMED YAMATEE, }
 BHOEE KHAN JAHEEJEE, }
 BHOO L CHUND, }

IN SAMTANEE.

SYUD MEEA SHAH,	}	Zumindars.
SYUD ALI MAHOMED SHAH,		
SYUD GOOLAM MOORTEZA SHAH,		
SYUD NUSSEER MAHOMED,		
SYUD KADUR BUKSH, of Bhaw,		
SYUD SHERE MAHOMED, of Gheir,		
SYUD ALI MAHOMED, of ditto,		
SYUD GOOLAM MAHOMED, of ditto,		
SYUD DUNNEE BUKSH, of ditto,		
SYUD MUJUD ALI SHAH, of ditto.		
SOOKYA CHUNNA,		
KURRUM ALI SHAH,		
MEER MAHOMED LORA,		

IN DADOO.

MOOREED PHARVEE,	}	Zumindars.
Ghibur Powar,		
Pandee Mehmun,		
Wulleedad Powar,		
Ahmed Shah Syud,		
Syadad Mugsee,	}	Jageerdars.
Sulyman Subzul,		
Jan Mahomed,		
Goolam Nubbée,		
Sheré Mahomed,		
Alladad,		
Jaffer Khan, Lugaree,		

IN PUTTEE.

Dewan Heeranund,	}	Zumindars.
Chundeeram,		
Guffoor Ali Potah,		
Mahomed Potah,		
Shurruf Potah,		
Datoo Julbanee,		
Soomar Ali Potah,		

IN KURMPOOR.

FAKEER MAHOMED MUDDERAH,	}	Zumindars.
BAKUR OTAH,		
WUDDYA POWAR,		
LALLCHUND BUNYA,		
GOLOO POWAR,		
BUCHUL CHUNNA,		
JAFFUR CHUNNA,		

IN WHICHOLA.

SYUD GOOL MAHOMED SHAH,	}	Zumindars.
SYUD AHMED SHAH,		
SYUD KADUR BUKSH,		
ABDOOLLA•POWAR,		
ISMAEL POWAR,		
JULLAL KHAN, Nizamane,	}	Jageerdars.
KUMAL KHAN, Nizamane,		
KASSIM JUMALEE,		
MOORAD ALI, Lugaree,		
DUMMA LUGAREE,		
MAHOMED KHAN, Lugaree,		
AHMED KHAN, Lugaree,		
GOWAR KHAN, Lugaree,		
ALLA MAHOMED, Lugaree,		

IN KHODABAD.

GOOL MAHOMED, Mugreyah,	}	Zumindars.
ABDAH BRAMANEE,		
MITTA POWAR,		
SYUD SHAHBURDEEN,		
SYUD ABOO TALIH,		

IN MURKAPOOR.

WULEE MAHOMED, Bougaree,	}	Jageerdars.
ALI MAHOMED, Bougaree,		
MOOSA KHAN, Jumalee,		

IN KACHA.

BUKSHA KHAN, Jumalee,	} Jageerdars.
MOORAD KHAN, Lugaree,	
MULLAR KHAN, Lugaree,	
ISMAEL KHAN, Lugaree,	
GOOL MAHOMED, Lugaree,	
SHAHDDAD JUMALEE, Lugaree,	}

The Rhuids are considered the Head of the Belooch Tribes. These tribes first became powerful under YAR MAHOMED, Kulhora, whom they assisted in conquering the Powar Tribe, who then held dominion in Sind. The conquest was effected with such ease that Yar Mahomed directed a number of clubs to be suspended in front of his tomb, as a memorial of his having conquered the country with clubs alone. The clubs remain suspended to this day in front of his tomb at Khodabad. The Belooch Chiefs remained faithful to the Kulhoras until Sursuraz Khan outraged the feelings of Futteh Khan, Head of the Talpoor Tribe, by demanding his daughter, who was engaged to Goolam Ali Talpoor in marriage. The Talpoors took up arms to revenge the insult, and the result is a matter of history.

LIST OF ALL CHIEFS AND PERSONS OF IMPORTANCE RESIDING WITHIN THE LIMITS OF THE
HYDERABAD COLLECTORATE.

Sl. No.	Tribe.	NAMES.	Number of Beegas of Land held by each Party.	On what Tenure held.	Remarks.
1	Talpoor, Shadadane.	MEER BEEJAR KHAN ..	221,709	Free	Lineal descendant and representative of Beejar, murdered by the Kulhoras in 1778. Has also large estates on the other side of the river. A quiet, gentlemanly man ; bears an excellent character.
2	Ditto	MEER GOOLAM SHAH.	31,176	Paying 2 annas per beega....	Cousin of the above. Half his estates were confiscated on conviction of forgery of a Sunud purporting to grant lands in Chunnajah. Has considerable lands on the other side of the river.
3	Ditto	MEER FUZOOLALI ..			
4	Ditto	MEER MAHMOOD	142,678	Free	Brother of the above ; their estates are held in co-partnership. They are not held in high esteem, and are very avaricious. Younger brother of the Beejar who was murdered by the Kulhoras. Very old and infirm, and has quite retired to the seclusion of his family. He bears a high character. Has lands in the other Collectorate.
5	Ditto	MEER AHMED KHAN SHADADANE.	10,950	Free	Eldest son of the above. A quiet man, of unassuming manners, and much respected.

6	Ditto	....	MEER JUHAN KHAN....	Someland in Sha- dadpoor.	Free.....	Brother of the above. His dissipation, and consequent involvements, have of late totally deprived him of the consideration due to his rank. Has lands in the Kurachee Collectorate.
7	Ditto	....	MEER ALI MAHMOOD ..	13,839	Free.....	A quiet man, of no remarkable character; son of Meer Ahmed Khan.
8	Ditto	....	MEER ALI BUKSH.....	441,312	Paying one-fourth.	Son of Meer Goolam Shahwanee, who was killed at Meeanee. Chief of Mahomed Khan-ka-Tanda, which was named after his grandfather. Was very young when the British took Sind, and has grown up free from prejudice; bears an excellent character. Has lands in the Kurachee Collectorate.
9	Ditto	....	MEER AHMED KHAN SHAHWANEE.	194,606	Free.....	Cousin of the above. Stands very well, but is addicted to the bottle, and neglects his lands.
10	Ditto	....	MEER BOODA.....	113,648	Free.....	Cousin of the last. A quiet man; of good character.
11	Ditto	....	MEER MAHOMED HUSSUN.	39,108	Free.....	Cousin of the last. A very good man in his way, but hopelessly involved in debt.
12	Ditto	....	MEER MAHOMED KHAN KHANANEE.	93,081	Free.....	The head of the Khananee branch of Talpoors; resides at Jann Halla. A quiet man, of good character, but reduced to a state of approaching imbecility, from excess in opium. Has, besides, lands in the Kurachee Collectorate.
13	Ditto	....	MEER AHMED KHAN KHANANEE.	193,826	Paying one-fourth...	A very good, young boy, cousin of the above; son of Meer Jan Mahomed Talpoor, who was killed at Meeanee. The father was the leader in, and great promoter of, the disturbances that ended in the conquest, but bore a high character among his people.

No.	Tribe.	NAMES.	Number of Beezas of Land held by each Party.	On what Tenure held.	Remarks.
14	Talpoor, Shadadancee.	MEER SHERE MAHOMED.	55,274	Free.....	Cousin of Meer Mahomed, and uncle of Meer Ahmed Khan. Is much liked by the B-loochees, and bears a good character; but is unfortunately entangled in a low connection, which puts him at constant feud with his relatives, and much diminishes the respect that would otherwise be paid to him.
15	Ditto	MEER MOOBARUK { KHAN.	7,290 6,660	Free..... } Pays one-fourth.	Cousin of the above. His father was killed at Meeanee. He is a quiet boy, of good disposition, apparently.
16	Ditto	MEER MAHOMED ALI KHAN.	11,290	Free.....	Uncle of the above. A quiet man, of no remarkable character.
17	Ditto	MEER KHAN MAHOMED.	82,284	Free.....	A man of good character, with the name, however, of being a little grasping. Was one of the chief leaders in the commotion which ended in the conquest, but since then has been the devoted servant of this Government, in which, however, he has not been unmindful of his own interest. Has large estates on the other side of the river. His aunt is mother of the ex-Ameer Meer Sobdar.
18	Ditto	MEER BOODA.....	....	....	Brother of the above. A quiet man, of no remarkable character. Is co-partner in his brother's lands.

19	Ditto	....	MEER FUTTEH KHAN ..	4,000	Free.....	Brother of the above. A rude, boisterous gentleman, who thinks of nothing but the bottle, and Shikar.
20	Ditto	....	MEER GOOLAM MAHOMED.	64,172	Free.....	Maternal uncle of the above. A quiet man, of no remarkable character.
21	Ditto	....	MEER ABDOULLA	27,479	Paying one-fourth..	A quiet, gentlemanly man, of considerable ability, and much respected in his neighbourhood; now Kardar of Meerpoor. His father, who was nearly related to Meer Shere Mahomed of Meerpoor, was killed at Meeanee. He is far from wealthy.
22	Ditto	....	MEER RAJA	22,806	Free.....	Father-in-law of the ex-Ameer Shere Mahomed of Meerpoor. A quiet man, of good character.
23	Ditto	....	NUWAB MAHOMED KHAN TORAH.	41,135	Free.....	Formerly bore the name of the fifth Ameer of Sind, and is certainly to this day the man of the greatest influence in it. Bears a high character among all classes, not, however, without the imputation of having used his power too much to his own profit, and the aggrandisement of his family. He is an obedient subject, but does not affect to love the change. He has, however, made himself very useful under our Government, from which his great object is to obtain a guarantee for the descent of his Jageers to his daughter, who is his only child. In his habits he is a very free liver. Has valuable lands in the other Collectorates, and cultivates large Ryutee lands.
24	Ditto	....	DOST ALI KHAN TORAH.	31,690	Free.....	First cousin and brother-in-law of the above; son of the Khyr Mahomed mentioned by Dr. Burnes as Chief Minister when he visited Sind. A clever man, of quiet

No.	Tribe.	NAMES.	Number of Beegas of Land held by each Party.	On what Tenure held.	Remarks.
25	Talpoor, Shadadancee.	SHERE MAHOMED TORAH.	18,806	Free	habits; is married to a daughter of the Nuwab Ahmed Khan Lugaree, and his son is betrothed to the daughter of the abovenamed Nuwab Mahomed Khan Torah.
26	Ditto	BHAG ALI KHAN TAL- POOR.	17,750	Free	Elder brother of the above, but of little consideration. He is a quiet, well-behaved old man, but as the distinction of the Torah family is entirely personal, he never had any influence. He is now Kardar of Wangeree.
27	Bhogaree	AHMED KHAN	5,666	Free	A man of no consideration, notorious for his former addiction to the most infamous species of debauchery, and as having been a great Shikara; on the latter account was patronised by Meer Nusseer Khan.
28	Bhagranee	RANJA.	5,991	Free	A quiet man, of gentlemanly habits; held power as a Mooktearkar in the Meers' time.
29	Nizamane	WULEE MAHOMED.	40,841	Paying one-fourth.	A man of no remarkable character. A Belooch Chief. Lives near Shadadpoor. A Sirdar among the Nizamanees, of no remarkable character. His father was killed at Dubba.
30	Ditto	GOOLAM OOLLA.	27,938	Ditto	The Chief of a tribe of the Nizamanees. A boy, of no remarkable character.

31	Ditto	RAIM KHAN	24,843	Ditto	Of no remarkable character.
32	Ditto	GOOLAM MAHOMED ..			A man of no remarkable character.
33	Ditto	LALL KHAN	9,392	Free	A man of rank among the Nizamanees. Bears a high character for strong sense and fair dealing, and is much respected.
34	Ditto	ALLADAD	7,500	Paying one-fourth..	Son of Goolam Hussein, Chief of the Ismaelanee Nizamanees. A young man, of no remarkable character.
35	Ditto	ALI BUKSH (Kurmanee) ..	6,068	Free	Of no remarkable character.
36	Ditto	GAWAR KHAN	5,780	Free	Of no remarkable character.
37	Lugaree	NUWAB AHMED KHAN LUGAREE.	Land in Shikar- poor Col- lectorate.	Paying one-third ..	Has lands on the other side of the river, paying a small rent. Was of the highest consideration and power under the ex-Ameers. Is of a venturesome disposition, and remarkably plain-spoken. Bears an excellent character, but with the fault of great haughtiness. He was therefore respected and feared, rather than loved, by the rest of his nation.
38	Ditto	MAHOMED KHAN LUGAREE.	Land chiefly in Shikar- poor Col- lectorate.	Ditto	A younger brother of the above. Bears an excellent character, and is clever and well bred. Held an office of great power in the Meers' time. These are sons of the Wulee Mahomed Lugaree spoken of by Burnes as the Minister in his day.
39	Ditto	GOOLAM MAHOMED (Koomburee Walla).	16,111	Free	A Belooch leader of repute, with Meer Jan Mahomed Talpoor, Meer Khan Mahomed, and Yuktyar Khan Lugaree, the great instigator of the measure adopted by

No.	Tribes.	NAMES.	Number of Beegas of Land held by each Party.	On what Tenure held.	Remarks.
40	Lugaree	YEKHTYAR KHAN	15,977	Free	Meer Nusseer Khan, which led to the latter's dethronement. Goolam Mahomed is of rude, boisterous manners, but of a good disposition; more liberal than his means admit of, and much liked, but rather involved. His present Jageer was conferred by the Supreme Government.
41	Ditto	GOOLAM MAHOMED	10,751	Free	A man who has all the rudeness of the above, without his virtues; for the rest he is not remarkable in any point of view, though he held a high position under Meer Sobdar: the selections, however, of that Meer were not considered as any proof of talent or worth.
42	Ditto	GOOLAM SHAH	9,689	Free	A plain, rude Chief, of no remarkable character.
43	Ditto	JAN MAHOMED	8,000	Free	A very quiet, gentlemanly, sensible man, and bears a most excellent character among all. He is a first cousin of Nuwab Ahmed Khan Lugaree, and was held in high consideration in the Meers' time. He is now much reduced in circumstances, and is Kardar of Wallassa.
					Brother of the above. Considerably inferior to his brother in talent, but in other respects the remarks apply. He was Kardar of Jatee, and is now Buttaidar of Maryar.

44	Ditto	GOOLAM MOOSTAFA .. {	4,825	Pays one-fourth.	} Nephew of the above. Quite a child, but gives every promise of future excellence.
45	Ditto	HOOSSEIN KHAN (Bheemance).	500	Do. 2 as. per bga.	
46	Murree	FAZIL KHAN	5,021	Free	
47	Ditto	MOHOBUT KHAN	17,824	Free	} Father-in-law of the ex-Ameer Meer Nusseer Khan. A quiet old man, of amiable disposition, and bears an excellent character.
48	Ditto	SORAB			
49	Ditto	KUREEMDAD			
50	Ditto	MAHOMED ALI, and his Sons.	13,000	Free	} A cousin of the above, and co-partner in his Jageer. Of no remarkable character.
51	Ditto	GOOLAM HYDER	12,958	Free	
52	Ditto	JUMMAL KHAN .....	....	Free	
53	Ditto	DAO KHAN	11,026	Paying one-fourth..	} The Chief of Adam Khan-ka-Tanda ; a sharer in the Jageers of Dud Khan. A quiet, respectable old gentleman.
54	Ditto	ALI KHAN	1,000	Free	
			9,651	Paying one-fourth..	} A young man, of no remarkable character.
					} Of no remarkable character.

Sl. No.	Tribe.	NAMES.	Number of Beegas of Land held by each Party.	On what Tenure held.	Remarks.
55	Murree.....	TAJA	7,166	Free.....	Of no remarkable character.
56	Ditto	CHUPPER KHAN.....	6,106	Free.....	Of no remarkable character.
57	Ditto	BELOOCH KHAN.....	5,200	Free.....	Of no remarkable character.
58	Jumalee	DATO	15,343	Free.....	Chief of a branch of the Jumalees. Of no remarkable character.
59	Ditto	GOOLAM ALI	5,103	Free.....	A Sirdar, of no remarkable character.
60	Ditto	ROOSTUM.....	4,049	Free.....	A Sirdar, of no remarkable character.
61	Khokur	BHEERO	27,074	Paying one-fourth..	Chief of the Khokurs; lately succeeded his father. Of amiable disposition, and good character, but of straitened means.
62	Ditto	KHAN MAHOMED	23,050	Free.....	Cousin of the above. An old Chief, of excellent character.
63	Ditto	DINGANA.....	7,500	Free.....	A quiet, sensible old man, of good character, who has seen a good deal of the world for a Native of Sind.
64	Ditto	ROOSTUM	5,000	Free.....	Of no remarkable character.
65	Kuttyan	GOOLAM MAHOMED, with his Sons and Brothers..	67,000	Free.....	Chief of the Kuttyans. Held in high estimation by his former master. Bears a good character among the people, and a Sirdar of amiable disposition. Has lands on the other side of the river.

66	Ditto	MAHOMED HOOSSAIN..	42,770	Free.....	{ Cousin of the above. Of no remarkable character. Of no remarkable character.
67	Ditto	MUZZUR ALI			
68	Ditto	GOOLAM SHAH	12,699	Free.....	Cousin of the above. Of no remarkable character.
69	Ditto	MAHOMED ARIF.....	6,272	Free.....	Cousin of the above. Of no remarkable character.
70	Jokhin.....	JAM MEHUR ALI	16,000	Free.....	Chief of the Jokeas; lives near Kurachee. Is an old man, who bears a very good character, but is greatly involved in debt. Has large unproductive possessions in the Kurachee Collectorate.
71	Noomreea	MULLIKA AHMED KHAN.	6,947	Free.....	A quiet old Chief, who lives in the hills on the other side of the river. Chief of the Noomreeas. Is respected by the people of his neighbourhood. Holds large, but unproductive possessions, on the other side of the river.
72	Kismutghar.....	MAHOMED YOOSOOF.....	16,015	Free.....	Foster-brother of the ex-Ameer Meer Mahomed, and joint Mooktearkar of that Meer, with Nuwab Mahomed Khan Torah. Is very wealthy, but plain and unassuming in his habits, and bears a high character for good sense and integrity.

NOTE.—Besides the above, there are members of the family of the late Minister, Ismael Shah, who are all very gentlemanly, sensible men, but are wearisome in their self-laudations, and denunciations of the Belooch Chiefs of Sind. The most practicable of the family, I think, is Sadik Shah, now holding the chief Native appointment in the Collector of Kurachee's Office. They would any of them very well fill the appointment of Ameen, Moonsiff, or Native Deputy Collector, in Sind, if there were any such offices; but as it is, they are too high for Kardarships, have no Jageers worth noticing, and all high offices are held by Europeans.

**CHIEFS AND PERSONS OF IMPORTANCE RESIDING IN THE
SHIKARPOOR COLLECTORATE; WITH A BRIEF OUTLINE
OF THE HISTORY OF THAT TRACT OF COUNTRY PRIOR
TO THE CONQUEST IN 1843.**

Upper Sind, at the period of the invasion of Hindoostan and the sack of Delhi by Nadir Shah, formed part of the Soobah of Mooltan. On the dismemberment of the Empire of Delhi, the portion termed Mogulee, comprising Sukkur, Bukkur, and Shikarpoor and its dependencies, was annexed to the Dooranee Kingdom founded by Ahmed Shah Abdalee, an officer of Nadir Shah, whose capital was Kabool. Up to A. H. 1225 (about A. D. 1809), the Afghan possessions in Sind extended on the north-east to Kusmore, on the Mooltan frontier; north to Raghan, and the Desert; west to Nowshera Abra; and south to Mundajee, on the Larkhana river.

In A. D. 1809 the Talpoor rulers of Sind began to take advantage of the distracted state of the Dooranee Empire; and first Meer Sorab of Khyrpoor obtained, partly by intimidating and partly by corrupting the Puthan Governor Badul Khan, the cession of the large district of Boor-deka, on the Indus.

Badul Khan was replaced by Mahomed Ruza Khan, who ceded to the same Meer the dependencies of Chuck, Mazurcha, and Mahomed-abagh, nearer to Shikarpoor.

Meer Sorab of Khyrpoor next surprised Sukkur, landing with his people from the opposite bank, on pretence of paying his devotions at the shrine of Shah Khyroodeen, better known as the present Tiger Mosque. Subsequently Fort Bukkur was similarly wrested, on a like pretence, by Meer Roostum, from the Puthan officer commanding its garrison.

Soon after, Meer Moobaruk forcibly seized on the little districts of Soheja, Kulwary, and Sahukjee, south of Sukkur; and the officers of Meer Roostum took possession of Wuzeerabad and its dependencies, which consolidated their recent acquisitions from the Indus to within nine miles south of Shikarpoor.

Maree, again, was about this time conferred as a religious endowment upon one Syud Jan Shah by the Puthan viceroy, but the Syud shortly made it over to Meer Moobaruk.

The spoliation now began to extend due north of Shikarpoor, by the seizure of Ropah, with Kote Sultan, by a combination of the Hyderabad and Khyrpoor Meers; and lastly, the city of Shikarpoor itself, with all its remaining dependencies, was surprised in A. D. 1832 by Wulee

Mahomed Lugaree, the Wuzeer of the four principal Meers of Hyderabad. On the arrival of Wulee Mahomed Lugaree, he encamped his troops in the Shahee Bagh, half a mile from the Nowshera Gate of the town, and, in reply to a message from Abdool Munsoor, the last Afghan Governor in Sind, he replied that he was on his way to punish the inroads and insolence of the hill robbers. Next morning, he suddenly got under arms, marched boldly upon the city, and made himself master of it with little or no opposition.

