

# GAZETTEER

OF THE

*Rare section*

# PROVINCE OF SIND.

COMPILED BY

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BOM. UNCOV. CIVIL SERVICE.

*Second Edition.*

*WITH MAPS AND PHOTOGRAPHIC ILLUSTRATIONS.*

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## PREFACE TO THE FIRST EDITION.



WITH the exception of two Directories of Sind published by a private individual, one about the year 1857, and the other in 1862, no work of a kind resembling a Gazetteer of the Province seems at any time to have been compiled, and the present volume may therefore fairly claim to be the first yet published.

Numerous official reports, memoirs, and notes on Sind, written by Government officers of the different services, from a date anterior to the conquest of the Province, and extending down to 1854, have been published in a single volume, but such a work, though abounding in much that is useful, could not take to itself the title of Gazetteer. The names of several of the writers, such as Heddle, Carless, Postans, Jacob, Goldsmid, Stocks, Burton, Wood, James, and Pelly, are in themselves sufficient guarantees of the value of their contributions, and the Compiler has not failed to avail himself largely of the great store of information contained in the interesting reports of these able officers.

The introductory portion of the Gazetteer will be found to contain a large amount of information, having special reference to the Province of Sind taken as a whole, the Compiler deeming it better so to arrange it, as otherwise much of this information could not have found a place in the body of the work.

It is a matter of regret that so little mention can be made of the geology of Sind; and, in the absence as yet of that scientific research which is now going on in other parts of British India, it is impossible to say whether this Province is ever likely to offer a rich and attractive field to the geologist. The peculiar nature of

the soil of Sind, the volcanic character of its hills, and the large deposits of marine *exuvie* which are found on many of them, all lead to the supposition that very much of the country must, at some previous geological epoch, have been covered by the sea, drawing forth, and not inaptly, the following observation:—

“Vidi ego, quod fuerat quondam solidissima tellus  
Esse frētum; vidi factas ex æquore terras;  
Et procul a pelago conchæ jacere marinæ:  
Hæc vetus inventa est in montibus anchora summis.  
Quodque fuit campus, Allem decursus aquarum  
Fecit.”

It is considered advisable to mention that the population returns as given in this Gazetteer are, to a great extent, either mere estimates, or have reference to the Census of 1856. This is owing to the returns of the Census of 1872 not having been compiled in time to admit of their being included in the Introduction, or throughout the alphabetical portion of the Gazetteer; but in the Appendix No. II., the number of inhabitants in certain districts, and in their chief towns, according to this latest census, has been shown, where it is possible to do so.

In the description of towns and villages, none have, as a rule, been entered in the Gazetteer having a less population than 800 souls, except where, from a previous state of prosperity, architectural remains, interesting antiquities, or the like, they were considered of sufficient importance to demand a distinct notice.

The system of transliteration followed out in this Gazetteer has been that prescribed by Government, viz., “the improved Jonesian,” but it was not till August 1872 that any definite arrangement on this head was arrived at. This will account, in some measure, for the difference in spelling of several names in the Introduction as compared with those in the alphabetical portion, the sheets of the former having all been struck off before the revised list of names was approved of.

A map of the Province of Sind accompanies the Gazetteer. It has been prepared with care, and, though on a small scale, is made to show, as far as is practicable, the extensive canal system at present prevailing throughout the Province.

Though it has been the object of the Compiler to make the Sind Gazetteer as complete as the means placed at his disposal would admit, it can only, it is feared, be considered at best as an imperfect and preliminary work. Reliable statistical information on many important subjects in connection with the Province is at present almost unobtainable, and where supplied is merely of an approximate nature. This state of things must necessarily so continue till a proper system of statistical inquiry is organized throughout the Province. It is nevertheless the hope of the Compiler that a foundation at least has been laid, upon which a better and more reliable superstructure may be raised in the future.

# INTRODUCTION.

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## CHAPTER I.

### GENERAL DESCRIPTION.

BOUNDARIES AND EXTENT OF THE PROVINCE OF SIND—THE RANN OF KACHH—PHYSICAL GEOGRAPHY OF SIND—SCENERY—SOIL AND CLIMATE—DISEASES OF SIND—CROPS AND CULTIVATION—FORESTS—FOREST DEPARTMENT—ANIMAL KINGDOM—IRRIGATION IN SIND—CANALS IN SIND—VARIOUS METHODS OF IRRIGATION.

THE extensive country known as Sind, which became by conquest in 1843 an integral portion of British India, is believed to have derived its name from the great river, the Indus, that flows through and fertilises it. This stream was anciently called the "Sindh or Sindhū," a Sanskrit term for sea or collection of water, and it probably gave its name to the country it watered, though, according to native Sindian history, and with the usual extravagance of Oriental vanity, Sind was said to have been so called from Sind, the brother of Hind, the son of Nuh, or Noah, whose descendants for many generations ruled that country.

**Boundaries and Extent.**—The province of Sind is bounded on the north by the territory of His Highness the Khān of Kelāt, and by portions of the Panjāb and of the Bahāwalpur State; on the east by the Rājput States of Jaisalmir and Jodhpur (or Marwar); on the south by the Rann of Kachh and the Indian Ocean; and on the west by the territory of His Highness the Khān of Kelāt. It lies between the 23rd and 28th parallels of north latitude, and between the 66th and 71st meridians of east longitude, and may be said to be 360 miles in length from north to south, with an average breadth from east to west of 170 miles. Including the territory of His Highness Mir Ali Murād Khān Talpur, which separates a portion of the Shikārpur Collectorate

from that of Hyderabad and the political superintendency of Thar and Pārkar, the area of Sind may be set down at between 56,000 and 57,000 square miles.

On its southern side Sind is watered by the Indian Ocean for a distance of not less than 125 miles, extending in a southeasterly direction from Cape Monze (or Rās Muāri), its most westerly point, to the Kori mouth of the Indus, this latter, once, no doubt, one of its largest embouchures, but which has long since been deserted by that stream.

**The Rann of Kachh.**—Further eastward the Rann of Kachh, an immense salt-water waste covering an area of 7000 square miles, borders the southern portion of the political superintendency of Thar and Pārkar for a distance of nearly 140 miles. Part of this extensive swamp, which is throughout devoid of herbage, becomes for six months of the year—from June to November—a salt lake, owing to the influx of the sea at Lakhpat Bandar, on the Kachh side of the Kori mouth of the Indus, as well as at Anjar in Kachh, and at Juria Bandar in Kātiawar. During the remaining six months of the year, after the water has evaporated, a fine salt remains on the surface, and then this desert is frequented by herds of antelope, and by that very rare animal the *gūrkhār*, or wild ass. Local tradition affirms that a portion of the Rann was once a highly-cultivated tract, known by the name of "Sayra," a branch of the river Indus then reaching it, but that it disappeared altogether when either the Sindians or a convulsion of nature diverted the waters from it. To this day the upper part of the Kori mouth, on which are situate the towns of Wanga and Rahim-ki-Bazār, is called the *Purān*, or ancient stream, and the time doubtless was when the Indus, by a more easterly channel than the present, supplied sufficient water to make a portion at least of the Rann fertile and productive. The entire extent of the Sindian sea-coast, excepting that part lying between Karāchi and Cape Monze, at which latter place the Pabb mountains approach the shore, is low and flat throughout; and, as observed by the late Captain John Wood, formerly of the Indian navy, and an excellent authority on all questions connected with the Indus and its delta, is submerged at spring tides, when the delta of the Indus resembles a low champaign tract of verdure, with tufts of mangrove dotted along its seaward edge. The coast is, in fact, made up of a series of mud-banks deposited by the Indus, or in a few places consists of sand-hills blown in from the sea-beach. The sea off this coast is also very shallow, and this has, with much show of reason, been attributed to the enormous



quantity of mud deposited by the river. A bank extends along the coast from Karāchi to Kachh, reaching from two or three miles to five or six from land, and being in most places dry at low water. It is this circumstance which makes the sea-coast of Sind so dangerous of approach to large vessels.

**Physical Geography.**—Sind may be regarded as, on the whole, a low and flat country, but exception must be taken to the mountainous tract, partly of limestone and sandstone formation, on its western boundary, which forms a natural line of demarcation between it and Balochisthān. The country in the western portion of the Karāchi Collectorate, known as Kohistān, is also very hilly, while a few insignificant ranges of limestone hills are found in other parts of the province. One of these (the Ganja hills), in the Hyderabad Collectorate, averages 100 feet in height, and it is on this range that the city of Hyderabad is built. Another running in a north-westerly direction from the vicinity of Jaisalmir, attains towards the Indus an elevation of 150 feet, and forms almost exclusively the rocks on which the town of Rohri and the island fortress of Bukkur stand. A third, the Makli hill range, situate near Tatta in the delta, is about ten miles in length, with an elevation varying from 80 to 150 feet. Of all these the mountain barrier dividing Sind from Balochisthān is by far the loftiest, and first touches the Sind frontier about the 28th parallel of north latitude. Hitherto this range has been generally, though erroneously, known by the name of the "Hālā" mountains, but its proper appellation is believed to be the "Khirthar," and this it may be so called till it reaches the 26th parallel of latitude, when the chain merges into the Pabb hills, which, after a length of ninety miles in a southerly direction, meet the sea at Cape Monze. The elevation of the Khirthar mountains is considerable, some of the peaks rising to a height of above 7000 feet. The Pabb hills, on the other hand, are much less lofty, and are not believed to possess a higher elevation than 2000 feet. Among the valleys and ravines of this range flows the Habb, the only permanent river in the province except the Indus, and which, for a considerable distance, forms the western frontier of Sind. A striking feature in the Khirthar mountains is their division into three parallel tiers or ridges. The first or most easterly has its sides steep and precipitous towards the west, but with a long gradient to the east; the second has flat tops and rounded sides, with deep ravines and fissures; the third consists of vast plateaux of table-land, and is composed, in part, of fossiliferous limestone. They possess but little soil, and in consequence have little or no

vegetation upon them. As yet this range has not been utilised in a sanitary point of view, with the exception of two small stations, Dhār Yāro, and the Danna Towais, both situate in the Mehar Deputy Collectorate at elevations respectively of 6000 and 4500 feet above sea-level, but access to them is so rough and difficult as to make them but of little use. Connected with the Khirthar chain of hills, and running eastward into the Sehwan district of the Karāchi Collectorate, is the dry and arid Lakki range, fifty miles in length, the result evidently of volcanic action, as shown by the frequent occurrence of hot springs and sulphurous exhalations. The highest elevation of this range, which terminates abruptly on the west bank of the Indus, near Sehwan, is estimated at from 1500 to 2000 feet. All the hill ranges hitherto mentioned may be said to be of sandstone and limestone formations, and several of them abound in marine *exuvia*. Among the extensive alluvial regions which are to be found in Sind, perhaps the finest and most productive is that about Shikārpur and Lārkāna, comprising a long, narrow island, extending from north to south about 100 miles, and enclosed by the river Indus and the western Nāra. It is the expansion of this latter stream which has formed the only large lake to be found in Sind, that called the "Manchhar," in the Sehwan district. During the inundation season this sheet of water is said to be twenty miles in length, and to cover an area of about 180 square miles. Another of these regions, on an average between seventy and eighty miles wide, is to be found stretching eastward from the Indus, having the eastern Nāra flowing through it during the inundation season. Through this tract, and indeed through much of the immense district now called the Thar and Pārkar, the Indus is supposed ages since to have poured its waters, rendering fertile what has since been known as the Eastern Desert. This fact seems to be indicated not only by the many vestiges of ancient towns that have been observed, but by the numerous beds of rivers long dried up which intersect this arid tract. The deserted course of a large river, now known as the Rēn Nāla, still exists in the Bahāwalpur territory and the Rohri district, and thus, joining the eastern Nāra, may very probably have emptied itself into the sea by what is now called the Kori mouth of the Indus. On the eastern border of Sind, the country is much covered with sand-hills, which vary and shift under the influence of the tempests prevailing in this sterile wilderness. Large tracts destitute of the means of irrigation are also frequent in Sind. Of this nature is the Pat, or desert of Shikārpur, thirty miles across, and lying between that town and

the Bolān pass. It consists of the clay deposited by the Bolān, the Nāri, and other torrents which flow down from the Khirthar range of mountains and are lost in this dreary waste.

**Scenery.**—The natural scenery of a flat and level country like that of Sind cannot be expected, in this respect, to vie with the many more highly-favoured spots of British India. To a stranger approaching the shores of Sind, nothing can perhaps be more dreary and uninteresting than the first appearance of the coast, which, with a very few exceptions, is entirely destitute of trees or shrubs. On the other hand, in parts of Kohistān, the hilly region of the Karāchi Collectorate, the scenery is said to be very fine, but, owing to the volcanic nature of the rock, it is wanting in that most desirable accessory to beauty, trees and foliage. Again, in the Thar and Pārkar districts, and in the eastern portions of the Khairpur territory, and of the Rohri Deputy Collectorate, there is the "*registhān*," or desert tract, where nothing is to be seen but sand-hills, many of them, however, bold in outline and fairly wooded. These hills succeed each other like vast waves of sand. In the inundation season, in the numerous "dhandhs" (or flood hollows) of the eastern Nāra, are spots of great beauty, but, owing to miasmatic influences, they are exceedingly dangerous places to encamp in. The alluvial tract on either side of the Indus, extending for a distance varying from ten to twelve miles, though superior to any other part of Sind in soil and productiveness, is, as regards its scenery, tame and uninteresting, except where fine stretches of the river Indus are seen bordered by extensive "bābul" (*acacia*) forests, which in many places skirt the river edge for miles together. Near the town of Sehwan, the Lakki range of hills terminates abruptly on the Indus, in a nearly perpendicular face of rock 600 feet high, and presents a splendid appearance from the river; but unquestionably the finest view in the province is that afforded by the towns of Sukkur and Rohri, and the island fortress of Bukkur, with its lofty castellated walls, lying in the stream between them. They are all built on the limestone range of hills which here intersects the Indus, and the minarets and houses, more especially those of Rohri, rise up to a towering height above the river, which they seem apparently to overhang. The pretty verdure-covered island of Sādh Bēla, with its sacred shrine, lies a short distance to the south of the Bukkur fort, and on either side of the river, dotted here and there, are groves of date and acacia with their dark green foliage, the whole, with the magnificent stream which rushes swiftly by, combining to form a picture at once brilliant and beautiful.

**Soil and Climate.**—The soil of Sind, according to the late Dr. J. E. Stocks—formerly Conservator of Forests in the Bombay Presidency, and a very enterprising investigator of the natural productions of Sind—“is a plastic clay, most strongly impregnated with salt; quickly covered with this 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. The soil, indeed, in some parts of the province is so rich as to produce regularly two crops, sometimes more, in the year, without any application of manure; but this is where the land is annually overflowed by the Indus, or is exposed to its ‘lets’ or floods. The alluvial tracts nevertheless contain much saltpetre, and in South Sind, where the soil is largely mixed up with sand, it is so impregnated with common salt as to produce by evaporation, after simply pouring water over it, an abundant supply of that article.” The following additional remarks by Dr. Stocks on the climate, as applying to those parts of Central and Upper Sind irrigated by the Indus and its branches, will be read with interest. “Sind is an extra-tropical country, 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-point (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. It is a country where the date tree, from the equator northwards, first ripens, and brings its fruit to perfection in any quantity; 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 Khorāsān; 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; where the pomegranate is capable of bearing a fine and delicious fruit, and yet the mango does not fall off in excellence; where in the heat of summer tropical fruits and grains are cultivated, while in the cold bracing winter extra-tropical and European grains, pulse and vegetables may be grown with no

perceptible deterioration ; where the indigenous vegetation is one-third Arabian and Egyptian, and two-thirds Indian." The same authority, in noticing the deficiency of rain in Sind, arising from its being almost out of the range of the monsoon, observes at the same time that its overflowing river makes up to a certain extent for this deficiency. Dr. Lord, also, in his memoir on the plain of the Indus, remarks that—"though situate on the verge of two monsoons, Sind is unrefreshed by the waters of either. The south-west monsoon terminates at Lakhpat Bandar (on the western coast of Kachh), as accurately as though it covenanted not to violate the Sind frontier. The north-west monsoon, which deluges the country to the west, comes no farther than Karāchi, and even there the annual fall of rain does not exceed six or eight inches." Sometimes for a long interval, indeed for two or three years in succession, little or no rain falls in Sind, while, on the other hand, very heavy downpours occur, the yearly average of a single season occasionally falling in one or two consecutive days. The climate on the sea-coast is, as may be supposed, very much more equable in temperature than that of Central or Upper Sind. Owing to the strong sea-breezes which blow on the coast steadily day and night from about April to October, Karāchi—the only sea-port in Sind—enjoys a far more salubrious climate than those Sindian towns situate in the interior—such as Hyderabad, Shikārpur, Sehwan, or Lārkāna ; but, as a natural consequence of this mild climate, the temperature of Karāchi in the winter months is much higher than that of the places just mentioned. In Northern Sind, during the winter season, frost is not unknown, and ice has been observed even in February ; but, on the other hand, the temperature in summer is excessively high. For weeks together, during that season, the thermometer, *at night*, at Shikārpur, where the atmosphere is seldom disturbed by wind currents, will not perhaps show a temperature below  $100^{\circ}$ , while in the blazing glare of a mid-day sun it will rise as high as  $165^{\circ}$ . It is this great and prolonged heat, together with the pestilential exhalations that rise from the many stagnant pools left after the annual inundation, and the decaying vegetable matter deposited on the surface in the autumnal season, which produce the fatal fever and ague so common to the country. It is *then* that the natives themselves suffer severely from its effects, and it cannot, therefore, be wondered at that British troops, quartered in Sind, have at times experienced a terrible mortality from these exciting causes. It is recorded in 1840, that the whole of the 26th Regiment Bombay N.I., stationed at Tatta, in Lower Sind, were

at that season of the year, with the exception of three persons, attacked with this fever, and that nearly one hundred died. In 1845, a wing of H. M.'s 78th Highlanders also suffered severely from fever when on the march from Karāchi to Sukkur, in the month of September. The other wing of the regiment—which had been previously conveyed to Sukkur in steamers by the river route—was free from the disease until the arrival of the sick wing, when it at once caught the infection and paid the penalty in a frightful mortality. The total number of deaths in the regiment from this terrible malady exceeded four hundred.

**Diseases of Sind.**—The other prevailing diseases are small-pox, and at times cholera, the latter, unfortunately, a too frequent visitant in Sind. It first appeared in 1839, near the town of Tatta in Lower Sind, where at the time a British force was stationed, and this it at once attacked. In 1846 it prevailed with great severity at Karāchi, and again in successive years up to 1853; it did not confine itself to that station, but appeared also in various towns in Upper and Lower Sind. After that it did not re-appear till April, 1861, when it severely scourged the whole province. It was this time most virulent in the Shikārpur Collectorate, next in the Karāchi districts, and least of all in the Central Collectorate of Hyderabad. In 1865 it prevailed at Karāchi and in other parts of Sind with more or less severity, but it did not show itself again with any degree of activity till 1869, when it visited the province generally; but its most fatal effects were this time confined to Central Sind and the Thar and Pārkar districts, the towns of Hyderabad, Kotri, Umākot, Bubak, and a few others suffering severely from this perplexing disease. Karāchi was not visited to any extent, the deaths being comparatively few; much of this was no doubt owing to the excellent precautions which had been taken by the authorities in a sanitary point of view to check the progress of the epidemic, and prevent its spreading among so large a population of Europeans and natives.

**Crops and Cultivation.**—There are two principal yearly crops in Sind—the vernal and the autumnal. The first, known under the name of “Rabi,” is sown in the autumnal months of August, September, and October (called in the Sindi language, *Bado*, *Asu*, and *Kati*), and reaped in the spring about February, March, and April (*Phagan* and *Chait*). The second, called “Kharif,” is sown in the summer months of May, June, July, and August (*Jet*, *Akhār*, and *Sāwan*), at a time when the Indus is in flood and is reaped during the months of October, November, and

December (*Katti*, *Nāhiri*, and *Poh*). In some of the Sind districts a third and distinct crop, called "Peshras," is added ; this is sown in March and reaped in July and August. The principal grains and other productions included under the "Rabi" crop are the following : Of grains—wheat and barley ; of pulses—Bengal gram and other vetches ; of oil-seeds—mustard and safflower ; of vegetables—garlic, onions, radishes, carrots, turnips, &c. ; of dye-plants—indigo ; of intoxicating and medicinal plants—hemp and senna. Under the "Kharif" crop may be included, *bājri* (*Penicillaria vulgaris*), *juār* (*Sorghum vulgare*), the two principal grains grown in Sind ; rice, *nāngli* (*Eleusine coracana*), and *rāgi* (*Cynosurus coracanus*) ; of pulses—*urad* (*Phaseolus radiatus*), *chauli* (*Dolichos sinensis*), and *mūng* (*Phaseolus mungo*) ; of oil-seeds—*til* (or *gingelli*) and cotton. *Bājri* and cotton are occasionally raised on what is called "Barāni," or rain land. If rain falls early the seed is sown in expectation of a later fall, but where this is not the case, the Rabi crops—*sarsū* and *jambho*—are cultivated. Should much rain have fallen and the ground be in consequence well flooded, any Rabi crop can be grown in it. The fruits common to the country are dates, plantains, mangoes, limes, oranges, pomegranates, citrons, figs, grapes, apples (of a fine quality), tamarinds, mulberries, and melons ; nectarine, peach, apricot, and other fruit trees have of late years been successfully introduced into different parts of the province. Dr. Stocks has placed on record a list of the grains and other productions cultivated in various parts of Sind, the number of kinds of which he estimates at 88. These are as follow :

	Kinds.		Kinds
1. Grains ( <i>Gramineæ</i> ) . . . . .	10	7. Cordage and clothing . . . . .	3
2. Pulses ( <i>Leguminosæ</i> ) . . . . .	7	8. Tobacco and sugar . . . . .	2
3. Oil-seeds . . . . .	6	9. Intoxicating plants . . . . .	3
4. Greens and vegetables . . . . .	11	10. Medicines . . . . .	4
5. Gourds ( <i>Cucurbitacæ</i> ) . . . . .	10	11. Condiments . . . . .	5
6. Dye-plants . . . . .	6	12. Fruits . . . . .	21
	—		—
	50		38
	—		—

**Methods of Cultivation.**—In their methods of cultivation the Sindis do not appear to have any idea of a proper rotation of crops, and these are in consequence raised pretty generally at haphazard. The following description of the method of preparing the ground and of cultivating the principal crops in Sind, is extracted mainly from the reports on this subject by Lieut. H. James,

a former deputy-collector in Upper Sind, written thirty years ago, and by Major C. Boulton, deputy collector of the Tanda district, who described it as late as 1870. The implements of husbandry among the Sindis are the plough (*har*), drawn by two bullocks; the harrow (*sahar*), a heavy log of wood drawn by four bullocks, a man standing on each end of it; the seed-sower (*nāri*), which is a tube fixed to the plough having a wooden funnel on the top; through this the seed is passed when the ground is being ploughed for the last time, the cultivator supplying it from a bundle attached to his waist; a curved hook (*dātro*) with teeth like a saw, for reaping purposes, and the hoe (*kūriah*) used for weeding, &c.

**Rice.**—In the cultivation of rice the ground is ploughed once, so soon as it is sufficiently dry, and about the middle of April, if water be procurable from the *kacha* wells generally dug for this purpose, the seed is sown by means of a drill attached to the plough. When water is not readily obtainable, the soil is enriched with manure to force the growth of the plants, and to allow of their being prepared for transplanting about the middle of June. The land is afterwards flooded to a depth sufficient to allow the heads of the plants only appearing a little above the water, and this condition is carried out during their growth. Rice crops are subject to injury from rats, blight, crabs, drought, or accidental overflooding.