From that day the Dooranees ceased to exercise any authority in Sind, but the petty village of Rozan, opposite Minoottee, conferred by the late Shah Soojah-ool-Moolk upon the father of the present Khan of Khelat, in return for some troops furnished to him by that prince, still remains in the hands of the Brahooe Chief.

Traces of the old Afghan ascendancy still remain in the Puthan families yet thickly settled in the neighbourhood of Shikarpoor: here they still possess some privileges, such as reduced rents, and the Puttadaree, a rent charge on the proceeds of certain lands and villages, not uncommon in the protected Sikh States in Northern Hindoostan, but I believe peculiar in Sind to the Mogulee districts.

A slight renewal of the connection of the Kabool Princes with Upper Sind occurred thus:—

When Shah Soojah-ool-Moolk, prior to the Honorable Mountstuart Elphinstone's Mission, appeared firmly seated at Kandahar, the Talpoor Ameers presented to his officers, one year, the sum of twenty-seven lakhs of rupees. Finding the Shah grown less formidable, they reduced this tribute to seven lakhs. After Shah Soojah had remained for some years at Loodiana, a refugee with the British, Meer Moorad Ali of Hyderabad in 1831-32 invited him to Shikarpoor, promising to restore to him the Mogulee districts, and also to assist him with a sum of money.

The motive of Meer Moorad Ali, who acted for the whole of the Talpoors of Upper and Lower Sind combined, seems to have been a dread of the growing power of Khorasan, and of the encroaching disposition of Runjeet Sing of Lahore; but by the time Shah Soojah, availing himself of the invitation, was able to reach Shikarpoor (1832-33), Meer Moorad Ali was no more, and Meers Roostum and Moobaruk called upon the Shah to quit Shikarpoor, or they would compel him to do so by force of arms. They accordingly attacked him at Sukkur, where he was encamped with a force, partly levied in Northern Hindoostan and partly composed of the Puthans of Mogulee, who flocked to his standard in great numbers,—a circumstance worth noting, for there are relatives of the present Chiefs of Kandahar and Kabool, Barukzaees, settled here, as well as those more inclined to favour the Dooranee family.

In this crisis, Meer Noor Mahomed, son of the late Moorad Ali, sent, in the name of the other Meers of Hyderabad, Nuwab Bahadoor Khan Khokur, a Belooch of rank, and well liked by the Shah, to request that the Shah would proceed on his expedition against Kandahar. The Shah in reply demanded the cession of Mogulee, and the pecuniary assistance promised by Moorad Ali.

The Hyderabad Ameers, in the name of the whole of the Talpoors, replied, that if the Shah would proceed towards Kandahar, they would pay him a tribute of three lakhs of rupees towards his expenses, and that if he succeeded in establishing himself at Kandahar, they would then restore to him all his former possessions in Sind.

The Shah insisted on seven lakhs, which having extorted, he marched upon Kandahar, accompanied by the Meers' envoy, Bahadoor Khan, and his expedition terminating disastrously, of course the cession of territory was never made, and the covenanted tribute never paid; nor was the connection between the Puthans and the Talpoors renewed until the ill-starred expedition of 1838-39.

With Khelat and Kutchee, the Meers appear to have been usually on friendly terms.

The following is a list of the principal and most influential families in the Shikarpoor Collectorate, and also a memo. of the Meers to whom, at the conquest on the 17th February 1843, the several districts belonged :—

Head of all the Abras, a numerous Sindee tribe : they occupy Nowshera Abra, within eight miles of Shikarpoor, which, though so near the Puthan possessions, never was occupied by them. The town of that name was, indeed, a refuge for merchants from the more grinding tyranny of the Meers. Its walls, built by the famous Wulee Mahomed Lugaree forty years ago, are still in very fair repair.

ALI MURDAN KHAN
ABRA, of Turay, sixteen miles south-west of Shikarpoor; has two sons.

Ali Murdan was rated as able to produce some 8,000 to 10,000 men; he holds a Jageer of 1,300 acres. He is a quiet, inoffensive man, occupying himself in agriculture, and has dug a canal above twenty-two miles long since 1844-45. Some of his people are thickly sprinkled west of Larkhana.

Holds three-eighths of the district of Gurhee Yaseen in Jageer, worth nearly Rs. 300 per annum. He is a relative to Dost Mahomed Khan of Kabool, and corresponds with him, and with the Chiefs of Kandahar. He fled on the return of Shah Soojah-ool-Moolk in 1832-33.

ABDULLA KHAN, Barukzaee, of Gurhee Yaseen, eight miles south-west of Shikarpoor; has three sons.

GUDOO KHAN, Dooranee, of Amrote and Aurungabad, seven miles south by west of Shikarpoor; heir his grandson, at Aurungabad. He has a good sized fort, in which he resides; it is in the usual style of mud edifices, but has a double *enceinte*, and is stronger than ordinary.

Holds the Chandia

WULEE MAHOMED, Chandia, of Gybee Dhera, thirty miles west of Larkhana; has two sons.

In 1842-43 Meer Ali Moorad attacked and seized him, but he was restored to his Jageers by Sir Charles Napier. He is an old man of some sixty-five or seventy.

AHMED KHAN, MAHOMED KHAN, ALLADAD KHAN, Lugarees, sons of the late Wulee Mahomed Lugaree, Prime Minister of Hyderabad, under the four great Meers. He died fourteen years ago; was celebrated as a statesman, warrior, and poet.

Holds a Jageer of

GOOL MAHOMED, Mugsee, of Goodee.

He is a bold, turbulent man, and fought against us at Meeanee, where he lost an eye.

GOOL MAHGMED, Kohawur, of near Nusseerabad, twenty-five miles south-west of Larkhana.

PEER NIZAM-OD-DEEN and FIDAH-OD-DEEN, of Hubeeb Kote; **SYUD ABBAS ALI** and **GOOLAM ALI SHAH**, of Sukkur; **SYUD MOORAD ALI** and **AKBAR ALI SHAH**, of Roree; sons of Syud Jam Shah.

Holds large Jageers at Salihanee and Chinnee, south of Sukkur;

MEER MAHOMED KHAN Talpoor; nephew of Meers Roostum, Moo-

Uncle of the above. Has a grant at Aurungabad and Amrote of 3,600 acres. He is very advanced in years, being above one hundred years old, yet hale: he states that he was himself one of the officers of Ahmed Shah's army, and had seen Nadir Shah, being twelve years old when that prince died. He sided with Shah Soojah in 1832-33.

country, an arid tract west of Larkhana; was rated at 10,000 to 12,000 fighting men, and was a Chief of great power among his clan under the Meers. Has also 2,000 acres in Aliwal, arid land.

Hold Jageers of 6,000 acres in the Larkhana districts. Ahmed Khan was an adherent of, and fugitive with, Meer Shere Mahomed of Meerpoor, but making his submission some twelve months ago, was restored to his Jageer with his brothers. These are Chiefs of great influence, and are Beloochees.

700 acres in the Mehur district. Considers himself a Belooch, but is a relative of Ahmed Khan Mugsee, a very friendly Chief at Jhull, in Kutchee.

Head of the Kohawur Sinddee tribe. He is an influential man, a good farmer, and highly respected, and looked up to by the Zumindars in the Larkhana district.

These all held Jageers, and their families were highly respected by the Meers.

The two latter have lately (1847) been deprived of most of the grants they held in Meer Ali Moorad's territories, that prince not being pleased with their residing in the British districts.

at Chodiah, north of Shikarpoor; and at Taree Chinnee, in Roree. He fled with Meer Roostum in 1842-43, and his grants were confiscated, but

baruk, and Ali Moorad, residing under the surveillance of his uncle Meer Ali Moorad.

restored on his submission, and on the security, for his good behaviour, of his uncle Meer Ali Moorad.

He is a man of no character as a prince, a quiet frugal man, unpopular from excessive parsimony, and on bad terms with his uncle, who squeezes him.

KHAN MAHOMED KHAN, Talpoor; resides at Hyderabad.

Holds a Jageer at Khyrpoor, in Baglan, of 3,000 acres.

MEER BEEJAR KHAN; resides at Hyderabad. The Hyderabad Collector's report notices these Meers, and many others of the same family.

Holds a Jageer at Khyrpoor, near Larkhana, of 4,000 acres.

Are Jageerdars, men of consequence formerly, though not now. I

The Boorgurees, Talpoors, in the Larkhana and Mehur Deputy Collectorates,

mention them as connected with the late reigning family. One of them, Hasun Khan, was Governor of Kurachee under the late Meers, and

was deprived of his possessions (for insolence in his office to the British troops in 1838-39) after the conquest in 1843. He has now made his submission, and will, I understand, be reinstated.

Is a disaffected subject of Meer Ali Moorad, and a refugee since March 1847 in British territory. He was formerly the most confidential agent of Meer Ali Moorad, with whom he has quarrelled of late.

Now in reduced circumstances, but formerly a man of consequence. His family were very influential under the Puthans. All Sukkur, and even Roree, belonged to them.

BUCHUL KHAN, Tureen Afghan, of Sukkur.

A man of good family, and of influence under the Puthan Government. He is at present Kardar of Lukkee.

ABDOOL SUMMUND KHAN, Mogul, of Lukkee.

His family possessions are now divided among seven brothers, and have lapsed, on being resumed and parcelled out, till they have dwindled to an inconsiderable property.

DILAWUR KHAN, Afghan, of Gosurjee; son of Mouladad Khan. Holds one-twelfth of Gosurjee as Puttadaree.

The father was a man of great influence, and a leading character among the Puthans.

Oboura was ceded to His Highness of Khyrpoor in 1845, but I mention Abdool Khyr because he was a man of very large possessions, and still has large Jageers, if not resumed, as most of Meer Ali Moorad's are.

His family flourished more under the Kulhoras, but had power enough to preserve some of their estates under the Talpoors.

JAMAL KHAN, Puthan, of Wijebal-ke-Tandra.

Holds a large Jageer, half of Jumshera, north-west of Gotekee, 7,750 acres.

KADIR BUX, Khosa Belooch, of Khosa-ke-Gote, four miles south of Shikarpoor. Has 125 acres only, the river having encroached on his lands.

A soldier under the Meers, and Chief of the Upper Sind Khosas. A well behaved man, but at one time (in 1844) suspected, deprived, and imprisoned, on account of a murder, afterwards proved against other parties.

A good farmer, but a turbulent man, though not much of a soldier.

DIL MOORAD KHAN, Khosa, of Dill Moorad-ke-Gurhee, north of Shikarpoor; Belooch.

He fled to the hills in 1844-45, and was made a prisoner by Sir C. Napier at Trukkee. He is useful as a man of influence among his Khosas on the border, and farms up to the very edge of the Desert.

A fine old man, a farmer; emigrant from above the Bolan Pass.

NUWAB KHAN, Tureen Afghan, of Zurkhail, ten miles north of Shikarpoor.

Though many years in Sind, he can speak nothing fluently but Pushtoo. He is chiefly worthy of note as being the father of Alif Khan, a faithful soldier and servant of the British Government, at present Adjutant of the Police in Sind, and, by patent from the Governor General of India, created Khan Bahadoor in October 1847.

MISCELLANEOUS INFORMATION CONNECTED WITH THE DISTRICTS IN THE SHIKARPOOR COLLECTORATE.

Collected by Major GOLDNEY, and intended to form an Appendix to the preceding Paper.

Districts.	Estimated former Revenue under the Meers.	Average Annual Revenue for the Years 1844-45, 1845-46, and 1846-47.	Number of Kardars.	Average Collections of each Kardar.	Rivers, and principal Canals.	Principal Towns and Villages.	To what Meers belonging prior to the Conquest.
	Rs. a. p.	Rs. a. p.		Rs. a. p.			
Shikarpoor.....	2,43,074 0 4	1,53,000 6 4	6	25,500 0 0	{ Begary. Noorwah. Huzarwah. Sind. Little Begary. Raceswah. Yaseenwah. And many lesser branches.	{ Shikarpoor, a large commercial town, estimated to contain 30,000 inhabitants. Also Gurhee Yaseen. Maree. Kote Sultan. Meerpoor. Shahal. Mujan-ka-gote. Khanpoor. Lukkee. Khacee.	{ Meers Noor Mahomed and Nusseer Khan of Hyderabad; and Meers Roostum and Nusseer Khan, of Khayrpour, and brothers.
Nowshera*.....		48,000 0 0	1	48,000 0 0	{ Sind. Ali Bhar. Ali Murdan Abra. Meerwah. Dilawar. Hyatwah.	{ Nowshera Abra, now decayed. Wassil. Duroodgran. Toray. Mundajee.	{ Nusseer Khan, of Hyderabad.

* Formerly, during the Meers' time, attached to Chakdaha District.

Estimated Area 1,780 square miles. Collector and Magistrate of Shikarpoor.

Extent, and Civil Authorities.

Estimated Area 960 square miles. Deputy Collector at Sukkur.		Kummore	2,893 12 6	2,984 3 2	1	2,984 3 2	Indus.	Kummore, 300 to 400 inhabitants.	Nusseer Khan, of Khyrpoor.
Sukkur							Indus. Gurung.	{ Sukkur, now decayed. The population, with that of Bukkur, removed thither from the Fort, may be 1,500 or more.	{ Nusseer Khan, of Khyrpoor; and Nusseer Khan, of Hyderabad.
Roree			1,80,740 13 1	2,35,873 3 2	7	33,696 0 0	Indus. Oomurkus ..	{ Gosurjee. Jafferabad. Roree, with a population of about 10,000. Taree Chancee. Doobah Wahan. Ali Wahan. Beerary Powar. Munder Dera.	{ Meers Roostum and Nusseer Khan, of Khyrpoor.
Gotekee							Indus. Koray.....	{ Gotekee. Kadirpoor. Alilpoor. Syudpoor. Nizabut-ka-Tandra. Sultanpoor.	{ Nusseer Khan, Mahomed Ali, Ali Mahomed, Fazul Mahomed, and Wulee Mahomed, of Khyrpoor.

Extent, and Civil Authorities.	Districts.	Estimated former Revenue under the Meers.	Average Annual Revenue for the Years 1844-45, 1845-46, and 1846-47.	Number of Kardars.	Average Collections of each Kardar.	Rivers, and principal Canals.	Principal Towns and Villages.	To what Meers belonging prior to the Conquest.
Estimated Area 1,750 square miles. Deputy Collector at Larkhana.	Chandooka. • The Nowshera Purgana in the Meers' time formed a portion of Chandooka. Being so near Shikarpoor, it was attached to that division in 1843.	Rs. a. p. *6,89,459 0 0	Rs. a. p. 3,80,406 8 7	11	Rs. a. p. 34,582 0 0	{ Indus. Nara. Ghar. Noorwah. Noring. Meerwah. Nalah Databah. Nalah Shah. Heerawah. Nusrutwah. Nalah Maksooda. Beera.	Larkhana, population about 12,000. Kumbur. Nusseerabad. Khayrpoor. Nyadera. Wagun. Rata Dera. Bungool Dera. Bukraanee. Pukha.	{ Nusseer Khan. Noor Mahomed's two sons, Meer Mahomed and Sobdar, all of Hyderabad.
Mehur	Mehur					{ Nara. Kukole. Nusseerwah.	Mehur. Cheezapoor. Goza. Mungwane. Raja Dera.	{ Meer Mahomed, Sobdar, and Nusseer Khan, of Hyderabad.
Depty. Collr. at Mehur. miles.	Tigr	2,40,594 5 0	2,46,084 2 2	9	27,342 0 0	{ Indus. Nara & branches.	Wheer. Thurry. Seeta Naree. Lechur. Badia.	{ Meer Mahomed's two sons, of Hyderabad.

MEMORANDA
ON THE
PEARL BANKS AND PEARL FISHERY, THE SEA
FISHERY, AND THE SALT BEDS, OF SIND.

BY THE LATE
MR. JOHN MACLEOD,
COLLECTOR OF CUSTOMS AT KURACHEE.

Submitted to Government on the 31st December 1847.

FISHERIES OF SIND.

PEARL BANKS AND PEARL FISHERY OF SIND.

IN the salt-water inlets along the entire sea coast of Sind, a thin-shelled variety of the oyster exists, producing a seed pearl. It is most frequently found on mudbanks left dry at low tides. The pearl is of very little value compared with that produced by the Ceylon and Persian Gulf Fisheries, the price of the latter ranging from Rs. 1,000 to Rs. 1,500, whilst the former seldom realizes more than Rs. 15 a tola. From the supposition that it possesses invigorating powers, it is used here chiefly as a medicine. The larger grains are occasionally made use of as personal ornaments; the smaller ones to intermix with the valuable Bahrein pearls, in which manner they are kept in bags by the Bombay merchants, as a means of preserving their lustre.

About the latter end of the year 1836 the Ameers of Sind first became aware of the existence of this description of pearl oyster on their coast, by a money tender having been made for the exclusive privilege of fishing them. The banks, called Kenjur, at the entrance to Gharra Creek, were consequently let out for one year for Kashanee Rs. 650. The farmer must have profited well, as in the year following they were let for Rs. 1,300 annually for a consecutive period of two years. Subsequently to operations being commenced, a higher offer was received by the Ameers, who, with that want of faith which characterized them when a prospect of gain presented itself, gave orders for the immediate ejectment of the original holder of the farm. Similar circumstances operating against the second occupant, he also was ejected; and this process continued, until the sum tendered amounted to Rs. 19,000 per annum. The party to whom the farm devolved at this large rent soon discovered that he had entirely over-estimated its value; and by ceaseless importunity got released from his contract. The Ameers then ordered the fishery to be conducted on their own account, until, finding it unprofitable, it was discontinued.

At the close of the year 1839 the Kurachee Harbour (in the creeks adjoining which the pearl oyster is found) was again let for two years,

for Rs. 1,100; six months afterwards other speculators offered Rs. 21,000; it was finally let for Rs. 35,000, the contractors relieving the former occupants, and taking possession of the pearls that had been collected by them. These parties, however, failed, but were made to pay Rs. 20,000. The Ameers, as at Kenjur, took the management of the fishery, which in three months, it is said, realized between seven and eight thousand rupees,—a doubtful circumstance, as after a short trial it was altogether relinquished by them.

When the country became a British possession, the Kenjur Fishery was let by the Collector of Land Revenue for Kashanee Rs. 2,500 for one year, commencing from the 1st August 1843, but the contract was not fulfilled. The following year, the highest offer made was Rs. 2,400, but the fishermen objected to work, alleging that as their gains were regulated by the amount of produce, which was insignificant, they could not earn enough for their support. The contractors appealed to the Governor of Sind, who, deciding against them, their contract ceased. The Harbour Fishery was let out at the same time for Rs. 3,700 per annum, but owing to a misunderstanding of the terms of the contract, it was resumed, and fished by the Collector on account of Government. In one month, the sum of Rs. 2,278 was realized, exclusive of expenses. The fishermen, however, declined to continue the fishery, alleging that they could find no more oysters. It was thought at the time that they had been bribed by the former contractors to make this statement, but experience has since tended to show that it was not altogether incorrect.

In the month of May 1845, I was placed in charge of this source of revenue, and having personally examined the situation of the banks; I found the entire line of coast from Kutch to Kurachee giving evidence of the existence of the oyster. It appearing to me that several spots might be fished with advantage, I engaged boats, and forty divers, but after a month's labour, at what appeared to be the most productive banks, the expenses incurred exceeded the value of the pearls produced.

The Harbour of Kurachee has been twice since that period let out for Rs. 800 and Rs. 1,300: the contractors, however, in each case, after several examinations, found it advisable to suspend operations, under the conviction that the oysters were too few and too scattered to pay the expense of collecting them.

In this conclusion I am disposed to concur, and to express my belief that the power vested (during the time of the Ameers) in the hands of the farmer, of pressing the labour of Mohanees and others, and obliging them to work at a nominal rate of wages, constituted the chief value of the Pearl Fishery.

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REPORT
ON THE
PURGUNA OF CHANDOOKAH,
IN UPPER SIND.

BY
LIEUTENANT HUGH JAMES,
44th REGIMENT BENGAL N. I.,
LATE DEPUTY COLLECTOR, SHIKARPOOR.

Submitted to Government on the 31st December 1847

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When forced labour was abolished by Sir Charles Napier, and men were allowed to take service wherever their interests prompted them, this source of revenue at once fell, and although several times attempted to be propped up, by farming it to parties fully qualified to take advantage of all circumstances likely to bring the farm to account, it has failed to repay even the necessary outlay.

This description of oyster is not peculiar to Sind: it is found in Kutch, Kattywar, and on the Western Coast of India, where the shell is used by the Portuguese as a substitute for glass, to admit light.

SEA FISHERY.

The sea fishermen of Sind are a Musulman tribe called Mohanees; they are chiefly resident in Kurachee, and are divided into four classes, namely Kuracha, Lara, Bundree, and Wungara.

Like all such castes on the coasts of India, they are not exclusively engaged in fishing: the coasting vessels are manned by them; and the Wungara class employ themselves in cutting down and disposing of the salt-water jungle, the bark of which is used in tanning, the wood in building, and the leaves as food for camels and bullocks.

During the time of the Ameers, and up to January 1846, the fishery was farmed out. The cesses,* complicated and heavy, were rendered

* The Farmer at Kurachee was allowed to exact the following per-centage cesses on all fish caught:—

I.—On fish of all descriptions, caught inside of Manora Point, duty at the rate of one-sixth of the whole.

II.—Fish caught outside Manora Point, with a hook, and under sixty in number, one-fourth of the total number caught.

III.—If the number of fish caught exceeded sixty, one-eighth of the total.

IV.—On every boat-load of fish exceeding sixty, caught outside of Manora Point, five were selected by the Farmer, under the head of Amlana.

V.—Fish caught in a net outside of Manora Point, and under sixty in number, duty at the rate of one-fourth.

VI.—On fishmaws, extracted from fish caught at Sonmeeanee, Seerkabaree, and Tuyah, which are all of a large and uniform size, duty at the rate of one-sixth of the whole extracted.