**Bājri and Juār.**—For cultivating *bājri* and *juār*—the two staple crops of Sind—the ground is flooded to a depth of three or four inches in small areas about the end of June. In these, when sufficiently dry, seed is sown broadcast and ploughed into the soil; occasionally the harrow is used, so that the seed may be well covered with earth and protected from birds. The field is then again divided by low embankments into smaller areas, and the crops are watered as occasion requires, taking care always to keep the ground sufficiently moist. As a general rule, water is given about twice during the first month, after which a watering every three weeks suffices till the crop is ready to cut. A field of *juār* requires rather more water than one of *bājri*, and a little weeding is sometimes necessary during the early part of the season.

**Cotton.**—Cotton is cultivated in two ways—*sailābi* and *boṣi*; 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 second description is sown on the surface of lands left by the inundation; no after waterings are needed, the dew, which falls heavily, affording sufficient moisture; the only care required is to keep the earth about the stems loose and free from weeds. Cotton is sown in Upper Sind at the end of February or beginning of March, sometimes in May and June, and picked in July and August, and also in November and December. After picking, the cattle are turned in to graze, and the crops are then left for a second year. Cattle dung is used as a manure in the proportion of about 12 maunds to a bigā. In other parts of Sind, cotton is not cultivated till the canals fill in June, and the crop is, in consequence, not picked till November, or even December. A cotton crop is liable to injury from bug, frost, and locusts.

**Sugar-cane.**—For raising sugar-cane crops the land is richly manured, and ploughed over and over again until the manure is well mixed with the soil. After the land has been carefully prepared and weeded the sowing commences in the month of March by small pieces of cane, each with an eye, being put into the ground at regular intervals. The field is then constantly irrigated, so as to be in a continual state of moisture. During the hot season it is perfectly saturated with water and kept free from weeds. In Upper Sind the sugar-cane is planted out in January or February and cut in November or December. The cane is usually sold standing, and is cut and manufactured by the purchaser. The expense of cultivating sugar-cane is heavy, owing to the long time the crop takes to mature and the great quantity of water required for properly irrigating it. It is liable to injury at planting out from attacks of white ants, and at different stages of its growth from jackals, rats, maggots, and frost.

**Tobacco.**—For the cultivation of tobacco the ground is very carefully prepared by flooding, ploughing, harrowing, and weeding about the beginning of June. It is afterwards formed into small areas, which are divided into trenches, and the earth well banked up. Water is then admitted, but not sufficient to cover the embanked portions, and along the water edge of these the seed is carefully sown. The crop is kept constantly watered, but the irrigation is, as it were, an under-surface one. As weeding is essentially necessary, a tobacco crop is troublesome to raise, and the curing of the leaf is a long and tedious operation. The crop is liable to injury from locusts and frost.

The extent of cultivated land in Sind in the year 1873-74, was 18,63,615 acres, and the following table will show its distribution

under its four different heads of cultivation in each of the five districts of the province :

District	Kharif	Rabi	Peshwas.	Barāni	Total.
	A	A.	A	A	A.
Karāchi . . .	1,89,226	53,205	..	49,354	2,91,785
Hyderabad . . .	4,09,054	62,176	..	10,689	4,81,919
Shikārpur . . .	4,48,219	2,14,431	..	18,250	6,80,900
Frontier . . .	1,02,025	43,895	594	21	1,46,535
Thar and Pākār	79,122	49,188	..	1,34,166	2,62,476
	12,27,646	4,22,895	594	2,12,480	18,63,615

The extent to which each of the principal products was in that same year cultivated was as follows :

	Acres		Acres
1. Juār . . . . .	3,88,418	6. Cotton . . . . .	50,577
2. Bājri . . . . .	3,58,670	7. Barley . . . . .	10,331
3. Rice . . . . .	4,76,439	8. Indigo . . . . .	5,757
4. Oil-seeds . . . . .	2,16,199	9. Tobacco . . . . .	7,365
5. Wheat . . . . .	2,60,056	10. Sugar-cane . . . . .	3,716

**Forests.**—The extent of forest land in Sind is small when the large area of the province is taken into consideration, covering but 500 square miles or thereabouts, though in this area the forests in the territory of H. H. Mir Ali Murād of Khairpur are not included. At present there are about eighty-seven forests in Sind, nearly all of them situate on the banks of the Indus, and extending southward from Ghotki in the Rohri Deputy Collectorate to the middle delta. They are narrow strips of land, having a breadth of from a quarter to two miles, and from two to three miles in length; twenty-five are on the western and sixty-one on the eastern bank of the river. The largest of these forests are those of Māri, Khānot, Lāikpur, and Bhōri in the Hyderabad districts; Sadūjā, Andāldal, and Shāhpur in the Shikārpur district; and Unarpur, Virān, and Buto, in the Karāchi Collectorate. Several of these forests are between 9000 and 10,000 acres in area, but many of them are at times greatly diminished in extent owing to the encroaching nature of the stream on the banks of which they are situate. From this cause fully 1000 acres of the Dhārējā forest in the Shikārpur Collectorate were, in 1863, swept away into the river, and the same fate attended the forests of Sundarbēlo and Sāmīa, the former in 1864-65, and the latter in the year following. The wood of these forests consists mostly of bābul (*Acacia arabica*), bahan (*Populus euphratica*), and kandi (*Prosopis spicigera*). The tāli (*Dalbergia sissū*), a fine tree, grows to some

extent in Upper Sind, but can hardly be considered as indigenous to the province; the iron-wood tree (*Tocoma undulata*) is found abundantly near the hills in the Mehar districts. Besides these there are the nim (*Melia azadirachta*), the pipal (*Ficus religiosa*), the b̄er (*Zizyphus jujuba*), and a few others. The b̄abul, which is the staple tree in the forests of Lower Sind, is of quick growth, very tough and heavy, and much used for boat-building and for fuel. It has also been successfully tried in the manufacture of railway sleepers. The seed-pods are used for fattening cattle; the bark for tanning, and the leaves are greedily eaten by camels and goats. The *bahan*, which is the staple tree of Upper Sind, is a light tough wood used for building purposes, as also for making the celebrated lacquered boxes of H̄ala and Kh̄anot. The *kandi*, when taken care of, is a straight-growing tree, and the wood is much used by the Sindis for household furniture. The leafless caper, or kirar (*Capparis aphylla*), is valuable, as its wood, which is used for rafters and the knees of boats, resists the attacks of white ants. Two kinds of tamarisks are found in the Sind forests, as well as in that part of the delta of the Indus which has been deserted by the river, the "jhaō" (*T. orientalis*), and the "lai" (*T. indica*); from the former is obtained a kind of gum or manna, and from the latter, gall-nuts; both trees, from their resinous properties, afford a fair steam fuel. Of reed grasses there are three varieties: two of the "sar" (*Arundo karka*), from which a rope is made much used by boatmen for tracking purposes, and one of the "khan," from which rough mats for putting on *bandhs*, or canal banks, are manufactured. There are no forests in the delta of the Indus, but its shores, as well as the numerous inlets on it, abound with mangrove trees, which, though low in height, have frequently a growth of twelve feet. As a fuel this wood burns well. Among the trees which have of late years been introduced into Sind by the Forest Department are the following: the tamarind tree (*Tamarindus indica*); several Australian wattle-trees, such as the *Acacia dealbata*, *A. lopantha*, and the *A. melanoxylon*. The water-chestnut (*Trapa natans*), into Upper Sind in 1867, as also the "Aula" (*Emblica officinalis*), the bahera (*Terminalia bellerica*), the carob tree (*Ceratonia siliqua*), the China tallow tree (*Stillingia sebifera*), the b̄el (*Egle marmelos*), and the mauah (*Bassia latifolia*).

**Forest Department.**—For the conservancy and management of the Sind forests there is a specially organised department, consisting of a conservator, several assistants, inspectors—with their respective office establishments—forest tapad̄ars and foresters.

The forest lands are divided into fifteen divisions or *tapas*, over each of which is placed a forest *tapadār*, whose chief duties are to attend to the cutting of wood for sale, and for steam fuel, to collect the forest revenue and keep the accounts, to protect that portion of the forests immediately abutting on the river-bank, and, in short, to watch generally over the interests and well-being of the forests put under his charge. The foresters, who are known under the name of "*rakhas*," are placed under the orders of the *tapadārs*, and for this purpose reside on the confines of the forests in which their duties lay. The revenue derived from the Sind forests has greatly increased during the past fourteen years, as will be seen from the following table, which shows the receipts and disbursements from 1860-61 to 1873-74 inclusive :

Year.	Receipts.	Disbursements
	R.	R.
1860-61	1,20,624	61,217
1861-62	1,18,654	57,410
1862-63	97,664	56,835
1863-64	1,82,364	1,08,451
1864-65	2,66,278	1,60,762
1865-66	2,68,105	1,59,036
1866-67	2,72,101	1,66,898
1867-68	2,57,193	1,58,381
1868-69	2,35,511	1,29,901
1869-70	2,40,883	1,48,765
1870-71	2,01,356	1,69,235
1871-72	2,13,987	1,42,701
1872-73	2,69,876	1,55,036
1873-74	2,59,415	1,81,892

These receipts are made up mostly from grazing fees, sale of firewood and timber, cultivation, fisheries, charcoal, *bābul* pods and seeds, reeds, mangoes, fives, &c. Large quantities of firewood are sent to Bombay, by way of *Kēti-bandar*.

**Animal Kingdom.**—The animal kingdom in Sind would appear to be fairly represented. Burnes states that, from information obtained in his mission of 1837, he found the zoology of Sind to comprise of genera and species, twenty mammalia, one hundred and ninety-one birds, thirty-six fishes, eleven reptiles, besides two hundred in other departments of natural history. Among wild animals, there is the tiger, found occasionally in the jungles of Upper Sind, the hyena, the *gūrkhār* or wild ass (in the southern part of the Thar and *Pārkar* district), the wolf, jackal, fox, wild hog, antelope, "*pharho*," or hog-deer (*Axis porcinus*), hares, and porcupines. Among birds of prey, the vulture,

and several varieties of falcons. The flamingo, pelican, stork, and crane frequent the shores of the delta, and the Egyptian ibis is common. There are, besides the "ubara" (or bustard), known also under the name of "tilūr," rock-grouse, quail, partridge, and various descriptions of parrots. Waterfowl are plentiful, especially in the cold season, when the lakes and "dhandhs" are covered with wild geese, *kulang*, ducks, teal, curlew, and snipe. Among reptiles are to be found snakes of several varieties—scorpions, lizards, centipedes, &c. The snakes it is feared are very numerous, if the number of deaths which are said to occur yearly from snake-bite be taken as any criterion by which to judge of their prevalence.

The different kinds of fish met with in the Indus, as well as in the canals and dhandhs which lead from it, throughout Sind, will be found treated of in the notice of that river (see **Indus**). Among domestic animals in Sind, the camel, which is of the one-humped variety, takes, from its size and utility, the first rank as a beast of burden. It is hardy, strong, and capable of much endurance; its milk is a favourite article of diet, and from its hair are made coarse but strong cloths. The camel is bred in great numbers in the salt marshes of the Indus, the finer descriptions being reserved for the saddle. They are also used for grinding corn, pressing oil, and in turning the Persian wheel for field irrigation. Great herds of buffaloes are fed on the swampy tracts of the delta, and the *ghi* made from their milk forms a most important article in Sindian commerce. Sheep and goats abound in Upper Sind, on the borders of the Pat, or Shikārpur desert, and in the Thar and Pārkar. The best wool in Sind comes from the fleeces of the sheep kept in the former districts. The horses of Sind are small and mean in appearance, but hardy, active, and capable of enduring much fatigue; great attention is given by the Balochis in Upper Sind to the breeding of mares. The asses are small in size, but are strong and active, and thrive on the coarsest fare. The mules are large, strong, handsome, and quick in pace. The bullocks, which are small in size when compared with the finer kinds in other parts of India, are mostly employed for draught, and for turning wheels used in irrigating land.

**Irrigation in Sind.**—In concluding this general account of the province, it will not perhaps be here considered out of place to describe the system generally adopted in Sind for irrigating land by means of the many canals, which, drawing their water supply from the river Indus, are made to intersect the country for purposes of cultivation; and as this subject was fully entered into

and described some years ago by Captain (now Colonel) J. G. Fife, Bombay R.E., the projector of the Eastern Nārā scheme, and for some time the head of the Irrigational Department in Sind, extracts from his interesting report will here be given, touching generally upon the canals in Sind, and the various methods of irrigating land from them.

“Sind is an alluvial plain, almost every portion of which has, at some time or other, been swept by the Indus or its branches. In almost every direction traces of ancient channels are met with, and where they are large and can be traced for any considerable distance, they are most useful in indicating the relative levels of the country; for it is an axiom in places like Sind, formed by the deposit from the river, that the land is always highest at the river bank, and low the further the bank is receded from. The cause of this is well understood; the river brings down from the hill torrents a greater quantity of detritus than its stream—moderated in velocity in the valley below—can carry forward. The result is, that the bed and banks of the channel are continually rising, the bed rises most perhaps. While the inundation is subsiding, the banks are raised by the deposit from the flood-water during overflow. The process is a sure one, but it is very slow; for though it is now—it is believed—according to tradition, about 800 years since the Indus forsook an ancient channel for its present one, the banks which correspond with the flood-level of the river are now only sufficiently raised above the country inland to admit of a very imperfect description of irrigation from the river being carried on. In some places the slope of the plain from the river bank is a foot per mile; in others, it is only six inches; and where some ancient channel is met with inland, the ground is often found to be as high as the bank of the present channel, with a slight depression between the two.

**Canals in Sind.**—“The canals in Sind are excavations carried away from the river in an oblique direction, so as to secure as great a fall per mile as possible; they vary from ten to one hundred feet in width, and from four to ten feet in depth. None of them have their heads where the river bank is permanent, and none of them are deep enough to draw off water from the river except during the inundation; the river has to rise many feet before the water will run into them. The general direction of the canals is often good, but they have so many intermediate awkward bends, that a great part of the fall is thrown away. They are irregular in shape, and irregular in slope or fall. They generally very nearly follow the slope of the country, so that in some

places they have a fall of one foot per mile, in others, only two or three inches. In fact, they resemble natural water-courses much more than canals. In some cases, they are really old natural branches of the river, kept open by annual clearance of the silt which accumulates in them during the inundation. They have all the same grand defects. The irregularity of their supply of water, arising from the variation of the inundation, is still further increased from the changes in the river channel at their heads; and from their becoming nearly always partly, and sometimes completely, choked with silt at their mouths. This will be readily understood by a consideration of their faulty construction. From the position of their heads they are evidently liable to two evils: either the river encroaches and tears away the bank at their heads, throwing such quantities of silt into them as materially to diminish, and sometimes even to totally stop the supply of water, or the river recedes and forms an enormous sand-bank, and ultimately new land in front of their mouths. In the first case, from the setting of the stream against the bank, the canals get more water at the early part of the season, but from the silting up of their mouths, less during the latter part. In the second case, the supply is more scanty, but it is more regular, until totally cut off by the sand-bank, as the quantity of silt thrown into the canals is less. The setting of the stream against the bank, combined with the endless alterations that take place in the bed of the river, sometimes cause a difference of two feet in the level of the water at particular spots; and from this and the actual difference in volume of the inundation each season, previously explained, a most extraordinary difference is caused in the quantity of water which enters the canals. From the shallowness of the canals, a difference of two feet in the inundation causes a difference of perhaps not less than *one-third* of the whole supply drawn off by them, yet each season the supply actually required for irrigation is the same.

**Various Methods of Irrigation.**—"The irrigation carried on by means of the canals may be classed under three heads, according to the elevation of the land. First, there is land on to which the water will not run without the aid of machinery. Second, there is land which is watered with the aid of machinery while the supply in the canal is low, but on to which the water will run without a lift when the canal is full. Third, there is land which is so low that after the canal is three parts full, the water can be run off without a lift, no machinery being ever used. The cultivation carried on in these three classes of land may be thus

briefly described. In the first case, the cultivator has his cattle and servants ready by perhaps the 15th of May, to commence working the water-wheels, ploughing and sowing; but as the supply of water is dependent on the rise of the inundation, it never comes on the same date for two successive years, and of course his cattle and servants are kept idle till it does arrive. When the water at length makes its appearance work is commenced with activity and carried on steadily, unless, from the river suddenly falling, the supply of water should be cut off, in which case of course there is an interruption, and the cattle and servants are again idle. After this, a second subsidence of the river is rare, and the work proceeds steadily, but it also proceeds slowly. The rate at which the sowing is carried on is dependent on the number of bullocks the cultivator can procure—and of course as at this period most of the other cultivators are similarly circumstanced, it is difficult to procure a sufficient number,—the land is so hard and dry, that it must be watered before it can be ploughed. Time creeps on before he has sown all his land, the best period for sowing is past. However, as he commenced early, a very small portion only of his crop is poor from late sowing; and, on the whole, the crop is good, unless from the early subsidence of the inundation in August, he has experienced difficulty in getting his water-wheels to throw up sufficient water, a subsidence of three or four feet in the level of the water doubling the labour and expense and halving the speed at which the irrigation is carried on. Should this early subsidence take place, some of his crop will be inferior, from being insufficiently watered.

“ In the second case, where the land is partly watered by machinery and partly without, the cultivator also awaits the arrival of the water with his servants and cattle, and is during the early part of the season subject to the same losses and interruption. Later, however, he finds that the water is sufficiently high to run on to the land without a lift, and he therefore stops his wheel and employs all his cattle in ploughing. The sowing progresses rapidly, but a great part of it is late; matters progress favourably till the river begins to subside, when a difficulty immediately arises. The river falls perhaps three inches only, but the canals, owing to the mouth choking, fall a foot, and the water will no longer run on to the land without a lift. The wheel can do little more than water the land sown with its aid, the remainder of the crop suffers from want of water, and what was sown immediately before the water subsided, utterly fails.

“ In the third case, when the land is irrigated without the aid of



machinery, the cultivator rarely commences till late in the season, as the canal must be nearly full of water, and this does not take place till the inundation period is half over ; a great part of the crop is sown too late, and when it is juār or bājri, blight very frequently destroys it. This description of cultivation is, moreover, exposed to two most serious risks : either the water begins to subside too early, and two or three inches of subsidence renders it impossible to water the land, or from some unexpected rise in the river a greater quantity of water comes into the canal than can be used, it bursts its banks, and of course this description of land, which is always low, becomes inundated, and the crop is partly, if not totally, destroyed.

“The results of these three classes of cultivation may be thus briefly summed up :

“The first class is on the whole good, but it is very expensive from the heavy expense attending the raising of the water, which costs almost two rupees *per biga*, or nearly twice as much as the land-tax the cultivator pays to Government.

“The second class is inferior, but less costly, the facility for irrigation being greater.

“The third class is very inferior, from the many risks to which it is exposed, but from the great facility there is for irrigation, it costs very little ; little or no capital is necessary to start with, and it is extremely popular among the poorer classes.

“With the cultivation exposed to so many risks, arising from the capricious nature of the water supply, it cannot be matter for wonder that the people should look on the cultivation as a species of lottery. They are successful one season and bankrupts the next. No one who sows can tell what he will reap. Too little or too much water, the supply coming too soon or too late, and the blight arising from sowing at the wrong time, combine to render speculation on the result of the cultivation a riddle which none can solve. From the very frequent failing of crops the cultivators on the whole are very poorly repaid for their labour ; but this does not prevent them from forsaking regular and fairly-paid occupation for cultivation. They may win if the capricious river only furnished the proper quantity of water at the proper time to suit the particular class of land on which the venture is made.

**Comparison of Produce.**—“It will be interesting now to compare the total quantity of produce which ought to be derived from the cultivation in Sind, with the total quantity actually produced, in order to ascertain what this deplorable system costs the country. In doing this, accuracy can hardly be looked for,

but a very tolerable approximation to the truth may be made. In Upper Sind it is well known that a crop of 'juār' on average land, sown at the proper time and receiving a sufficient quantity of water at the right time, will yield fifteen maunds of grain *per biga*, but that, owing to the many risks to which the cultivation is exposed, the *average* crop is not more than ten maunds. In Lower Sind it is also well known that though a crop of rice under equally favourable conditions will yield fourteen maunds, the *average* yield is not more than ten maunds. Hence the losses amount to about *one-third* of the whole produce, and are, therefore, about equal to the Government share, the average value of which is 1½ rupees *per biga*. Now the total number of bigas irrigated in 1853, when there was, if anything, less cultivation than usual, was 14,38,000 bigas, at 1½ rupees each = 17,98,000 rupees, which therefore represents what the cheap canals cost Sind in loss of produce in that year.

"There is, however, another charge which the country has to pay: this is the cost of raising water, which varies from 1½ rupees on canals to 4 rupees on wells. The total number of bigas cultivated with the aid of machinery on canals in 1853, was 6,97,780, and on wells, 65,091. Charging for these numbers of bigas at the rates mentioned, we have—

	Rupees
Cost of raising water from canals for 6,97,780 bigas, at 1½ rs. each	10,46,670
Cost of raising water on wells for 65,091 bigas, at 4 rupees each	2,60,364
Total rupees	<u>13,07,034</u>

Adding the last amount to the value of the produce lost, we have a total of 31,25,034 rupees. So that Sind in 1853 suffered a loss of about 31 lakhs of rupees more than the whole revenue of the province, from a defective system of irrigation.

"That the country should be paying so heavily from the defects in the irrigation system, can cause little surprise after a consideration of the circumstances under which the people cultivate, as previously explained. There are some confirmatory facts, however, which it may be worth while to mention. In Sind nearly the whole male adult population cultivates; there are very few indeed who do not, either directly or indirectly, share in the labour. Now we know that the country is fertile from the splendid crops which are often raised, and which produce even more than a 'kharwār' (or twenty maunds) of grain *per biga*; yet it appears

from the export and import returns, that our exports exceed our imports by only 4,13,000 maunds, the value of which is about 4,13,000 rupees, or a seventh part of the revenue, and therefore only one-twentieth part of the produce of the country. If the whole population cultivates and the land is fertile—both of which are well-known facts—how does it happen that our exports are so small? How does it happen that we import at all? What becomes of the labour of the whole of the population? In fact, while we have the clearest evidence of the fertility and capabilities of Sind, we have equally clear evidence of those capabilities being thrown away from a defective system of irrigation.

**Loss from imperfect Cultivation.**—"The direct loss to the country has been shown to be enormous, but it perhaps does not exceed the indirect loss arising from the same causes. It is clear that where the number of risks to which the cultivation is liable are such that a careful cultivator has but little better chance than a careless one, all enterprise must be annihilated. A man who knows that his crop depends entirely on the capricious inundation, and that though he may expend great labour on it, it will avail nothing unless he gets the supply of water at the proper time and at the proper level, naturally expends as little labour as possible upon it. This, of course, gives rise to careless cultivation. This imperfect cultivation, and the large area of cultivation which fails yearly from causes previously described, also give rise to another kind of loss. The fertility of the soil is exhausted in producing a crop of straw without any grain; and, putting aside the immediate loss, there is loss which is certain to occur the next season from the sowing of land previously weakened. This occurs year after year, and the loss caused must be enormous. In fact, in the preceding calculations of what the country loses in produce, it would perhaps have been more just to have taken what is considered a first-rate crop in Sind, than merely a remunerative crop for the standard. Another effect of the system is the proverbial improvidence met with in the Sindian. How can he be expected to be otherwise? One year he is successful, the next he is ruined; he is nearly always in debt and difficulty, paying one hundred per cent. for borrowed money, and much of his time and ingenuity are consumed in devising plans for escaping payment. In fact it may be said of the whole population, that while the Hindūs, who lend the money in the first instance, are employing all their cunning to get it back with interest, the Muhammadans are employing theirs to avoid payment. It is a common complaint in Sind that labour is scarce and dear, but surely no one who

may read this sketch can fail to perceive the cause. In England and other prosperous countries skill and machinery enable one man to do the work of ten. Now, assuming that one-third of a population should with ordinary means cultivate sufficient grain for the whole, it is plain that in Sind three men do the work of one. Doubtless there may be inaccuracy in the foregoing calculations. To those well acquainted with Sind many instances will occur in which the risks to which the cultivation is exposed are not so great as represented in this sketch; occasions will be remembered when the quantity of water exactly met the demand and when it came at a convenient time. It must be remembered that the calculations given are only intended as an approximation to the truth, that there is no general rule without some exceptions; and, allowing the widest margin for inaccuracy or error, it is surely evident that the general conclusions arrived at are perfectly true."