VII.—On sharkfins of the value of Rs. 100, an additional value of Rs. 31-4-0 is placed at the time of levying duty, and a duty of 5 pice was then paid to the Farmer on the total sum of Rs. 131-4-0, which amounted to about Rs. 10-4-3 per cent.

VIII.—Ranoos fish, caught outside Manora, if under sixty in number, paid at the rate of one-fourth of the number caught; if above sixty, the whole of the fish caught were divided into ten portions, one and a quarter of which was paid as duty.

IX.—On a boat-load of fish caught near Keemaree, duty at the rate of one-sixth of the number caught.

X.—On fish of all descriptions exported by sea from Kurachee to Bombay, Muskat, &c. if of the value of one hundred rupees, an additional twenty-five rupees was added, and, on the sum

more so by its being left to the pleasure of the farmer to exact payment in money or in kind.

Besides those on fish, there were other cesses,* alike affecting the fishermen. These were head-money on Lascars leaving the port; taxes on charcoal, on bark, and on wood, &c.

The contract sold annually for between four and seven thousand rupees. It has gradually been done away with; the extra cesses having been first discontinued, and, at the close of 1845, the entire system abolished. Since then, fishing vessels have been classed, and licensed, on payment of a fee proportionate to their size.

Up to the period just mentioned, the fishermen were all more or less involved in pecuniary embarrassment, and entirely in the hands of Banian creditors, by whom not only their boats and nets, but even the necessities of life, were supplied, in consideration of the product of

total of one hundred and twenty-five rupees, duty at the rate of $6\frac{1}{2}$ pice per rupee was levied, equal to Rs. 12-11-1 $\frac{1}{2}$.

XI.—On fish of all descriptions exported to Darajah, Shahbunder, and Sonmeeanee, of the value of one hundred rupees, an additional value of twenty-five rupees having been placed, duty at the rate of 7 pice per rupee was levied, equal to Rs. 13-10-9 per cent.

XII.—On fish conveyed to any town or village inland, the additional twenty-five rupees having been placed, duty at the rate of $7\frac{1}{2}$ pice per rupee was levied, equal to Rs. 14-10-4 $\frac{1}{2}$.

XIII.—On fishmaws conveyed inland to any village or town, duty at the rate of $6\frac{1}{2}$ pice per rupee's worth was levied. The contractor, instead of taking his duty in kind, usually received it in money from the fishermen, who disposed of their fish themselves. The rates at which payment for the different kinds of fish was made to the contractor was in some instances fixed by Government Regulation, thus :—

On the fish caught in nets, the value of the Government share was received from the fisherman at the rate of Rs. 22 per hundred.

Ditto ditto with hook and line, ditto ditto.

Ditto ditto at the rate of Rs. 16 per hundred.

On all other kinds of fish the value was recovered at the market rate.

* These cesses were levied at the following rates :—

I.—A tax of 27 per cent. on tanners' bark, cut by themselves.

Ditto of 50 per cent. levied on ditto purchased in town.

II.—One rupee and three annas on every boat-load of jungle wood for burning.

III.—A tax of 6 per cent. on jungle wood for building.

IV.—A tax of one basket-load from every boat containing charcoal.

V.—A tax on every Kurachee boat quitting the harbour, on a trip to Bombay or Muskat,—

Tindal	Rs. 1 8 0
Seerang	1 0 0
Cook	1 0 0
Each Kulasee	0 12 0

VI.—A tax on boats sailing to Sonmeeanee, for each person on board, one rupee and three annas.

VII.—A tax on every doonda proceeding as far as Keemaree for cargo, two annas.

VIII.—A tax on export of fish by the land route, 20 per cent.

IX.—A tax on fish taken to the Camp for sale, 9 per cent.

X.—A tax on twigs used in the walls of houses, 5 per cent.

their labours being relinquished to them, the share of the contractor being first deducted. The great demand for fish during the presence of our force here in 1846, and the liberal prices given, together with the employment by Government of the fishermen, as boatmen, &c. enabled this useful class of people to extricate themselves from their difficulties.

The exports tend to show the fishing to be in an improving condition: a depreciation in the value of sharkfins and fishmaws, within the last two years, has had a discouraging effect; but notwithstanding, the fishermen are amongst the most thriving classes of the community.

Number of Boats employed 164

Kurachee.

Class	I.....	15
„	II.....	20
„	III.....	40
„	IV.....	30
		— 105

Coast.

Class	I.....	16
„	II.....	3
„	III.....	26
„	IV.....	14
		— 59

Export of Sharkfins, Fishmaws, and Salt Fish.

1844.....	Rs. 12,068
1845.....	38,301
1846.....	42,626

SALT BEDS OF SIND.

The existence of extensive salt beds in the neighbourhood of the Ulla Bund was brought under the notice of Sir Charles Napier by Captain Baker, late Superintendent of Canals and Forests, in a letter dated the 18th July 1844, an extract from which is given below.* Soon afterwards,

* “ I take this opportunity of bringing to the notice of H. E. the Governor of Sind, that there are pools and valleys, connected with the lower part of the Pooran, abounding in pure salt: many of the pools near the Ulla Bund contain superficial deposits of this substance; but Mr. Hodges, Assistant Surveyor, who surveyed from Raoma to Wunga Bazar, met with large beds of salt of a considerable extent, and five or six feet deep. Should Government consider the subject worthy of attention as a source of revenue, it would appear from Mr. Hodges’ description that the salt may be obtained in almost any quantity, and of the purest kind. I have brought away specimens of the salt, which on my return to Kurachee I shall have much pleasure in submitting for His Excellency’s inspection.”

specimens of the deposit were sent to Kurachee by the Collector of Hyderabad. These were forwarded to Bombay; but owing to the opposition of the salt merchants there, whose interests might be affected were Sind salt to get into the market, the subject was for a time dropped.

In November 1845 a partial examination was made, by the Customs Department, of the country from the Ulla Bund to the Seer mouth of the river, and an attempt was made to ascertain the commercial value of the deposit. It was found that no sea-going vessel can go higher up the Koree branch of the Indus than Kotasir, which is the port of Lukput,—communication is carried on between these places by boats of light draft. The expenses attendant on procuring a cargo were found more considerable than was anticipated. Camels, water, and forage had to be sent from Lukput to some distance inland from Kotree, where the article was shipped in boats, and sent to Kotasir, whence it was transhipped into a Malabar vessel. The Kutch authorities made a heavy claim for anchorage, which had to be met, and the proceeds realized at Mangalore were not sufficient to induce another speculation.

A letter was addressed by me in December 1845 to the Collector of Malabar, explanatory of all circumstances connected with the shipment, and requesting information as to the value of the article there, and whether it was likely to meet with a permanent demand. To this reference no answer was returned; the cargo was, however, admitted to entry, and I have never been able to obtain any satisfactory information as to the price paid for it, the party induced to speculate stating in general terms that "it did not pay."

In August 1847 a letter was received from the present Collector of Malabar, Mr. Blane, stating that a failure had taken place in the annual supply at Malabar, owing to gales of wind, and that the deficit, amounting to 15,000 tons, had to be provided for; and inquiring if the article could be supplied from Sind, as the merchants of Malabar had taken advantage of the circumstance to raise the rates. Tenders were called for, and but one was received, which was six rupees the Garee beyond the rate offered by the Malabar merchants.

Not having sufficient data as to the probable expense of shipping the salt, &c. the requisite information was not supplied by this department.

Salt of an equally good quality is known to exist in the Goongra, the next branch of the Indus westward of the Koree, where a vessel can be laden at a comparatively small expense. A specimen of the article was forwarded to Bombay for an opinion, which,* as given by Dr. Leith,

* *Opinion by Surgeon A. H. Leith, of the Bombay Medical Establishment.*

"It is just the same as the salt obtained by evaporating sea water,—the salt that is called *bay salt*: it is not so pure as *rock salt*, because it contains a little *sulphate of soda*,—very little, and of no consequence; and also some *muriate of magnesia*, which latter renders it a little

is decidedly favourable, and at once sets at rest the question as to the salt being fit for human consumption.

In the early part of the present year (1847), Lieutenant Burke, of the Engineers, travelled overland from Sind to Kutch, and becoming aware for the first time of the existence of this extensive deposit, addressed a letter to the head of his department, Major Peat, the Superintending Engineer. He estimated the quantity at fifteen hundred millions of tons; and though from his own showing very imperfectly acquainted with the extent of the beds, yet I do not think his estimate overrated, but he has certainly very considerably underrated the expense of shipping the article at Kotasir.

The salt used in Kurachee is brought from the direction of Son-meeanee, where it is found in deposit in beds of small size. It is found in the Mulleer river, and is met with along the entire coast, in greater or less quantity; in the interior of the country it is produced by parties who gain their living by its manufacture, which is as follows: patches of salt earth are found scattered over the entire face of the country; this salt soil is saturated with water, and the drainage is exposed in shallow vessels to the rays of the sun.

The price of common salt in the Kurachee bazar is ten annas for a camel-load of from five to six maunds; by retail, four pounds can be purchased for a pice.

bitter, but it can readily be removed by washing the salt in fresh water; but *as it is*, I have no doubt it would find a *ready market*, for it is very much cleaner than what is made in the Government salt-pans about Bombay."

CHANDOOKAH PURGUNA, IN UPPER SIND.

THE Chandookah Purguna, so called from the tribe of Chandias who formerly occupied the greater part of it, comprises a large portion of Upper Sind. It extends to the Desert of Kutchee on the north, and has the Hala Range of hills for its western, and the river Indus for its eastern boundary; to the south it joins the small but fertile District of Mehur, which separates it from that of Sehwan; and to the north-east it adjoins the Shikarpoor District, a portion of which (the division of Nowshera) was, under the ex-Ameers, attached to Chandookah.

The extreme length of the Chandookah Purguna is sixty miles, and its average breadth thirty-five. It is divided into nineteen minor divisions, or Tuppas, varying in size, to each of which a separate establishment was formerly appointed, but many under the British Government have been amalgamated. With great facilities for irrigation, Chandookah has not unjustly been styled the Garden of Upper Sind; but its value caused it frequently to change masters under the divided Government of the Talpoor family.

In the time of Meer Futteh Ali Khan, a valuable portion of this Purguna was made over to the Brahoe Chieftain, in compensation for the murder of one Zurruk Brahoe, who fell a victim to the bloody feuds which had marked the expulsion of the Kulhora princes. In the course of a few years, however, a quarrel arose between the Brahoees and Talpoors, and the gift was resumed; about a third of the district then fell to the portion of Meers Goolam Ali Khan, Kurrum Ali Khan, and Moorad Ali Khan, the brothers of Futteh Ali Khan. When Goolam Ali succeeded to the Turban, he made over his share to his son, Meer Mahomed Khan, his brothers retaining their original possessions.

A portion to the west was in this reign, in A. D. 1805, given to a Brahoe of wealth, whose daughter was married to the ruler of Sind, but was again resumed in A. D. 1816. When Kurrum Ali and Moorad Ali respectively became the head of the house, the former, being without an heir, retained his former share, but that of the latter was transferred to his son, Noor Mahomed. Meer Mahomed remained in possession of

the portion which, as above stated, he inherited from his father, Goolam Ali, whilst to Meer Sobdar, the son of the ancient Chief, Futteh Ali Khan, was apportioned in Jageer the division of Nalah Datah, which had been given as above in dowry by Goolam Ali, with some other villages. This is one instance out of many which shows the curious mode of inheritance amongst the earlier Talpoor Princes, where the brother took precedence of the son,—at that time productive of no inconvenience or confusion, but a practice which could not have been of long continuance ; in fact, the division of country amongst the younger branches would seem to indicate that the fraternal succession was a private arrangement amongst the four brothers already mentioned. After the battle with Shah Soojah, the Chandookah District was divided as follows :—

No.	Owner.	Divisions.
1	Meer Mahomed, son of Goolam Ali.	Lal Dariya ; Anderoon Ghar ; Futtehpoor ; Nya Derah ; Ruttah Derah ; and Nalah Maksoodah.
2	Noor Mahomed, son of Moorad Ali.	Bukapoor ; Myl Lahory ; Anderoonee Beerah ; Beronee Beerah ; and Shahpoor.
3	Nusseer Khan, son of Moorad Ali.	Myl Morady ; Myl Wagun ; Warah ; and Khyrah Guchul.
4	Sobdar Khan, son of Futteh Ali.	Kumber ; Chiyrah ; Esaw ; and Nalah Datah.

On the death of Noor Mahomed, his son, Meer Shahdad, succeeded to the divisions of Myl Lahory, Anderoonee Beerah, and Shahpoor.

Such was the division of Chandookah prior to, and at the time of the conquest. A map is appended, showing the relative situations of the abovementioned divisions.

Chandookah, in common with the rest of Sind, has been the scene of many a bloody conflict,—its fields of corn trampled under by the invading horde, and its plains saturated with the blood of hundreds, shed in civil strife, or in contests with the Vicegerents of the Delhi Empire. In earlier ages, it is true, we may feel interested in the bold struggles of the country for its freedom ; but as each succeeding dynasty ascended and retained the throne solely by the sword, we can subsequently see in Sind but one continued battle-field, the scene of usurpation, tyranny, and bloodshed. The steel of Damascus has glittered on its plains ; the miraculous club of the Kulhora placed the descendant of mendicants on its throne ; the matchlock of the Talpoor, in avenging a series of diabolical murders, gave it a new dynasty of shepherd princes ; till, finally, the British bayonet gave to the worn-out country peace.

As previously stated, the District of Chandookah proved a source of wealth to the Ameers ; but prior to considering in detail the sources

whence it was derived, I will treat of the general nature of the country, and its means of irrigation. For the first purpose, the district may be divided into three portions,—1st, that to the north of the Ghar; 2nd, the country between the Ghar and the Narah; and 3rd, that lying between the latter and the Indus.

The first portion is flat, and, where the means of irrigation do not present themselves, is covered with a low jungle of tamarisk, kandah, and kureel. In the vicinity of canals, however, the cultivation is extensive, their course being mostly denoted by the larger forest trees, which will be presently spoken of. As the Desert is approached, the signs of cultivation disappear, the jungle becomes thinner, and vast plains are traversed where the soil is thickly impregnated with salt. The picturesque village of Khyrah Gurhee, with its two forts, grove of trees, and small patches of cultivation, relieves the eye of the traveller, but on looking further north, there is nothing to intercept the view over the salt and dreary desert. The boundary of Chandookah, and of British Sind, is about three miles north of this post. The country for several miles south of Khyrah Gurhee presents a desolate appearance; the ruins of villages are frequently met with, and the choked-up beds of deserted watercourses,—all evidences of former prosperity, as of the later inroads of the mountain robbers, who have despoiled this part of the country, and driven its inhabitants to a less exposed locality. To the west, on either bank of the Datah Canal, the marks of former cultivation are very striking. Shahdadpoor, on its west bank, was a large town, from which Lord Keane drew supplies for his army when advancing on Afghanistan, but is now a ruin, and, when I visited it in September 1846, an old Hindoo was its sole occupant. Poonoo, to the north-east, is another large ruin: seven pukka wells, two extensive canals, and a vast surrounding plain, with jungle of only a few years' growth, attest its former prosperity. Further south, the country is interspersed with villages, adorned with clumps of trees; cultivation is extensive, and the canals numerous. The uncultivated portions are covered with the above-mentioned brushwood.

The second division, viz. that between the Ghar and the Narah, is also flat, but lower than that to the north, and contains the most fertile tracts in Chandookah. For several miles from the banks of these canals, populous villages and extensive fields bespeak a lot more favoured than that of the first division. Myl Morady, Myl Lahory, and Myl Wagun, are in this part of the district. The word "Myl" signifies in Sindee a swamp, and has been applied to those divisions from the circumstance of their being considerably lower than the adjacent lands, and receiving the waters of the Ghar, which here find an outlet. The rice cultivation is very extensive. The villages are principally raised on mounds, and

in some cases are further fortified from inundation by a ditch carried all round them. The country continues low and swampy to the south-west. The remainder of this portion is either overrun with the low shrubs before mentioned, or presents a desert-like appearance, where the salt manufacturer carries on his work. All the canals and most of the villages are prettily wooded.

The third division, viz. the country between the Narah and Indus, differs considerably from the other two. For some distance from the first-named river there is a great deal of cultivation, but the space between that and the Indus is in some places sandy waste, with patches of a tall flowering grass, and in others thick jungle of tamarisk and kandah. The surface, too, is more broken and irregular, intersected with many a natural watercourse. The lower lands, when the waters of the inundation recede, yield beautiful crops of peas, gram, and barley, requiring but little care on the part of the husbandman. A belt of forest clothes the banks of the Indus, averaging two miles in depth, where the silvery balum, the seesum, and the babool grow luxuriantly, the intermediate space being covered with a tangled brushwood. The scenery of this part of the district is more varied than the rest, and more interesting to the stranger, who, leaving the noble river and the cool shades of the neighbouring forest, in the open spaces of which herds of buffaloes and cows find rich pasturage, comes now upon the fresh, green crops of spring, and now upon the grassy meadow; passing here a group of temporary huts, occupied by a wandering party, who have brought their cattle here for pasture, and there the more pretending village; again entering the forest, he crosses a newly cleared plot of ground, where the blackened and rugged stumps of babool stand ominously forth, a proof of man's inroads, and affording a strong contrast to the surrounding verdure; then he meets a busy throng, the temporary occupants of a few matted huts, engaged in the manufacture of reed baskets and mats, the materials for which are so plentiful; till further on the broad sheets of cultivation, and the distant line of peepul and babool trees, betoken his approach to the Narah. The soil of the district is a rich alluvial, for the most part composed of a mixture of carbonate of lime and clay, and in some parts of loose sand, with considerable saline impregnation. This, however, will be more particularly spoken of hereafter. With regard to the means of irrigation possessed by this district, the Ghar and Narah rivers are the principal. The former receives its waters from the Indus by three mouths, situated near each other about twenty-five miles north-east of Larkhana. After the first few miles, its course is very winding: its length (in a straight line) is about sixty miles, and its average breadth from sixty to eighty feet. From Esaw, a village twelve miles

west of Larkhana, it takes the name of the Noor Canal, and thence to its tail at Dost Ali it averages in breadth from fifteen to twenty feet. This part is artificial, and is called after Noor Mahomed Kulhora, in whose reign it was dug. It has been asserted that the whole of the Ghar is an artificial canal, and that its many turns were caused by its having been carried through lands suited for cultivation; but the immense cost and labour required for such a work (the depth of the canal from the surface being some twenty feet) renders this scarcely credible, and I have observed that in many places the bends of the river take it *from* the lands which would have been benefitted by it. A stronger proof of its being a natural river is the level nature of the country on its banks : there is not in its whole length the slightest trace of a mound, which must have existed had the mass of earth from its bed been thrown up. The water generally enters the Ghar in April, and it becomes dry in November. The average depth of water from the middle of May to September is ten feet, and it runs at the rate of from three to three and a half miles an hour. A few years ago it is said the Ghar continued full all the year round, and it used frequently to overflow its banks ; a ditch was dug round the old fort of Larkhana, about a hundred and fifty yards from the river, to protect it from such inundations. Great quantities of the water are taken by branch canals all over the district, and the remainder finds an outlet over the low lands which have been spoken of above. Nearly the whole of Chandookah derives its means of irrigation from this river.

The Narah, signifying "a snake" in Sindee, is appropriately so called, from its tortuous windings, in which respect it is more striking than the Ghar. Its mouth is about two miles south of those of that river, with which for some miles it runs nearly parallel ; but afterwards, taking a south-west direction, it flows through the Mehur and Sehwan Districts into the Munchur Lake. Its average breadth is one hundred feet, and it is navigable for the largest boats. Its banks are in most parts thickly wooded with babool, neem, and peepul trees, by which its course may be traced at a great distance. Only two divisions, those of Anderoon Ghar and Lal Dariya, with a few villages of Bukapoor, receive its waters for irrigation.

From the Ghar the Mittah Canal branches off near Muddojee, twenty-four miles north-east of Larkhana, and flows in a north-westerly direction to a distance of about twenty miles : near Ruttah Lerah it forms a junction with three other canals. The Gharee (a continuation of the Sind) meets it from the east, the tail of which, called the Kadah, continues to the west, watering the districts of Futtehpoor and Anderoonee Beerah. The Maksoodah Canal, running to the north-west, conveys water to the Ruttah Derah, Khyrah Guchul, and Maksoodah

Districts. The last canal flows to Khyrah-ke-Gurhee, from which post there is thus water communication to the Ghar, and by the Gharee and Sind to Shikarpoor. The Mittah Canal itself waters the Nya Derah and Ruttah Derah divisions.

The Meerwah flows from the Ghar near Rahoojah : it has fallen greatly into disrepair, and is now of but little value ; a few villages in Nya Derah and Futtehpoor receive its waters. It flows for about ten miles in a northerly direction.

The Heerah Canal is a very fine one : it branches from the Ghar about midway between Larkhana and Nya Derah, and flows upwards of twenty miles in a north-westerly direction. It was last year cleaned throughout, under the superintendence of Serjeant Regler, a most active Assistant in the Survey Department. It is of value to the Futtehpoor, Beronee Beerah, and Khyrah Guchul divisions, and the cultivation from it is extensive.

The Khyrah and Beerah Canals, branching from the Sind, north-east of Ruttah Derah, water the districts of their own name.

To the west of Larkhana, near Kumber, the Nourung Canal flows to Nusseerabad, a distance of about fifteen miles, in a south-west direction. It is likewise a very fine canal, and waters a great part of Myl Lahory, Bukapoor, and Myl Morady. Many large and thriving villages are situated on its banks, which are beautifully wooded, and in following its course, sheets of cultivation (principally rice) extend on either side as far as the eye can reach. It has not been cleaned for many years, but its bed is still unobstructed. From Nusseerabad it continues through the low lands of Myl Morady and Myl Wagun, under the name of the Cheela Canal.