## CHAPTER II.

## EARLY HISTORY OF SIND.

ANCIENT HINDŪ DYNASTY IN SIND—MUHAMMADAN INVASION AND CONQUEST OF SIND—SŪMRA DYNASTY—SAMMA DYNASTY—THE ARGHŪN DYNASTY—DĀŪDPOTRĀS—KALHORA DYNASTY—TALPUR DYNASTY—OCCUPATION OF SIND BY A BRITISH FORCE—ARRIVAL OF SIR CHARLES NAPIER IN SIND—BALOCH ATTACK ON THE BRITISH RESIDENCY AT HYDERABAD—BATTLE OF MEEANEE—BATTLE OF DABO—TALPUR SYSTEM OF GOVERNMENT.

**Ancient Hindū Dynasty in Sind.**—Previous to the invasion of Sind by the Arabs, under Muhammad Kāsim Sakifi, about 94 H. (A.D. 713), that country was under the rule of a Hindū dynasty, whose capital was at Aror (or Alor), near the present town of Rohri, then a large city on the banks of the Mehrān (or Indus), possessing many very fine buildings, with extensive gardens outside and around the town. The boundaries of this Hindū kingdom are said to have been Kashmir and Kanauj on the east, Makrān and the seashore of Omān on the west, the port of Surat (Surāshtra) on the south, and Kandahar, Sistān and the Sulēman and Kaikanān hills on the north, and it was divided into four divisions, each of which was under the rule of a governor. Some of the names of the reigning Hindū kings are supposed to have been as follow :

- |                 |                    |
|-----------------|--------------------|
| 1. Rāi Diwāji.  | 4. Rāi Siharas II. |
| 2. Rāi Siharas. | 5. Rāi Sahāsi II.  |
| 3. Rāi Sahāsi.  |                    |

Their reigns are presumed to have extended, in the aggregate, over 137 years. The fourth king of this dynasty, Rāi Siharas II., is reported to have been slain in battle while engaging the army of Nimroz, king of Persia, whose troops had come on a marauding excursion to Kachh and Makrān. The Sind forces were defeated, and returned to Alor. His successor, Rāi Sahāsi II., appears to have ruled his kingdom wisely and well, making tours of inspec-

tion through his dominions, keeping his army punctually paid, obtaining his revenue by periodical instalments, and remitting the duty on grain, on the condition of his subjects building for him six forts—those of Alor, Sehwiṣtān, Uch, Mathēlo, Mod, and Suvrāi. Chachh, the son of Silāji, a Brahman, and chamberlain to Rāi Sahāsi, but in no way related to him, seems to have so ingratiated himself with this monarch, that on the death of the latter, about H. 10 (A.D. 630), he was able to establish himself on the throne, defeating an army under Rānā Muharat, which the relatives of the deceased ruler had collected about Jodhpur, for the purpose of driving away the usurper. Chachh reigned forty years, and was succeeded by his brother Chandār, who ruled the country for eight years, leaving the succession to his nephew Dahīr (the eldest son of Chachh), during whose reign Muhammad Kāsim Sakifi, the son-in-law of Hajjāj, governor of Irak, was sent by the latter about H. 93 (A.D. 712) to conquer Sind and the countries lying along the whole valley of the Indus. The ostensible reason put forward by Muhammadan writers for this invasion was the alleged ill-treatment of some merchants and others, who had been deputed by the khālifa Abdūl Mālik, to proceed to Sind with the object of purchasing female slaves and other articles. These they had collected, and were returning home by Dewal Bandar, when they were attacked by robbers, who killed several of them, made others prisoners, besides taking from them all their property, a few only escaping to make their complaint to the khālifa, who had prepared an army for the invasion of Sind, when he died, leaving his intention to be carried out by his son.

**Muhammadan Invasion and Conquest of Sind.**—Muhammad Kāsim left Shirāz on this expedition in H. 92 (A.D. 711), with a fine army, and would seem to have reached the seaport of Debal (supposed by some to have been Manora, near Karāchi, but by others, Tatta) early in the following year, which he soon captured. After this Muhammad proceeded to Nerankot (the modern Hyderabad), the governor of which place seems to have arranged satisfactorily with the general, who thence marched to the fort of Sehwan, in the district of Sehwiṣtān, which he took. Returning to Nerankot, he crossed the Indus, the main stream of which at that time flowed to the east of the city, and engaged the army of King Dahīr, which had been sent to oppose him. It ended in the discomfiture of the Hindū sovereign, who was slain at the fort of Rāwar, while all his family and relatives were carried away captives, excepting his son Jaisya, who fled to Kashmir.

Muhammad then laid siege to Brāhmanābād, near the desert, which was taken, but he appears to have treated its inhabitants with leniency and moderation. Thence, in H. 94 (A. D. 713) after capturing other places, he came to Alor, the capital of Sind, which was taken; and subsequently Mūltān, with an immense treasure, submitted to his arms. The end of this great Muhammadan invader is uncertain, but it is believed he was tortured to death with the sanction of the khālifa Sulēman, and that the story\* in which the two daughters of King Dahir are made to take so prominent a part, is a mere idle fable. Yazīd, who was appointed to succeed Muhammad, died soon after reaching Sind, and Habib was then selected to carry on the war in that country, where Jaisya, the son of Dahir, had already regained the town of Brāhmanābād, and much of the territory previously conquered by the Arabs had been recovered by the natives. On the extinction of the Ummayide dynasty of khālifas in H. 132 (A.D. 750), and the succession to power of the Abbāsides, Sind still remained under Arab government, and the steady progress of their rule inspired the native princes on the northern frontier of India with alarm. In H. 198 (A.D. 813), the then governor of Sind, Bashar-bin-Dāūd, raised the standard of revolt, but was afterwards induced to surrender himself under promise of a pardon. Down to H. 295 (A.D. 908) the power of the khālifas had been gradually declining,

\* This story, as related by Pottinger, is as follows:—The victory gained by the Muhammadans was followed by a remarkable instance of oriental revenge. Among the captives were two daughters of the Rājā, esteemed, it is said, the most beautiful women in Asia, and who, in conformity with eastern custom, were reserved to grace the harem of the khālifa. The princesses meditated vengeance on the general whose successes deprived their father of his throne and life, and reduced them to captivity in a foreign land; and on their arrival at Bāghdād effected their object by accusing him of conduct which involved a breach of duty to his master, as well as an outrage on the feelings of his illustrious prisoners. The khālifa, enraged at the alleged insult, ordered the supposed offender to be sewn up in the raw hide of a cow, and in this manner

brought into his presence. The sentence was inflicted, and the unfortunate general, thus ungratefully recompensed for his success, died on the third day after being subjected to the punishment. The tale was subsequently discovered to have been fabricated, and the vengeance of the khālifa, then directed towards the beautiful but vindictive princesses, was manifested in a mode not less characteristic of Eastern cruelty than was the punishment inflicted on their victim. He ordered them, after being totally divested of clothing, to be tied by the hair of their heads to the tails of horses, and in this manner dragged through the streets of Bāghdād till they were dead. The horrible sentence was executed, and the mangled remains of the sufferers then ignominiously cast into the river.

and their virtual renunciation of political control in Sind may be said to date from H. 257 (A.D. 871), a few years after which two kingdoms were established in Sind --those of Mūltān and Mansūrā. The latter country extended from the sea to Alor, where that of Mūltān commenced, and it would seem to have been well cultivated, and covered with trees and fields. The dress of the Sindians was like that of the people of Irak. Alor, the capital, is said to have been nearly as large as Mūltān, was surrounded by a double wall, and was the seat of a considerable commerce.

The revenue derived by the Arab princes of Sind appears to have been very small, sufficient only to provide food and clothing, and to maintain their position with decency. Under Arab rule the internal administration of Sind was left by these conquerors in the hands of natives. Arab soldiers held lands there on condition of continued military service, but they were not permitted to devote themselves to agriculture or any other profession but their own : much of the conquered territory was also liberally bestowed upon sacred edifices and institutions. Sindian troops, it seems, were levied by the Arabs, and sent to fight the battles of the latter in distant quarters. Nor when the zeal for war had abated was commerce neglected in Sind by its Arab conquerors. They kept up a regular commercial communication by means of caravans with Khorāsān, and with Zābulistān and Sijistān, by way of Kandahar and Ghazni. There was commercial traffic by the sea-board also, for much of the merchandize sent to Türkistān and Khorāsān was the produce of China, Ceylon, and Mālābar, from which latter province most of the wood used for the construction of boats on the Indus was obtained. Horses were also frequently imported into Sind from Arabia. The native Sindians were permitted by the Arabs to follow the practices of their religion to a greater extent than was usually conceded in other countries, but where power allowed the Muhammadans to usurp the mastery, they did not hesitate to display their usual bigotry and cruelty.

The public revenue of Sind, under Arab rule, was derived, it would seem, mostly from the land-tax. The assessment upon Sind and Mūltān was 11,500,000 dirhams (or about 270,000*l.*), and this is supposed to have comprised the land-tax, poll-tax, customs' duties, and other miscellaneous items. The Arab governor of Sind was in fact a kind of farmer-general, who bound himself to pay to his sovereign, the reigning khālifa, certain sums, as set down in the public register. The land-tax was usually rated at  $\frac{2}{3}$ ths of the produce of wheat and barley, if the



fields were watered by public canals ;  $\frac{3}{10}$ ths if irrigated by wheels or other artificial means ; and  $\frac{1}{4}$ th if altogether unirrigated. Arable land left uncultivated seems to have paid one dirham per *jirīb*, besides a tenth of the probable produce. Wines, fisheries, dates, grapes, and garden produce generally, were also taxed. Extraordinary imposts were exacted from certain tribes : thus the Jats, dwelling beyond the river Aral, near Sehwan, were compelled to bring a dog with them whenever they came to pay their respects to the ruling authority, and peculiar duties also devolved on the Bhātia, Lohāna, Sahta, Jandar, Māchhi, and Gorējā tribes.

**Sūmra Dynasty.**—At the time H. 410 (A.D. 1019) when the celebrated Sultan Mahmūd of Ghazni invaded Hindūstān, Sind was ruled by a governor, who was nominally under the authority of the khālifa, Kādir Billah Abūl Abbās Ahmad. After taking Multān and Uch, Mahmūd appointed his vazir, Abdūr Razāi, to conquer Sind, and this was effected about A.D. 1026. But the absolute sovereignty of the country did not long remain with the Ghaznvide family, as in H. 423 (A.D. 1032) Ibn Sūmar, the ruler of Mūltān, believed to be himself a Sūmra, seems to have laid the foundation of the Sūmra dynasty in Sind, and to have governed the country with great vigour and discretion. There are, nevertheless, various opinions regarding the origin and length of rule of this dynasty. The Sūmras may possibly have allowed themselves to recognise a titular sovereignty in the Ghaznvide dynasty down to H. 443 (A.D. 1051), or perhaps have paid tribute as an acknowledgment of fealty, but after that time they professed their independence. Ibn Sūmar was succeeded by his son Dodo, who extended his possessions as far as Nasarpur, and was in his turn succeeded by other princes of his line, of whose doings there is nothing worthy of mention, till the reign of Khafif, who appears to have made Tatta his capital city, and to have restrained with success several incursions of the frontier tribes—such as the Balochis, the Sodas, and the Jārējās. His rule was one of great vigour, and his authority was acknowledged from Kachh to Nasarpur. It was also during his reign that the *Samma* tribe first came into prominent notice, having been severely punished by Khafif for robbing a tribe of Balochis. From the death of Khafif the Sūmra dynasty gradually waned in power, and at length, during the reign of Urrah Mehl, the last of the line, the *Samma* tribe, who had some time before come from Kachh and settled in Sind, conspired against and killed him, placing Jām

Unar, one of their tribe, on the throne of Sind, about H. 752 (A.D. 1351). Some writers have stated that the power of the Sūmras was never at any time either extensive or absolute, and that they can only claim to rank as a dynasty from the absence of any other predominant tribe or power to assert better pretensions to that distinction.

**Samma Dynasty.**—The Sammas may be considered as represented at an early period (*tempus* Muhammad Kāsim) by Samba, the governor of Debal, on the part of Chachh, the Hindū king of Sind. They were either Būdhists or Hindūs, with their capital city at Šammānagar, on the Indus, supposed to be on the site of the modern town of Sehwan, but it is evident the princes of this dynasty resided mostly at Tatta, or rather at Samui, under the Makli hills, about three miles north-west of Tatta. The first king of this dynasty, Jām Unar, reigned three and a half years. He does not appear to have had the whole of Sind under his rule, since Bukkur and a large part of the country round about it were held by the Hākims, Malik Firoz and Ali Shāh Türk, on the part of the king of the Türks. On the death of Jām Unar, the throne was given to Jūnah, who took Bukkur, the Hākims retreating to Uch. In the reign of his successor, Jām Tamāchi (son of Jām Unar), not only was Bukkur retaken by the forces of the king of Dehli, but the Jām and his family were made prisoners, and brought to Dehli, where he died, his son Khair-u-din succeeding him on the throne. During the reign of his son, Jām Babuniya, Firoz Toghlak, king of Dehli, in A.D. 1372 invaded Sind, and compelled its ruler to tender his submission, which was however only a nominal one. His successors were his brother, Jām Tamāchi, and Jām Sālah-u-din, the latter of whom made a successful incursion into Kachh, bringing back much plunder with him. Ten other princes followed, completing the dynasty, but nothing worthy of any special mention seems to have taken place during their reigns, excepting that the Arghūn family, who succeeded the Sammas, first came into notice during the latter part of the reign of Jām Nizām-u-din, commonly called "Jām Nindo," the fourteenth prince of this dynasty. The forces of Shāh Beg Arghūn from Kandahar had fallen upon many villages in Chānduka and Sidhija, when they were met by the Jām's troops, who defeated them so effectually that they did not venture to return during his reign. The following is the list of the different sovereigns comprising the Samma dynasty, dating from A.D. 1351 to A.D. 1521:

- |                   |                     |
|-------------------|---------------------|
| 1. Jām Unar.      | 9. Jām Fateh Khān.  |
| 2. „ Jūnah.       | 10. „ Toghlaḱ Shah. |
| 3. „ Babuniya.    | 11. „ Sikandar.     |
| 4. „ Tamāchi.     | 12. „ Rāidhan.      |
| 5. „ Sālah-u-dīn. | 13. „ Sanjar.       |
| 6. „ Nizām-u-dīn. | 14. „ Nizām-u-dīn.  |
| 7. „ Ali Sher.    | 15. „ Firoz.        |
| 8. „ Karan.       |                     |

The Sammas were unquestionably Rājput̄s of the great Yadava stock, and were probably the same tribe who were known to Alexander the Great as the Sambūs. They became Muhammadans not earlier than H. 793 (A.D. 1391), and their descendants are known as the Samējas and the Jārējas of Kachh.

**The Arghūn Dynasty.**—This dynasty, which succeeded to that of the Sammas, derived its name from Arghūn Khān Tarkhān, the grandson of Halāku (who was the grandson of Changīz Khān), and commenced its rule in H. 927 (A.D. 1521). It consisted of but two individuals, Shūja (or Shāh Beg), and his son Mirzā Shāh Husain, with whom the family became extinct. The first prince, Shāh Beg Arghūn, the son of Mir Zūnūn Arghūn, defeated the Samma army, and, in H. 926 (A.D. 1520), sacked the city of Tatta, the capital of Jām Firoz Samma. An arrangement was subsequently come to between Shāh Beg and the Jām, by which that part of Sind extending from Sukkur to Tatta was to remain under the rule of the latter, Shāh Beg taking that to the north of Lakki; but as many of the Sammas were averse to this proceeding, another engagement took place at Talti, near Sehwan, resulting in the complete defeat of the Sammās and the firm establishment of Shāh Beg on the throne of Sind. He subsequently took the fort of Bukkur and rebuilt the fortifications, for which purpose burned bricks were brought from the old fort of Alor, and many large houses in the neighbourhood of Bukkur were pulled down to provide the requisite material. He also permitted the Saiyads of Bukkur to leave the fort, giving them ground in Rohri whereon to build houses for themselves. In A.D. 1522, Shāh Beg resolved to take Gujrāt, but this intention was frustrated by his death, which occurred in the same year. He was not only a bold and expert warrior, but learned also in the sacred writings of the Muhammadans, upon which he is said to have written many notes, marginal and explanatory. Shāh Beg was succeeded on the throne of Sind by his eldest son, Mirzā Shāh Husain, whose first step was to proceed to Tatta, where Jām Firoz, though outwardly submissive, was in reality preparing an army to resist him. On Shāh Husain's approach, the Jām

retreated to Kachh, where he collected an army, and marched to meet his enemy, but he was signally defeated, and fled to Gujrāt, where he died. Shāh Husain severely punished the Dhars and Māchis of Ubaura, as well as the Mahars of Mathēlo, for constantly fighting among themselves. He also took and sacked the towns of Mūltān and Uch, as well as the fort of Dilāwur. On his return to Tatta, he was called upon to march southward towards Kachh, where a chief named Khangar was preparing to attack him: Here he was again victorious, taking many prisoners and much plunder. It was during the reign of Shāh Husain\* that the (Mogal) Emperor Humāyūn, defeated by Sher Khān Sūr of Ghor, in A.D. 1540, fled to Sind, where he attempted to take the fort of Bukkur, but failed. The emperor then left for Jodhpūr, but returned to Sind by way of Umarkōt, in A.D. 1542, making another attempt to conquer the country, but being again unsuccessful, he withdrew to Kandahar. Shāh Husain died in H. 962 (A.D. 1554), after a reign of thirty-four years, and being childless, the Arghūn dynasty ended with him. Another dynasty, of which, however, little is known, called the TARKHĀN, succeeded it, but did not last longer than H. 1000 (A.D. 1591-92), when the defeat of Mirzā Jāni Beg, the ruler of Tatta, by an army of the Mogal Emperor Akbar, put an end to it, Sind being henceforth incorporated in the Sūbah of Mūltān, though to Jāni Beg, who subsequently entered the imperial service, was granted what the native historian calls "the country of Tatta."

**Dāūdpotrās.**—From the death of Akbar, in A.D. 1605, to the appearance in India of that ruthless invader Nādir Shāh (the king of Persia) in A.D. 1739, an interval of upwards of one hundred years, there is little or no mention of Sind by contemporary native historians. It was, however, during this interval that Shikārpur was founded by the Dāūdpotrās, or sons of Dāūd Khān, who gave his name to the whole tribe. They were by profession both weavers and warriors, and led a wild and wandering existence, some at Khānpur, some at Tarāi, and others in what is now known as the Sukkur district. These latter were, about A.D. 1603, busy in contending for their very existence with the influential tribe of Mahars (originally Hindūs), who, under their leader, Sher Khān, lived in the same tract of country, having their chief town at Lakhi, from which they had themselves previously ousted the former occupants—a Baloch race called the Jatōis. In their encounter with the Mahars the Dāūdpotrās, after a sanguinary conflict, came off the victors, and it was soon after this event

that they are said to have laid the foundation of the town of Shikārpur.

Tatta had, since the extinction of the Arghūn and Tarkhān dynasties, been the scene of much contention under different rulers, till the Mogal Emperor Jahāngir adopted the prudent plan of appointing special lieutenants to govern the outer districts of his empire,—a plan which gave a wholesome check to *hereditary* viceroyalty in Sind. The period had now arrived when another race, supposed to belong to the same genealogical tree as the Dāūdpotrās, began to play a somewhat important part in the history of Sind, from A.D. 1658 to A.D. 1780. These were the Kalhoras, whose rise and fall it will now be necessary to describe at some length.

**Kalhora Dynasty.**—The Kalhoras are said to be descended from Abbas, the uncle of the prophet Muhammad. They derived their *direct* descent from Muhammad of Kambāthā, who lived about A.D. 1204, at the time when Nasīr-u-dīn Kabāchi governed Northern Sind. This Muhammad formed matrimonial connections with several of the tributary chieftains of that country, and it is from his sons that the powerful tribes of Dāūdpotrās claim their origin. The fortunes of the Kalhora family remained somewhat obscure till A.D. 1558, when they revived in the person of Adam Shāh, who was at the head of a large sect of mendicants in the Chānduka Pargana. Exciting the jealousy of the governor of Mūltān, Adam Shāh was attacked by him, his followers dispersed, and he himself taken prisoner and put to death. Though frequently defeated, the Fakirs at last became inured to war and hardship, and in A.D. 1658, under Nāzir Muhammad Kalhora, they began to successfully oppose the Mogal troops, and to assume the appearance of an organised government. At length, about A.D. 1701, Yār Muhammad Kalhora, assisted by the Sirāi tribe,\* managed to get possession of Shikārpur, which he made his residence, and obtained from the Mogal a “firmān,” conferring upon him the Subhēdāri of the Dera districts, as well as the imperial title of “Khūda Yār Khān.” By the year 1711 Yār Muhammad has greatly extended his territorial possessions by the acquisition of the Kandīāro and Lārkāna districts, and of the province of † Siwi (Sibi), but he died in A.D. 1719, and was succeeded by his son Nūr Muhammad, who conquered the Nhār district from the Dāūdpotrā tribe. Sehwan and its dependencies also fell under his sway, and his territory then extended from the

\* Another name for the Talpur tribe.