The Shah Canal branches from the Ghar about six miles west of Larkhana, and flows at first in a northerly direction, afterwards turning more to the west. It is a large canal, dug by Noor Mahomed Kulhora, whence its name, as also that of the village of Shahpoor, and the district so called, through which it flows. The traces of extensive cultivation are visible throughout its course, and the records of the Ameers' office prove its former value to the Government. It is now in want of repair, and, save at its mouth, there is but little cultivation. In A. D. 1842, just before the conquest, Meer Shahdad, in whose country, as above shown, it was situated, sent an order for Rs. 10,000 to be expended on its clearance, but this was never carried out. The villages, in consequence, upon its banks, are mostly in ruins, and one of the largest, that of Shahoo Jumalee, is chiefly dependent for its means of irrigation on the water brought by cuts from some low land to the west, supplied by the rain-water from the hills.

Two miles to the west of the mouth of the Shah is that of the Datah

Canal, which takes its name from one Datah Kohawur, who excavated it in the reign of Noor Mahomed Kulhora, and of whom honorable mention will presently be made. It is the finest artificial canal in Upper Sind, and flows in a north-westerly direction to the frontier of Kutchee. Thick belts of babool trees clothe its banks for many miles, and even now the cultivation there is extensive. Beyond, however, it is but the record of past prosperity, and north of the ruins of Shahdadpoor not a beega is under tillage. In A. D. 1840, the District of Nalah Datah was sold in contract for one season to Futteh Chund for Rs. 1,00,000, and he expended Rs. 7,000 on cleaning the canal. From want of water, the inhabitants of the villages on the two lastmentioned canals have emigrated, but would immediately return if the canals were even partly repaired. I received numerous complaints on the subject, but as the Canal Department is so entirely separate from the Collectorate, I could do nothing but hold out hopes to the petitioners, who could scarcely be expected to understand why works being carried on on other canals should prevent the repair of their own,—they, too, who were forced to furnish statute labourers for the clearings, from which they derived no benefit.

The above are the principal branch canals, and they afford means of transport to all parts of the district, from the months of May to September inclusive, a mode far cheaper than land carriage, and generally adopted. In Appendix A will be found a table of these canals, showing their length, breadth, and depth. From these, again, nearly nine hundred minor canals branch off, dug and kept in repair by the farmers.

The other means of irrigation, viz. wells and the waters of the Indus, will be considered under the head of agriculture; but in Appendix B will be found a table showing the number of wells and minor canals, with their depth. The rules in force regarding the clearing of canals will also be mentioned under different heads.

The subject of this Report may now be divided as follows:—

I.—The Natural Productions of Chandookah; its Towns, Villages, and Buildings.

II.—Its Population, and the Habits and Character of its Inhabitants.

III.—The Nature of Land Tenures in Sind; and the Relation of the Agricultural Classes to each other, and to Government.

IV.—Its Revenue under the ex-Ameers, and under the British Government.

V.—Its Agriculture and Manufactures.

VI.—Its Criminal and Civil Jurisprudence.

I.—NATURAL PRODUCTIONS, &c.

FOREST TREES.

The Neem (*Melia Azadirachta*) is valuable for its medicinal properties, and forms an ingredient in almost every medicine. It is usually applied as a poultice, but is sometimes taken internally. Its seed is highly aromatic, and the fair sex apply it as a plaster on the temples, both for its fragrance, and also for a purpose which I am loth to record, viz. to drive the vermin from their thick and glossy ringlets. Better this, however, than the more common manual operation. Taken in quantities, it is considered poisonous, and Boy de St. Vincent mentions a spring of water in Spain, on the margin of which was a grove of these trees, and whose waters were unwholesome; but when the French army came and removed them, the salubrity of the water was restored. Its fruit is used, as in Java, as a tonic, and yields an oil said to be antispasmodic. The Neem attains a great height in Sind, and from the shelter afforded by its luxuriant foliage, is a most valuable neighbour to a Sindee village.

The Sissoo (*Dalbergia sissoo*) is likewise of much value, but principally for its timber. Of the same natural order and genus as the Beya or Jamaica ebony, its wood, when polished, is of equal beauty. It is also particularly strong and durable, and is generally used in the construction of boats, and as beams for large dwelling-houses. It is peculiarly fitted for the latter purpose, as resisting, more than other kinds of timber, the attacks of that enemy to architecture in the East, the white-ant. These various properties may be considered as making up for the somewhat stunted appearance of the tree.

The Babool (*Mimosa Arabica*) is the tree most frequently met with in this part of the country, and must rank in utility not far below the two already noticed. It affords a gum which is in great request, and its bark is used by the tanners. Usually planted along the banks of canals, its roots bind the soil, and thus materially add to the permanency of such works. Although its timber is frequently used, yet it is chiefly valued for its gum and bark. In favourable situations it attains a great size, and is highly ornamental. A species, called the Kaboolre, does not afford much gum, nor does its bark contain properties useful in tanning: its growth is also different, the branches striking perpendicularly and close, instead of spreading. It is not so commonly met with.

The Siris (*Mimosa siris*), to which many virtues of a superstitious nature are attributed by the Natives, owing to the medicinal properties which most trees of this tribe possess. Its leaves, mixed with earth, are thrown upon a person supposed to be under the influence of an evil

spirit, and a necklace of the same is worn by those afflicted with ague. The tree is ornamental, and its blossom very fragrant.

The Lassooree (*Cordia myra*) is a fine tree. Its leaf is large, and from its inner bark is obtained a fibre, from which the coiled match of the Native fire-arms is made, and its wood is used for sword sheathes. The fruit, which contains a great deal of mucilage, is eaten by the Natives, and from it is extracted a strengthening medicine. It is also used in the preparation of spirituous liquors.

The Ber (*Zizyphus jujuba*?) is commonly met with; its berry is much liked by the Natives.

The Tamarisk (*Tamarix Indica*) is usually found as a shrub, but sometimes of larger growth. It constitutes the greater part of the jungles, and is very serviceable to the inhabitants. Its wood is used in the construction of water-wheels, and a berry, found on its branches, affords a dye in common use. A great quantity of saccharine matter is also obtained from it. It is of greatest utility, however, as firewood, and being so plentiful, and within the reach of all, enables the poor cultivator to retain the dung of his cattle for manure, instead of using it as fuel, as in most parts of Hindoostan.

The Karel (*Cleome pentaphylla*), or Wild Caper, is found in most jungles with the above. Its berry is in the green state preserved as a pickle, and when ripe eaten as a fruit.

The Kandah, a stunted Babool, is very common, and useful as firewood, and for the construction of enclosures.

The Baw (*Styrax benzoin*) is common in the vicinity of the river. It is used in the construction of water-wheels, but, being usually found in Shikargahs, was a forbidden tree to the Sindees under the late Government.

The Amaltas (*Cassia fistula*) is found, but not common. Its powerful medicinal properties are well known to the Natives, and it is as frequently used as the *Cassia senna* in the Western World.

The Peepul (*Ficus religiosa*) is frequently met with, but can only boast of its beauty as an attraction. Here, as in India, beneath its noble branches sits the unclad, dirty Fakeer, living on the bread of idleness, and usually the associate of all the villains in the neighbourhood.

FRUIT TREES.

The Mango thrives well, and the produce is of a superior kind.

The Plantain is common, but of an inferior description.

The Apple and the Nectarine are met with, but are small, and ill-flavoured.

The Vine is grown, generally trained, but also as a standard.

The Date is very common, and is a fruit largely consumed, and

exported both fresh and dried. The wood, leaves, and fibre are all of utility to the inhabitants.

The Lime and Pomegranate are common, but inferior.

GRAIN.

The principal Grains are the Jowaree (*Holcus sorghum*), Bajree (*Panicum spicatum*), Arzum (*Panicum pilosum*), Barley, Rice, Wheat, Sesamum, and various kinds of Vetches, Pulse, and Millet; Oats have been found to thrive admirably.

COTTON.

Cotton of a very superior kind is grown in this district, and in large quantities; also Sugar, Indigo, and Tobacco; but these not to any great extent. I purpose reporting more in detail upon these articles under a future head.

VEGETABLES.

Turnips, Carrots, Radishes, Baingun, and the common vegetables of India, are grown in the district.

ANIMALS AND BIRDS.

The one-humped Camel is a valuable beast of burthen, but they are not generally of a large description; the Tattoo and Ass are much smaller than those in India. Sheep, especially the large-tailed one, called the Doombah, are very common in the hills to the west, and the Buffalo, Ox, and Goat, are all of a large size.

Tigers are met with, in the forests on the banks of the Indus, occasionally. I saw two in the early part of 1846; but the visits of these animals are not frequent. They come down from the forests above Sukkur. The Wild Hog, and the Hog Deer, are common in the forests, and the Antelope further from the river; the Ibex is found in the hills to the west; the Wolf, the Fox, the Jackal, and the Hare, are commonly met with.

The Black and Grey Partridge, Quail, Snipe, and Wild Duck, are found in great quantities; and the Oobara, a description of *Otis tardis* between the Florikin and Bustard.

MINERALS.

Alum and Sulphur are found in the hills to the west, and a coarse kind of Salt is everywhere obtained in large quantities.

TOWNS AND VILLAGES.

The principal town of Chandookah is Larkhana, so called from the tribe of Laruk, which once settled there. It is about twelve miles from the Indus, and on the south bank of the Ghar. It was said to contain about 12,000 inhabitants; but I do not think its present population can be estimated at more than 8,000. It possesses a good covered

bazar, from which narrow and dirty lanes branch off. There are several gardens and many date groves in its vicinity. The houses are of mud, with flat roofs, and generally two stories high. A few are built of burnt brick, and are higher than the rest. The streets and neighbourhood of the town are very filthy.

Kumber was a large town, about twelve miles west of Larkhana, but it was plundered by the Beloochees in the latter part of 1844, and a great portion of it destroyed by fire in the following year. It now presents a very ruinous appearance, but has still a good bazar.

Khyrpoor, also about twelve miles from Larkhana, is a large town, with a fort. It is in the Jageer of Meer Beejar Khan.

Nusseerabad, built by Meer Nusseer Khan, twenty-four miles south-west of Larkhana, is also much deserted. The streets are broader, and the houses larger, than in other towns; and it has also a good fort.

Ruttah Derah, about twenty miles north of Larkhana, is the only other town of importance. It has a good bazar and fort.

The villages in Chandookah are of good size, and nearly all possess a bazar. The houses are of mud, with flat roofs, and those of the poorer classes are of tamarisk wood, covered with mats and boughs, or, where procurable, grass. Many villages are composed almost entirely of dwellings of the latter description, little if any distinction being observable between the sheds of the cattle and of their owners. In low lands the villages are raised, and sometimes have also a ditch all round them, as a guard against the waters of the inundation. Those which were the residences of Chiefs, or large Zumindars and Government officials, have mud forts, with a tower at each corner, and in almost all villages is to be seen the watch-tower, which served as a place of defence for the inhabitants when suddenly attacked by predatory bands. Similar towers are also frequently met with in the middle of the fields, for the protection of the crops against the inroads of the mountain robbers. All the towns and villages are dirty in the extreme, and mostly void of all appearance of comfort. The mosque, the bazar, and the head man's house or fort constitute the village, and around them are the Landees or sheds of the Sindees, usually in enclosures of thorns, containing the dwellings and cattle-sheds, and a platform raised on poles, on which the people sleep in the hot weather. Adjoining these are the pens for goats and sheep, formed likewise of thorns. Save in size, and the adjacent scenery, there is but little perceptible difference between the villages of Chandookah. They are called after the head man, whose tribe only is mentioned, for the sake of brevity, and also because it is unchangeable, but in all written documents the name of the village is given at length. The number of villages in the district, of all sizes, is 392.

BUILDINGS.

The buildings in Chandookah, like those of most parts of the country, consist of the tombs of men of celebrity. Of them, that of Shahul Mahomed Kulhora is the most worthy of notice, and is looked upon with great veneration by the people of the country. Shahul Mahomed was the grandson of Adam Shah, the celebrated mendicant, who, collecting adherents in Sind, finally obtained such power as to pave the way for his descendants to the throne of the country. Even in the time of Shahul Mahomed, the Kulhoras had obtained power and influence, and a considerable extent of land, although it was not for several generations that they became the absolute Monarchs of Sind. Their power at that time may be known from their frequent skirmishes with the armies of the Vicegerent of the Delhi Emperor. It was in one of these conflicts, at the village of Futtehpoor, about six miles from Larkhana, that Shahul Mahomed was killed, receiving thereby the honours of martyrdom. It is related of him, that after death his head flew to the spot where his tomb now stands, whither his followers afterwards brought his body. The tomb is situated on an eminence, and is plainly built, but the interior is decorated with the enamelled tiles of Sind. In an outer court are deposited the remains of his immediate followers and descendants, and some of those who fell with him at Futtehpoor. The doorway both of this court and of the mausoleum is hung with the votive offerings of those who consider that their prayers for any particular blessing have been heard through the mediation of the saint. These consist principally of iron bells, and strings of shells. The pilgrim to the shrine rings them on entering the portal, and, muttering his prayers, reverently approaches the more sacred building. The tomb itself is covered with rich silk and brocade, the offerings of the wealthier visitors. The sides of the hill are covered with brushwood, amongst which are the humbler graves of the less celebrated of his descendants. On descending from the edifice, a party of miserable mendicants, whose duty it is to keep the courts in a state of cleanliness, clamorously demand a fee, a portion of which is retained by them, and the remainder distributed to the few surviving descendants of the family. It may be mentioned here, as a proof that the rapid fall of the house of Kulhora was no less striking than their curious rise to sovereignty, that one of the parties now receiving a portion of the above-mentioned preceeds, as a lineal descendant of the renowned Adam Shah, was a goatherd in my service. This tomb was built about a hundred and fifty years ago; it is in the Bukapoor Tappa.

Another celebrated tomb is that of Shah Baharah, a celebrated Minister of Noor Mahomed Kulhora. He had the sole management of

the affairs of this part of the country, and commanded a division of 10,000 men. Several canals and forts were excavated and built by him. This tomb is at Larkhana, in a garden on the north bank of the Ghar. It is highly ornamented, and the inscriptions about it are numerous, and well executed. These mausoleums are generally of an octagon shape, but sometimes square, and surmounted by a dome. They are internally decorated with flowers and fruits in enamel, and verses from the Koran and poets. From one of these, in the building under consideration, we learn that Shah Baharah flourished in the year of the Hejira 1188, or A. D. 1774.

The other buildings of this description are numerous, but smaller, and less pretending than the two above mentioned.

There are a few pukka bridges in the districts, but of no great span : the largest is one near Ruttah Derah, built by Shah Baharah.

The old fort of Larkhana is a large square building, with four towers ; a fifth tower, at the gateway, is of burnt brick, and higher than the others ; the rest of the building is of mud. This was one of the arsenals of the Talpoors, and now contains the fine hospital and the store rooms of the Camel Corps, and the Civil Jail. It was the residence of the celebrated Minister Futteh Mahomed Lugaree, who will be spoken of hereafter.

We will now turn to the second division of this Report, and consider

II.—THE POPULATION, AND THE HABITS AND CHARACTER OF THE INHABITANTS.

In the absence of any accurate census, we can estimate the population only by a comparison with other countries, whose statistics are better known. The French have always taken the lead in this science, and in 1828 one of the most accurate tables of the kind was drawn out by M. Adrien Balbi, entitled “ Balance Politique du Globe.” In this he gives the population of Sind at 25 per square mile, but makes the population of Herat 30, and that of Beloochistan 18 per square mile. Now, estimating the area of the latter at 110,000 square miles, we should have a population of 2,000,000, which is impossible. The numbers given in several other instances in his chart appear to be over-estimated, and I think we might calculate the population of Sind at 20 per square mile.

But I would try other data : we find the number of ploughs (Appendix R) in Chandookah to be 7,733 ; and on the average one plough will cultivate 18 beegas of land,* and 12 beegas of actual cultivation will

* Autumn crop	5 beegas.
Middle crop	5 „
Spring crop	8 „

will support a family of three. This will give us 34,797, and if we add one-fifth for artificers and traders, the total will be 41,756 : now at the rate of 20 per square mile we should derive the following :—

Length of Chandookah.....	60 miles.	•
Average breadth	35 „	
	2,100 square miles.	
	20	
	42,000 souls.	

the calculations nearly agreeing. Until a more correct census is taken, I would estimate the population of Chandookah at 40,000 souls in round numbers. When I state that one plough will cultivate eighteen beegas of land, I take the average of all lands, for of course in some localities one plough will not cultivate more than four or five beegas.

The population may be divided into two great classes, the Hindoos and Musulmans. The former are sub-divided into the official and trading classes. The Hindoos, from their talents as accountants, were always employed in the offices of the Ameers, and for the collection of revenue ; but they as well as their trading brethren were only tolerated for their utility to the Government. The appraisement and measurement of the lands gave employment to a vast number of these men, who by their exactions and dishonesty were a perfect plague to the poor cultivators. The trading portion amassed great wealth, but every contrivance was resorted to, to conceal it from the covetous grasp of their princes. From living in a tolerated state in a Mahomedan country, the Hindoos have of course lost the purest part of their religion, and are lax in the performance of their rites. They wear beards, and the Beloochee head dress ; eat flesh and fish ; drink wine ; and seldom perform the ablutions laid down for their observance. No Hindoo temples are to be seen ; and, in fact, they pay as much veneration to the sanctified resorts of the Moslem as those of the hostile creed themselves. Many were forcibly obliged to change their religion ; the most trivial circumstances being taken as pretexts for such acts of violence. Thus, any one who mentioned the word Rassee (rope) in conversation was supposed to have invoked the Prophet, and was immediately compelled to perform the first rite of Mahomedanism. The Head Moonshee in the office of the Ameer of Khyrpoor would never in the accounts write the name of the village of Russoolabad, calling it always Wuzeerabad. Dirt, fear, meanness, and an inordinate love of wealth, form the leading characteristics of the trading Hindoos, who are, however, industrious in their avocations. No village is without its Bunya, and their persons were generally respected by the

predatory bands of the Beloochees, in whose encampments they also settled. We shall see soon how great a share they indirectly took in the agricultural affairs of the country, and how inextricably they weaved their toils around the poor cultivator. The Hindoos in Government employ were not so wealthy, but far more consequential than the traders, and even more lax in religion and morals: a party of them visiting a village as measurers or appraisers caused far more domestic misery than would have been felt after a Belooch foray.

The Musulman portion of the community may be divided into Beloochees and Sindees: the former were the military retainers of the Talpoors, holding their lands from the sovereign, and attending upon his requisitions for troops when required; the Sindees are mostly all cultivators and artisans, and were not called on for military service under the Talpoors. They had, however, formed part of the army of the Kulhoras, and were never averse to summon their followers, and settle a boundary or other dispute by the sword. The principal tribes in Chandookah are,—

1st.—The Chandias, from whom the district is called. They at present occupy a portion to the west under the hills. Their Chief is Wulee Mahomed, who lives at Ghybee Derah. The tribe is now poor and scattered; their country is destitute of the means of irrigation; and the soil, too, is unproductive. 10,000 of this tribe, under Wulee Mahomed, proceeded to join the Ameers against the British, but arrived too late to render them any assistance. They are not, I believe, of Belooch origin. Much of the theft committed in the district is traced to men of this tribe.

2nd.—The Jumalees, a Belooch tribe, settled on the borders of the Desert. Their principal residence in Chandookah is at Khyrah Gurhee. They are very poor, and do not cultivate much; robbery, and feeding flocks, were formerly their more favourite occupations.

3rd.—The Abras, a large tribe of cultivators, settled principally to the south-west of Larkhana. They were originally a portion of the Kulhora army.

4th.—The Jutts, a large Sindie tribe of cultivators, and rearers of cattle; generally of wandering habits, and found scattered over the country. There are many sub-divisions of this tribe, the principal of which in Chandookah are the Darodgurhs, Joonejahs, Kohawurs, Wugguns, and others. That portion which took entirely to cultivation have settled down, and lost the name of Jutt, which is now applied only to those of the tribe who rear cattle.

There are numerous other families, but of small extent, such as the Lahorees, Hukrahs, Chujrahs, &c.

The Sindees are, generally speaking, a quiet and industrious race. They are tall and handsome, and can undergo much fatigue, but are not

very noted for activity. They are nearly all cultivators, and occupied entirely in tending their crops and cattle. The household duties are performed by the women, who are very industrious. Before the break of day they have to rise, and grind the corn for the day's consumption, their millstones being the first sound that breaks upon the stillness of night. The men go forth to their work about sunrise, and labour till noon, when the women take them their food into the fields, and return to prepare the evening meal. They take a share, also, in field labour, such as picking cotton, gleaning, &c. They are seldom convicted of theft, and it is to be deplored that a barbarous custom which legalized murder subjected them, under the Ameers, to an unmerited and cruel death, the slightest suspicion of infidelity being sufficient to warrant their murder. Sad were the scenes enacted under this revolting practice; and however gradual the change may be, it is still to be hoped that the British Government will eventually succeed in removing such an impediment to the progress of social improvement. The poorer classes have no particular amusement, but from the time of returning from their fields to that of retiring to rest they sit conversing together. They cannot be praised for love of truth; for whether in the preparation of forged documents or in giving evidence, their lying propensities can scarcely be surpassed. Except the large landholders, all are ignorant and illiterate. There is a school at Larkhana, where boys are taught to read and write, but there are not many attendants, and as they are useful assistants in the field at a very early age, they are soon withdrawn from their studies. They are a very superstitious race, and place great reliance on the ability to serve them of departed spirits. They consequently pay great veneration to the tombs of men of sanctity, which are always loaded with the votive offerings of those who crave their aid. Near Shahdadpoor there is a pair of large millstones in a garden, about four feet in diameter. It is on the banks of the Datah Canal, so called from Datah Kohawur, a man as renowned for his wealth, and the canals dug by him, as for his unbounded liberality,—he was the Hatim 'Tae of Chandookah. It is related of him that no poor man passed his door unfed, and the above millstones are now considered sacred, for we are told that God was so pleased with his piety and liberality, that even if a handful of grain was thrown in, the supply of flour was equal to all demands. They are approached with bare feet, and the precincts kept in cleanliness and good order. There is a tomb over the remains of a celebrated Peer, on poles, around which are seen the heel-ropes of horses; for whenever an animal in the neighbourhood is afflicted with disease, the owner prays at the tomb, and, on the recovery of the animal, offers the heel-ropes in gratitude for the saint's assistance. If a person breaks a branch of the tree which overshadows

the tomb, he is supposed to be doomed to meet with some mishap. There is a class of men in Chandookah, as elsewhere, who enjoyed great privileges, and collected much wealth under the ex-Ameers: these were the Peers, and other holy men who came down to Sind from the north, many of them holding grants of land, originally made by Nadir Shah, and confirmed down to the present day. They paid no ferry or town duties, and, both by the rulers and people of the country, were treated with the greatest respect. The weavers, who form the greatest part of the non-cultivating portion of the community, are an industrious people, and their women either assist them, or employ their time in the manufacture of mats and baskets.

We now come to the third division of this Report.

III.—THE SYSTEM OF LAND TENURES, AND THE RELATION OF THE AGRICULTURAL CLASSES TO EACH OTHER AND TO GOVERNMENT.

The same order which from the earliest periods of Indian history has been at all events nominally recognised both by Hindoos and Mahomedans, viz. the institutes of Manu, whereby the land is declared to be the property of him who brings it under cultivation, has obtained also in Sind; but the same innovations have been made in this equitable law as took place in Hindoostan under the rule of the great Akbar, and more so under that of his successors. It is impossible to go very far back into the past regarding anything connected with Sind, whose records, scanty in themselves, have been still further diminished by the unrelenting hand of fanaticism; but we can still trace some faint resemblance in later times to the old village system, whose working has been so praised by the ablest men in India,—a system, too, which the Mahomedan conquerors of the country have found it to their interest to maintain, though not in its original purity. This primitive order of things must, however, soon be laid aside, when the retainers of the ruling power are, as it were, quartered upon the country, receiving land in lieu of cash wages: the soil must then virtually change proprietors, and the whole system become one of mixed anomaly, adapted to the immediate wants of the Government. The ownership of the entire lands in each village is vested in the Zumindars, and their heirs in perpetuity. A portion is cultivated by themselves; some by men who appear to possess an hereditary right to cultivate, as their lands cannot be taken from them at will, but they pay Lapa or rent to the Zumindar, generally in kind, at so many kasas per beega. Besides this, there is a fee leviable on the produce of the lands, called Wajah Zumindaree, which is claimed by the head man. When a portion of the

land is sold, the purchaser becomes entitled to the Lapa, but the Wajah is still given to the head man. In every village is the Kotwal, whose duty it is to point out the cultivation to the Government measurers and others, and to define the boundaries of estates, as also to assist in all matters of revenue collections, for which they receive a fee from that portion of the produce laid aside prior to the whole being divided between Government and the cultivators. The poorer class, who hold small patches of land in their own right, are principally indebted to the Hindoos for the means of cultivating them: their accounts run on from season to season, and the traders take good care to keep them well involved, leaving them but a bare sufficiency for their subsistence till the next harvest. The Zumindars make their own terms with those to whom they rent their lands, usually receiving, besides fees, a portion of the produce, and paying the Government demands themselves. The late Regulation, therefore, by which a low land-rent in cash has been fixed is, in good seasons, advantageous only to the Zumindar, who continues to take the same portion as before from his tenants. It is true the Zumindar advances the seed, and bullocks, and keeps the watercourses in repair, but still his share of the proceeds is an unfair one, and in bad seasons they frequently leave their tenants to pay the Government demands, and to return their own advances, making what they can of the balance. Under the ex-Ameers, the Zumindar paid the rent to Government, and collected his own dues from his tenants, so that the above unfair evasion could not be made. It will thus be seen that the Zumindar only transacted business with Government or the contractor, and that he made his own collections from the tenants. The villagers all pay him great respect, and his advice is acted on in all the agricultural affairs of the community. His labourers usually remain with him, together with their families, as they are at all times averse to change, and are driven off only by unbearable extortion;—they are satisfied with a bare subsistence, and small advances of money. Where the greater portion of wages is paid in kind, the cultivators and labourers are necessarily poor, and at present it would be almost impossible to collect the Government dues from the tenants themselves. With regard to lands in Jageer, the grantee stood in the light of Government, and made his own remissions, and received his dues from the Zumindars, who continued in the possession of all their rights. There is a strong bond of union between all the members, from the Zumindar down. The village carpenter receives his fee for the annual repair of the Persian wheels, and the potter for his supply of the earthen vessels attached to them; but every individual is more or less dependent on the Zumindars, whose interests they find so intimately connected with their own. The boundaries of estates are not very

clearly defined, which caused many feuds between neighbouring villages : if a man wished to reclaim waste land, he applied to Government for a Putta granting it to him in Zumindaree, or otherwise, according to circumstances, and fixing the rent at a very low rate for the first few seasons ; but the Government subordinates usually contrived to find some flaw in the document, or some alleged agreement uncomplied with, as a pretext for assessing the land at the full rate shortly after its clearance. For the granting of these Puttas, the land was divided into Abitah, or clear of jungle ; Nahwur, or with slight jungle ; and Junglee, or thick jungle ; and the amount of remission estimated accordingly, but by no fixed rule : sometimes a man would incur great expense in digging a canal, &c., but a year afterwards he would find his labour unrewarded, some office Moonshee having pretended to discover that the land was probably Nahwur, and not thick jungle, as specified in the Putta. It was seldom that the Ameers themselves interfered in the collection of the revenue, or increase of cultivation. But this brings us to the fourth head, viz.

IV.—THE REVENUES OF CHANDOOKAH UNDER THE EX-AMEERS, AND UNDER THE BRITISH GOVERNMENT.

1st, Land Revenue.—This in Chandookah was collected according to four modes of assessment, viz. Buttaee ; Kasagee ; Cash-rent ; and Eree Rukub.

The Buttaee, or rent in kind, was a certain portion of the produce, varying from a quarter to half, but generally speaking two-fifths.

Kasagee was also a portion of the produce, but estimated with reference to the extent of land cultivated. The average rate was 7 kasas per beega ; and as 30 kasas is the average produce of a beega, it was equal to about one-fourth.

The Cash-rents varied, according to the nature of the crop, from Rs. 3 to Rs. 5.

The Eree Rukub was a commutation of Kasagee into cash, by taking the average market price for six months of certain villages laid down.

The mode adopted for the collection was as follows : when the crops were in a forward state, those subject to measurement, that is to say those paying Kasagee, Cash, or Eree Rukub, were visited by an Ameen or appraiser, who recorded every cultivator's field, estimating its extent, and remitted such portion of it as he considered had failed. When these returns were received, measurers were sent out in bands of one Darogah and two assistants, to measure the lands. From the latter was deducted the quantity remitted, and the remainder was assessed by Government. But when the extent of land, as estimated by the Ameens, varied with the actual measurements of the Darogah, a proportional

decrease was made in the remission, called Bazyaft Pulo, or refunded remission. Thus: in appraisement the land of A is entered as 12 beegas, of which 4 beegas are given in remission, and 8 beegas remain, on which rent is to be taken; but by actual measurement the land is found to be only 9 beegas, the proportional remission on which would be only 3 beegas; the difference of 1 beega is therefore assessed, and entered as Bazyaft Pulo. When all the above documents are received by Government, the Atsatah or accounts of the season are made up, and the Zumindars, who pay monthly instalments in advance upon account, are then called on to pay any balance which may appear against them, together with fees, &c.

With regard to Buttaee lands: when the crops were tolerably forward, field watchmen were appointed, who received in Chandookah Rs. 2 each per mensem from Government, and subsistence from the cultivators. When the corn was ready, a Buttaeedar went to each granary, and first laid aside a portion, from which fees, &c. were taken, and divided the balance between Government and the cultivators, in the standard proportion of the village.

As the Zumindars had been compelled to meet extortion with evasion, the Kasagee rents were the most agreeable to them, as it opened the way for so much chicanery in the appraisement and measurement of the crops. The system of the Ameers was to assess the lands at an exorbitant rate, which the farmers could not pay with any profit to themselves, and then to bring it down by appraisement to the highest possible standard at which the remuneration of the cultivators and the exactions of Government could in any way be effected. There was no regularity in the assessment,—lands of the same village were paying Buttaee, Kasagee, and Cash-rents; and the Eree Rukub was the standard rate in certain villages; but in each the average market price was calculated from the records of different villages in the vicinity. This, if the appraisement and measurement could be honestly carried out, would evidently be the fairest mode of assessment that could be put in practice, both for the cultivators and for Government. The following extract from the Atsatah (Estimate) of A. D. 1844, when the above rules were in force, will serve to show the mode of collections above described:—

VILLAGE DUBLEE WACHOLAH.

Land cultivated.....	437 $\frac{1}{2}$ beegas.
Viz. Jowaree	429 $\frac{1}{2}$
Till	2 $\frac{1}{2}$
Karlolah	1 $\frac{1}{2}$
Vetch	0 $\frac{1}{2}$
Carrots	0 $\frac{1}{2}$

Hemp	$0\frac{4}{5}$
Moong	$2\frac{4}{5}$

Total..... $437\frac{1}{5}$ beegas.

Remitted in Appraisement :

Jowaree.....	$199\frac{1}{5}$
Vetch	$0\frac{2}{5}$
Carrots	$0\frac{2}{5}$
Moong	1

Total..... $200\frac{1}{5}$ beegas.

Remaining for Assessment.... $236\frac{1}{5}$ beegas.

Add Bazyaft Pulo :

Jowaree.....	$0\frac{10\frac{1}{2}}{20}$
Vetch	$0\frac{1\frac{1}{2}}{20}$

Total... $0\frac{1}{5}$ beegas.

Grand Total... $237\frac{1}{5}$ beegas.

Jumabundee.

	Beegas.		Kur.	Kas.	T.	P.	C.
Jowaree	$231\frac{1}{20}$ at 9	kasas per beega =	34	39	1	1	2
Vetch.....	$0\frac{5\frac{1}{2}}{20}$ at $2\frac{1}{2}$	„ „ =	0	0	2	2	2
Moong	$1\frac{4}{5}$ at $2\frac{1}{2}$	„ „ =	0	3	0	2	0
Total....			34	43	0	2	0

Til	$2\frac{4}{5}$ at Rs. 6- 8-3	per beega =	Rs. 15	10	3
Kachrah	$1\frac{1}{2}$ „ 5- 8- $1\frac{1}{2}$	„ =	10	11	10
Carrots	$0\frac{4}{5}$ „ 4- 7-6	„ =	0	14	3
Hemp	$0\frac{4}{5}$ „ 7-10-3	„ =	1	8	6
Total.... $237\frac{1}{5}$ beegas.			Total..... Rs. 28 12 10		

Fees.

On Kasagee crop, assessed 232 $\frac{1}{5}$ beegas, at Rs. 25-2-4 $\frac{1}{2}$ per 100 beegas	=	Rs. 58	7	9
On crops given in remission, 200 $\frac{1}{5}$ beegas, at Rs. 16-18-6 per 100 beegas	=	33	3	8
Measurement fees on total cultivation, 437 $\frac{1}{5}$ beegas, at Rs. 6-4-0 per 100 beegas	=	27	5	5
On assessed crops paying cash, 4 $\frac{1}{5}$ beegas, at Rs. 13-2-0 per 100 beegas	=	0	10	0
Total....		Rs. 119	10	10

	Kur.	Kas.	T.	P.	C.
Total grain receipts.	34	43	0	2	0
Total cash receipts :					
Rents. Rs.	28	12	10		
Fees	119	10	10		
Total. . . . Rs.	148	7	8		

I have purposely selected a small village, and one in which there are only two kinds of rents, Kasagee and Cash.

A list of all fees taken under the ex-Ameers will be found in Appendix C. They were originally very few, but when it was brought to the notice of Government that the measurers and others received certain fees on their own account, they were not only made to give them up, but the fee itself was made a permanent tax at the place,—hence the confusion and multiplicity of them in later times.

The general superintendence of the revenue was in the hands of the Kardars of the Tuppas, each of whom had his establishment and also the Kotwals of villages to assist him. He had the power of granting Puttas,—in fact his sole order was to do the best he could for Government. In most of the Purgunas of Sind, a Mookhteearkar was sent up from the Ameers every season to wind up its accounts, remaining for this purpose about four months, and then returning to the Court; but in Chandookah there was a permanent Mookhteearkar, the celebrated Wulee Mahomed Lugaree, who appears to have been a very able officer. He is stated to have been of a very violent temper naturally, but he endeavoured not to let this appear. There is a saying of him,—“Gahee Wulee, Gahee Boot” (Sometimes a saint, sometimes a devil). He gave himself up occasionally to debauchery, and his neighbourhood was not the best place for women of chastity; he lived at Larkhana. Some of his works remain: one book of his poems is in my possession, and some of the pieces are not much inferior to those of Sadi or Hafiz. His sons at first refused to make their peace with the British after the conquest, but they at last yielded, and are now in possession of their Jageers, some of which are in Chandookah. The land revenue and the other items were frequently sold in contract, the object of the Ameers being to amass as great a sum as possible in advance. I forgot to mention that to Wulee Mahomed is attributed the introduction of the Eree Rukub, at least in its above form; for being himself a well read man, he could scarcely have been ignorant of a similar commutation carried out under the auspices of Akbar, when that monarch gave his attention to the revenue affairs of the empire he had consolidated.

2nd, River Customs.—These were always farmed out to contractors.

The duties were levied at the different Ghauts on the Indus, and in a very irregular manner.

3rd, Town Duties.—Also farmed out, and a very profitable tax to Government. I have not now the means at hand for drawing out a table of the rates at which all these were taken, but in Appendix D will be found one showing the amount of transit duty levied on foreign merchandize. The imports into Chandookah were but small, consisting of the articles in the table from Kutchee; and the exports were principally grain, ghee, and dried fruits to the same place.

4th, Taxes.—These were collected by no fixed rate, but fell most heavily on the Hindoos. They were divided into three kinds, viz. Sarshumari, or poll-tax upon artificers; Bahrah, or tax upon the fishermen; and Peshkush, upon the Hindoo traders. The Sarshumari, being a tax upon Musulmans, was more equitable than the others: it was taken from every shop,—from Rs. 2 to Rs. 5 per annum, according to the trade of the individual. On his death, if his son continued the business, he paid the tax in his father's stead; but if he was too young to work at his trade, no tax was taken from him until he commenced working.

The Peshkush, upon the Hindoos, was taken on each town and village, which had to pay a certain sum annually, and the Hindoos had to settle the proportions each had to pay amongst themselves. No alteration was ever made under any circumstances.

The Bahrah was taken upon each band of fishermen, or Meeanee, in the same way as the Peshkush, the head man being held responsible by Government, and managing the proportional payments; but on the reduction of the band, diminutions were made in the tax. Sind being so entirely an agricultural country, the Ameers evinced good policy in causing the poll-tax to fall on every one not a cultivator. The introduction of a somewhat similar tax in the Tenasserim Provinces by, I think, Major MacLeod, was found to cause an increase of cultivation even in that country, which was in no way an agricultural one.

5th, Liquor and Drugs.—The contract for the sale of these was always farmed out, but there were no very stringent rules to prevent smuggling, punishment being more severe than frequent.

6th, Fisheries and Ferries.—Government received one-fourth of the produce, and always sold its share in advance to a contractor.

7th, Gardens.—The Government share was always so great that there was no encouragement for the plantation of any other than date groves, which require but little care: five-sixths was the usual share, and never less than half. These were also sold in contract every season.

The total amount of revenue said to have been received by the Ameers from Chandookah was eight lakhs per annum; but this I feel

convinced was only nominal. Their arrears ran from one season into the other, and were always very large; and I think we should be nearer the truth if we estimated it at five lakhs absolutely received.

The land revenue under the British Government is collected either in Buttaee at one-third, or in Cash at one-eighth per beega for Khureef, and two-eighths per beega for Rubee crops; the fees on the corn payments being 4 kasas per kurwar, and on those in Cash six per cent. Each Zumindar had his choice, and bound himself down for seven years. The cash and corn payments are about equal in Chandookah. It is hardly yet time to form an opinion upon the working of this system; but I annex some tables, showing the receipts of Chandookah, &c.

Appendix E is a statement showing the cultivation, and land revenue derived therefrom, for the middle crop, 1844.

Appendix F is a statement showing the same for the autumn crop, 1844.

Appendix G is a statement showing the same for the spring crop, 1845.

I have selected the earliest periods, and they may serve to compare with the returns now annually forwarded.

Appendix H is a table showing the extent of cultivation in the spring crops of 1845, 1846, and 1847; in the autumn crops of 1844, 1845, and 1846; and in the middle crops of 1844, 1845, and 1846.

Town and transit duties were abolished from 1st January 1846, and a frontier duty established, as per Proclamation. Quarterly returns of exports and imports since that period have been sent in to Government.

All taxes were likewise abolished on the same date, which caused universal satisfaction, and was a greater boon to those affected thereby than the change of revenue collections was to the cultivator, if it prove eventually that the latter was really a boon.

The other sources of revenue continue the same.

The annual receipts of Chandookah are three lakhs, and its average cost of establishments, and revenue charges, Rs. 20,000.

Appendix I is a table showing the actual receipts in cash for the year 1845, in which the grain sales are not included.

Appendix J is a statement showing the grain receipts for the same period.

Appendix K is a statement showing the disbursements for the same year.

These tables would have been more useful, accompanied by similar ones for 1846; but being in another district, I have not the means at hand for preparing them. Great reductions in the establishments have been made since 1845. We now come to consider,

V.—AGRICULTURE AND MANUFACTURES OF CHANDOOKAH.

The soil, as before observed, is rich, and highly favourable for cultivation, and may be considered as a new soil, as yet unexhausted by husbandry. There are three agricultural seasons, the Rubee or spring, the Peshrus or middle, and the Khureef or autumn crop. The Rubee cultivation is of three kinds, according to the nature of the soil, and the influence exercised upon it by the waters of the inundation, viz.

1st, *Bosee*.—Cultivation upon lands left by the inundation, which, after ploughing and sowing, requires no further care in watering.

2nd, *Sailabee*.—Upon lands left by the inundation, but on which the crops require subsequent waterings during growth.

3rd, *Khooshkdhakah*.—Upon lands entirely dependent upon artificial irrigation both for early and subsequent waterings.

In the autumn crop there are two distinctions,—

1st, *Mok*, or lands over which the water can flow from canals without further aid.

2nd, *Churkee*, for which Persian wheels are required, to raise the water to the surface.

The seed is sown either from the hand, which is called Chatree, or by means of a tube fixed to the plough, and having a wooden funnel at the top, called a Naree, through which the seed is passed when the earth is being ploughed for the last time, the labourer supplying it from a bundle attached to his waist. The last mode is that generally adopted for wheat and barley, as a greater supply of seed is required for Chatree; the latter is adopted in the sowing of peas, gram, sarshaff, &c.

The irrigation, as before observed, is either from canals or wells, except the Bosee lands. For the clearing of the former, statute labourers are called for, each village furnishing a quota, according to the quantity of land watered from the canal. The Ghar receives labourers from almost every district, amounting in all to one thousand, who are employed from six weeks to two months, receiving a subsistence from Government, and wages from Zumindars, varying from three to five rupees per mensem. This is the hardest labour a man can be subjected to; and whilst it is necessary that the canals, on which the whole cultivation depends, should be kept in order, still it is desirable that the number of labourers to be furnished should be equitably established. On the clearing of large canals, the workmen are accompanied by one or two duns, and the scene is one of great interest; but a comparison may justly be drawn between the honest cultivator thus toiling to his utmost for subsistence, and the convicted criminal lounging through the day

in the receipt of a competency. After the workmen return to their homes, they have further toil in preparing the branch canals, which carry the water to their villages. The mode of raising the water, where required, is by Persian wheels, which in the hot weather are worked at night.

The implements of husbandry are the Hur, or plough, which is much smaller than that used in India ; it is drawn by two bullocks.

The Sahur, or harrow, which is a heavy log of wood, drawn by four bullocks, a man standing on each end of it. It is used before the last time of ploughing, and sowing the seed.

The Naree, or funnel, before spoken of.

The Datrah, a curved hook, with teeth like a saw, used in reaping.

The Kooriah, or hoe, a small implement for weeding, &c.

The land is usually allowed to lie fallow for one year between the crops, except in cases of land freshly cleared from jungle, which is sown usually for two or three consecutive seasons at first. The Sindees have no notion of the rotation of crops ; but sometimes, where indigo has been sown, they plant cotton, to protect the latter from the sharp winds, by the short shooting stems of the indigo.

Manure is used for some crops, but only cattle-dung ; the waters of the inundation bring a slimy matter, which is highly conducive to fertility. The stubble is also burnt, and the ashes allowed to mix with the soil. Salt is sprinkled over tobacco during its growth.

Hoing is only used in the cultivation of tobacco and cotton.

Rice is sown in small patches, and afterwards planted out with the hand.

Appendix L is a table showing the quantity of seed of each kind required per beega ; the quantity of produce ; the number of waterings ; the quantity of manure used ; the season of sowing and reaping, and the number of maunds per kurwar of each kind of grain.