† Then comprising Shikārpur and Sukkur.

borders of Mūltān to Tatta, not, however, including the fort of Bukkur, which stronghold, with its dependencies, was not obtained by the Kalhoras till A.D. 1736. Eastward, his authority reached as far as the desert, while the Baloch mountains formed its western boundary. It was during the reign of this prince that the Talpur race of Balochis first came prominently into notice in Sind, in the person of Mir Bahrām (son of Shāhdād Khān), who did good service in the cause of the Kalhora. In February, 1739, Nadir Shāh, the king of Persia, entered Dehli, and in the following month all the provinces westward of the Indus were wrested from the Dehli government and annexed to the Persian crown, and in this transfer were of course included both Tatta and Shikārpur. Nadir, shortly after his return to Kābul, set out on another expedition to the Panjāb and Sind, to punish Nūr Muhammad, who was inclined to be troublesome. The Kalhora had two years before persuaded Sādik Ali, the weak Sūbhēdār of Tatta, to make over the government of that province to him for a consideration of three lakhs of rupees, and this would seem to have called down upon him the wrath of the Persian king. On the approach of Nadir Shāh in 1739, Nūr Muhammad at first fled to Umārkōt, but afterwards surrendered, when Shikārpur and Siwi (or Sibī) were taken from him, and made over to the Dāūdpotrās and Afghāns. An annual tribute of twenty lakhs of rupees was imposed on the Kalhora prince, but as some compensation he received the title of "Shāh Kulī Khān." During 1746 and 1747 he extended his authority in South Sind, by reducing the chiefs of Kakrāla and Dhārējā. On Nadir Shāh's death the Kalhora chieftain's territory became, in 1748, tributary to Ahmad Shāh Durāni of Kandahar, who conferred on Nūr Muhammad a new title, that of "Shāh Nawāz Khān." In 1754 the Kandahar monarch advanced towards Sind, to enforce the tribute which had been very imperfectly paid, on which Shāh Nawāz Khān fled to Jaisalmir, where he afterwards died, his son Muhammad Murād Yāb Khān succeeding him. This chief, by sending vakils to appease the wrath of the Kandahar ruler, was confirmed in his rank and power, and had the title of "Sar Buland Khān" conferred on him. He founded the town of Murādābād, and brought Jām Hajaji, the Kakrāla chief, into subjection, taking from him the greater part of his territory. He was, however, so oppressive to his subjects that they dethroned him in 1757, and placed his brother, Ghulām Shāh, on the throne in his stead; but, owing to dissensions among his other brothers, Ghulām Shāh was compelled to retire to the desert, whence he returned in strength in 1758.

and succeeded in establishing himself firmly on the throne in the following year. In 1761 he received from Kandahar the title of "Shāhvirdī Khān;" and in 1762 invaded Kachh, fighting the sanguinary battle of Jhana. In the following year he again invaded that country, obtaining the sea-ports of Basta and Lakhpat, situate on the Indus. In 1768 he founded the city of Hyderabad (the ancient Nerankot), living there till his death in 1772, when he was succeeded by his son Sarafrāz Khān. It was during the reign of this chief that Mir Bahrām Talpur, who had filled a distinguished position under the government of Ghulām Shāh, became an object of distrust, and he, together with his son, Mir Sobhdār Khān, were in consequence privately put to death. Sarafrāz Khān discouraged the English factories at Tatta, which, during his father's reign, had, in 1758, been established there by the East India Company, and these were eventually withdrawn in 1775. This chief was soon after deposed by the Balochis, and various changes in rulers took place, till, in 1777, Ghulām Nabī Khān, a brother of Ghulām Shāh, was raised to the throne. During his rule Mir Bijar Talpur, a son of Mir Bahrām, rose against the Kalhora sovereign, and Ghulām Nabī Khān was slain in a battle fought between them. Abdūl Nabī Khān succeeded his brother, after putting his nearest relatives to death, and he managed to effect a compromise with Mir Bijar Khān, which ended in Abdūl Nabī being acknowledged sovereign of Sind, with Mir Bijar as his minister. In 1781 the province was invaded by an army from Kandahar, but this was defeated by Mir Bijar near Shikārpur. This nobleman was subsequently assassinated at the instance of Abdūl Nabī Khān, who afterwards fled to Kelāt, the sovereignty of Sind being assumed by Abdūla Khān Talpur, a son of the murdered minister, conjointly with his cousin, Mir Fatēh Khān. After repeated failures to regain his throne, Abdūl Nabī, through the assistance of the Kandahar king, was at length successful, but on putting Abdūla Khān Talpur to death, he was once more driven away by Mir Fatēh Ali, a grandson of Bahrām Talpur. Abdūl Nabī made another effort to recover his kingdom, but being defeated at Hālāni, in Upper Sind, by Mir Fatēh Ali, he fled at first to Sewistān, and afterwards to Jodhpur, where he died, and where his descendants still hold a distinguished rank. With him ended the dynasty of the Kalhoras. Fatēh Ali Khān afterwards procured a "firmān" from Zamān Shāh, the king of Kandahar, for the government of the province of Sind by the Talpurs. The following list will show the names of the

Kalhora princes, with the dates (approximative) of their accession to power :

	Began to reign.		Began to reign
1. Yār Muhammad Kalhora	A. D. 1701	4. Ghulām Shāh . . .	A. D. 1757
2. Nūr Muhammad Kalhora	1719	5. Sarafrāz Khān . . .	1772
3. Muhammad Murād Yāb } Khān.	1754	6. Ghulām Nabi Khān . . .	1777
		7. Abdūl Nabi Khān . . .	1782

**Talpur Dynasty.**—It was in 1783 that Mir Fatēh Ali Khān established himself as “Rais” or ruler of Sind. His nephew, Mir Sohrāb Khān, settled at Rohri with his adherents, and his son, Mir Tharo Khān, removed to Shahbandar, where they each possessed themselves of the adjacent country, renouncing altogether the authority of Mir Fatēh Ali. The Talpurs may be considered as being divided into three distinct families : 1st, the Hyderabad (or Shāhdādpur) family, ruling in Central Sind ; 2nd, the Mīrpur (or Manakāni house, descendants of Mir Tharo, ruling Mīrpur ; and, 3rd, the Khaīrpūr (or Sohrabāni branch), governing at Khaīrpur. Fatēh Ali, as the head of the Hyderabad Mirs, associated with himself in the government his three younger brothers, Ghulām Ali, Karam Ali, and Murād Ali, hence they were denominated the “Chār Yār,” or four friends. Fatēh Ali soon turned his attention to the recovery of Karāchi and Umārkot ; the first, which had been alienated to Miān Nasir Muhammad, governor of Kelāt, was taken in 1792, and Umārkot, which had been in the possession of the Rājā of Jodhpur, was recovered in 1813. In 1801 Mir Fatēh Ali died, leaving his territory to his three brothers. Of these, the first, Ghulām Ali, died in 1811, leaving a son, Mir Muhammad, but the surviving brothers, Karam Ali and Murād Ali, were acknowledged as the two chief Mirs of Sind. They also died—Karam Ali, in 1828, without issue, but Murād Ali leaving two sons, Nūr Muhammad and Nasir-Khān, and up to 1840, the Hyderabad government consisted of these two Mirs, together with the cousins Sobhdār (son of Fatēh Ali) and Mir Muhammad. Mir Nūr Muhammad died in 1841, leaving behind him two sons, Mirs Shāhdād and Husain Ali, under the guardianship of their uncle, Nasir Khān. Several members of the Talpur family, and among them Fatēh Ali and Ghulām Ali, lived at Khudabād, a short distance to the north of Hyderabad, where their tombs still exist, but the latter city became eventually the capital. The Khaīrpur branch of the





THE MRS. MUHAMMAD KÄHN, SHÄH MUHAMMAD KHÄN, AND HUSÄIN ALI KHÄN.

Talpurs ruling in Upper Sind consisted at this time of Mirs Rustam and Ali Murād, the sons of Mir Sohrāb. This branch always looked up to that at Hyderabad, and sought its advice when necessary. Mir Rustam had a large family, but their dissensions and bickerings embittered his latter days. He was of an amiable and in-offensive character, and beloved by all classes of his subjects. His next brother, Mir Mubārak, died in 1839, leaving a family also. Another member of the Talpurs, Sher Muhammad, the bravest, and at the same time the most plain-spoken, of all the chiefs of that family, held the fort of Mipur, to\* the east of Hyderabad. It has already been mentioned, that the first connection of the British with Sind took place in the time of Ghulām Shah Kalhora, but this was dissolved by his successor, Sarafrāz Khān, in 1775. A commercial mission was opened up in 1799, and a Mr. Nathan Crowe, of the Bombay Civil Service, was sent to Sind to conduct the mercantile and political interests of the British Government with the Talpur Mirs, but, like the former attempt, it ended in an unsatisfactory manner. The British agent resided at times at Tatta, Shahbandar, and Karāchi, where he had to endure various petty indignities, till at last he received a peremptory order from the Mirs to quit the country within ten days, and this he thought it best to obey. No notice whatever was taken by the East India Company of this insult, the question being considered, at the time, as one of minor importance. In 1809 a treaty of friendship was entered into between the Sindian and British Governments, more, it would seem, to prevent Frenchmen from settling in Sind than with any other object. Again, in 1820, another treaty was concluded, to guard against the recurrence of frontier disputes, and this was ratified in 1821. Nothing further occurred till 1825, when the demonstration of a British force of 5000 men, in Kachh, was found necessary to put a stop to the predatory incursions of the Sindi tribe of Khosas and others.

The Mirs had, in 1824, obtained peaceful possession of the town of Shikārpur, the last spot in Sind retained by the Afghāns. The town of Sukkur, with Būrdika and other districts, had at various periods between 1809 and 1824 been annexed by the Khairpur Mirs. The revenue of Shikārpur on its annexation was divided into seven shares; four of these becoming the property of the Hyderabad Mirs, and three of their relatives of Khairpur. Consequent on this system of co-parceny there were two governors as well as two distinct "kutcheries" in the city, to watch over the interests of the two families. In 1832 a mission, under Colonel

Pottinger, was sent to Sind, and some treaties for the advancement of commerce were subsequently concluded with the Mirs, providing, among other things, for a passage for traders and merchants by the rivers and roads of Sind, and the duties to be levied on their goods, but no Englishman was to be permitted to settle in the country. The Khairpur branch of the Sindian Government also agreed to abide by the arrangements made with the Hyderabad Darbar. Two years previously (in 1830) Lieutenant (afterwards Sir Alexander) Burnes had been allowed, after experiencing many vexatious delays and threats, on the part of the Mirs, to proceed up the Indus, taking with him certain presents from the King of England to Ranjit Singh, the Rājā of Lahor. The Indus was as little known in those days as it was in the time of Alexander the Great, and the object of despatching the Mission by that route was evidently to collect information respecting the races occupying its banks, and if possible to establish friendly relations with their chiefs.

In 1835, though Colonel Pottinger succeeded after much difficulty in obtaining permission to survey the sea-coast of Sind and the delta of the Indus, trade did not progress by way of this river, and the Mirs of Sind evidently placed no reliance in the integrity of British intentions. In 1838 the Kābul campaign necessitated the despatch of a body of British troops from Bombay, to join the main army in the Northern Provinces, by way of the Indus, notwithstanding the article in a previous treaty which prohibited the using this river for the conveyance of military stores. This the then Governor-General (Lord Auckland) directed to be suspended at such an important crisis, stating at the same time that it would be necessary to displace those chiefs who showed any unwillingness to assist the British in such an emergency. In December of that year, therefore, a force under Sir John (afterwards Lord) Keane landed in Sind, but found itself unable to proceed, in consequence of the obstacles thrown in the way by the Sindian Darbar in providing supplies and carriage, and it was only by extraordinary exertions on the part of individual British officers, and after a threat of marching upon the capital of Sind, that these obstructions were at length removed.

**Occupation of Sind by a British Force.**—Owing to this hostile demeanour, a reserve force was sent from Bombay in 1835 to be stationed in Sind, and as some opposition was shown by the Baloch garrison at Manora to prevent it from landing at Karāchi, that fort was speedily captured. (Subsequently, a treaty was entered into with the Hyderabad Mirs, which provided chief



Mr. Mikumud Khan.  
میر محمد خان بن میر محمد علی خان تار پریلیہ صاحب  
Mr. Mir Muhammad Khan.  
میر محمد علی خان بن میر محمد علی خان تار پریلیہ صاحب

for the payment of twenty-three lākhs of rupees to Shāh Sūja, in commutation of all arrears of tribute due by them to the Afghān throne; 2nd, the location of a British force in Sind of not more than 5000 men, part of the expenses of which were to be defrayed by the Mīrs themselves; and, 3rd, the abolition of all tolls on trading boats on the Indus. (A similar treaty to this, but omitting the subsidy, was concluded with the Khairpur Mīrs, and the fort of Bukkur was made over to the English, as therein stipulated. Sher Muhammad of Mirpūr was also allowed to participate in the treaty concluded with the Hyderabad Mīrs, on his making a yearly payment of half a lākh of rupees. Owing to the conciliatory measures adopted by the British representatives in Sind towards the Mīrs, the tranquillity of the country was preserved, and the British steam flotilla on the Indus was allowed to navigate that river, not only unimpeded, but furnished with every assistance. At the end of 1840 a serious rebellion occurred at Kelāt, which for a time drew off public attention from Sind; but in 1841 a settlement of affairs took place in the former territory, and the entire political control of both it and Sind was vested in one authority, Major (afterwards Sir James) Outram. Nūr Muhammad, the senior Hyderabad Mīr, died in 1841, and the Talpur government became vested in his two sons conjointly with Nasir Khān, their uncle. Owing to the delay in the cash payments of their tribute by the Sindian Government, it was proposed that the shares of the three Hyderabad Mīrs in the city of Shikārpur, valued at two lākhs of rupees, should be transferred to the British Government, but in consequence of the subterfuges and evasions used by the Mīrs in this transaction, coupled with the then state of affairs at Kābul and Kandahar, matters were not pushed to extremities, and the transfer was postponed.

**Arrival of Sir Charles Napier in Sind.**—Meanwhile (September, 1842) Sir Charles Napier had arrived in Sind, with sole military and political authority over all the territories of the Lower Indus; and on the withdrawal of British troops from Afghānistān in 1842, increased attention was given to Sind, and new conditions proposed to the Mīrs, in supercession of all former arrangements, by which, “1st, the towns of Karāchi, Tatta, Sukkur, Bukkur, and Rohri, with a strip of land on each side of the Indus, were to be ceded to the British in perpetuity; 2nd, all tolls and transit duties to be abolished; and, 3rd, the whole tract of Khairpur territory, from Rohri to Sabzalkot, was to be given to the Bahāwalpur chief on certain conditions.” The former Resident, Major Outram, had previously left Sind, but



*Mir Muhammad Khan*  
 میر محمد خان بن میر محمد علی خان تاجر علییہ صغیر  
*Mir Yaqub Khan*  
 میر یاقوب خان بن میر یار علی خان وایلا

in January, 1843, he was recalled, and to avoid any unnecessary shedding of blood, he urged the chiefs to submit to the terms imposed, as Sir Charles Napier was already in the field with troops, and prepared to march on either capital in case of resistance being shown by the Sindian Government. Internal dissensions had become of frequent occurrence among the Khairpur family of Mirs, and eventually the British Government was applied to for a settlement of the disputes between the brothers Mirs Rustam and Ali Murād, the latter an able but subtle man, desirous of obtaining the office of "Rais" (or lord paramount), which had long been held by Mir Rustam, then an old man of eighty-five years. By false misrepresentations to his brother on the one hand, and to Sir Charles Napier on the other, Mir Ali Murād so managed to work upon the feelings of each as to persuade the former that the English commander was about to seize and imprison him, and the latter that Mir Rustam entertained feelings decidedly hostile to British interests. The unfortunate Mir, after vainly endeavouring to obtain an interview with Sir Charles Napier for the purpose of explaining the true state of affairs, fled with his family to the desert fort of Imāmghar, whither Sir Charles, in January, 1843, speedily followed him, capturing the place and destroying the fortifications. It was this step on the part of the aged Mir that decided the British commander in nominating Ali Murād to the high dignity of "Rais" of Upper Sind. As some delay was shown by the Sindian Darbar in signing the treaties, a demonstration was made against Hyderabad, when the treaty was at length subscribed to by the Mirs on the 8th of February, 1843, in the presence of Major Outram, and by the Khairpur Mirs on the 12th of that month.

**British Residency attacked.**—The Balochis comprising the Mirs' army were not, however, to be appeased, and hostilities began by an attack made on the morning of the 15th of February on the Residency, which was near the river, and not more than two or three miles from the city of Hyderabad. This was for a time brilliantly defended by Major Outram and his small band, but they had eventually to effect an honourable retreat to one of the two steamers then lying in the river. The following is the official account, given by Major Outram himself, of this transaction to Sir Charles Napier :—"My despatches of the last few days will have led you to expect that my earnest endeavours to effect an amicable arrangement with the Mirs of Sind would fail; and it is with much regret I have now to report that their Highnesses have commenced hostilities, by attacking my residence this

morning, which, after four hours' most gallant defence by my honorary escort, the light company of Her Majesty's 22nd Regiment, commanded by Captain Conway, I was compelled to evacuate, in consequence of our ammunition running short. At 9 A.M. this morning, a dense body of cavalry and infantry took post on three sides of the Agency compound (the fourth being defended by the *Planet* steamer, about 500 yards distant), in the gardens and houses which immediately command the enclosure, and which it was impossible to hold with our limited numbers. A hot fire was opened by the enemy, and continued incessantly for four hours; but all their attempts to enter the Agency enclosure, although merely surrounded by a wall varying from four to five feet high, were frustrated by Captain Conway's able distribution of his small band—and the admirable conduct of every individual soldier composing it—under the gallant example of their commanding officer and his subalterns, Lieutenant Harding and Ensign Pennefather, Her Majesty's 22nd Regiment, also, Captains Green, of the 21st Regiment of Native Infantry, and Wells, of the 15th Regiment, who volunteered their services—to each of whom was assigned the charge of a separate quarter; also, to your aide-de-camp, Captain Brown, Bengal Engineers, who carried my orders to the steamer, and assisted in working her guns and directing her flanking fire. Our ammunition being limited to forty rounds per man, the officers directed their whole attention to reserving their fire, and keeping their men close under cover, never showing themselves or returning a shot, except when the enemy attempted to rush, or showed themselves in great numbers, consequently, great execution was done with trifling expenditure of ammunition, and with little loss. Our hope of receiving a reinforcement and a supply of ammunition by the *Satellite* steamer (hourly expected) being disappointed, on the arrival of that vessel without either shortly after the commencement of the attack, it was decided at 12 A.M., after being three hours under fire, to retire to the steamer while still we had sufficient ammunition to fight the vessel up the river; accordingly, I requested Captain Conway to keep the enemy at bay for one hour, while the property was removed, for which that time was ample, could the camp followers be induced to exert themselves. After delivering their first loads on board, however, they were so terrified at the enemy's cross fire on the clear space between the compound and the vessel, that none could be persuaded to return, except a few of the officers' servants, with whose assistance but little could be removed during the limited time we could afford; consequently,



much had to be abandoned, and I am sorry to find that the loss chiefly fell upon the officers and men, who were too much occupied in keeping off the enemy to be able to attend to their own interests. Accordingly, after the expiration of another hour (during which the enemy, despairing of otherwise effecting their object, had brought up six guns to bear upon us), we took measures to evacuate the Agency. Captain Conway called in his posts, and all being united, retired in a body, covered by a few skirmishers, as deliberately as on parade (carrying off our slain and wounded), which, and the fire from the steam-boats, deterred the enemy from pressing on us as they might have done. All being embarked, I then directed Mr. Acting-Commander Miller, commanding the *Satellite* steamer, to proceed with his vessel to the wood-station, three miles up the river, on the opposite bank, to secure a sufficiency of fuel for our purpose, ere it should be destroyed by the enemy, while I remained with the *Planet* to take off the barge that was moored to the shore. This being a work of some time, during which a hot fire was opened on the vessel from three guns which the enemy brought to bear on her, besides small arms, and requiring much personal exposure of the crew (especially of Mr. Cole, the commander of the vessel), I deem it my duty to bring to your favourable notice their zealous exertions on the occasion, and also to express my obligations to Messrs. Miller and Cole for the flanking fire they maintained on the enemy during their attack on the Agency, and for their support during the retirement and embarkation of the troops. The *Satellite* was also exposed to three guns in her progress up to the wood-station, one of which she dismounted by her fire. The vessels were followed by large bodies for about three miles, occasionally opening their guns upon us, but to no purpose. Since then we have pursued our voyage up the Indus, about fifteen miles, without molestation, and purpose to-morrow morning anchoring off Matāri, where I expect to find your camp. Our casualties amount to two men of Her Majesty's 22nd Regiment and one camp-follower killed; and Mr. Conductor Kiely, Mr. Carlisle, Agency-clerk, two of the steamer's crew, four of Her Majesty's 22nd Regiment, two camp-followers, wounded, and four camp-followers missing: total, three killed, ten wounded, and four missing." Major Outram soon after joined the force under Sir Charles Napier, who, finding the Mirs' army, numbering about 22,000 men, strongly posted on the Fuleli river, near Meeanee (nine miles from Hyderabad, gave them battle on the 17th February, with 2800 men of all arms, and twelve pieces of artillery, and

completely defeated them." The subjoined is the official report of the battle by Sir Charles Napier :

**Battle of Meeanee.**—"The forces under my command have gained a decisive victory over the army of the Mirs of Upper and Lower Sind. A detailed account of the various circumstances which led to this action does not belong to the limited space of a hasty despatch, I therefore begin with the transactions belonging to the battle. On the 14th instant, the whole body of the Mirs, assembled in full *darbar*, formally affixed their seals to the draft treaty. On leaving the *darbar*, Major<sup>o</sup> Outram and his companions were in great peril; a plot had been laid to murder them all. They were saved by the guards of the Mirs, but the next day (the 15th) the residence of Major Outram was attacked by 8000 of the Mirs' troops, headed by one or more of the Mirs. The report of this nefarious transaction I have the honour to enclose. I heard of it at Halā, at which place the fearless and distinguished Major Outram joined me, with his brave companions in the stern and extraordinary defence of his residence against so overwhelming a force, accompanied by six pieces of cannon. On the 16th, I marched to Matāri. Having there ascertained that the Mirs were in position at Meeanee (ten miles distant), to the number of 22,000 men, and well knowing that a delay for reinforcements would both strengthen their confidence and add to their numbers, already seven times that which I commanded, I resolved to attack them, and we marched at 4 A.M. on the morning of the 17th. At eight o'clock the advanced guard discovered their camp; at nine we formed in order of battle, about 2800 men of all arms, and twelve pieces of artillery. We were now within range of the enemy's guns, and fifteen pieces of artillery opened upon us and were answered by our cannon. The enemy were very strongly posted; woods were on their flanks, which I did not think could be turned. These two woods were joined by the dry bed of the Fuleli, which had a high bank. The bed of the river was nearly straight, and about 1200 yards in length. Behind this and in both woods were the enemy posted. In front of their extreme right, and on the edge of the wood, was a village. Having made the best examination of their position which so short a time permitted, the artillery were posted on the right of the line, and some skirmishers of infantry, with the Sind Irregular Horse, were sent in front, to try and make the enemy show his face more distinctly; we then advanced from the right in *échelon* of battalions, refusing the left, to save it from the fire of the village. The 9th Bengal Light Cavalry

formed the reserve in the rear of the left wing, and the Poona Horse, together with four companies of infantry, guarded the baggage. In this order of battle we advanced as at a review across a fine plain swept by the cannon of the enemy. The artillery and Her Majesty's 22nd Regiment in line formed the leading *échelon*, the 25th Native Infantry the second, the 12th Native Infantry the third, and the 1st Grenadier Native Infantry the fourth. The enemy was a thousand yards from our line, which soon traversed the intervening space. Our fire of musketry opened at about a hundred yards from the bank, in reply to that of the enemy, and in a few minutes the engagement became general along the bank of the river, on which the combatants fought for about three hours or more with great fury, man to man. Then, my Lord, was seen the superiority of the musket and bayonet over the sword and shield and matchlock. The brave Balochis, first discharging their matchlocks and pistols, dashed over the bank with desperate resolution; but down went these bold and skilful swordsmen under the superior power of the musket and bayonet. At one time, my Lord, the courage and numbers of the enemy against the 22nd, the 25th, and the 12th Regiments bore heavily in that part of the battle. There was no time to be lost, and I sent orders to the cavalry to force the right of the enemy's line. This order was very gallantly executed by the 9th Bengal Cavalry and the Sind Horse, the details of which shall be afterwards stated to your Lordship, for the struggle on our right and centre was at that moment so fierce, that I could not go to the left. In this charge the 9th Light Cavalry took a standard and several pieces of artillery, and the Sind Horse took the enemy's camp, from which a vast body of their cavalry slowly retired fighting. Lieutenant Fitzgerald gallantly pursued them for two miles, and I understand slew three of the enemy in single combat. The brilliant conduct of these two cavalry regiments decided, in my opinion, the crisis of the action, for from the moment the cavalry was seen in the rear of their right flank the resistance of our opponents slackened; the 22nd Regiment forced the bank, the 25th and 12th did the same, the latter regiment capturing several guns, and the victory was decided. The artillery made great havoc among the dense masses of the enemy, and dismounted several of their guns. The whole of the enemy's artillery, ammunition, standards, and camp, with considerable stores and some treasure, were taken."

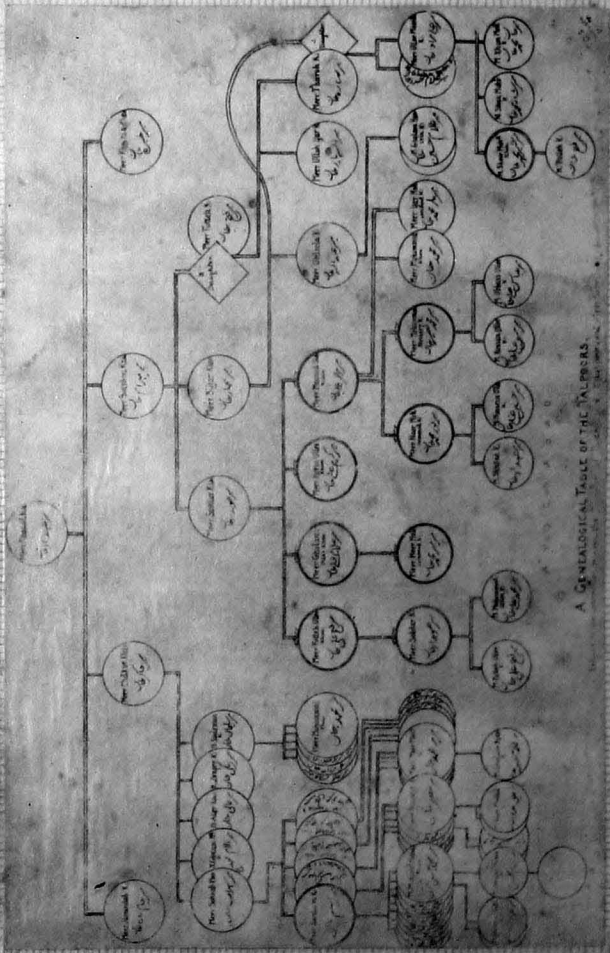
The loss of the Balochis in this brilliant action is computed at 5000, while on the side of the British it did not exceed 257, of

whom nineteen were officers. Shortly after the battle the leading Mirs of Khairpur and Hyderabad surrendered unconditionally as prisoners of war, and the fort of Hyderabad was captured, together with the Mirs' treasure, which is believed to have amounted to about a million sterling. The British force having been reinforced by troops from Sukkur on the 22nd March, Sir Charles Napier with 5000 men went in quest of the enemy under the command of Sher Muhammad of Mirpur. On the 24th of March the Baloch army, numbering 20,000 men, was found in a strong position at a village called Nārējā, in the district of Dabo, near the Fuleli, where, after a desperate resistance, it was completely defeated, their leader, Sher Muhammad, retreating to the desert.

**Battle of Dabo.**—The following is an extract taken from Sir Charles Napier's report of this engagement :—"The forces under my command marched from Hyderabad this morning at daybreak. About half-past eight o'clock we discovered and attacked the army under the personal command of the Mir Sher Muhammad, consisting of 20,000 men of all arms, strongly posted behind one of those large nullahs by which this country is intersected in all directions. After a combat of about three hours, the enemy was wholly defeated with considerable slaughter and the loss of all his standards and cannon. His position was nearly a straight line; the nullah was formed by two deep parallel ditches, one 20 feet wide and 8 feet deep, the other 42 feet wide and 17 feet deep, which had been for a long distance freshly scarped, and a banquette made behind the bank expressly for the occasion. To ascertain the extent of his line was extremely difficult, as his left did not appear to be satisfactorily defined, but he began moving to his right when he perceived that the British force outflanked him in that direction. Believing that this movement had drawn him from that part of the nullah which had been prepared for defence, I hoped to attack his right with less difficulty, and Major Leslie's troop of horse artillery was ordered to move forward and endeavour to rake the nullah; the 9th Light Cavalry and Poona Horse advancing in line on the left of the artillery, which was supported on the right by Her Majesty's 22nd Regiment, the latter being, however, at first considerably retired to admit of the oblique fire of Leslie's troop. The whole of the artillery now opened upon the enemy's position, and the British line advanced in *échelon* from the left, Her Majesty's 22nd Regiment leading the attack. The enemy was now perceived to move from his centre in considerable bodies to his left, apparently retreating, unable to sustain the cross-fire of the

British artillery; on seeing which, Major Stack, at the head of the 3rd Cavalry, under Command of Captain Delamain, and the Sind Horse, under command of Captain Jacob, made a brilliant charge upon the enemy's left flank, crossing the nullah and cutting down the retreating enemy for several miles. While this was passing on the right, Her Majesty's 22nd Regiment, gallantly led by Major Poole, who commanded the brigade, and Captain George, who commanded the corps, attacked the nullah on the left with great gallantry, and, I regret to add, with considerable loss. This brave battalion marched up to the nullah under a heavy fire of matchlocks, without returning a shot till within forty paces of the entrenchment, and then stormed it like British soldiers. The intrepid Lieutenant Coote first mounted the rampart, seized one of the enemy's standards, and was severely wounded while waving it and cheering on his men. Meanwhile the Poona Horse, under Captain Tait, and the 9th Cavalry, under Major Story, turned the enemy's right flank, pursuing and cutting down the fugitives for several miles. Her Majesty's 22nd Regiment was well supported by the batteries commanded by Captains Willoughby and Hutt, which crossed their fire with that of Major Leslie. Then came the 2nd brigade, under command of Major Woodburn, bearing down into action with excellent coolness. It consisted of the 25th, 21st, and 12th Regiments, under the command of Captains Jackson, Stevens, and Fisher, respectively. These regiments were strongly sustained by the fire of Captain Whitley's battery, on the right of which were the 8th and 1st Regiments, under Majors Brown and Clibborn: these two corps advanced with the regularity of a review up to the entrenchments, their commanders, with considerable exertion, stopping their fire, on seeing that a portion of the Sind Horse and 3rd Cavalry in charging the enemy had got in front of the brigade. The battle was decided by the troop of horse artillery and Her Majesty's 22nd Regiment." Consequent on this victory the towns of Mirpur and Umarnkot were soon after occupied without resistance. Sind was declared a conquered country, and as such annexed to the British possessions in India, and the Talpur family, after a sovereignty of fifty-seven years, ceased to be the dominant power in that part of India.

Mir Nasir Khān and his nephews, Mirs Shahdād Khān and Husain Ali Khān, Mirs Muhammad and Sobhdār of Hyderabad, together with Mirs Rustam Khān and his nephews Nasir Khān and Wali Muhammad Khān of Khairpur, were sent to Bombay as state prisoners in Her Majesty's sloop-of-war *Nimrod* in April,



A GENEALOGICAL TABLE OF THE TALPORS.

GENEALOGICAL TABLE OF THE TALPORS FAMILY

1843, and thence to Poona in the Dakhan. In the following year they were conveyed to Calcutta, but in 1854 the then Governor General, Lord Dalhousie, allowed them to return to Sind with permission to reside at Hyderabad.

The Talpur family trace their descent from Mir Hamza, the son of Hāshim, and state themselves to be Balochis of Arab origin. Their great-grandfather, Mir Shāhdād Khān the elder, disagreeing with his paternal uncle, left him, and took service with the Kalhora, Miān Shahal, whose religious principles of faith (the Shia) he embraced. He was followed into Sind by great numbers of Balochis. The court of the Talpur princes was distinguished for its rude hospitality and kindly welcome, but the refinement and polish of the East were not observed among them; their education was of a very limited character, and they ruled as a military feudalism. This was perhaps more particularly the characteristic at Khairpur than at Hyderabad, as at the former the manners of the court were essentially Baloch, and in consequence more national. Their style of living was strictly primitive, and by no means expensive; their extravagant propensities were shown only for arms and horses, and in their absorbing passion for sport, to which they never hesitated to sacrifice the finest portions of their country. So great indeed was their love for their *Shikārgahs*, or "hunting enclosures," that they are said to have declared that they valued them as much as their wives and children. The costume of the Mirs was somewhat peculiar, the distinguishing feature being a rich "lūngi" (or scarf), a Kashmir shawl or other stuff bound round the waist, a richly-worked cap peculiar to the country, and sword and belt mounted in gold, with shields bossed with the same precious metal. In religion they were of the "Shia" persuasion, but knew very little of the faith they professed; their sole aim was to hoard up wealth, set their faces against all systems of amelioration and improvement, and enjoy themselves after their own fashion.

**Talpur System of Government.**—The form of Government under the Talpurs may be described as a purely military despotism on feudal principles, their Baloch chieftains holding "jāgirs" or grants of land for rendering service to the state when necessary. They had no standing army, but kept up a body-guard of some strength. In time of war the pay of the foot soldier was about equal to 3*d.* a day, that of a horseman being double this sum. The number of fighting men the Mirs could conjointly bring into the field was believed to be about 50,000. In their land revenue system the Mirs adopted the "zamindāri," or farming plan, the

royal share, which was mostly paid *in kind*, known as "batāi," in opposition to "mahsūli," or fixed *cash* assessments, being one-third, two-fifths, or one-fifth, according to the nature of the land cultivated. There was a cess too on the water-wheel for irrigation, and a capitation tax as well on individual cultivators. This system of taxation appears to have been considered fair and advantageous to all parties. Another method was by payments in cash (mahsūli) at a certain sum per "jirēb" (about half an acre), the amount varying according to the productive nature of the soil. The average seems to have ranged from six to twelve rupees per jirēb. Waste land, when taken up for the first time, was assessed at a very low rate, as some inducement to bring it under cultivation. Gardens and date trees formed another source of revenue, and these were generally farmed out at a certain fixed rate. Where the canals were cleared out at the expense of the state an additional charge was made on the cultivators using them, but when the clearance was done by the zamindār, or cultivator, a certain reduction in his payments to the state was allowed. As a rule every village had its zamindār, but their proprietary estates varied very considerably, comprising in some instances a whole village, or even a cluster of such, in others but a portion of a village, or even a few fields in one. Again, those zamindārs who were small cultivators were found to be subordinate to some other large zamindār. To the zamindār belonged certain rights, called "Lāpo," which any person cultivating under him was bound to pay. These generally included the three following rights, viz. : 1, Mālkāno; 2, Zamindāri; and 3, Rāj Kharch. The first meant the right of ownership, and comprised the dues which in consequence appertained to the zamindār. The second included the privilege and dues to which the zamindār was entitled in his right of proprietor, and the rāj kharch was the collection in money or in kind for the expense of the village community of which the zamindār was the representative. These rights were as a rule respected by the Mirs, for the zamindārs were co-religionists, and the majority of them were shrewd and intelligent men, and, though generally speaking uneducated, formed nevertheless an important class of the community. The rates of "lāpo" (or zamindārs' dues) varied according as the crop was kharif, rabi, or pēshras; they were levied only in fair average seasons, but a remission was made when any failure of the crops occurred. Other sources of revenue were derived from trade or manufactures, and were very complicated. An *ad valorem* duty of six per cent. was levied on all goods imported, and two and a half per cent. on those exported



from Karāchi, in addition to a three per cent. town duty. This latter was levied at the gates of every city or village on articles of every kind, and all purchases and sales, even of grain and other articles of food in the bāzār, paid a duty called "*tarāzu*," or that of the scales. Liquors and intoxicating drugs were sold under licences or state contracts; there was a cess on every loom, and a capitation tax was levied on all artizans and shopkeepers. The fishermen had to give up one-third of the produce of their nets to the ruler, and each boat on the Indus paid a certain sum. The Mirs farmed the greater part of the revenue to "*jjārdārs*" or contractors, for a fixed sum, a system which led to much abuse and injustice. So great was the extent of *jāgirs* and *ināms* to chiefs and others in the Khairpur territories, that the revenue was frequently mortgaged to provide for the current expenses of the darbar. The amount of revenue collected from every source under the Talpur dynasty has been variously estimated; its real value was never known, as the Mirs were at all times very jealous on this point, and would evade all inquiries in connection with it. In 1809 the revenue was said to be nearly forty-three lākhs (430,000*l.*); in 1814 it was sixty-one lākhs (610,000*l.*); in 1824 under fifty lākhs (500,000*l.*); and this had latterly decreased to thirty-five lākhs (350,000*l.*). The Talpurs were always considered to be very wealthy, and Mir Fatēh Ali, at his death in 1801, is said to have left nearly thirty-five lākhs between his three surviving brothers. Sind was divided for revenue purposes into "*parganas*," or provinces, and these again into "*tapas*," or districts. The principal of these *parganas* in Lower Sind were, Tatta, Chachhgām, Kakrālo, Dhārējā, Sūndra, and Imām wāh; in Upper Sind, Sūndra, Shāhdādpur, Khairpur, Gambat, Hālāni, Bhēlāni, Lohri, Sehwan, Chāndko, Mogalli, Rūpar, Kacha, and Chappa. Over each *pargana* the Mirs placed a "*sazāwal-kār*," or head collector of revenue, with a small establishment of *mūnshis* (writers) and others to administer its revenue affairs, and over each "*tapa*" a *kārdār*, with a smaller establishment. Wherever a town was divided into shares, extending sometimes to six and seven, there each Mir had his representative to watch his interests. These officers also superintended the police, which was on a most limited scale. Under the Talpurs criminal justice was administered by the Mirs themselves, as also by their *kārdārs*, *kotwāls*, and other officers, nominally in accordance with the Muhammadan law. Mutilation, flogging, imprisonment, or fine were the usual punishments. Death was seldom inflicted, and only in cases of murder, but a payment of *blood-money* frequently freed the guilty party

from all other pains and penalties. Trials by ordeal, especially those of fire and water, seem to have been frequently resorted to in cases where the accused person declared his innocence, or where there was no direct proof forthcoming. Lieutenant James, when a deputy-collector of Shikārpur, thus describes the trials by fire and water which prevailed in the Chānduka district:—"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 munshi of my acquaintance declares he saw a man establish his innocence this way, in the presence of Mir Sohrāb, the father of the reigning Mir of Khairpur." The lifting up of red-hot iron was likewise a satisfactory proof of innocence. The ordeal of fire was called in Sindi "*char*," and that of water "*tubi*." There were no jails for prisoners under sentence of imprisonment; during the day they were taken into the towns to beg for food, as no subsistence was granted them by the government, and at night they were either kept chained or put in stocks, chaukis, or lock-ups. The ends of justice were greatly frustrated by *personal* influence. Civil justice was dispensed by the same parties who administered it criminally, about one-fourth of the amount in litigation being generally made the government fee for investigation. It was chiefly on this account that civil actions under the Mirs' rule seldom went into court, the parties preferring to settle the matter by private arbitration. The currency in circulation in Sind during the Talpur dynasty was the Company's rupee, known as the "Kaldār," and in Upper Sind the "Sohrāb" and "Shujāwali" rupees—the former one per cent. and the latter two and a half per cent. *less* in value than the Company's rupee. The "Korah" and the "Kashāni" rupees were current in Lower Sind—the former being twenty-five per cent. and the latter fifty per cent. *less* in value than the East India Company's rupee.

## CHAPTER III.

## SIND UNDER BRITISH RULE.

THE ADMINISTRATION OF SIND BY SIR CHARLES NAPIER, ITS FIRST GOVERNOR—BY MR. PRINGLE, BOMBAY CIVIL SERVICE, THE FIRST COMMISSIONER—BY MR. (AFTERWARDS SIR) H. BARTLE E. FRERE—BY MR. J. D. INVERARITY, BOMBAY CIVIL SERVICE—BY MR. S. MANSFIELD, C.S.I., BOMBAY CIVIL SERVICE—AND BY COLONEL SIR W. L. MEREWETHER, K.C.S.I., C.B., BOMBAY ARMY.

**Sir Charles Napier's Administration.**—On the conquest of Sind by the British in 1843, Sir Charles Napier was appointed its first governor, on a salary of 7000*l.* per annum. The former rulers of the country, the Mīrs, were provided for by cash pensions amounting in the aggregate to about three and three-quarter lākhs of rupees yearly, while the lands in Jāgir they were permitted to hold were valued at a little over one and a half lākhs. The governor had also issued a proclamation intimating that all Jāgirdārs who proffered their allegiance to the British Government within a specified time after the battle of Meeanee, would be confirmed in the possession of their estates. Nearly two thousand grantees presented themselves in accordance with this order, and the concessions promised were strictly adhered to. The judicial and revenue systems of government were speedily remodelled by the new rulers. The province was divided into Collectorates of considerable extent and area, and these again into subdivisions of districts, and over them a number of European officers were placed as Collectors, and Deputy Collectors, with certain revenue and judicial powers, for the proper administration of their respective districts. As magistrates, these officers had but limited powers of punishment, the more serious offences being disposed of by a military commission, under the general rules for court-martials, though in reality this commission had no power or authority, the decisions in these cases being entirely in the hands of the governor, who did as he pleased. The office of "Sazāwal-kār" which obtained under the Mīrs' government was abolished, and the incumbents made Kārdārs upon one-fifth

of their former pay, while the salaries of the Kārdārs themselves were reduced to one-half of their former emoluments.

Nor did military expeditions cease with the conquest of the province in 1843. In January 1845 Sir Charles, with 6000 men, undertook a campaign against the robber tribes in the hills north of Sind, who, finding themselves closely pressed and hemmed in by the British forces, surrendered to Mir Ali Murād, of Khairpur, and were by him made over to the English commander. Again, in February 1846, he marched from Sukkur on another expedition to Bahāwalpur with 12,000 troops and 30 guns, leaving meanwhile in Sind itself a large force of 20,000 men of all arms, as a temporary measure.

As governor of Sind, Sir Charles Napier laboured to put down many abuses which existed in the province. Pre-eminent among these was the prevalence at that time of what appeared to be female suicide, but which eventually was found to be the murder by hanging of native women by their husbands, upon the most frivolous pretexts, the latter pretending that their wives had committed suicide. Sir Charles issued in 1847 very stringent orders to all magistrates throughout the province to exert themselves to the utmost in putting a stop to so serious a crime, and his own views on this subject are contained in the subjoined proclamation, which he caused to be circulated far and wide among the inhabitants of Sind :

“ People of Sind, — the government has forbidden you to murder your wives, a crime commonly committed when the British conquered this country. This crime of woman-murder is forbidden by the religion of the English conquerors ; who shall dare to oppose their law ? Woe be to those who do. But this is not all, ye Sindians, Balochis and Muhammadans, murder is prohibited by your prophet. You, who murder your wives, outrage your own religion as much as you outrage ours ! This the government will not permit. Government therefore visited with punishment such murderers, and the crime began to disappear. Some foolish men among you believe that the English are easily deceived, and you have, in a vast number of cases, hanged your wives, and then pretended that these poor women committed suicide. Do you imagine that government believe that these women committed suicide ? Do you believe that government can be deceived by such villainy that it will let women be thus murdered ? If you do believe this, it becomes necessary to teach you how erroneous is your judgment, and if you persevere, your sufferings shall be great.

You are therefore thus solemnly warned, that in whatever village a woman is found murdered, a heavy fine shall be imposed on all, and rigidly levied. The government will dismiss the Kārdār. It will order all her husband's relations up to Karāchi, and it will cause such danger and trouble to all, that you shall tremble if a woman is said to have committed suicide in your district, for it shall be an evil day for all in that place. You all know that what I say is just, for never was woman known to have committed suicide in Sind till the law decreed that husbands should not murder their wives, and this year vast numbers of women have been found hanged; gross falsehoods have been put forth by their families that they committed suicide; but woe be to their husbands! for the English Government will not be insulted by such felons. The murderers shall be sent to labour far away over the waters, and heard of no more."

Previously, in 1843, Sir Charles Napier had issued special directions against the oppression of villagers by native soldiers, which, it would seem, was not an uncommon practice, and he threatened that, in all future cases of aggravated plundering on their part, he would visit the delinquents with the punishment of *death*. His general orders also on the subject of killing peacocks in Sind, and against furious driving, are probably remembered to this day by many old residents of the province, owing to the thoroughly practical, though at the same time quaint, manner in which they were worded. The first portion of his decree against "furious driving" affords an illustration of this: "Gentlemen as well as beggars may, if they like, ride to the devil when they get on horseback, but neither gentlemen nor beggars have a right to send other people there, which will be the case if furious driving be allowed in the camp or bāzār;" and the order finishes up by the statement that, "The enforcement of obedience is like physic, not agreeable, but at times very necessary." Sir Charles, after a rule of a little more than four and a half years, left Sind in the month of October, 1847, and was succeeded in the government of the province by Mr. Pringle, of the Bombay Civil Service, with the title of Commissioner in Sind, the province being thenceforward made subordinate to the Bombay Presidency. Sir Charles Napier (in January 1851) passed through Karāchi on his way to England, and after his death, in August 1853, a public meeting was held at Karāchi in October of that year, to consider the most appropriate method of testifying respect to his memory as Governor of Sind. It was there resolved to place a memorial

window in Trinity Church, and erect an obelisk, with a suitable inscription, on the Mole Road, at the very spot whence he took his final departure from Sind.

**Mr. Pringle's Administration.**—It was during Mr. Pringle's administration, which lasted from October 1847, to December 1850, that military commissioners were abolished, and four different grades of civil and criminal courts established in lieu. These were the commissioners', magistrates', deputy magistrates', and kārḍārs' courts. The office of judicial assistant to the commissioner was also made during this administration. The revenue of the province had now begun to show a great improvement, as the receipts, which in 1843-44 only realised 9,37,937 rupees, had risen in 1848-49 to 29,23,515 rupees; while the expenditure, which in the former year was as high as 76,62,974 rupees, had decreased in 1848-49 to 48,30,504 rupees. This expenditure did not, however, include the charge of the regular troops employed in Sind. The province also received the benefit of a visit from Sir George Clerk, the Governor of Bombay, in the spring of 1848, who proceeded as far as Hyderabad, making himself acquainted with the chief wants of the country.