Appendix M is a comparative statement of the cultivation of the principal crops taken from the three seasons of 1845 and 1846, from which may be seen what grains are most frequently sown.

In Appendix N I have endeavoured to show at one view the relative value of each crop to the cultivator.

I will conclude this portion of the Report with a few remarks on the cultivation of sugar and cotton.

The soil is well adapted for the growth of the sugarcane, but it is not extensively cultivated, owing to the difficulty of watering it during its early growth. On this account, it is usually found in small patches of from five to eight beegas, about a well. In the vicinity of the river it is grown in larger quantities, but not more than a hundred beegas is now annually grown in Chandookah. The canes are of two

kinds, of a light and dark colour; of which the first is most esteemed, both for the quality and quantity of produce. Both kinds are planted in January or February, and cut in November or December. More manure is used for this than for any other cultivation; it consists of cattle-dung, and about a hundred maunds are consumed per beega. The cane is attacked by white-ants at the time of planting, if there is not a large supply of water. In the months of July and August it is attacked by a red ant, which ruins the crop, unless averted by rain, on the fall of which these insects disappear; but no means are taken by the cultivators to destroy them. The cane is irrigated every fourth day. During the first five months the water is obtained from wells, and afterwards from the canals; in some places, at a distance from the river, the watering is from wells throughout. An interval of a year is allowed to elapse between the crops, during which interval the land lies fallow. The cane is usually sold standing, and is cut and manufactured by the purchaser. Sometimes the grower receives a share of the manufactured article in part payment, but it is very rare to find the grower manufacturing the Goor. The average quantity of Goor produced per beega is 20 maunds; and its price on the spot about Rs. 5 per maund. Eight maunds of juice are produced from a thousand canes, and from 10 maunds of juice is produced 1 maund and 25 seers of Goor. It requires one pair of oxen and eight men, for twenty days, to work up and manufacture into Goor one beega of cane. The Goor is mostly consumed in the district. The average expense of cultivating the cane is Rs. 60 per beega, and the average value of the crop Rs. 90.

The cotton grown in the district is of a very fine description, and, as far as I can judge from notices which appear in the Journal of the Agricultural Society, superior to the indigenous produce of most parts of India. In some situations it grows to a great height,—I have picked the cotton from plants reaching to my shoulder when riding on a camel. The fibre appears long and fine. Cotton from the Mauritius has been found to thrive well, and I tried a small quantity of Pernambuco seed, but, owing to the early season at which I planted it, the crop failed. The seed had also sustained some injury during its transit from Calcutta, at the latter end of the rains. The cultivation of cotton is conducted in two ways, viz. Sailabee and Bosee: the first requires frequent watering after being planted, and the seed is sown on the sides of ridges, after the surface has been inundated, the holes being made at a distance of about a foot and a half from each other. The Bosee cotton is sown on lands left by the inundation, and on the surface: no after waterings are required, the dew, which falls in great quantities, affording sufficient moisture;

the only care required is to keep the earth about the stems free from weeds, and loose. The cotton is sown at the end of February or March, and picked in July and August. After picking, the cattle are turned in to graze, and the crops are then left for a second year, the produce of which is said to be superior to that of the first year's growth. Cotton of the first year is called Neree, that of the second Moondée. Cattle-dung is used as manure, in the proportion of about twelve maunds per beega. A beega will produce on an average three maunds of Phootee, or cotton and seed together. The following is the result of some investigations which I made very carefully :—

Four pounds of Phootee, after exposure to the sun, and being beaten, are equal to 3 lbs. 13 oz., a loss of $\frac{1}{2}$ oz. per lb. being sustained in the process.

From this is obtained,—

Seed.....	2 lbs. 12 oz.
Uncleaned cotton.....	1 lbs. 0 oz. 11 grs.
	3 lbs. 12 oz. 11 grs.

From the uncleaned cotton is obtained of clean wool 1 lb. nearly ; thus we get following proportions :—

Wool.....	$\frac{1}{4}$ or $\frac{1}{2}$.
Seed.....	$\frac{1}{2}$
Loss	$\frac{1}{4}$

The market price of Phootee averages 14 seers per rupee, of seed 30 seers per rupee, and of wool 3 seers per rupee.

The mode of separating the seed from the cotton will be explained in treating of manufactures. I purpose trying several experiments with various kinds of seed in the ensuing season, the results of which shall be reported to Government, as I feel convinced a very superior kind of cotton may be grown in Sind for exportation in the raw state.

The manufactures of Chandookah are as follow :—

1st.—Weaving, by which the country is supplied with a coarse cotton cloth, in universal use; and none but the poorest villages are without their weavers. The wool having been purchased in the raw state, is made over to the cleaners: the instrument for beating it is the common triangular one, suspended from the roof of the building, the string being of gut: the cotton is not much injured in this process. The wool is then spun by the women of the establishment. The thread is then drawn out upon rows of small sticks, and afterwards soaked in water and flour. When taken out, it is again drawn out, and exposed to the air. In this state it is rubbed with a large brush of tamarisk, and is then ready for the weaver. The weaving is the same as that adopted in Ceylon, the machine being suspended from

the roof, and a pit made below for the feet of the manufacturer, by which the upper and lower skeins are raised and depressed, to admit of the passage of the needle. The cloth is generally made from a foot to a foot and a half in breadth, and thirty-six feet in length. Two of these pieces can be made in three days. The average price of wool is three seers per rupee, and from this three and a half pieces can be manufactured: the cloth is sold at an average price of fourteen annas; so that as the whole process, except cleaning the wool, is carried on by the household of the manufacturer, his profits may be calculated at a rupee per diem. Under the *ex-Ameers* it was much more, for prior to the introduction of foreign cloths the price of the country produce was two yards per rupee. The poll-tax paid by the weavers was high, viz. eight rupees per annum on every married weaver, and four rupees on each unmarried one;—the latter had to entertain hired workwomen for spinning.

There are also silk weavers, but the silk is imported from Kandahar, and sometimes dyed in this country. Loongees were very well made formerly, of silk and gold; but the only kind still manufactured is a checked cotton, with silk borders.

The dyers were a numerous class, for the under garments of the *Sindees* of all classes were dyed, the common colour being a dark blue. The poll-tax upon a dyer was nine rupees, as he required no hired assistance in the carrying on of his trade. The following are the modes adopted in dying cloths of the undermentioned hues:—

Red.—Twelve chuttaks of bitter oil are mixed with the same quantity of *Iskhar*, and half a seer of camel-dung. The cloth is placed in the above for four days, and then dried in the sun for eleven days. It is then cleaned, and put into water with two chuttaks of tamarisk berries, after which it is again dried, and then put into an earthen vessel, containing two chuttaks of alum, and again dried and washed. Twelve chuttaks of *Munjeet* are then put into a large copper vessel, with twenty seers of water, and boiled. The cloth is placed in this until well coloured, and then finally dried and cleaned.

Saffron.—Two seers of safflower, well mixed up with water, and two chuttaks of *Iskhar*, are trodden out with the feet. This is placed on a blanket, suspended between three poles; water is poured upon it, and whatever passes through the blanket is of use. The cloth is placed in the vessel which receives the above, and a quarter of a seer of dried limes, finely cut, is added, and the cloth remains till coloured.

Green.—The cloth is first coloured in a quarter of a seer of indigo, mixed with water, and then put into two seers of water with one chuttak of fine turmeric, taken out, and dried. Six chuttaks of dried pomegranate skins are then boiled in a copper vessel with five seers of water,

until three seers of water remain, into which the cloth is placed, and afterwards again dried. One chuttak of alum is then boiled in a quarter of a seer of water, and being afterwards mixed with two seers of cold water, the cloth is put into it, and the final colouring obtained.

Yellow.—A quarter of a seer of turmeric is mixed and beaten with half a seer of dried pomegranate skins, in an earthen vessel, with three seers of water. The cloth is first placed in the above, and then dried. One chuttak of alum is then put into the same preparation, and the colour is finished.

Dark Blue.—A quarter of a seer of indigo, a quarter of a seer of Iskhar, and one chuttak of lime, are mixed with a great quantity of water, and allowed to remain from sunset till sunrise. Four pieces of cloth are then put into it, and afterwards dried. This process is repeated three times, when the colour is obtained.

The above are the only colours in use : of the ingredients, safflower, indigo, Iskhar, limes, pomegranate skins, lime, oil, tamarisk berries, and camel-dung are the productions of the country ; but turmeric, alum, and Munjeet are imported. The Iskhar is a low shrub, but my examination of it has not yet led me to ascertain its botanical name.

Paper is manufactured at Larkhana, but it is not of a very fine description. Old fishing-nets and wrought hemp are beaten up in water with the charcoal obtained from the Iskhar, and lime : this is done in a pit large enough for a man to work in. A heavy wooden hammer is the instrument employed, with a horizontal beam. This is worked by two men treading upon the latter, whilst a third in the pit is occupied in placing the material under the hammer. These men are hired by the manufacturer for about twenty days at a time, but he makes the paper himself, from the above preparation made into cakes. This is picked in pieces, and put into a cistern of clean water. The manufacturer sits on the edge, and immerses a wooden frame, upon which is spread a fine roll of thin strips of bamboo, opened out by means of two pieces of wood at either side. Upon this the particles are allowed to settle, and the lateral pieces of wood being removed, the bamboo roll is inverted upon a clean board, and being rolled up, leaves the sheet of paper upon the board. After the paper is dried, it is rubbed and polished with a large stone. A finer kind of paper is made from pieces of China and Europe paper beaten up, instead of hemp. From twelve to fourteen quires of paper can be made in a day : the average price of it is from three to four quires per rupee, according to the quality. The poll-tax paid by each paper manufacturer was Rs. 8-12-0 per annum.

Oil and sugarcane pressers did not manufacture on their own

account, but were employed by the Hindoos at four annas per diem. They had to keep two bullocks, and paid a poll-tax of three rupees per annum. The machinery employed is a large wooden mortar, and rolling pestle, turned by oxen,—simple, it is true, but nevertheless completely though slowly expressing the juice. About six and a half seers of oil seed (mustard or sarson) are pressed at a time, from which about a seer and a half of oil is obtained; twenty-six seers of seed can be pressed in a day, or six seers of oil. The seed, after pressure, is sold at one rupee per maund, as food for bullocks. With regard to sugarcane, the Goor is consumed in the country, but not refined into sugar. Imported Cheenee is crystallized by the shopmen in the usual simple way. Coarse leather is manufactured, and a common kind of salt, all over Chandookah. But I will proceed to notice

VI.—CRIMINAL AND CIVIL JURISPRUDENCE.

The Mookhteearkars and Kardars were, under the ex-Ameers, as much the Judges and Magistrates of their several districts as the Collectors of Revenue. In the larger towns there were Kotwals, whose jurisdiction, however, did not extend beyond. The apprehension or detection of criminals devolved principally upon the injured party. It was a fixed rule that the Zumindar of any village into which the footmarks of thieves were traced should be held responsible for the value of the lost property, unless he could show that the footmarks went beyond it. If he produced the thief, the latter was deprived of the whole of his property, and the surplus, over what was claimed by the person who had been robbed, was carried to the credit of Government: if the thief was a poor man, he was thrown into prison until his friends made good the claim against him, and the fine to Government. The Ameers made no allowance to their prisoners, but, unless supported by their friends, they were sent through the streets begging, and what they thus obtained, in excess to what was required for their bare subsistence, became the perquisite of the Kotwal of the town. Owing to the circumstance above alluded to, the Zumindars of villages took care to have at least one tracker with them, and these were brought up to their business from boyhood, and were generally very expert: thefts have been traced after an interval of time had elapsed, and to a distance from the place of perpetration, almost incredible,—through the running stream, over the newly ploughed field, through standing corn, over the hard soil of the desert, through the crowded town, and along the high road, the criminal was hunted down. This never-failing pursuit, combined with the rigorous treatment of prisoners, tended greatly to the repression of crime, at least of a predatory nature. In cases of cattle-theft, four times the number of cattle stolen was taken from the thief, three-fourths

being taken by Government ; but there was no regular scale of punishment : a fine where the prisoner was in tolerable circumstances was always resorted to, but otherwise a long imprisonment, as above described, and in some instances death was the punishment inflicted. The ordeal of fire and water was very frequently resorted to in cases where the prisoner declared his innocence, and there was no direct proof. The trial by water was as follows :—the accused was placed under water, whilst a man shot an arrow from a bow as far as he could : another man was sent to pick it up ; and if the prisoner could remain under water until the arrow was brought back to the spot, he was declared innocent ; but if he lifted his head out before that time, he was presumed guilty. The trial by fire was equally difficult : a trench was dug seven cubits in length, and filled with firewood, which was lighted, and the accused, with his legs and feet bound with plantain leaves, had to go from one end to the other through it, his escape from injury deciding his innocence. A Moonshee of my acquaintance declares he saw a man establish his innocence in this way, in the presence of Meer Sohrab, the father of the reigning Meer of Khyrpoor. The lifting up red-hot iron was likewise a satisfactory proof of innocence. The ordeal of fire was called in Sindec Churr, and that of water Toobee. Numerous fees were levied by the authorities during the detention of prisoners, and one-fourth of all stolen property recovered was paid by the owner to Government, who received, in addition, the fine imposed on the thief. Thefts were scarce,—much scarcer than they have been under the British Government. Although so severe towards comparatively small crimes, the Ameers exercised great leniency in the more serious offences : a man was held justified in murdering both parties when he had cause merely to suspect a female relation of adultery ; and should either party escape at the time, his life was taken at any future period when the aggrieved party might meet him. In other cases of murder, death was seldom the punishment awarded, confiscation of property and imprisonment being the more usual course,—the latter for an indefinite period, until the friends of the prisoner, or some of the numerous “ holy men” about the Court, sued for and obtained his release. Mutilation of the hand or ear was occasionally inflicted, but the latter principally in cases of fraud on the revenue.

We will now turn to the time of the present Government.

When it became known that the prisoner in jail was as well, and in many cases better off than the labourer, the cultivator, or the artisan ; receiving his anna per diem, and doing little, if any work,—feeling, too, that his family were comfortable at home, and that, in cases of theft, the property was concealed, and ready for him on his release, it

naturally followed that imprisonment lost all its terrors; and I am of opinion that many cases of cattle-theft occur, in which the sole object of the prisoner was to get his jail subsistence. This of course was owing to the suddenness of the change; but no great diminution can take place until the jail system is made more rigorous. If disgrace is supposed to be one of the consequences of imprisonment, that can hardly be the case when the punishment is carried out at Shikarpoor, many miles from the residence of most of the prisoners. At present, too, all are worked together, live together, and sleep together; no reformation can take place, but much contamination; and even with more rigour but little can be effected until a classification of convicts is made. It cannot be supposed, either, that sepoys of the line, who guard the prisoners at work, can care for the quantity of work done; and this mode of guarding them prevents the services of the convicts being employed in the repair of bridges, &c. beyond the limits of cantonments.

There are seven or eight police stations in Chandookah, for the prevention and detection of crime, but they serve more as central points, to which the thieves may be taken *when captured*, and where all the parties may be collected before being sent in to the Magistrate. I have observed that in most cases the perpetrators of crime have been in the first instance apprehended by the suffering parties unaided. The police, however, are always ready and willing to give assistance, when applied for, but they must in a measure be dependent on men of the country, acquainted with the locality, and the language and customs of the people.

I beg leave to refer to the criminal returns annexed (Appendix O), showing the number of persons apprehended, the number committed for trial by military commission, and the number of convictions by the Magistrate, and acquittals. Those summarily disposed of are cases in which the punishment awarded 'does not exceed three months' imprisonment; those requiring a greater punishment were originally confirmed by His Excellency the Governor, and latterly by the Judge Advocate General.

These returns are for the years 1845 and 1846, made up yearly.

From the abstract of these, it will be seen that the crime of murder was most frequent in the first half year of 1845,—they were all in cases of adultery; but such murders have apparently become of very rare occurrence since the punishment of death or transportation has attended the crime. Numerous cases of suicide of women are alleged to have lately arisen, but, from the attendant circumstances, it is much to be feared that the suicide is only nominal. It will not be so easy to stop a practice of such long standing as this barbarous custom,—to curb the feelings of a nation: the change must be gradual, and a less severe

punishment than that of death might preclude the necessity of concealment, and render detection and punishment more certain. I would here observe, that when capital punishment is carried out the fact is not, or was not always known to the friends of the criminal, owing to the execution taking place at Shikarpoor. An old woman once came to me, asking what her son's fate had been, who had been committed by me for trial for murder. I had received no information regarding the case since it left my court, and had to obtain the information from Shikarpoor: the man had been hanged two months before!

Assaults were slightly more numerous in 1846, but they were nearly all committed by Hindoostanees.

Robbery with violence was less in 1846, and in the present year there has been but one case. In the two years for which the returns are annexed, small bands of Beloochees were generally the perpetrators.

A great increase is shown in the returns of thefts for 1846, but this I attribute in a great measure to the increased vigilance of the Police, which has been very visible, and also to the people having acquired the habit of preferring their complaint at once, instead of trusting to their own resources; for at the present day, unless a tracker is sent by the Magistrate, he generally contents himself with tracing for a few miles, and then declaring that he has lost the marks. They are, too, bribed, and are not as well paid as formerly. It would, I think, be most beneficial to retain some of these men as Government servants in each district; they are most valuable attachés to the police. The recovery of stolen property is now so uncertain that a per-centage would not be sufficient inducement for them to take service.

In 1846 there was a great decrease of petty cases,—these were small pilferings, &c., principally in the town of Larkhana.

On the whole, the return is favourable, the cases being less, the apprehensions more, in 1846, than in the preceding year. The number of convictions, too, had increased, notwithstanding that the Sindees, accustomed now to our courts, almost invariably plead "not guilty," and summon a host of witnesses for their defence, whereas formerly they seldom denied their guilt.

The apprehension of criminals must soon solely depend upon the police, and other Government servants, for the Zumindars are daily becoming more averse to interference, even if they do not actually screen the offenders. The tracking system was a great preventive of this listlessness, but its *partial* adoption might lead to much injustice, as it would be easy for them to name any one against whom they had a spite as the thief, and *make up* a case of it. In the case of screening the thieves, they have not the same dread which they had formerly; for under the Ameers, any man who could be proved to have given food

or shelter to a thief, even without any guilty knowledge of or participation in the crime, was held equally guilty until the capture of the robber,—his property was seized, and he was imprisoned; and unless he eventually succeeded in apprehending the guilty party, he was, equally with the thief, a ruined man.

There is no doubt but that the Zumindars could be a most useful body to the Magistrate: they are men of influence in their neighbourhood, and are acquainted with the characters of the villagers, who are mostly their own cultivators, or in some way connected with them. I have had frequent occasion to remark the degrees of alertness, in the pursuit of thieves and murderers, according to the example set by the Zumindars. One instance will suffice: when my treasury was robbed by the police sentry over it, I gave immediate notice through the districts. The Zumindars near Larkhana took no steps whatever, and the man got down to the jungles in the vicinity of the river. When I arrived there myself, I found the Zumindars engaged in active search, and the *whole country* was up in pursuit. The man was at last seen, and a villager attempted to seize him as he was getting into a boat to push off: in so doing the poor man had his hand entirely cut off by the robber, who was finally captured by the Sindees. There are two principal causes of impediment to interference on the part of the Zumindars,—

1st.—They do not like taking an active part in the investigation, for fear of becoming necessary witnesses in the case, and thus being summoned, first to the Kardar, and then sent to the Magistrate, which absence at certain seasons of the year entails much loss upon them.

2nd.—The Zumindars are frequently treated with considerable disrespect when engaged in the pursuit of thieves and others. I have already alluded to the inferiority and corruption of the trackers of the present day, owing to which, there is in some cases no reason whatever to call on the Zumindar of a village to produce the thief, the traces having been wrongly taken there. A case was brought before me a short time ago, where the pretended tracker turned out to be the principal thief, but in the mean time he had thrown suspicion on, and caused much trouble to, many parties, but especially to the Zumindars of villages. When I first came to this district in 1844, the evidence of a tracker was rightly held to be the best procurable, but now, in three cases out of five I consider it worthless.

There are no records to show the exact amount of crime under the Ameers; but as a fine was the invariable attendant of the detection, which few escaped, and these fines were entered in the accounts, an approximation might be gathered from those documents. The requisite classification, however, would be a work of much time and trouble, but

we may rely on the fact that the crimes of theft, cattle-stealing, &c. were much rarer than at present, but murder, and crimes attended with violence, more frequent.

Taking my estimate of the population of Chandookah at 40,000 souls, and the annexed statement of crime, showing an average total of convictions, in the years 1845 and 1846, of eighty-one, we may calculate the proportion of crime at 1 in 494 for that period.

The prisoners at Larkhana are confined in the fort, in the cantonments, under a guard of the Sind Camel Corps, and they receive an allowance of one anna per diem; witnesses detained receive from two to four annas per diem, according to circumstances. When the sentence is imprisonment with hard labour, the convicts are forwarded to Shikarpoor to undergo the same.

There were no established courts for the administration of civil justice under the ex-Ameers: suits were preferred in the first instance to the Mookhtearkar or Kardar, who sometimes settled them himself, but more usually referred the parties to the Kazee, or a Punchayet, or to Moonsiffs selected by the parties.

The Kazee settled all disputes connected with hereditary property, marriage claims, &c., according to the rules of Mahomedan law. He decided which party was to take the oath, and, having investigated the case, gave a written decision to the successful party, which was acted on. These documents were generally drawn out in a very careful manner, and had all the weight of a Meer's Sunud.

A Punchayet was assembled in the case of Hindoo litigants, and generally in cases where local customs were called in question. It consisted in the first place of all the Hindoos of the town, with the Mookhee or head trader presiding; but they generally selected a smaller number themselves, to investigate and decide on the case.