**Mr. Frere's Administration.**—In December 1850, Mr. Pringle, having resigned his appointment, was succeeded in January 1851 by Mr. (afterwards Sir Bartle) Frere, of the Bombay Civil Service, to whom Sind is so much indebted for the great progress it made during his long and able administration of its affairs. It was mainly through the instrumentality of Mr. Frere that the Karāchi Library and Museum was established in 1851; and in order to make the latter a decidedly useful institution, he directed in 1853, that every deputy collector in Sind should forward annually, at the close of each season, through his immediate superior, a fair mercantile specimen, numbered and labelled, of each description of such ordinary *raw* produce of his district as would bear carriage, and keep for a few months. These samples were intended for exposition in the museum, so that mercantile men, resident in Karāchi, might have an opportunity of seeing the *raw* products of the province, together with all information in connection with them. Previously, in 1852, Mr. Frere, with the laudable object of promoting trade in Sind, had established two annual fairs, to be held—one at Karāchi for a space of sixty days, commencing on the 1st December, and the other at Sukkur, in Upper Sind, to commence from 1st January, and to last forty-five days. It was further notified to all traders that, with the object of affording them increased facilities, all frontier duties would be remitted

during the time these fairs were being held, and that commodious buildings would be provided for their accommodation. It was in January, 1852, also, that His Highness Mir Ali Murād, of Khairpur, having been convicted of acts of forgery and fraud, was deprived of those lands and territories which lawfully belonged to the British Government. It had previously been brought to the knowledge of Sir Charles Napier, when Governor of Sind, that a fraud had been committed by Mir Ali Murād in a treaty, that of Naunāhar, concluded about 1842, between him and his two elder brothers, Mirs Rustam and Mubārak Khān, after a battle in which Mir Ali Murād had obtained the advantage. By this treaty, written on a leaf of a copy of the Kurān, certain lands were made over to the younger brother, and the forgery consisted in this leaf having been destroyed, and another substituted, on which the word "village" was altered to "district," where both had the same name, the effect of this being to place in Mir Ali Murād's possession large and extensive *districts*, instead of villages only. Early in 1850, a commission was appointed to inquire into this accusation against Mir Ali Murād, he attending it in person; it ended in his guilt being fully proved, and in the issue of a proclamation by the then Governor-General of India, the Marquis of Dalhousie, which degraded the Mir from the rank of Rais, and deprived him of all his lands and territories, excepting those hereditary possessions left him by his father, Mir Sohrāb Khān. The subjoined is a copy of the proclamation in question :

"The Government of India had long seen cause to believe that His Highness Mir Ali Murād Khān, of Khairpur, by acts of forgery and fraud, had deprived the British Government of territory in Sind, to which it was lawfully entitled. Reluctant to condemn the Mir unless upon the clearest proof of his personal guilt, the Government of India directed that a full and public inquiry should be made into the charges that had been brought against him. His Highness attended the inquiry in person, every opportunity was afforded of eliciting the truth, and of establishing His Highness' innocence of the crime of which he had been accused. His Highness Mir Ali Murād Khān entirely failed to rebut the charge. On clear and complete evidence, he was convicted of having destroyed a leaf of the Kurān, in which the treaty of Naunāhar was written, and of having substituted for it another leaf of a different tenor, whereby His Highness fraudulently obtained possession of several large districts instead of villages of the same name, greatly to the prejudice of the British Government, to which the said

districts lawfully belonged, and in gross violation of good faith and honour. The Government of India sought no pretext to interfere with the possessions of His Highness Mir Ali Murād Khān. It desired that his Highness should continue to rule the territories he held in peace and security, and it was slow to entertain and to urge against His Highness accusations which placed in jeopardy his reputation and authority. But the Mir's guilt has been proved. The Government of India will not permit His Highness Mir Ali Murād Khān to escape with impunity, and a great public crime to remain unpunished. Wherefore the Government of India has resolved, and hereby declares that Mir Ali Murād Khān, of Khairpur, is degraded from the rank of Rais, and that all his lands and territories, excepting those hereditary possessions only which were allotted to him by his father, Mir Sohrāb Khān, shall henceforth be a portion of the British Empire in India. The inhabitants of those territories are hereby called upon to submit themselves peaceably to the dominion under which they have passed, in full reliance that they will be defended against their enemies, and protected from harm; and that unmolested in their persons, in their property and their homes, they will be governed with just and mild authority.

“By order of the most noble the Governor-General of India

“ (Signed)

H. B. E. FRERE,

“ Commissioner.

“21 January, 1852.”

The possessions so confiscated by the Government of India comprised the Parganas of Kandiāro and Naushahro (known as Sahūti), which subsequently became a portion of the Hyderabad Collectorate: the Būrdika, Shāhbēla, Chak, Saidabad, Ubauro, Mirpur, and Ladho Gāgan districts, together with the Alor, Bukkur, and Bambūrki Tapas, all of which were incorporated with the Shikārpur Collectorate. The total area of the districts so confiscated is computed at about 5412 square miles. In April, 1856, Mir Ali Murād proceeded to England, to lay his grievances before the Home Government, but the result was unfavourable to him. In September 1852 a municipal commission, the first of the kind in the province, was established at Karāchi, mainly under the auspices of the Commissioner, who became its first president, and by his great influence and position materially aided the progress of the infant institution. In 1853 the ex-Mirs of Sind were permitted by the Government of India to return to their native country; and in April of the following year, three



of them, viz., Mirs Sher Muhammad Khān, Khān Muhammad, and Shāh Muhammad, arrived in the province, selecting Mirpur, the stronghold of the first-named Mir, for their residence. The year 1854 was marked by great educational progress in Karāchi; the Commissioner presiding at the opening of the Government English School, on the Bandar Road, in October, and at that of the European and Indo-British School, situate in the camp, in the following month.

It was also during Mr. Frere's term of office that the large mortality in Sind, arising from snake-bite, attracted much attention, and measures were proposed by him for its prevention. From a report prepared by Dr. Imlach, Civil Surgeon of Shikārpur, in 1855, on this subject, it would appear that in 1854 no less than 306 cases of snake-bite occurred, the mortality from which was sixty-three, or a percentage of 20·5 fatal cases. So many deaths were reported as taking place from this cause that it began to be suspected that the excuse of a snake-bite might be often invented to conceal the murder of women, from motives of jealousy, a crime very common in Sind, but on careful inquiries being made, such was not found to be the case. There are numerous species of snakes in the province, many of them poisonous; and the late Mr. Vincent D'Souza, formerly of the Bombay Medical Department, who had devoted great attention to this subject, mentions eighteen which in the course of his experience had been seen and examined by him, the greater number of these belonging to the species *Coluber*, and but few to that of the *Boa*.

The most venomous snakes in Sind are the "Khapir" (*Scytab Byzonata*), which in length does not generally exceed fifteen inches; the black cobra, called by the Sindis the *Kāro Nāng*, the *Munēr*, and the *Lundi*. Of these the Khapir is by far the most deadly, the cobra being unable even to withstand its poison, and it is a species which is, unhappily, but too commonly met with. The snake season in Sind may be considered as lasting for six months in the year, that is to say, from the early part of May to the latter end of October. It is during this period that they wander about, the annual river inundation compelling them to leave the low-lying lands, their usual haunts, and thus to venture among the habitations of men. Agriculturists of the male population seem to be those who suffer mostly from snake-bite, and when no proper remedies are applied, the symptoms of exhaustion come on very rapidly, death generally taking place in from one to six hours. The native remedies for snake-bite are

principally an internal administering of black pepper, ghi, onions, and the fruit of the pilū tree; occasionally recourse is had to charming, which is done by "jogis," specially summoned for that purpose. The best European remedy hitherto found appears to consist in the internal administration of *liquor ammoniæ*, but Mr. V. D'Souza has, in addition to this treatment, found the application of nitric acid to the part bitten very successful. Whether the number of venomous reptiles in Sind is likely to decrease as the population of the province increases, seems questionable; for this does not appear to be the case in the Bombay Collectorate of Ratnagiri, which, though possessing a redundant population, is nevertheless much infested with poisonous snakes, to such an extent indeed as to have made it long since an important matter of consideration with the Bombay Government.

In 1856 Mr. Frere left the province for a time on furlough, his duties meanwhile being carried on by Colonel John Jacob, the Political Superintendent of the Upper Sind frontier, who, in April of that year, issued a proclamation abolishing "Statute" or compulsory labour throughout Sind, every person being henceforth at perfect liberty to work where and at what rates he pleased. In the same month a notification was issued prohibiting the practice among police officers of inducing, by use of force or threats, accused persons to confess crimes with which they might be charged. It was in 1856 also that a topographical survey was introduced into the province, the establishments for this purpose being transferred from the Panjāb. During Mr. Frere's administration, that is to say, up to October 1859, a large portion of the Shikārpur Collectorate, comprising the Rohri, Shikārpur, and Sukkur districts, the frontier district of Upper Sind, and the hill district of Karāchi, with an aggregate area of 9665 square miles, were surveyed topographically. During 1857, a year rendered memorable by the occurrence of the Indian Mutiny, the province of Sind did not wholly escape the troubles which beset other portions of British India. On the 14th of September, the 21st Regiment of Bombay Native Infantry, then stationed at Karāchi, broke out into open mutiny, a number of the sepoys being told off to murder the Commissioner, the General commanding at that station, and other officials. The conspiracy was fortunately detected in time to admit of precautionary measures being taken, and the principal mutineers were speedily caught and tried by court-martial. Five of them were blown away from guns, eleven were hanged, and a large number were transported beyond seas. During the last two years of Mr. Frere's rule in Sind,

several important works of progress were being carried out. In April 1858, he, with great ceremony, turned the first sod of the Sind Railway, an important line of communication, intended to place Kotri on the Indus and Karāchi in close proximity to each other, and thus save the necessity for sending both goods and passengers by the tedious and uncertain river-route to Gisri Bandar. The Oriental Inland Steam Company (established in 1856) also began its operations in Sind, in 1858, by placing two steam trains, with all necessary apparatus, on the river Indus, for communication between Karāchi and Mūltān. Another important work, the Eastern Nārā Canal (passing through an old bed of the Indus), commenced in 1853 and finished in May 1859, was opened with great success. The object of this scheme was to improve the Eastern Nārā, by throwing an abundant supply of water into it from the Indus during the inundation season, by means of a new channel at Rohri, and this was intended to fertilise those lands hitherto only partially cultivated on either side of this canal, owing to the small quantity of water previously available. The expenditure upon this great work, up to 1859, was estimated at about five lakhs of rupees. A rebellion took place in 1859, in the Nagar Pārkar district (now a portion of the Thar and Pārkar) which was put down by a force sent from Hyderabad, under the command of Colonel Evans. It resulted in the capture of the Rānā and his minister, both of whom were tried in the following year, and sentenced, the former to fourteen, and the latter to ten years transportation. It was in May 1859 that the Commissioner was nominated a Civil Knight Commander of the Bath, and in the following month of August, Sir Bartle Frere was appointed a member of the Supreme Council at Calcutta, Mr. J. D. Inverarity, of the Bombay Civil Service, being selected to succeed him in the Commissionership of Sind. It must be conceded, that Sir Bartle Frere's able administration of Sind during the long period of nine years had done much towards promoting its prosperity, and raising it to importance in both a political and commercial sense. Ever ready to give assistance and advice in all well-conceived schemes intended for the good of the province, the country soon showed signs of steady improvement; old canals were cleared and re-opened, and fresh ones constructed; good roads were made, on which new villages sprang up with wonderful rapidity. Independently of the town of Karāchi, the Municipal Act (XXVI. of 1850) was introduced into nineteen other towns in Sind during his administration, and a written language, as well as a judicial code, were given to the province through the

exertions of his talented assistants, Messrs. Ellis and Gibbs. In the month of October 1859, a few days before the departure of Sir Bartle Frere from Sind, the public of Karāchi, embracing all classes of the community, both European and native, held a meeting, when it was unanimously resolved not only to present an address to the retiring Commissioner on the occasion of his leaving the province for a seat in the Supreme Council, but to raise a fund for the purpose of marking, by some public testimonial, their appreciation of his successful and lengthened administration of the affairs of Sind. It resulted in the erection of a noble building at Karāchi, appropriately called the "Frere Hall," which was opened with great ceremony in October, 1865, and where Sir Bartle, when Governor of Bombay, was himself received by the inhabitants of Karāchi, on the occasion of a visit he paid to Sind in the year 1866.

**Mr. J. D. Inverarity's Administration.**—During the administration of Mr. J. D. Inverarity, which lasted from October 1859, to March 1862, many changes were effected in the revenue departments of the province. Among these was an alteration in revenue management by discontinuing the practice of reckoning the revenue of a year to be derived from the "Rabi" harvest of one inundation season, and the "Kharif" of a different year, and bringing the revenue of one inundation season into the accounts of the year, as the revenue of *that* year. For the collection of land revenue, the revenue year was fixed to commence from the 1st of August, and to end on the 31st of July following; the dates of payment of instalments for Kharif and Rabi were also appointed to be as follows:

Kharif	{	1st January.	Rabi	{	15th May.
		15th February.			15th June.
		1st April.			15th July.

A considerable reduction was at the same time made in the expenditure of the subordinate revenue and judicial district establishments. In canals and their management, the plan of closing all clearance accounts with the financial year was introduced, and it was during this administration that the excavation of the Mithrau Canal was carried out at a considerable cost to the State. Great delay had taken place in the extension of this canal, which was first projected in 1851, but owing to alteration of plans, the undertaking was not sanctioned till 1859. Three months after the commencement of this work it began to repay the amount expended upon it. The enlargement of the Begāri Canal, dividing the Sind frontier district from a portion of the Shikārpur Col-

lectorate, had previously (1856) been completed at a cost to the State of 55,176 rupees. In judicial matters the Code of Civil Procedure (Act VIII. of 1859) was in 1862 extended to Sind, though validity to this extension was not given till 1864, by Imperial Act V. of that year. The result of this extension was speedily shown by a marked improvement in the administration of civil justice. A Small Cause Court was also, in 1861, established at Karāchi, where such an institution was greatly needed. The Jāgir inquiries and settlement of all claims of persons holding free grants of garden land, or charitable grants under previous native governments in the province of Sind, were completed in 1862. On the conquest of the province in 1843, rules for the settlement of claims to Jāgirs had been laid down by Sir Charles Napier, but these were modified under succeeding administrations as experience suggested, so as to effect a settlement that should be at once equitable and complete. These inquiries referred particularly to the four great Talpur families in Sind—the Shāhwāni, Shāhdādāni, Khanāni, and Manakāni—to the Saiyads of Tatta, and after them to Sardārs, Jāgirdārs, Patēdārs, Khairātdārs, and Garden grantees. The Sind police establishments were re-organised, and several reductions in the rural and foot police were made; the number of European adjutants of police were at the same time reduced. Education, both in the English and vernacular languages, in government schools was greatly extended throughout the province, and the Municipal Act (XXVI. of 1850) was introduced into several towns of the Hyderabad and Shikārpur Collectorates. It was during Mr. Inverarity's administration that provision was made for the conservancy of the river Indus, and for the registration of all boats on that river. It had been found that "snags," that is to say, the trunks and arms of trees swept away by the inundation floods from the river bank on which they grew, and more or less imbedded in the practicable channels, had begun to offer serious obstruction to steamers, and native boats navigating the Indus. Captain Balfour, at that time Superintendent of the Indus Flotilla, proposed the appointment of an officer specially to attend to the conservancy of the river, the expenses of this measure being met by a fee to be imposed on the registration of all boats plying on the Indus. This proposal was subsequently incorporated in an Act (I. of 1863) passed by the Bombay Legislative Council, which came into operation in the province on the 1st of January 1863. In 1860 the Karāchi Chamber of Commerce was established, principally for promoting and protecting the mercantile interests of Sind, and for collecting and classifying information on all

matters of general commercial interest ; and in the same year a stimulus was given to the wool trade, one of the chief staples of Sind, by the introduction into the country of several rams of the best Leicester breed for improving more especially the breed of sheep in Balochisthān. But by far the most important operations carried on during this administration, as affecting the future development of the resources of the province, were first, the commencement of the Karāchi Harbour Improvement Works, a scheme which had been proposed in 1856, and second, by the opening of the Sind Railway from Karāchi to Kotri, on the 13th May, 1861. The former undertaking is now finished ; the Manora Breakwater, the last great work in connection with the Harbour improvements, having been satisfactorily completed in the month of February, 1873. The Sind Railway, though useful in a commercial point of view, as facilitating the transit of goods and passengers to or from Kotri, one of the permanent banks of the river, and thus avoiding the long tedious river and sea-route from that town to Karāchi, *viâ* the Indus Delta, is likely to become still more so when the works now in progress both in Sind and the Panjāb connect it with the lines of the latter province.

**Mr. S. Mansfield's Administration.**—Mr. J. D. Inverarity was succeeded, in 1862, as Commissioner in Sind, by Mr. S. Mansfield, C.S.I., of the Bombay Civil Service, whose administration of the province lasted till March 1867. During his term of office great improvements were effected in both the revenue and judicial departments. Rules were laid down for the departmental examination of officers in the government service, as well as for the examination of candidates for employment in the subordinate vernacular branches of the public service. New rules were also issued for yearly test measurements of cultivation, by both deputy collectors of districts and *mūkhtyār-kārs*, as well as for the survey, measurement, and clearance of canals, an arrangement greatly conducive to the increase of the government revenue. In judicial matters the Code of Criminal Procedure (Act XXV. of 1861) was introduced into the province, where it had the effect of placing the Magisterial Courts upon a more satisfactory footing than before. *Mūsifs* (since called subordinate judges) were appointed to almost all the divisions of districts throughout Sind, and the establishment of the Small Cause Court at Karāchi was legalised ; but the most important judicial innovation was the introduction of the Sind Courts' Act (Bom. XII. of 1866), by which a High Court was established in the province, with a separate officer as Judicial Commissioner at its head, the Commissioner in Sind

being thus relieved of his purely judicial functions. This Act gave as well a legal status to all the courts, civil and criminal, throughout Sind. Improvements were also effected in jail management by the appointment of superintendents and jailors to all district jails. To provide funds for carrying out public works of general local utility and improvement in the province, and to aid in defraying the expenses of the Public Works Department, a local cess of one anna in the rupee on land and sayer (*sār*) revenue was introduced, and specially legalised by Bom., Act VIII. of 1865. Another Bombay enactment (IX. of 1863), known as the "Cotton Frauds Prevention Act," was also brought into force in Sind, in March 1864, and an inspector, with establishment, appointed to carry out its provisions. In public works great progress was made in the prosecution of the Karāchi Harbour Improvements, as well as in the revenue survey, and settlement departments, more than one-half of all the Tālūkās in the province having, at the close of that administration, been classed and assessed by the latter. An engineering school, the second of its class in Sind, was opened under government auspices at Hyderabad; and an office of Paper Currency, in accordance with Act XIX. of 1861, was established at Karāchi. In the month of October 1865, the Frere Hall (erected in honour of Sir H. Bartle E. Frere), which had cost in building up to that date nearly one and three-quarter lakhs of rupees, was opened by Mr. Mansfield, with much ceremony, in the presence of a large assemblage of Europeans and natives.

**Sir W. L. Merewether's Administration.**—Colonel Sir W. L. Merewether, K.C.S.I. and C.B., of the Bombay Army, succeeded Mr. Mansfield as Commissioner in Sind, his appointment dating from 12th June, 1867; but owing to his services being required during the Abyssinian war of 1867-68, he did not take up his appointment till 10th July, 1868, Mr. W. H. Havelock, of the Bombay Civil Service, acting for him as commissioner during this interval. Among the various improvements carried out during this present administration, may be mentioned the re-organisation of the whole of the Sind police, by which numerous reductions were effected, and an entirely English nomenclature given to both officers and men of this force, who are now known as district and assistant-district superintendents, inspectors, chief and head constables, and constables. In the revenue department several changes in the method of test measurements by deputy collectors and mūkhtyār-kārs have been made, and a new system of calculating and levying the water-rate (*Hakāba*) has been

introduced. Improvements have also been effected in many of the canals in the province, more especially in the Bēgāri, Aral, Kazia, Gājā, Ghār, and others, and a new and large navigating channel known as the Sukkur and Shāhdādpur Canal, intended to irrigate an extensive tract of uncultivated land in the Lārkāna, Rato-dēro, and Shāhdādpur sub-divisions, has been completed, and was opened in 1870. The topographical survey of Sind has also been completed; and the settlement department having assessed nearly all the Tālūkās in the Karāchi, Hyderabad, and Shikārpur Collectorates, have commenced the survey of the Upper Sind frontier district. Education has made rapid strides in the province during this administration, and is a subject in which the Commissioner in Sind takes a great personal interest. A pleasing feature in this progress of education is its extension among the native females of Sind during the past few years, a new but very satisfactory phase, when it is remembered that the great majority of the native community of this part of British India is of the Muhammadan persuasion, who, as a body, are averse to any instruction being given to their women.

The publication, from 1868, of the Sind "Official Gazette" in the Commissioners' printing office, copies of which are supplied gratis to all heads of officers in the Civil Department throughout the province, has proved most useful, and has been the means of saving a large amount of written correspondence. The gazette contains all appointments, promotions, grants of leave, &c., referring to Sind; the orders of the Governments of India and Bombay; copies of all new enactments applying to the Bombay Presidency, and notices, &c., from heads of offices of different departments. A translation, in Sindi, of this gazette is also published for the use of the native revenue and judicial public servants, and of the inspectors of police. In the Postal Department there was introduced, from 1868, a rural messenger post, by which the benefits of the post-office are now extended to a large number of district villages, hitherto without the pale of postal communication. A road has been constructed between the Jūngshāhi railway station and the town of Tatta, so as to place the latter within easy access of the railway, and the width of roads generally in the province has been increased to twenty and thirty feet, according to class, instead of, as formerly, twelve and twenty-four feet, respectively. Ferry steamers have also been stationed at Sukkur and Rohri, in lieu of the boats hitherto in use there. It is during the present administration that the winding-up of an unfortunate undertaking, the Oriental Inland Steam Navigation Company has taken place,



some of its vessels being purchased by the Indus Flotilla Company, which at present does all the steam-carrying trade between Kotri and Sukkur, and to a great extent that between the latter town and Mūltān. To avoid sending the Flotilla vessels for repair round by the Delta to Karāchi, a floating dock, sent out originally in pieces from England, was put up in 1869 in the river at Kotri, and has been found very serviceable.

During the year 1869, when a severe famine visited the Rājput State of Marwar, some thousands of its starving inhabitants immigrated into the Thar and Pārkar, and the eastern portion of the Hyderabad Collectorate. There they were kindly treated and taken care of by the several revenue authorities of those districts, and maintained at the expense of the government. Those of them who were physically able to work were put to light labour, but many of the infirm and helpless died from the effects of starvation and sickness. The sum total spent by the Sind Government up to March 1874, in relieving these poor creatures, amounted to 1,38,602 rupees.

Up to the end of 1870, the Karāchi Harbour Improvement Works had made considerable progress. The Kiamāri Groyne East Pier, Napier Mole Bridge, Chini Creek Channel, &c., had been completed some years before; but as it became evident that no permanent benefit could be expected till the Manora Breakwater was constructed, sanction was obtained in 1869 to commence this work. On 1st November, 1870, the first concrete block of the breakwater was laid with much ceremony by Sir W. L. Merewether; and on the 22nd February, 1873, this, the most important of all the works connected with the Harbour improvement scheme, was completed at a cost of about 70,000*l.* These works were inspected by Lord Northbrook, Viceroy of British India, on his visit to Sind in November 1872, and also by Sir P. E. Woodhouse, Governor of Bombay, in January, 1874.

With regard to the extension of the Sind railway to the Panjāb, it may be mentioned that in the year 1865 a line was surveyed for this purpose on behalf of the Sind Railway Company by Mr. J. Brunton. So far as this province is concerned, a survey for a State line was carried out in the years 1871 and 1872, and the approval of Government to the location and designs having been obtained, the work was soon after commenced. In that portion of the line running through Sind it is intended to keep to the right (or western) bank of the Indus from Kotri to Sukkur, there to cross the river to Rōhri, the line of rail running thence by the river towards the Bahāwalpur State and on to Mūltān.

Of the two largest bridges on the Indus Valley Railway, one will be that over the Satlej near Bahāwalpur, and the other across the Indus at Sukkur, Bukkur and Rohri. As regards this latter work, it is proposed not to delay the opening of the line till it be constructed, but to establish a steam ferry and temporary main lines on either bank of the river for carrying over passengers and traffic until the permanent bridge is opened. Great delay has hitherto taken place in the construction of this line, owing to the uncertainty prevailing as to the width of gauge to be adopted; but as the broad gauge, or that at present in use on the Sind and Panjāb railways, has now been definitely selected, the Indus Valley Line may be expected to be partly opened for traffic some time during the year 1876. The junction with the Panjāb line will, it is believed, greatly enhance the usefulness of the Sind railway, which, in its present state, may not inaptly be compared to the broken link of a chain, that on strategical grounds alone should surround our Indian possessions. It is a step which will doubtless make Karāchi the important station its excellent geographical position demands; and as its harbour has been greatly improved and benefited by the extensive works which during the past fourteen years have been in operation there, it is confidently expected that it will yet take a high position among the great commercial cities of British India.