Moonsiffs were appointed in other matters, both by Mahomedans and Hindoos, each party nominating two. This court conducted its proceedings in various ways, sometimes deciding according to written documents produced, and at other times allowing the matter to be settled by the statement of one party made upon oath, when the other party consented. The office of Moonsiff was looked upon as one of honour, and complaints against their decisions were and are very few. The most common way of deciding boundary disputes was by calling on one of the parties to mark it out, with the Koran upon his head, in the presence of the Moonsiffs. The proceedings of this court were likewise recorded, and given to the successful party, but no records of any decisions were kept by Government under the rule of the ex-Ameers.

The same courts are still assembled by the Magistrate, but I have found that where no local customs are concerned, and the accounts are

not very intricate, the people prefer the Magistrate to settle the case himself; and I very seldom had to assemble a court, except in cases of hereditary property.

Appendix P is a return of civil suits preferred in my court during the years 1845 and 1846, exhibiting the mode and nature of decision, and the amount of property under litigation.

Suits connected with land are in many cases very intricate, even where the right to the land is undoubted, in consequence of the various *local* distinctions of *Zumindaree*. One instance will suffice: I have already mentioned, under the head of land tenures, the fees called *Wajah* and *Lapa Zumindaree*. In some villages the sons of a deceased landholder divide the estate, each receiving the *Lapa* upon his own share, and all paying *Wajah* to the eldest, on whom it falls to entertain strangers, or Government officials visiting the village. In others, again, the land is not divided, but the eldest son is considered the proprietor of the whole, and receives both *Wajah* and *Lapa*, the younger sons receiving portions of land to cultivate. On the death of the second generation, the intricacies involved may be imagined. Such cases are most satisfactorily settled by *Moonsiffs*.

Having thus considered the six heads proposed, I shall conclude with a few

GENERAL OBSERVATIONS.

The Native historians of Sind describe the climate as a delightful one, Upper Sind being warmer than Lower, but the mornings and evenings in both very cool. I cannot agree with them, however, in this respect; but *Chandookah* has been more healthy both for Europeans and Natives than any other part of Upper Sind. It is, however, beyond the influence of the monsoon, and the hot weather continues therefore without intermission from the middle of April to the middle of October, unbroken by a fall of rain, and very trying to the constitution. The historians above referred to mention a third season, *Bahar*, or spring; but the change from the cold to the hot weather is scarcely gradual enough to warrant this classification. In June or July thunderstorms occasionally occur, with a fall of rain preceded by a duststorm. For two or three days previously the atmosphere is close, and loaded with fine dust; but immediately before the bursting of the storm, huge masses of dust are driven in black clouds before the wind, obscuring the whole surface of the country, and causing generally many severe accidents. These storms are not always attended with rain, but they serve temporarily to clear the atmosphere. The ranges of the thermometer do not indicate any great variation during the hot months, the mean temperature being about 96°.

The cold weather is very pleasant and salubrious, but attended with cutting northerly and easterly winds ; frost and ice occur in the coldest months.

In September and October ague and fever are common, and also rheumatism ; the fever is attended with great prostration of strength. Ophthalmia is likewise a prevalent disease. The district is frequently visited with cholera of a very virulent kind : in July 1845 I had occasion to be out in the districts when it was raging ; at one village, Kumber, twenty persons were attacked and died before noon of the day on which I arrived there, and all the country I found deserted, the people flying to the foot of the hills to escape the scourge. In 1846, cholera again visited the district, but in a much milder form : in Appendix Q will be found a return of deaths from cholera in that year.

The Larayee dialect of Sindee is that spoken in Chandookah, and it differs much from the Sarhaikee, or that heard north of Larkhana, which latter is considered to be a dialect of Punjaabee. The Persian language is that of the courts, and is understood by most of the principal Zumindars, and all the Hindoo officials.

Appendix R contains some information not previously mentioned, viz. the number of ploughs and villages, of shops, and of the different kinds of artificers.

APPENDIX A.

Table showing the Length, Breadth, and Depth of the Canals in the Chandookah Purguna.

Numbers.	Canals.	Length in Yards.	Depth in Feet.		Breadth in Feet.	
			Near the Mouth.	Towards the Tail.	Near the Mouth.	Towards the Tail.
		Yards.	Feet.	Feet.	Feet.	Feet.
1	Mittah or Nusrut	25,000	21	15	12	4
2	Heerah	22,000	10	7	9	3
3	Khyrah	28,000	15	12	9	5
4	Beerah	30,000	18	15	10	6
5	Datah	42,000	21	10	9	4
6	Shah	35,000	18	12	11	7
7	Maksoodah	25,000	15	8	9	5
8	Nourung	16,000	40	30	12	9
9	Cheelah (continuation of above).	18,000	30	10	9	3
10	Meerwah	15,000	15	8	8	3

APPENDIX B.

Statement of the Number and Depth of Wells, and the Number of Minor Canals, in the Chandookah Purguna.

Numbers.	Tuppas.	Number of Wells.			Average Depth of Wells.	Number of Minor Canals.	Remarks.
		Pukka.	Kucha.	Temporary, from Canals.			
					Feet.		
1	Bukapoor.....	202	15	178	20	70	In this is included wells out of repair, as well as those in use. In 1846 there were 256 wells out of repair.
2	Myl Lahory.....	73	15	67	16	53	
3	Nya Derah	56	11	273	45	28	
4	Khyrah Guchul	92	7	230	30	77	
5	Anderoon Ghar	12	.....	210	15	17	
6	Nalah Datah	28	9	15	26	45	
7	Nalah Maksoodah ...	25	17	44	36	47	
8	Myl Morady.....	42	56	81	18	80	
9	Esaw	38	2	13	20	31	
10	Warah	2	28	93	20	13	
11	Kumber	46	12	.....	18	34	
12	Ruttah Derah	33	8	167	40	40	
13	Shahpoor	43	18	56	30	123	
14	Chujrah	31	24	14	22	90	
15	Wagun.....	18	11	13	25	24	
16	Lal Dariya	180	21	328	30	46	
17	Futtehpoor	56	2	212	35	53	
18	Anderoonee Beerah ...	20	8	36	35	6	
	Total.....	997	264	2,030	...	877	

APPENDIX C.

Tabular Statement of Fees levied by the Ex.

Numbers.	Tuppas.	On Lands paying Cash-rent.											
		Shookurangee per Beega.	Measurer's Fee per Beega.	Neem Annagee per Beega.	Patwaice's Alms per Beega.	Patwaice's Fine (extra) per Beega.	Patwaice's Fee (extra) per Beega.	Total per Beega.					
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Bukapoor	0 1 7	0 0 4 $\frac{3}{4}$	0 0 6	0 0 7 $\frac{1}{4}$	0 0 9	0 0 6	0 4 4					
2	Myl Lahory	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
3	Anderoonee Beerah.	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
4	Lal Dariya	Do.	Do.	Do.	Do.	Do.	0 0 9	0 4 7					
5	Anderoon Ghar.....	Do.	Do.	Do.	Do.	Do.	Do.	0 4 7					
6	Futtehpoor	Do.	Do.	Do.	Do.	Do.	Do.	0 4 7					
7	Nya Derah	Do.	Do.	Do.	Do.	Do.	Do.	0 4 7					
8	Ruttah Derah	Do.	Do.	Do.	Do.	Do.	Do.	0 4 7					
9	Maksoodah	No lands paying Cash-rent.											
10	Myl Morady.....	0 1 7	0 0 4 $\frac{3}{4}$	0 0 6	0 0 7 $\frac{1}{4}$	None.	0 0 6	0 3 7					
11	Myl Wagun	Do.	Do.	Do.	Do.	Do.	0 0 9	0 3 10					
12	Warah	Do.	Do.	Do.	Do.	Do.	0 0 6	0 3 7					
13	Khyrah Guchul ...	Do.	Do.	Do.	Do.	0 0 9	Do.	0 4 4					
14	Bheronee Beerah...	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
15	Kumber.....	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
16	Chujrah.....	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
17	Esaw	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
18	Nalah Datah.....	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
19	Nalah Shah	Do.	Do.	Do.	Do.	Do.	Do.	0 4 4					
20	Lalah (village)	No lands paying Cash-rent.											

N. B.—The fees on Kasagee crops were so various, being levied at different rates in almost every Rs. 20 to Rs. 25 per 100 beegas.

Ameers in the Chandookah Purguna, on all Crops.

Fees on Cash paid.			Buttaee Fees.		Kotwal's Fee.	Remarks.
Tahsildars on the Amount of Rent per Rupee.	Neem Bhaloollee on Rent and Fees, except Patwaalee's extra Fee, per Rupee.	Total per Rupee.	Per Kurwar on the Gross Produce.	On each Name entered in the Buttaee Records.		
Rs. a. p.	Rs. a. p.	Rs. a. p.	Kas. Toy. Pat.	Kas. Toy. Pat.	When a village paid its rents in Kind, the Kotwal received a fee from the portion laid aside prior to division, but at no fixed rate: in villages paying Cash-rents, the Kotwal received his fee from the standing corn, and 1 toya per wheel. In some villages it was the custom to compound for this fee, by a payment of Rs. 2 or Rs. 3 per season.	Besides the other fees, portions were taken from the grain laid aside, as above remarked, for weighing, &c., and for payment of field watchmen. When the Buttaedar arrived, he gave some of this to the parties, and carried the balance to the credit of Government.
0 0 10 $\frac{3}{4}$	0 0 2 $\frac{1}{2}$	0 1 1 $\frac{1}{4}$	0 2 0	.....		
Do.	Do.	Do.	0 2 0	.....		
Do.	Do.	Do.	1 0 2	.....		
Do.	Do.	Do.	1 2 0	0 1 0		
Do.	Do.	Do.	1 3 2	.....		
Do.	Do.	Do.	3 0 0	.....		
Do.	Do.	Do.	1 3 0	0 2 0		
Do.	Do.	Do.	2 1 0	0 2 0		
						
Do.	Do.	Do.	0 2 2	.....		
Do.	Do.	Do.	.....	.....		
Do.	Do.	Do.	0 2 2	.....		
Do.	Do.	Do.	.....	.....		
Do.	Do.	Do.	.....	.....		
Do.	Do.	Do.	0 2 2	0 1 0		
Do.	Do.	Do.	0 2 2	0 1 0		
Do.	Do.	Do.	1 0 0	.....		
Do.	Do.	Do.	1 0 0	.....		
Do.	Do.	Do.	1 2 2	.....		
			3 0 0	0 1 0		

village, that they can scarcely be shown in a statement of this description ; but they averaged from

APPENDIX D.

Tabular Statement showing the Rates of Duty levied on Foreign Merchandise.

Articles.	Per	Duty on Goods.				Duty on Carriage.				Remarks.					
		Ijara.	Dilalee.	Soong.	Per Horse or Bullock.			Per Bundle.							
					Per Camel.	As.	P.								
		As.	P.	As.	P.	As.	P.	As.	P.						
Copper and Brass	Maund.	7	6	2	6	7	0	2	1	0	4½	0	2½		
Tobacco, Drugs, Oil, Turmeric, Treacle, Sugar, Dates, Pepper, Mint, Alum, and Rope															
Rodang, Ghee, Sugarcandy, Iron, Steel, Cummin Seed, and similar articles	Maund.	4	6	1	6	2	0	2	1	0	7	0	4½	0	2½
Sewing Silk	Maund.	6	6	1	6	4	0	2	1	0	7	0	4½	0	2½
Seer.		0	2½	0	2½	0	3	2	1	0	7	0	4½	0	2½
Silk Pieces	Piece.	0	3½	0	0	0	3	2	1	0	7	0	4½	0	2½
Indigo	Maund.	11	3	5	0	4	0	2	1	0	7	0	4½	0	2½
Woollen Clothes	Score.	4	6	1	0	2	6	2	1	0	7	0	4½	0	2½
Blankets	Score.	4	6	2	1½	2	6	2	1	0	7	0	4½	0	2½
Sewing Thread	Maund.	6	6	1	6	4	0	2	1	0	7	0	4½	0	2½
Safflower	Maund.	6	6½	1	6	4	0	2	1	0	7	0	4½	0	2½
Sacks and Felts	Piece.	0	1½	.....	.....	.....	.....	2	1	0	7	0	4½	0	2½
Carpets	Piece.	0	6	.....	.....	.....	.....	2	1	0	7	0	4½	0	2½
Rugs	Piece.	0	3	.....	.....	.....	.....	2	1	0	7	0	4½	0	2½

Ijara taken per Rupee.

Ijara taken per Rupee.

APPENDIX E.

Statement of Land Cultivated, and Rent realized therefrom, in the Chandookah Purguna, in Middle Crop 1844.

Numbers.	Tuppas.	Cultivation.			Rent paid, including Fees.			Remarks.
		Extent of Cultivation.	Remitted in Appraise-ment.	Remaining for Assess-ment.				
		Beegas.	Beegas.	Beegas.	Rs.	a.	p.	
1	Bukapoor	1,184½	55½	1,129½	2,611	7	7	Value of Cotton sold, which was received in Buttaee, Rs. 1,023-9-1.
2	Myl Lahory	497½	41½	456½	1,043	9	4	
3	Anderoonee Beerah	238½	32½	205½	425	1	8	
4	Lal Dariya.....	2,247½	183½	2,064	4,662	2	1	
5	Anderoon Ghar	992	221½	770½	1,890	12	2	
6	Futtehpoor	1,500½	740½	759½	1,620	15	5	
7	Nya Derah.....	2,175½	454½	1,720½	4,221	6	7	
8	Ruttah Derah	1,025½	295½	730½	1,656	11	8	
9	Nalah Maksoodah	204½	44½	159½	266	9	3	
10	Myl Morady	2,398½	423½	1,975½	4,063	7	4	
11	Myl Wagun	567½	73½	494½	1,196	14	1	
12	Warah	314½	12½	301½	581	12	9	
13	Khyrah Guchul.....	676½	193½	482½	1,100	2	3	
14	Beronee Beerah	1,054½	549½	504½	1,032	5	10	
15	Kumber Kunder	675½	30½	645½	1,429	15	3	
16	Chujrah	256	7½	248½	735	14	1	
17	Esaw	233½	10½	222½	595	3	8	
18	Datah Kohawur.....	93½	8½	85½	225	10	5	
19	Shahpoor	94½	47½	46½	107	13	4	
	Total.....	16,430½	3,427½	13,003½	29,467	14	9	

MEMO.—Total as above Rs. 29,467 14 9

Price of Cotton sold..... 1,023 9 1

Grand Total.... Rs. 30,491 7 10

APPEN

Statement of Cultivation, and the Land Revenue realized there

Numbers.	Tuppas.	Cultivation.			Rent paid, including Fees.	Grain Receipts for Crops paying in Kind.
		Extent of Cultivation (measured).	Remitted in Appraisal, and Free.	Remaining for Assessment.		
		Beegas.	Beegas.	Beegas.	Rs. a. p.	Kr. Ks. T. P. C.
1	Bukapoor.....	6,171 $\frac{1}{2}$ $\frac{1}{2}$	2,245 $\frac{3}{4}$ $\frac{1}{2}$	3,926 $\frac{1}{2}$ $\frac{1}{2}$	9,982 4 5	387 4 0 2 1
2	Myl Lahory.....	10,585 $\frac{3}{4}$ $\frac{1}{2}$	2,651 $\frac{3}{4}$ $\frac{1}{2}$	7,934 $\frac{1}{2}$ $\frac{1}{2}$	15,914 5 3	525 5 3 0 3
3	Anderoonee Beerah	2,036 $\frac{3}{4}$ $\frac{1}{2}$	849 $\frac{3}{4}$ $\frac{1}{2}$	1,186 $\frac{1}{2}$ $\frac{1}{2}$	3,882 8 0	49 28 2 2 0
4	Lal Dariya	2,670 $\frac{1}{2}$ $\frac{1}{2}$	1,402 $\frac{3}{4}$ $\frac{1}{2}$	1,268 $\frac{1}{2}$ $\frac{1}{2}$	601 8 1	341 17 1 0 2
5	Anderoon Ghar ...	1,467 $\frac{3}{4}$ $\frac{1}{2}$	1,019 $\frac{3}{4}$ $\frac{1}{2}$	447 $\frac{1}{2}$ $\frac{1}{2}$	1,900 1 2	56 25 2 1 2
6	Futtehpoor	2,282 $\frac{1}{2}$ $\frac{1}{2}$	1,334 $\frac{3}{4}$ $\frac{1}{2}$	948 $\frac{3}{4}$ $\frac{1}{2}$	2,293 12 6	60 47 1 3 0
7	Nya Derah	2,960 $\frac{3}{4}$ $\frac{1}{2}$	1,664 $\frac{3}{4}$ $\frac{1}{2}$	1,295	2,133 13 9	293 2 0 3 0
8	Ruttah Derah	2,434 $\frac{1}{2}$ $\frac{1}{2}$	1,213 $\frac{1}{2}$ $\frac{1}{2}$	1,221 $\frac{1}{2}$ $\frac{1}{2}$	665 3 4	283 31 2 3 0
9	Nalah Maksoodah..	993 $\frac{3}{4}$ $\frac{1}{2}$	789 $\frac{1}{2}$ $\frac{1}{2}$	203 $\frac{1}{2}$ $\frac{1}{2}$	53 13 10	29 51 0 3 2
10	Myl Morady	7,443 $\frac{3}{4}$ $\frac{1}{2}$	666 $\frac{1}{2}$ $\frac{1}{2}$	6,776 $\frac{3}{4}$ $\frac{1}{2}$	10,434 2 6	1,410 43 0 3 1
11	Myl Wagun.....	11,343	1,641 $\frac{1}{2}$ $\frac{1}{2}$	9,701 $\frac{3}{4}$ $\frac{1}{2}$	27,116 5 9	20 3 0 2 0
12	Warah	31 $\frac{3}{4}$ $\frac{1}{2}$	2 $\frac{1}{2}$ $\frac{1}{2}$	28 $\frac{1}{2}$ $\frac{1}{2}$	46 11 7	242 45 0 3 0
13	Khyrah Guchul ..	895 $\frac{3}{4}$ $\frac{1}{2}$	660 $\frac{3}{4}$ $\frac{1}{2}$	235	217 10 2	75 22 1 3 1
14	Beronee Beerah ..	42 $\frac{1}{2}$ $\frac{1}{2}$	24 $\frac{1}{2}$ $\frac{1}{2}$	17 $\frac{1}{2}$ $\frac{1}{2}$	9 1 4	74 8 3 2 1
15	Kumber Kunder ..	9,385 $\frac{3}{4}$ $\frac{1}{2}$	1,313 $\frac{3}{4}$ $\frac{1}{2}$	8,071 $\frac{1}{2}$ $\frac{1}{2}$	19,666 4 11	354 10 2 1 3
16	Chujrah	1,300 $\frac{3}{4}$ $\frac{1}{2}$	445 $\frac{3}{4}$ $\frac{1}{2}$	854 $\frac{1}{2}$ $\frac{1}{2}$	2,044 9 9	130 8 1 2 2
17	Esaw	4,523 $\frac{3}{4}$ $\frac{1}{2}$	1,098 $\frac{1}{2}$ $\frac{1}{2}$	3,424 $\frac{1}{2}$ $\frac{1}{2}$	7,723 2 0	167 37 1 0 0
18	Datah Kohawur ..	478 $\frac{1}{2}$ $\frac{1}{2}$	234 $\frac{1}{2}$ $\frac{1}{2}$	243 $\frac{1}{2}$ $\frac{1}{2}$	106 0 9	136 51 1 1 3
19	Shahpoor.....	88 $\frac{3}{4}$ $\frac{1}{2}$	49 $\frac{3}{4}$ $\frac{1}{2}$	39 $\frac{3}{4}$ $\frac{1}{2}$	24 8 11	50 28 2 0 3
	Total ..	67,133 $\frac{3}{4}$ $\frac{1}{2}$	19,305 $\frac{18}{20}$	47,827 $\frac{84}{20}$	1,04,816 0 0	4,688 53 0 0 0

DIX F.

from, in the Chandookah Purguna, for the Autumn Crop, 1844.