## CHAPTER IV.

## CIVIL ADMINISTRATION.

THE DIVISION OF THE PROVINCE OF SIND FOR \*POLITICAL, JUDICIAL, AND REVENUE PURPOSES AND METHOD OF ADMINISTRATION—THE SIND POLICE FORCE—PUBLIC WORKS DEPARTMENT—CUSTOMS DEPARTMENT—POSTAL DEPARTMENT—EDUCATIONAL DEPARTMENT—CIVIL MEDICAL DEPARTMENT—THE TELEGRAPH DEPARTMENTS (INDO-EUROPEAN AND GOVERNMENT TELEGRAPHS) — SURVEY AND SETTLEMENT DEPARTMENTS—LAND TENURES IN SIND.

**Divisions for Political, Judicial, and Revenue purposes.—**

Sind, which, though generally regarded as a non-regulation province, is only nominally so, since the principal regulations and acts of the older provinces have been at different times extended to it, is, for political, revenue, and judicial purposes, divided into five large portions—that is to say—the three Collectorates of Karāchi, Hyderabad, and Shikārpur, and the two Political Superintendencies of the Upper Sind frontier, and the Thar and Pārkar districts.) The administration of the entire province is carried on by an officer styled the “Commissioner in Sind,” who is subordinate to the government of Bombay, but can, when necessary, have certain of the powers of a local government delegated to him by the Governor of Bombay, in Council. He is assisted in his general work of superintendence by two Assistant-Commissioners, the one a covenanted officer, whose duties correspond to those of a secretary, and who is also Branch Inspector General of Registration in Sind, the other an uncovenanted servant of considerable official experience. The Commissioner exercises a general supervision over all the different government departments in Sind, such as the Political, Revenue, Financial, General, Public Works, Judicial, Marine, Police, Irrigation, &c.

Formerly, the highest judicial and executive functions were united in the Commissioner in Sind, who was assisted by an officer styled the “Judicial Assistant to the Commissioner,” and his court, in a civil point of view, regulated all necessary pro-

cedure, and, as a final Court of Appeal, corresponded to the then Bombay Sadar Diwāni Adālat, while, in a criminal sense, it answered to the Sadar Faujdāri Adālat, confirming all sentences requiring its sanction, except those of death and transportation for life, for which alone the order of the Bombay Governor in Council was necessary.\* This combination of the judicial and executive elements lasted till 1866, when a local Act (XII.) of the Bombay Government (declaring the constitution of Courts of Civil and Criminal Judicature in Sind) was passed, which, among other matters, provided a Sadar Court for Sind, and a Judicial Commissioner to preside over it, with control also over all other courts, civil and criminal, throughout the province. He is also a District Judge throughout Sind within the meaning of the Indian Divorce Act (IV. of 1869), and has a general supervision over all the jails in the province.

Before the introduction of the Criminal and Civil Procedure Codes there was in each of the three Zillahs an officer called the Judicial Deputy Magistrate, vested, as regarded criminal justice, with powers corresponding to Sessions Judges, and in civil matters, with powers corresponding to those of the magistrate of a district, but trying only such cases as were sent to him by his superior. From his decisions in original suits an appeal lay, in the first place, to the magistrate, and then to the Commissioner in Sind. By the present arrangement these officers are now styled District and Sessions Judges, and in their civil capacity have jurisdiction in suits to any amount, and from whose decisions an appeal lies to the Sadar Court in Sind. As Sessions Judges, they are vested with the powers mentioned in Section 16 of the new Criminal Procedure Code (Act X. of 1872), and hold sessions at various places in their respective districts six times in the year. The District Judge and Sessions Judge of Karāchi is also judge of the Pārsi Matrimonial Court. In addition to this the Shikārpūr Court of Session holds sessions at Jacobabad, in the frontier district, and the Hyderabad Court of Session, at Umarkot, in the Titar and Pārkar district, each twice in the year. Immediately under the District Judges in the judicial scale are the Civil Subordinate Judges (formerly called Mūnsifs), of whom there are three in the Karāchi, four in the Hyderabad, four in the Shikārpūr districts, and one in the frontier district of Upper Sind. In civil matters their jurisdiction extends to all suits in value up

\* On the introduction of the Criminal Procedure Code, in January 1862, the powers of life and death were exercised by the Commissioner in Sind without reference to the Bombay Government.

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to 5000 rupees, and appeals from their decisions lie to the Civil Judges of their districts.

Over each of the three Collectorates of Karāchi, Hyderabad, and Shikārpur, having the enormous areas of 16,109, 9218, and 10,242 square miles, respectively, is placed an officer, who, as "Collector and Magistrate," is invested with extensive powers of revenue and magisterial superintendence. His duties, indeed, are many and varied. As "Collector" he sees to the general collection of the revenue of his district in all its branches, superintends the expenditure of local funds, and the construction of local public works, through the agency of the Local Funds Engineer of the district; is responsible, through his deputies, for the clearance of the various irrigational canals in his Collectorate; is the Registrar of Assurances in his district, and attends also to numerous other matters of a general and miscellaneous nature. In his capacity as the chief officer charged with the executive administration of his district in criminal matters, he is vested with the highest magisterial powers allowed by the new Criminal Procedure Code (Act X. of 1872), and is empowered to hear all appeals from the sentences of the subordinate magistrates placed under him. He has also a general control over the police of the district. In the important duties above enumerated he is assisted, according to the different powers conferred upon them by the local government, by the deputy and extra assistant collectors and magistrates (European and native), of whom there are six in the Karāchi district, six in the Hyderabad, and six in the Shikārpur districts. A few of the native assistant collectors belong to the Talpur family, to whom these appointments were given, in order that they might, under British rule, exercise some share in the administration of their native province. There are no honorary magistrates in Sind; the last of these were H. H. Mir Muhammad Khān Talpur (deceased). Lower still in the scale of authority come the native officers, who are called Mūkhtyārkārs (of three different classes), and Tapadārs. (Of the former there are twelve in the Karāchi, thirteen in the Hyderabad, seventeen in the Shikārpur Collectorates, three in the frontier district, and seven in the Thar and Pārkar, having each the revenue charge of a "Talūka," or subdivision of a Deputy Collectorate, and the latter of a "Tapa," or cluster of villages, several of which make up a "Talūka.") In addition to being revenue officers, the Mūkhtyārkārs are subordinate magistrates of either the 2nd or 3rd classes, and as such, exercise magisterial authority in the Talūkas placed under their charge. The Tapadārs have no magisterial

powers whatever, their duties being confined exclusively to the collection of the government revenue from their respective *tapas*. Appeals from the sentences of the district magistrate and all first-class magistrates lie to the Session judge, and from all subordinate magistrates of either the 2nd or 3rd classes to the magistrate of the district, or to such divisional or other first-class magistrates as may be so empowered by the local government.

Over the frontier district of Upper Sind, with an area of 2225 square miles, there is a Political Superintendent, with magisterial powers, who is also Commandant of the large military force employed in that portion of the province. Under him, is an Assistant Political Superintendent, and a Deputy Collector, both of them invested with magisterial powers. To these, again, succeed three *Mükhtyärkärs* and a number of *Tapadārs*, as in the larger districts of Sind.

For the Thar and *Pärkar* district, which has a very large area (about 12,729 square miles), but a scanty population, there being barely 14 souls to the square mile, there is, at present, a Political Superintendent with extensive revenue and magisterial powers, and under him a European Deputy Collector, and several *Mükhtyärkärs*. (Up to 1856, the Thar and *Pärkar* district was under the control of the assistant political agent in *Kachh*, but subsequently it was incorporated in the province of Sind.)

**Sind Police Force.**—The police force employed in the three Sind Collectorates consists of three district superintendents, one assistant district superintendent, thirteen inspectors, and 3343 petty officers and constables (with establishments), who are, according to their duties, known as district, town, and municipal police. The police, in each of the three Collectorates, are under the immediate control of a district superintendent, the single assistant superintendent being stationed at *Karāchi*, under the superintendent of police of that district, where he supervises the municipal and city police intended for the protection of that town. The police on the Upper Sind frontier number 115, and in the Thar and *Pärkar* 502 men, who are superintended by the two chief political officers of those districts, while the entire police force of the province is controlled by the Commissioner in Sind, who is, for this purpose “Commissioner of Police” as well. Cattle-lifting and thefts in general, are the chief offences with which the police in Sind are called upon to deal. The following table will show the proportion of policemen to area and inhabitants in each of the five districts of Sind :—

Karāchi . . . . .	1	Policeman	to 12 sq. miles,	and to 575 of the inhabitants.
Hyderabad . . . . .	1	ditto	to 11 ditto	and to 824 ditto
Shikārpur . . . . .	1	ditto	to 9 ditto	and to 686 ditto
Upper Sind frontier . . . . .	1	ditto	to 19 ditto	and to 831 ditto
Thar and Pārkar . . . . .	1	ditto	to 25 ditto	and to 358 ditto

**Public Works Department.**—The Public Works Department in Sind, of which the superintending Engineer of the province (always an officer of the Corps of Military Engineers) is the head, consists of ten executive engineers, and seven assistants, who are a body of graded officers, some being military, and others uncovenanted civil engineers. These, as executive engineers of districts, or assistants, carry out the construction of public works, clearance of canals, &c. Besides the irrigational branch of this department, the head of which is styled the Superintending Engineer for Irrigation in Sind, and his subordinate officers, Superintendents of Canal works Eastern and Western Indus, there are the Local Fund establishments, three in number, one in each Collectorate. These were from the 1st April, 1875, considerably reduced, and the Local Fund Engineer appointments abolished, the work being now performed by the regular Public Works establishment. These local funds, as provided for by Bombay Act (VIII. of 1865), which authorises taxation in the province of Sind for objects of public local utility and improvement, are derived from the following sources, viz., a *one anna* cess on every rupee of ordinary land revenue, and the same sum on every rupee of Sayer revenue, as well as three per cent. on the assessable value of alienated lands. With these funds, roads, bridges, public buildings, &c., in each district are constructed and repaired, and the Local Fund establishments paid.

The Irrigational Department in Sind was, in 1868, parcelled out into six distinct charges or divisions, but latterly these have been increased to ten, each under the superintendence of an executive Engineer, with establishment. These charges, which are in some instances named after the principal streams traversing the districts, are as follows :

Division or Charge.	Districts comprised.
1. Bēgāri . . . . .	The Bēgāri canal, Nāra supply channel, the left bank (Rohri) districts, and that part of the Shikārpur Collectorate watered by the Bēgāri.
2. Ghār . . . . .	That portion of the Shikārpur Collectorate watered by the Ghār and Western Nāra.
3. Rohri Canal . . . . .	The northern half of the Hyderabad Collectorate as far as the Fulēli.

Division or Charge.	Districts comprised.
4. Fulēli . . . . .	The southern half of the Hyderabad Collectorate.
5. Eastern Nāra . . . . .	The country east of the Hyderabad Collectorate watered by the Eastern Nāra, and the canals derived from it.
6. Karāchi Collectorate	The whole of the Karāchi Collectorate.
7. Desert Canal . . . . .	The country along the northern frontier watered by the Maksuda, now called the Desert Canal.
8. Jacobabad . . . . .	The military station of Jacobabad and outposts.
9. Sukkur Canal . . . . .	That portion of the Shikārpur Collectorate watered by the Sukkur Canal.
10. Lower and Central Sind . . . . .	The military stations of Karāchi and Hyderabad, the civil station of Kotri, and the charge of all the public buildings in the Karāchi Collectorate.

Though the Government canals in this province are all under the general supervision of the Executive Engineers of districts, the annual clearances in some divisions are still carried out during the cold season, through the Deputy Collectors and their subordinates. The estimates for these clearances are prepared by the Sazāwalkārs of the Executive Engineers' establishments, so soon as a sufficient subsidence of the inundation waters takes place, their work being checked by the canal overseers of the same department of public works, while a Mükhtyārkār, or, if his services be not available, a Mūnshi deputed by him accompanies the overseer, noting his measurements, as also those of the Sazāwalkārs as well.

**Customs Department.**—The Sea-Customs Department in Sind, which has its head-quarters at Karāchi, the only port of any consequence on the sea-board of the province, consists of a Collector (who is also Harbour Magistrate), an Assistant Collector, Appraiser, Inspectors, and Deputy Shipping Master, with office establishments. The subordinate ports of Kēti and Sirgādo, in the Indus delta, are in charge of a Customs' officer, but controlled by the Collector. The external trade of Karāchi, which may, in fact, be almost called that of all Sind itself, will be found entered into in considerable detail under the heading "**Karāchi**," and to be referred to also in the subsequent chapter. From this it will be seen how greatly it has increased since the conquest of the province, in 1843.

The Master Attendant and Surveyor of the Port, who is also the Conservator of the harbour, superintends the Pilot Establishment, consisting of three pilots, the senior of these acting as Assistant-Master Attendant. The lighthouse and steam-tug are also under the charge of the Master Attendant, who resides



permanently at Manora Fort. During the last two years the trade of the port of Karāchi has greatly increased—a fact due principally to the improvements effected in the harbour, which *now* allows vessels of large tonnage entering and leaving at all times of the year without any difficulty. The Port establishment, which formerly involved a considerable annual loss to the Government, is *now* reported to be self-supporting, and may be expected so to continue without needing any further assistance from Imperial Funds.

**Postal Department.**—The Postal Department in Sind is supervised by a Chief Inspector of Post-Offices, who is himself directly subordinate to the Director-General of Post-Offices in India, and under him are a Horse and Camel Dāk Mail Superintendent, three Sub-Inspectors of divisions, three Post-Masters, and sixty-six Deputy and Sub-Deputy Post-Masters. There are three classes of post-offices in Sind, the disbursing, non-disbursing, and branch: of the former there are three, situate at the principal towns in Sind—Karāchi, Hyderabad, and Shikārpur. There are forty-eight non-disbursing post-offices, which are in Lower and Upper Sind only, and the branch offices number eighteen. The sea-going mails are not under the Sind Postal Department, but are directly controlled by that of Bombay. The average rate per hour at which the mails are carried is, by railway twenty-one miles, by horse nine, and by Kāsids (or foot-runners) four miles. There is also a “Rural Messenger Post,” introduced in 1868, which brings villages at a distance from the imperial lines into postal communication with all other parts of the country. The postal department in Sind, up to 1854, was placed directly under the Local Government, but from that year it was incorporated in the Imperial Postal Department.

**Educational Department.**—The Educational Department in Sind is supervised by an Educational Inspector, an office formerly held by the covenanted Assistant-Commissioner in Sind, and he is in this duty assisted by a Deputy Educational Inspector, two Assistant-Deputy Educational Inspectors, with suitable establishments, and eighteen head-masters of High, Normal, Engineering, and Anglo-Vernacular institutions. The total number of Government schools in Sind, of all kinds, in 1873-74 was 213, divided into Normal, Engineering, High, graded Anglo-Vernacular and Vernacular (or primary) schools; of these, twenty-six are girls' schools, but female education, though it has made great progress in Sind during the last few years, may as yet be said to be only in its infancy, a fact which is mainly attributable to the great mass of

the people being of the Muhammadan persuasion. The total number of pupils attending these schools in Sind was, in the same year, 12,728, of whom 8531 were Hindūs, and 4139 Muhammadan, but not more than 841 of them were then studying the English language. The Normal schools are situate at Hyderabad and Sukkur, and the Engineering school at the former town. The number of Government Schools in existence in 1859-60 was but 20, and the expenditure on education in Sind in that year 12,990 rupees, whereas in 1873-74, the amount so expended was 2,11,841 rupees. The number of indigenous schools in the former year is not known, nor in 1873-74 can their number with pupil attendance be stated with any degree of accuracy.

This does not appear to be of much consequence, since the instruction in the greater number of these indigenous vernacular schools is of a very poor and unsatisfactory nature. The following table will show from what sources the income of the Educational Department was derived, and on what objects the disbursements were made during the year 1873-74 :

## RECEIPTS.

Imperial Fund.	School-fee Fund	Educational Cess Fund.	Municipal or Popular Contributions.	Sale Proceeds of Books	Miscellaneous Receipts	Total
rupees. 87,979	rupees 8,250	rupees. 69,434	rupees. 26,612	rupees. 6,332	rupees. 5,555	rupees 2,04,162

## DISBURSEMENTS.

On what Account	From Imperial Funds.	From Local Funds	Total.
	rupees.	rupees.	rupees.
On Inspection and subsidiary charges . . . . .	22,775	217	22,992
On Government Institutions . . . . .	37,214	1,20,979	1,58,193
On Private Institutions receiving aid from the Government . . . . .	7,763	..	7,763
Book and Translation Departments, and Special Allowances . . . . .	20,227	..	20,227
Miscellaneous . . . . .	..	2,666	2,666
	87,979	1,23,862	2,11,841

The number of schools, Government and private-aided in each Collectorate and Political Superintendency, in 1873-74, with the

number of pupils attending them, is shown in the accompanying table :

DISTRICT.	Number of Schools.		Number of Pupils.	
	Government	Private-aided	Government	Private-aided.
Karāchi . . . . .	41	8	2,340	827
Hyderabad . . . . .	67	6	3,595	622
Shikārpur . . . . .	86	..	5,881	..
Thar and Pārkar . . . . .	14	..	761	..
Frontier . . . . .	5	..	151	..
	213	14	12,728	1,449

The course of instruction in the Government High Schools professes to educate students up to the matriculation standard of the Bombay University, and that in the Anglo-Vernacular Schools up to the third English standard. Among the private institutions the European and Indo-European Schools at Karāchi, as also the Missionary Schools at that town and at Hyderabad, teach up to the matriculation standard of the Bombay University, but the instruction generally given in the indigenous vernacular schools of the province is poor in character, and much below the standard observed in Government Schools. It is confined mainly to the reading of the Kurān, and in addition to the vernacular a slight knowledge of the Persian language. So far as the advantages to be gained by education are concerned, the Hindū portion of the population would appear to appreciate them far more than is the case with the Muhammadan community, and the Shikārpur Collectorate is reported, in this respect, to stand out favourably when compared with the other districts of the province. The recent adoption of the Hindū-Sindī character, in an improved form, in many of the schools has, it is considered, given a great impetus to the spread of education, more especially among the Hindū classes, with whom this character, and not the Arabic-Sindī, is in vogue. The progress education has made of late years in Sind is remarkable, and is a result due not only to the exertions of the officers of the department themselves, but to the great personal interest taken in its cause by the head of the province, and the material aid he is enabled to afford it by his high position and influence.

**Civil Medical Department.**—The Civil Medical Department in Sind consists of five Civil Surgeons who are stationed at

Karāchi, Kotri, Hyderabad, Shikārpur, and Jacobabad in charge of the Nārā Jail and one Honorary Surgeon stationed at Sukkur. There are also one Assistant Surgeon, thirty-three Apothecaries and Hospital-Assistants, many of the latter grades being in independent charge of the different dispensaries and other charitable institutions scattered about the province, which are in a great measure supported from the local funds of the towns in which they are situate. These officers are to a certain extent subordinate to the local executive authorities, but are directly controlled by the head of the Medical department in the Bombay Presidency. The Civil Surgeons at Hyderabad and Shikārpur are also in charge of the jails at their respective stations, and the lunatic asylum in the province—that at Hyderabad is under the supervision of the first-mentioned officer. The hospitals and dispensaries are inspected during the cold season by the Deputy Surgeon-General of the Medical Staff in Sind, and the jails about the same period by the Inspector-General of Prisons in the Bombay Presidency. The interests of vaccination are attended to by an officer specially appointed for this duty, called the Superintendent of Vaccination Sind Circle, who has under him an establishment of native vaccinators. These at present consist of six native Assistant-Superintendents and fifty vaccinators, the former superintending all vaccine operations in the five districts of Sind and the native state of Khairpur. Vaccination has, for many years past, been in active operation in the province, under the supervision of officers of the Government Medical Service. In 1860-61, Dr. Martin, then at the head of the Vaccination Department, thus wrote of its progress: "Reviewing the work of the year, it is satisfactory to be able to state that the people are unceasingly favourable to vaccination, and the vaccinators move about among them without exciting ill-feeling by their work, or raising up a spirit of resistance to the propagation of a great benefit."

During 1874-75 vaccination was said by Dr. Williams, the Superintendent of Vaccination in Sind, to have progressed favourably, and that no opposition was made to it in any part of the province, excepting the *large* towns, in which the Hindu community was numerous. The agricultural classes (who are mostly Muhammadans) were represented to be grateful for being protected against the ravages of small-pox.

In that year no less than 94,252 persons (53,681 males and 40,571 females) were vaccinated. The re-vaccinations were very numerous, amounting to 48,678. Of the primary vaccinations

98·1 per cent., and of the re-vaccinations 85·5 per cent., were successful. The average cost, including superintendence, of each successful case of vaccination was four annas and two pies. Dr. Williams also touches upon the probable necessity of introducing female vaccinators for the express purpose of vaccinating *parda-nishin* women.

**Telegraph Departments.**—The Indo-European Telegraph Department was established by the Indian and Home Governments for the purpose of placing England and its Eastern possessions in more direct telegraphic communication with each other, a want which had been seriously felt during the great mutiny of 1857. Early in 1860 a telegraphic cable, though belonging to another company, had been successfully laid between Karāchi and Maskāt, and in March of that year the entire telegraph line between Alexandria and Karāchi, *viâ* the Red Sea, had been completed and messages sent and received, but at the end of that same month it altogether ceased to work. In October 1864 the Indo-European Telegraph Department brought about the great desideratum, by laying a submarine cable 1300 miles long, from Karāchi, *viâ* the Persian Gulf, to Fao, in Turkish Arabia; there it joined the Turkish Government line of telegraph, and passed by land-line on to Constantinople, 1200 miles distant, whence, by various routes, communication could easily be made with Western Europe. There is a land-line, as well, running from Karāchi along the Makrān coast, to Jask, on the Persian frontier, and this is placed in connection with the Persian port of Bushir by another submarine cable; thence a land-line runs through Persia, joining the Russian systems of telegraph, as also the lines of Siemen's Telegraph Company, which work direct to England, *viâ* Berlin.

The head-quarters of the Indo-European Telegraph Department are at Karāchi, which, from its position, is well suited for purposes of supervision. Their offices at that station, erected in 1865-66, at a cost of 2,05,040 rupees (or upwards of 20,000*l.*), cover a considerable area of ground, and are very extensive. They afford ample accommodation for the large staff employed, consisting of a Deputy Director, Engineer of Submarine Cable, Traffic-manager, Superintendent of the Station, and Inspectors, besides store-keepers, mechanics, signallers, and others connected with the department.