Sold from Grain Receipts.	Realized from Grain Sales.	Balance of Grain Receipts.	Total Cash Receipts.
Kr. Ks. T. P. C.	Rs. a. p.	Kr. Ks. T. P. C.	Rs. a. p.
323 47 0 1 1	6,389 7 2	63 17 0 1 0	16,371 11 7
515 17 3 0 3	8,115 0 5	9 48 0 0 0	24,029 5 8
33 48 2 2 0	668 14 3	15 40 0 0 0	4,551 6 3
287 24 0 0 2	5,987 8 7	53 53 1 0 0	6,589 0 8
53 6 2 1 2	1,130 12 9	3 19 0 0 0	3,030 13 11
42 57 3 0 0	967 5 8	17 49 2 3 0	3,261 2 2
249 41 2 3 0	5,600 2 8	43 20 2 0 0	7,734 0 5
258 46 2 3 0	5,202 10 2	24 45 0 0 0	5,867 13 6
29 40 3 2 2	631 12 11	0 10 1 1 0	685 10 9
1,356 3 0 3 1	22,599 7 5	54 40 0 0 0	33,033 9 11
2 10 1 0 0	79 3 0	17 52 3 2 0	27,195 8 9
224 33 1 2 2	4,933 8 9	18 11 3 0 2	4,980 4 4
57 35 3 2 1	1,168 3 10	17 46 2 1 0	1,385 14 0
33 50 1 2 3	726 0 10	40 18 1 3 2	735 2 2
334 48 0 2 1	4,981 3 9	19 22 1 3 2	24,647 8 8
114 32 0 0 0	2,081 13 0	15 36 1 2 2	4,126 6 9
157 52 1 0 0	2,554 2 5	9 45 0 0 0	10,277 4 5
121 7 3 0 0	2,835 2 9	15 43 2 1 2	2,941 3 6
36 13 0 3 3	642 5 10	14 15 1 1 0	666 14 9
4,233 17 2 3 2	77,294 14 2	455 35 1 0 2	1,82,110 14 2

APPEN

Statement of Cultivation, and the Land Revenue realized there

Numbers.	Tuppas.	Cultivation.			Rent paid, including Fees.	Grain received for Crops paying in Kind.
		Extent of Cultivation (measured).	Remitted in Appraisalment, and Free.	Remaining for Assessment.		
		Beegas.	Beegas.	Beegas.	Ra. a. p.	Kr. Ks. T. P. C.
1	Bukapoor	1,638½	371½	1,267½	1,343 10 8	82 29 1 0 3
2	Myl Lahory	482½	176½	305½	519 9 3	27 3 2 0 3
3	Anderoonee Beerah...	23½	6½	17½	63 4 10	35 38 2 3 0
4	Lal Dariya	1,826½	749½	1,076½	1,564 6 7	121 41 3 2 0
5	Anderoon Ghar	4,922½	1,060½	3,862 ½	7,329 4 10	23 36 3 3 0
6	Futtehpoor	1,355½	742½	613½	781 4 4	37 38 2 2 2
7	Nya Derah	3,898½	385½	3,513½	3,398 1 6	387 5 2 3 0
8	Ruttah Derah	203½	74½	128½	183 0 9	7 5 2 1 0
9	Nalah Maksoodah ...	16½	2½	14½	24 9 8	0 58 2 0 1
10	Myl Morady	3,579½	775½	2,803½	687 12 10	362 52 0 2 2
11	Myl Wagun.....	1,233½	176½	1,056½	235 3 10	62 54 0 0 1
12	Warah	924½	146½	778	1,266 7 0	35 4 1 3 3
13	Khyrah Guchul	52½	12½	39½	175 6 1	.....
14	Beronee Beerah	0½	.....	0½	5 1 11	.....
15	Kumber Kundee	3,343½	1,503½	1,839½	3,374 2 9	25 22 0 2 3
16	Chujrah	22½	.....	22½	188 1 9	44 38 1 0 0
17	Esaw.....	947½	387½	560½	1,382 9 9	6 37 2 0 1
18	Datah Kohawur	50½	12½	37½	218 7 2	0 31 1 2 2
19	Shahpoor	29½	3½	26½	117 0 4	0 9 0 3 0
	Total.....	24,550½	6,585½	17,965½	22,857 9 10	1,261 37 3 3 1

DIX G.

from, in the Chandookah Purguna, for the Spring Crop, 1845.

Sold from the Grain Receipts.	Realized from Grain Sales.	Balance of Grain Receipts.	Total Cash Receipts.
Kr. Ks. T. P. C.	Rs. a. p.	Kr. Ks. T. P. C.	Rs. a. p.
80 56 1 0 3	2,761 9 2	1 33 0 0 0	4,105 3 10
21 24 3 3 1	520 6 0	5 38 2 1 2	1,039 15 3
35 18 0 0 0	1,054 8 1	0 20 2 3 0	1,117 12 11
112 4 1 0 2	3,291 4 0	9 37 2 1 2	4,855 10 7
23 36 3 3 0	693 9 7	.....	8,022 14 5
37 38 2 2 2	1,231 13 9	.....	2,013 2 2
381 5 2 3 0	11,883 14 1	6 0 0 0 0	15,281 15 7
7 15 2 1 0	201 7 11	.....	384 8 8
0 58 2 0 1	30 1 2	.....	54 10 10
361 42 0 2 2	8,987 3 10	1 10 0 0 0	9,675 0 8
62 54 0 0 1	1,565 6 4	.....	1,800 10 2
34 34 1 3 3	776 7 11	0 30 0 0 0	2,042 14 11
.....	.....	.....	175 6 1
.....	.....	.....	5 1 11
25 22 0 2 3	787 2 10	.....	4,161 5 7
44 38 1 0 0	1,326 1 7	.....	1,514 3 4
6 37 2 0 1	204 2 7	.....	1,586 12 4
0 31 1 2 2	13 2 3	.....	231 9 5
0 9 0 3 0	4 13 5	.....	121 13 9
1,236 48 0 1 1	35,333 2 7	24 49 3 2 0	58,190 12 5

APPENDIX H.

Comparative Statement of Cultivation in Chandookah, for the undermentioned Seasons.

Crops.	1844.			1845.			1846.			1847.		
	Measur- ed Crops, paying Cash and Kasagee Rent.	Estimated from Pro- duce for Crops pay- ing in Kind.	Total.	Measured Crops, pay- ing Cash or Kasagee.	Estimated from Pro- duce for Crops pay- ing in Kind.	Total.	Measured Crops, pay- ing Cash or Kasagee.	Estimated from Pro- duce for Crops pay- ing in Kind.	Total.	Measured Crops, pay- ing Cash or Kasagee.	Estimated from Pro- duce for Crops pay- ing in Kind.	Total.
	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.
Spring Crop...	..	..	..	24,550	6,300	30,850	20,245	3,261	23,506	18,832	8,000	26,832
Middle Crop*..	16,430	..	16,430	15,950	..	15,950	16,163	..	16,163	..	..	..
Autumn Crop..	67,133	23,440	90,573	†	†	91,814	74,265	36,410	110,675	..	..	..
Total.....	..	..	07,003 1	..	..	138,614	†	..	150,344	..	..	26,832

* All rents of the Middle Crop are in Cash, and therefore measured.

† Having mislaid the details of measurement and estimation, I can give only the Total.

‡ It will be seen that all three seasons are given only for 1845 and 1846.

APPENDIX I.

APPEN

Statement of Cash Receipts in the Chan

Months.	Land Revenue.			River Customs.			Town Duties.			Taxes.			Liquor and Drugs.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
January	17,706	12	1	236	4	0	2,442	10	0	993	13	3	755	0	0
February	20,404	8	4	180	0	0	2,868	4	0	145	7	3	755	0	0
March	20,651	10	2	180	0	0	2,868	4	0	65	1	4	1,084	5	4
April	19,053	3	9	180	0	0	2,868	4	0	88	6	6	1,084	5	4
May	16,844	12	0	180	0	0	2,868	4	0	46	3	9	1,084	5	4
June	19,971	13	8	180	0	0	2,868	4	0	313	13	6	1,034	5	4
July	14,738	6	6	180	0	0	2,868	4	4	82	10	4	1,084	5	4
August	14,064	14	8	180	0	0	2,868	4	0	23	14	3	1,084	5	4
September	14,640	15	1	180	0	0	2,868	4	0	122	14	3	1,084	5	4
October	11,191	7	7	180	0	0	2,868	4	0	44	14	3	1,084	5	4
November	9,389	4	1	180	0	0	2,868	4	0	328	14	3	1,084	5	4
December	14,295	5	7	120	0	0	1,435	2	0	479	6	3	1,084	5	4
Total ..	1,92,953	1	0	2,156	4	0	32,560	4	0	2,735	7	2	12,353	5	4

DIX I.

dookah Purguna, during the Year 1845.

Fisheries.			Gardens.			Fees and Fines.			Confiscated and Unclaimed.			Miscellaneous.			Total.		
Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
411	0	0	25	0	0	531	7	7	5	0	0	....			23,106	14	11
185	0	0	45	0	0	1,107	15	6	....			17	0	9	25,708	3	10
165	0	0	455	7	4	1,206	15	9	104	8	6	26	13	0	26,808	1	5
167	0	0	....			533	14	2	29	0	0	41	8	7	24,045	10	4
75	4	0	....			662	10	5	4	0	0	2	0	0	21,767	7	6
75	4	0	....			1,858	8	7	26	2	0	41	6	3	26,419	9	4
97	10	0	....			556	7	3	4	0	0	24	9	9	19,636	5	2
170	4	0	....			1,516	12	3	32	2	0	0	1	7	19,940	10	1
465	0	0	1,536	0	0	2,310	3	0	9	0	0	....			23,216	9	8
440	0	0	394	0	0	2,606	12	7	60	14	0	20	12	6	18,891	6	3
421	2	6	304	9	9	4,663	5	8	....			86	4	3	19,326	1	10
445	0	0	241	4	11	2,245	2	7	31	5	9	190	7	8	20,567	8	1
3,117	8	6	3,001	6	0	19,800	3	4	306	0	3	451	0	4	2,69,434	8	5

APPENDIX J.

Statement of Actual Grain Receipts in the Chandookah Purguna, during the Year 1845.

Months.	Kurwars.	Kasas.	Toyas.	Patoes.	Chuttaacs.
January	490	51	2	..	1½
February	616	57	2	..	2
March	33	39	2	1	3
April.....	22	36	3	..	3
May	1	59	2	2	..
June.....	73	31	3	2	2
July	3	46	..	..	1
August.....	2	..	..	..	..
September	108	23	..	2	..
October.....	15	..	..	..	..
November	4	58	1	3	..
December.....	18	59	1	2	1
Total....	1,392	43	3	3	1½

APPENDIX K.

Statement of actual Disbursements in the Chandookah Purguna, during the Year 1845.

Months.	Pay of Kardars & Establishments.			Other Expenses.			Total.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
January	1,833	0	0	965	13	3	2,798	13	3
February	1,773	0	0	576	15	5	2,349	15	5
March	1,773	0	0	631	4	11	2,404	4	11
April	1,773	0	0	496	3	6	2,369	3	6
May	1,773	0	0	547	9	5	2,320	9	5
June	1,773	0	0	659	8	1	2,431	8	1
July	1,692	0	0	255	6	7	1,947	6	7
August	1,645	0	0	536	8	4	2,181	8	4
September	1,615	0	0	691	7	3	2,306	7	3
October	1,679	9	2	868	12	1	2,548	5	3
November	1,692	0	0	1,664	11	0	3,356	11	0
December	1,692	0	0	1,360	15	2	3,052	15	2
Total	20,713	9	2	9,254	3	0	29,967	12	2

APPENDIX L.

Statement of the Quantity of Seed per Beega; the Average Produce; the Number of Waterings; the Number of Maunds per Kurwar of Manure per Beega; the Season of Sowing and Reaping; and the Number of Maunds per Kurwar of each kind of Grain.

Grains, &c.	Quantity of Seed per Beega.		Average Produce per Beega.		Number of Waterings.	Quantity of Manure per Beega.	Season of		Number of Maunds per Kurwar.
	Measure.	Weight.	Measure.	Weight.			Sowing.	Reaping.	
Jowaree	Toyas.	Seers.	Kasas.	Mds.		Mds.			
Bajree	1½	4½	20	9	5	16	June-July.	Nov.-Dec.	18
Rice	¾	2	12	4	4	..	June-July.	Nov.-Dec.	20
Koonjud	6	14	20	4½	Mok.	8	July.	November.	14
Mandawah	½	1	3	2	2	..	June-July.	Nov.-Dec.	15
Wheat	½	1	10	7	6	4	June-July.	Nov.-Dec.	12
Barley	10	21	20	4½	2	16	November.	May.	21
Mustard	10	18	15	1½	6	..	November.	May.	18
Peas	½	1½	6	1½	Bosce.	..	October.	April.	16
Gram	2½	8	5	1½	do.	..	October.	April.	21
Moong	1½	5	7	2½	do.	..	November.	May.	20
Gashung	1½	5½	6	2	do.	..	August.	December.	21
Adas	1	1½	3	½	do.	..	November.	May.	10
Aryan	1½	5½	3	1	do.	..	October.	April.	21
Cotton	½	1	12	2½	18	12	Jan.-Feb.	July-August.	13
Indigo	..	4	..	3	15	12	February-March.	July-August.	..
Tobacco	..	15	..	10	Incessant.	..	June-July.	Nov.-Dec.	..
Sugar	..	½	..	10	6	32	February.	July.	..
	..	..	..	..	..	..			..

Vide Report, pp. 736 and 737 of this Selection.

APPENDIX M.

Comparative Statement of the Cultivation of the Principal Grains in the Chandookah Purguna, taken from the Returns of the Spring, Middle, and Autumn Crops, 1845 and 1846.

Grains, &c.	Spring Crop.		Autumn Crop.		Middle Crop.	
	1845.	1846.	1845.	1846.	1845.	1846.
	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.	Beegas.
Peas	4,696	5,083	..	..	..	..
Barley	4,631	4,246	..	..	..	..
Wheat	4,200	4,250	..	..	..	..
Gram	3,000	2,460	..	..	..	..
Mustard	1,500	30	..	..	..	..
Goolmasfar ..	9	11	..	..	..	..
Jowaree	..	..	30,964	57,550	..	..
Rice	..	..	40,000	34,000	..	..
Bajree	..	..	6,757	11,892	..	..
Moong	..	..	2,500	3,470	..	..
Koonjud	..	..	1,427	2,250	..	..
Mandawah ..	..	..	124	250	..	..
Cotton	..	..	..	..	8,475	7,239
Sugar	..	..	..	..	223	106
Indigo	..	..	..	..	19	10

N. B.—The object of this table is to show what grains are most extensively cultivated, and not to compare the cultivation of the seasons 1845 and 1846.

APPENDIX N.

Table showing the Estimated Relative Value of the undermentioned Crops to the Cultivator.

Crops.	Rent of Land, Cost of Seed, Watering, and Labour per Beega.			Average Value of Produce per Beega.			Estimated Profit per Beega.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Sugarcane	60	0	0	90	0	0	30	0	0
Tobacco	8	0	0	25	0	0	17	0	0
Cotton (Bosee)	4	0	0	12	0	0	8	0	0
Cotton (Sailabee)	5	0	0	10	0	0	5	0	0
Rice	4	8	0	18	0	0	13	8	0
Peas, &c.	3	8	0	10	0	0	6	8	0
Wheat	4	0	0	10	0	0	6	0	0
Jowaree	5	0	0	10	0	0	5	0	0
Bajree	4	0	0	7	0	0	3	0	0

APPENDIX O.

Abstract Statement of Crime ascertained to have been Committed within the Number of Persons Apprehended, the Number Committed for by the Magistrate.

Years.	Months.	Number of Offences, and of Persons Apprehended for																	
		Murder.		Manslaughter.		Wounding, with intent to Kill.		Robbery, with Violence, or by a Person Armed.		Assault.		Rape.		Cattle-stealing.		Theft.		Forgery, and Personating Government Servants.	
		Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	Cases.	Persons.
1845.	January	3	5																
	February	1	1											6	7	3	3		
	March							2	2					3	3			1	1
	April									1	2			4	4	5	7		
	May																		
	June	1	1													1	1		
	July	1	1											2	2				
	August																		
	September					1	1	1	2					5	6	5	9		
	October	1	1							1	1	1	1	3	3	3	3		
	November													2	2	8	10		
	December							1	2	1	1			1	1	3	5		
Total, 1845..		7	9			1	1	4	6	3	4	1	1	26	28	28	38	1	1
1846.	January							1	1					4	8	5	6		
	February							1	1					1	1	8	12		
	March	2	3					1	5					1	2	1	1		
	April													1	1	3	3		
	May	1	3											3	4	2	2		
	June									1	1			1	1	4	7		
	July									1	1			3	4	3	7		
	August													2	2	1	1		
	September	2	2	1	1					1	1			2	2	6	7	1	1
	October													1	2	4	4		
	November									1	1					1	1		
	December	1	1							1	1			2	4	2	3		
Total, 1846..		6	9	1	1			3	7	5	5			21	31	40	54	1	1

APPENDIX P.

Return of Civil Suits decided by the Deputy Collector of Larkhana, during the Years 1845 and 1846, exhibiting the Mode and Nature of Decision, and the Amount of Property under Litigation.

Years.	Months.	Nature of Decision.				By what Court.		Amount of Property under Dispute.		
		No. of Suits.	For Plaintiff.	For Defendant.	In Shares.	Deputy Collector.	Arbitration.	Cash, Company's Rupees.	Land, Beegas.	Miscellaneous Property.
1845.	January	16	5	10	1	15	1	165 0 0	4,954	.....
	February	8	3	3	2	8	..	216 0 0	129	1 house.
	March	3	2	1	..	3	..	220 0 0	1,000	1 house.
	April	3	..	2	1	2	1	34 0 0	10	.....
	May	1	..	1	..	1	..	..	40	.....
	June	10	5	3	2	10	..	71 0 0	954	.....
	July	3	2	..	1	3	..	250 0 0	23	.....
	August	3	2	1	..	2	1	1,250 0 0	90	.....
	September	1	1	..	..	1	..	1 0 0	.....	.....
	October	1	..	1	..	1	..	.....	10	.....
	November	1	1	..	..	1	..	207 0 0	.....	.....
	December	3	2	1	..	3	..	140 13 0	.....	.....
	Total, 1845..		53	23	23	7	50	3	2,554 13 0	7,210	2 houses.
1846.	January	3	1	2	..	3	..	50 0 0	32	.....
	February	1	1	..	..	1	..	.....	.....	1 house.
	March	2	..	2	..	2	..	.....	500	1 house.
	April	2	1	1	..	2	..	.....	268	.....
	May	3	..	2	1	2	1	57 0 0	300	14 houses.
	June	9	2	3	4	9	..	248 0 0	3,031	.....
	July	5	..	4	1	5	..	36 5 3	3,094	.....
	August	3	1	2	..	3	..	64 8 0	.....	.....
	September	3	2	1	..	3	..	8 0 0	150	.....
	October	1	..	1	..	1	..	.....	236	.....
	November .....	..	..	..	..	..	..	.....	.....	.....
	December	9	4	2	3	9	..	270 0 0	122	10 houses.
	Total, 1846..		41	12	20	9	40	1	733 13 3	7,733	26 houses.

APPENDIX Q.

Return exhibiting the Number of Deaths from Cholera in the Purguna of Chandookah, during the Year 1846.

Numbers.	Districts.	Hindoos.		Musulmans.		Total.		Grand Total.	General Nature of District.
		Males.	Females.	Males.	Females.	Males.	Females.		
1	Myl Lahory	25	22	88	39	113	61	174	The town of Larkhana is included in this district. Most of the villages are on the banks of the canals, and there is much low land and swamp.
2	Bukapoor	11	6	80	46	91	52	143	A great deal of low land, with rice cultivation.
3	Nya Derah .....	..	..	..	..	..	..	.....	High land, no swamp.
4	Lal Dariya.....	4	6	20	13	24	19	43	Villages on the Narah, and low land between that and the Indus.
5	Anderoon Ghar ..	5	1	20	25	25	26	51	Low, between the Narah and Indus.
6	Anderoonee Beerah ..	..	..	10	5	10	5	15	Open country, to north of the Ghar.
7	Khyrah Guchul ..	3	..	9	6	12	6	18	Ditto ditto, high land.
8	Ruttah Derah	3	..	..	1	3	1	4	As above: these cases were people taken ill when absent from their houses.
9	Kumber.....	27	10	94	45	121	55	176	Low land; much rice cultivation.
10	Chujrah	..	1	9	2	9	2	12	On the Ghar.
11	Myl Morady	32	18	118	80	150	98	248	Much low and swampy land.
12	Myl Wagun	15	3	95	19	110	22	132	Ditto ditto ditto.
13	Warah	..	1	3	..	3	1	4	Mostly desert.
14	Maksoodah .....	..	..	..	..	..	..	.....	Bordering on the Desert; high and open land.
15	Shahpoor	3	..	17	7	20	7	27	High land, north of the Ghar.
16	Nalah Data	3	1	11	4	14	5	19	Ditto ditto ditto.
Total..		131	69	574	292	705	361	1,066	

APPENDIX R.

Table exhibiting the Number of Villages and Shops, of Ploughs and Artificers, and Trades, in the Chandookah Purguna, for the Year 1846.

Numbers.	Tuppas.	No. of Villages.	Shops.				No. of Ploughs.	Artificers and Trades.							
			Shroffs.	Bunias.	Liquor.	Other kinds.		Carpenters.	Blacksmiths.	Cobblers.	Weavers.	Tanners.	Bricklayers.	Brickmakers.	Other kinds.
1	Bukapoor	35	14	290	2	2	571	15	13	35	113	1	7	15	224
2	Myl Lahory	18	..	60	..	3	296	6	1	6	27	..	..	..	13
3	Nya Derah	30	..	25	..	50	1052	12	4	11	48	9	..	2	45
4	Khyrah Guchul.....	36	..	113	1	6	448	11	4	13	76	..	..	..	42
5	Anderoon Ghar.....	11	..	35	..	22	399	4	2	3	13	..	..	..	10
6	Nalah Datah.....	11	..	36	..	46	100	6	2	2	39	..	..	..	30
7	Maksoodah	9	..	16	..	23	143	4	1	3	16	1	..	..	16
8	Myl Morady	35	..	251	1	4	831	27	6	27	134	..	..	..	131
9	Esaw	16	..	34	1	4	269	7	1	4	29	..	..	..	22
10	Warah	15	..	38	1	2	216	6	2	9	26	..	..	..	24
11	Kumber.....	11	3	163	1	9	442	7	4	8	66	..	..	..	45
12	Ruttah Derah	31	..	19	1	52	464	7	2	7	45	..	..	..	49
13	Shahpoor	34	..	26	1	14	143	3	1	5	22	..	..	..	14
14	Chujrah.....	14	..	77	..	3	356	7	4	8	20	..	..	..	24
15	Wagun	10	1	48	1	46	435	7	2	10	36	..	..	..	34
16	Lal Dariya.....	38	..	67	1	96	860	12	2	18	40	..	..	..	92
17	Futtehpoor	24	..	51	..	14	582	13	3	18	12	..	..	..	53
18	Anderoonee Beerah	14	..	29	..	7	126	6	1	3	19	..	..	..	13
Total		392	18	1378	11	403	7733	160	55	190	781	11	7	17	881

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