The extent of telegraphic correspondence, both governmental and private, passing yearly between India, Europe, and America, may be estimated from the following summary, which extends over a period of nine and a half years:

YEAR	Number of Messages Transmitted.		Gross Receipts	Net Revenue
	Commercial and Private	Government		
1864-65 (Oct. to March)	3,571	168	rupees, 1,13,625	rupees 57,445
1865-66	30,506	255	13,93,963	9,24,667
1866-67	29,539	419	14,16,715	9,36,971
1867-68	30,684	996	15,25,651	9,88,873
1868-69	35,492	1,078	14,90,637	9,44,781
1869-70	46,389	986	12,44,722	7,62,300
1870-71	40,257	1,148	10,16,845	5,33,017
1871-72	30,751	1,780	11,34,195	5,83,526
1872-73	20,199	1,497	9,09,188	4,09,920
1873-74	28,383	1,144	13,11,371	5,56,225

The decrease in revenue for the last four years is attributable to a reduction of nearly fifty per cent. in the tariff, which came into force from January 1869. The opening of the Red Sea route, in April 1870, also caused a decrease in the traffic transmitted by the Indo-European line, but as telegraphic correspondence is greatly on the increase between British India, Europe, and America, it is expected that both lines will be fully employed. The distance, by electric telegraph, from Karachi to the United Kingdom, *viâ* Russia, is 5500 miles, and *viâ* Turkey, 5000 miles, and the average rate of transmission of messages between India and England by these two routes during the past three years ending with 1873-74 was as follows :

YEARS.	England and India.						India and England					
	<i>Viâ</i> Russia.			<i>Viâ</i> Turkey.			<i>Viâ</i> Russia.			<i>Viâ</i> Turkey.		
	Days.	Hrs.	Mins.	Days.	Hrs.	Mins.	Days.	Hrs.	Mins.	Days.	Hrs.	Mins.
1871-72	..	7	1	1	11	4	Not compiled.					
1872-73	..	3	30	1	5	..	..	7	49	..	20	34
1873-74	..	3	50	1	3	..	..	4	15	..	16	32

**Government Telegraph Department.**—There is another Telegraph Department, known as the Indian Government Telegraphs, Sind Division, extending from Karachi to the frontier station of Banu in the Panjâb. It is under the immediate charge of a Superintendent (whose head-quarters are at Karachi) assisted by a staff of Assistant-Superintendents, Inspectors, Telegraph-masters and Signallers, the whole being controlled by the Director-General of the Indian Telegraph Department. The offices in this province are situate at Karachi, Hyderabad, Sukkur, Shikarpur,

and Jacobabad. Previous to 1866 the Departmental offices at Karāchi were located in a building on the McLeod Road specially erected for this purpose, in which the staff and superintendent's office *now* find quarters; but after the completion of the extensive premises of the Indo-European Telegraph Department, a portion of these latter were set apart as signallers' and clerks' offices for the Indian Government Telegraphs, an arrangement which greatly facilitated the interchange of messages from one administration to the other.

The Department possesses in Sind six lines of electric communication, viz:—1, From Karāchi to Hyderabad (110 miles); 2, Hyderabad to Sukkur (*viā* Naushah and Tharushah) 207 miles; 3, Sukkur to Shikārpur (24 miles); 4, Shikārpur to Jacobabad (26 miles). The 5th is the line under construction on the Indus Valley Railway, which on completion will do away with line No. 2; the 6th is that running from Hyderabad to Chāchra, *viā* Umarnot (90 miles), but it is under the charge of the Superintendent of the Rājputāna Division, whose head-quarters are at Disa. The total number of miles of line in Sind is thus 669, with 1913 miles of wire.

Formerly the Indus was crossed at Kotri and Gidu-bandar by submarine cables, each about a mile in length, but owing to frequent failures in communication resulting from various causes, an aerial line has now been substituted, and two lofty diagonally-braced iron masts (each 150 feet high) on either bank of the river serve to span it with six wires at such an elevation as to allow a headway during the highest flood of nearly one hundred feet.

The following table will show the amount and value of traffic passing through the Sind offices during the three years ending with 1874. This traffic comprises the Inland and Foreign messages sent, and Foreign messages received and transit:

Years.	Inland				Foreign.				Total.	
	Service.		Private.		Service.		Private.		No.	Value.
	No. of Messages.	Value	No.	Value.	No.	Value.	No.	Value.		
1872	3455	15,294	20,291	30,317	669	7548	8491	54,439	32,906	1,07,598
1873	3549	11,636	18,482	26,723	400	3728	12,039	81,833	34,470	1,23,920
1874	3380	10,819	16,174	24,543	431	3392	19,565	1,10,740	39,550	1,49,590

**Survey and Settlement Departments.**—It was not before the year 1856 that a topographical survey of Sind having been

determined upon by the Indian Government, an establishment was transferred from the Panjāb to commence operations in the northern portion of the province. Previously, in December 1853, the Department of the Great Trigonometrical Survey of India had visited Sind, in order to measure a base line for verifying the operations from Simla, on the Himālaya Mountains, as far as Karāchi. Though the survey in 1856 is called topographical, it was not entirely confined to that branch in its ordinarily accepted sense—much of it was what is technically called "*Mauszēwār*," that is, where the village boundaries are separately calculated, and every detail of soil and cultivation exhibited, with statistical returns of population, crops, cattle, and means of agriculture at the disposal of the cultivators. The Rohri District in Upper Sind was the first commenced with, after which, in 1857-58 and 1858-59, the survey of the Shikārpur, Sukkur, and Jacobabad Districts, as also of a portion of the hilly district of Karāchi, was taken in hand and finished. By the year 1861-62 the whole of the Shikārpur Collectorate had been completed as well as the native State of Khairpur, 6109 square miles in area, which was all surveyed geographically in one working season. During the two following years, that is to say, up to September 1864, the Sehwan and Hāla Deputy Collectorates, as also other portions of the Karāchi and Hyderabad Districts, were surveyed, the area, 9566 square miles got over on both banks of the river during 1863-64, being the largest ever accomplished by the Sind Survey Department in a single working season. Up to 1867-68, nearly the whole of the Hyderabad Collectorate had been finished, and by the month of August 1870, the labours of the Department were brought to an end, the survey of the entire province, including the Khairpur State and the river Indus, having taken fifteen years to execute, at a cost of 7,72,959 rupees, the average rate per square mile for the whole period being about Rs. 17 : 0 : 5. It will however here be necessary to mention that a sum of Rs. 41,474 : 3 : 1., the cost incurred during the first season of 1855-56, has neither been included in this total cost nor in the mileage rate over the whole period, for this reason, that as no boundaries were demarcated for survey prior to the transfer of the establishment from the Panjāb, it was almost exclusively employed in training Patwāris, and in performing duties for the Settlement Department; the cost therefore for the season ending 30th of September 1856, cannot be considered as fairly applicable to the area subsequently surveyed.

No regular settlement operations were commenced in Sind



till the year 1855-56, nor was any resulting settlement introduced on the right bank districts till 1862-63, or on the left bank till 1863-64. Revenue settlements for short periods had, at various times and in different districts of Sind, been introduced by Revenue Collectors after the conquest of the province, but as these were done without the advantage of a regular system of survey or classification of soil, they only partially met the objects for which they were intended. In some instances the assessment on particular descriptions of land was found to be too heavy, while in others again it was too light. In 1865 the Settlement Department was re-organised and put upon its present footing. By this arrangement all Settlement operations were placed under the Superintendence of two officers, designated Settlement Officers of the Left and Right Banks of the Indus, with two Deputy Settlement Officers, several Assistants of different classes, and suitable native establishments to assist them in their duties. In August, 1874, the right and left bank surveys were amalgamated and placed under the charge of one officer, now styled the Settlement Officer in Sind. Up to the end of 1874 no survey settlement had as yet been introduced into the Frontier District, the Jerruck and Shāhbandar divisions of the Karāchi Collectorate, three of the talukas of the Tanda District, viz. :—Guni, Bāgo, and Badin, or in the Thar and Pārkar Political Superintendency. Revised survey operations have been completed in the Sukkur, Kotri, and Sehwan talukas, and are in progress in the Dādu, Kandiāro, and Naushahro talukas. At the end of that same year (1874) a survey conference was held at Hyderabad to consider, among other matters, whether any changes in the mode of settlement in this province could be devised so as to save the large landholders from being pressed with undue severity by the present system of field assessment. With this object in view it was recommended 1st, that leases at sums below the ordinary settlement assessment should be substituted for the field settlement in the case of the larger landholders, and 2nd, that assessment should be levied on cultivated land only, the plan of reducing rates with reference to fallows being in consequence discontinued. These recommendations were approved by the Bombay Government early in March, 1875.

The following concise and lucid description of the different tenures prevailing in this Province was written for the second edition of the Gazetteer by Lieut.-Colonel M. R. Haig, the present head of the Settlement Department in Sind.

**Land Tenures in Sind.**—Land tenures are throughout the province of an extremely simple character. Classing the land

under the two heads, "Assessed to the State Revenue" and "Alienated," we find it in the occupation of—

(1) Large proprietors,—a comparatively small but important class.

(2) Holders of estates of a few hundred acres,—the middle-class gentry.

(3) A large body of peasant proprietors, all paying revenue direct to Government or to the Alienee, to whom the Government rights in the land have been transferred.

The other agricultural classes are—

(1) Tenants possessing a right of occupancy.

(2) Tenants-at-will.

The latter class, though many of them pass their lives on the same estate, yet possess no kind of right of occupancy, and are subject to such conditions as the landholder may from time to time find himself able to impose on them. A prudent landholder, however, knows it to be for his interest to keep on good terms with his tenants, and understands the benefit of maintaining in his service a body of cultivators who have grown up on his property, hence most of these tenants-at-will have almost as secure a footing on the land they cultivate as if they enjoyed a right of occupancy. Their position has become still better since the introduction of the Settlement, which in putting an end to the monopoly of land previously enjoyed by the larger holders, has rendered the tenant class much more independent than they formerly were.

Tenants possessing a right of occupancy are found exclusively in North Sind, where such a tenant is termed a "Maurasi Hāri," literally "Hereditary Cultivator," his right of occupancy being heritable. It is also transferable at the will of the tenant, and irrespective of that of the superior holder, or Zamindār, whose right in the land is strictly limited to a quit-rent, and this he cannot enhance. In fact the Zamindār is in these cases simply a person possessing a certain lien on the land, and although he is the superior holder, he is not allowed to pay the Government demand, which it exclusively belongs to the "Maurasi Hāri" to discharge. This tenure is very prevalent in the Rohri Division and in the Sukkur Taluka, less so in the rest of the Sukkur and Shikārpur Division, while south of Lārkāna and the territory of Khairpur, it is almost unknown. It appears to be of foreign origin, and to have spread into Sind from Bahāwalpur and the Panjāb, where it is believed to be common. The hereditary right of occupancy is said to have been acquired formerly by any

person who reclaimed land from the jungle and brought it under cultivation. All land at all accessible to a petty cultivator or being claimed as in the "Zamindāri" of some large holder, the rights of the latter were recognised by the payment of a quit-rent fixed for ever, and the cultivator became the occupant of the land with, in fact, every right of ownership. Occasionally, according to native accounts, which seem to have some ground of probability, the tenure arose the reverse way to that above described, that is, instead of a cultivator acquiring an occupancy in a Zamindār's land, a Zamindār acquired Zamindāri rights over lands belonging to peasant proprietors, being foisted into this position by the corruption of the local ruler or the favour of some successful invader. This would account for the fact that hereditary tenancy is found in full vigour in the lands adjoining a populous town like Sukkur, and which must have been reclaimed so many centuries ago that to suppose the original tenure to have come down to the present time unaltered and to so many successors would be manifestly absurd.

The question of what are called "Proprietary" or "Zamindāri" rights as pertaining to the larger landholders in Sind has been much discussed, and opinion is still divided on it. It is contended by some that Zamindāri rights exist in this province just as much as in other parts of India. What these rights consist in has not been precisely defined by those who argue for them, but they appear to be connected with waste land over which it is maintained the right of the Zamindār ought to remain in force, even after he has relinquished the land owing to inability to cultivate it. The Muhammadan law, the only law to which a Sindi landholder could refer the matter, recognises no right in land which has been more than three years out of cultivation. Such land reverts to the State absolutely. If custom is to decide the question, it would be difficult to say what the custom has been. Under the Native Governments, the powerful landholders no doubt acted on their own views of their rights, while the rulers gave themselves little trouble about the rights of others so long as their own were properly respected. The Talpurs appear to have recognised no special rights as pertaining to large landholders, and to have summarily ejected the latter from their lands when occasion arose for such a step, and in places where they were strong enough to venture on it. On the accession of British rule, it was found that at all events as a *fiscal* arrangement village communities were commonly divided into principal Zamindār, minor Zamindars, petty occupants (also calling themselves Zamindārs), and the

“Hāris” or cultivators of the larger holdings. Where this organisation prevailed, the principal Zamindār transacted all business with Government on behalf of the community, and from him or under his supervision the Government share of the produce of the village lands was collected. On account of this he levied “Zamindāri” (for his trouble as principal “Zamindār”) from *all* occupants of the village lands in addition to the “Malikāno,” or proprietor’s (Malik) fee levied from the tenants of his own particular estate. There can be no doubt that under the circumstances of the Native Governments this was by far, the best, if it was not the only possible, arrangement for collecting the State dues. There was at least one high authority\* in favour of continuing the system under British rule. But Sir Charles Napier was strongly opposed to it. He likened the larger Zamindārs to the middlemen of Ireland, and urged the Revenue Officers to displace them, wherever it was possible, from their position of village managers, and to deal directly with the occupants of land whoever they might be. Thenceforth the larger Zamindārs ceased to enjoy much of the influence and importance they had hitherto possessed, and the smaller occupants came to appreciate the advantages of being independent of the large proprietors, and of having their own rights as holders of land fully recognised by the new Government. The policy of British administration has been to foster this desire for independence, and to place all classes of landholders on precisely the same footing in regard to their obligations to the State. Recently, however, it has been determined by Government to accord certain privileges to the larger landholders by giving them leases on very favourable terms for their holdings, and treating them as enjoying a tenure somewhat similar to that of the Zamindārs of the North-Western Provinces and other parts of India. The result of this measure remains to be seen. Under the head of Alienations are comprised—

1. Jāgirs.
2. Pattadāris.
3. Khairāts or Charitable grants.
4. Garden grants.

When the province came under British rule a vast extent of land was found to be held in Jāgir. In the Hyderabad District the Collector estimated that 40 per cent. of the land was thus alienated. When the question of the terms under which succession to Alienations was to be regulated first came under consideration, it was decided to regrant all cultivated land subject to a charge of

\* His Excellency Sir George Russell Clerk, Governor of Bombay.

one-fourth of their nett proceeds and to resume all waste land, while lands originally granted for service—civil or military—were to be resumed on the death of the present incumbent. But it was soon found to be necessary to make a distinction between the various Jāgirs, and ultimately they were brought under the following classification and conditions of succession :

Class I.—Jāgirs granted prior to the accession of the Talpurs (1783).

Class II.—Jāgirs granted by the Talpurs up to the year 1810, the year in which Mir Ghulam Ali, the second of the four brothers, who were the first Hyderabad Mirs, died.

Class III.—Jāgirs granted between 1810 and 1833, the year in which Mir Murād Ali, the last of the four brothers, died.

Class IV.—Jāgirs granted between the last mentioned year and the conquest by the British.

The following were the conditions of regrant :—

1st Class Jāgirs.—To be continued undiminished and unassessed.

2nd Class Jāgirs.—Two distinct sets of Jāgirdārs were recognised by the terms of succession under this class. 1st. The four great Talpur families of Shahdadāni, Shahwāni, Manikāni and Khanāni. A promise had been made by Sir Charles Napier, when Governor, to the representatives of these families to remit in consideration of their high position and reduced means the charge of one-fourth of proceeds on succession. This promise was observed, and instead of attempting to ascertain the exact extent of waste land prior to resuming it, it was decided to resume one-third of the Jāgir waste lands in all cases. Under the circumstances this arrangement is very liberal to Jāgirdārs. The second set of Jāgirdārs, known as the "Sind Sardārs," comprised a considerable number of persons of very various degrees of social position, and it was found that to apply the fixed rule (resumption of waste and charge of one-fourth of proceeds and cultivated land) in all cases would operate most injuriously to the interests of some of the well-descended among this class of Jāgirdārs, while it would be over indulgent to others of inferior social status. Accordingly it was decided to settle succession in each case on its own merits, taking into consideration various circumstances of social position, rank, and influence, unfettered by any strict rule of proceeding, and the result of the Settlement was that about one-sixth of all the Jāgir land held by the Sardārs was permanently alienated.

3rd Class Jāgirs.—To be regranted undiminished, but subject to payment of one-fourth proceeds for one succession after the death of the incumbent at date of the battle of Meeanee.

4th Class Jāgirs.—To lapse on the death of the incumbent at the date of the battle of Meeanee.

In Jāgirs of all classes succession is strictly limited to lineal heirs male, and all are subject to a cess of 5 per cent. on account of local funds.

The Pattadāri grants are confined to a very limited district, comprising portions of Shikārpur, Sukkur, and Naushahro Abro Talūkas, situated in the tract of country formerly known as "Moghuli," and under the Afghān Governor at Shikārpur. These grants are in fact of Afghān origin. Settlers of that nationality having obtained from their Governments deeds (*pattas*) of reduced assessment on lands which they had purchased from Sindi proprietors, or reclaimed from the waste, were the ancestors of the present Pattadārs. The Talpurs, when they had succeeded in ousting the Afghān Government from North Sind, recognised these grants, and they were confirmed by the British Government on the ground of "long enjoyment." The Pattadāri has now become a rent charge, a fixed proportion of the revenue of certain lands being paid over by Government to the Pattadār. The charitable grants require little notice. They are assignments to Saiyads, Fakirs, and others of land, shares of revenue, money or grain, which length of enjoyment before the advent of British rule was held to be a proper ground for confirming.

Garden grants comprise lands under garden cultivation held either free of assessment or on reduced rates under Sanads granted by former Governments or by our own. According to rules framed by Sir Bartle Frere, such grants are ranged under two classes :—

I.—Held without assessment.

II.—Held on the quarter ordinary assessment on garden land.

These grants are subject to the condition that the gardens are properly maintained. They are continuable to lineal heirs male, and provided, the grantee complies with certain conditions, they may be mortgaged, sold, or otherwise transferred.

## CHAPTER V.

## MISCELLANEOUS.

POPULATION OF SIND AND ITS PRINCIPAL TOWNS ; THE TWO GREAT CLASSES — MUHAMMADANS AND HINDUŚ ; SUBDIVISION INTO TRIBES AND CASTES ; THEIR RELIGION, LANGUAGE, EDUCATION, LITERATURE, DRESS, AND CEREMONIES—SIKHS—RELIGIOUS MENDICANTS—REVENUE OF SIND ; LAND AND SAYER ; CANAL REVENUE AND COST OF CLEARANCES—TRADE OF SIND ; COTTON, WOOL, AND SALT—KARĀCHI HARBOUR IMPROVEMENT WORKS—SIND RAILWAY—KARĀCHI INDUSTRIAL EXHIBITION OF 1869—CONCLUSION.

**Population.**—It is impossible to conjecture, with any attempt at even tolerable accuracy, what was the population of Sind during the several native dynasties which ruled the Province before its conquest by the British, and this for the simple reason that no census seems ever to have been taken in those times. Burnes in his visit to Sind estimated the total population at not more than one million, or something more than *sixteen* to the square mile ; but this was evidently mere guesswork, as he had no correct data afforded him upon which to base any satisfactory calculation. But Thornton does not hesitate to regard this as even too high an estimate when the great extent of arid desert and the general imperfect cultivation of the country are taken into account. It is the same with the population of the principal towns, for no two authorities seem to be agreed on the subject, and the number of inhabitants has, in nearly every case, been variously estimated by different writers. In the year 1856 a census seems to have been taken, from which it was found that exclusive of the territory of His Highness, Mir Ali Murād Khān, the number of inhabitants in Sind was 1,772,367. Of these, 1,355,891 were Muhammadans of different tribes, and 363,295 Hindus of various castes, the remaining 53,181 consisting, it was said, of people professing other religions. In 1859 the number was believed to have increased to 1,795,594 souls, though this was thought to be too high an estimate since the population of the Thar and Pārkar District was reported to have

actually decreased, owing to famine and its consequent mortality. By the latest census—that of 1872, the entire population of Sind, again excluding the native State of Khairpur, was found to have reached 2,203,177, or 430,810 more souls than in 1856, the gain in fifteen years being thus about 26 per cent. By the same census (1872) the number of inhabitants in the Khairpur State was found to be 130,350; this will, therefore, give a grand total of 2,333,527 souls for all Sind, or about 41 persons to the square mile. About the year 1840, Shikārpur appears to have been the most populous town throughout Sind, Postans estimating the place to contain nearly 30,000 people, of whom one-third only were Muhammadans. Hyderabad held the second place with 20,000 souls (Burnes' estimate). Then follow Karāchi and Khairpur, each, according to the same authority, with 15,000 inhabitants. Tatta had 12,000, and each of the following towns—Mirpur Khās, Hālā, and Lārkāna—10,000 souls. Karāchi *now* heads the list with a population estimated by the latest census at 56,753 souls, including the military garrison. This is even less than that taken in 1856, when the number was ascertained to be 56,879. It is generally believed that the present population of Karāchi stands at a higher figure than is shown by the last census of 1872. The number of inhabitants in the towns of Shikārpur and Hyderabad is much about the same, the majority inclining to Shikārpur with 38,170, while the latter has 35,272; but the towns of Tatta, Hālā, and Mirpur Khās have dwindled away to 7,951, 4,096 and 1,280 inhabitants respectively.

The people inhabiting the Province of Sind may be divided into two great classes—the Muhammadans and the Hindūs, the former being by far the more numerous and comprising quite two-thirds of the entire population.

**Muhammadans.**—The Muhammadan portion again may be divided into two great bodies—first, the Sindi proper, and second, the naturalised part of that community, such as the Saiyads, Afghāns, Balochis, Africans (or Sidis), Memons and Khwājas.

The Sindi may be considered as the descendant of the original Hindū population, who were converted to Islamism during the rule of the Ummayide dynasty of khālifas. At the time (A.D. 713) when the province was invaded by the Arabs under Muhammad Kāsim, there was in existence a large and flourishing Hindū kingdom, guarded by a well-appointed and efficient army. It was easily conquered by the Muslim invaders, and by them was entrusted to a family of Sindi converts, whose descendants are still settled in the country.

The character of the Sindi is thus described by Captain Burton,



whose knowledge and intimate acquaintance with the people inhabiting the great valley of the Indus make him a competent authority on this point :

“ The Sindi 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 dishonourable, 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 Hindū Shroffs and Banyas, who have robbed him and impoverished him to the utmost.”

This unfavourable estimate of the Sindi would appear to be borne out by other authorities, for we find Pottinger representing him to be “ avaricious, full of deceit, cruel, ungrateful, and such a stranger to veracity, that among bordering nations the term ‘ Sindian dog ’ is synonymous with ‘ treacherous liar.’ ”

Burnes, on the other hand, speaks favourably of those with whom he came in contact during his journey through the province, observing that they were kindly, grateful, faithful, and of unimpeachable honesty, as he and his company lost nothing in their progress through the country, though all they possessed was at the mercy of the rude individuals casually drawn to serve as guards or servants. Closer acquaintance with the Sindi shows him to possess many good qualities ; he is quiet and inoffensive, though it must, at the same time, be admitted that he is excessively lazy and indolent.

✓ In religion the Sindi is a Sūni, though some of them belong to the Shia sect. There are few learned men among them, notwithstanding that the course of study pursued by their Akhūnds (or instructors) lasts from fifteen to twenty years. Burton thus describes the system and subjects in which instruction is given :

“ The student begins with Arabic grammar and syntax, then proceeds to *mantak* (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 Kurān, with its different *tapsu* (or commentaries). The Hadis (or traditionary sayings of the Prophet), and other branches of education, viz., theology, astrology, magic, alchemy, mathematics, &c., are occasionally studied.”

There are very many large clans or families among the Sindis, numbering probably more than three hundred. As a rule, there is no distinction of caste, except that followers of certain avocations

are considered low and vile. Thus the kori (weaver), dhēdh and chamār (workers in leather), bālē-shāhī (sweepers), and daphēr or shikāri (huntsmen), are so held in abomination. The latter, though Musalmāns, eat carrion, live in the different shikārgahs (or hunting preserves), and are not permitted to enter a mosque. When one of this tribe wishes to become a good Musalmān, he lights four fires, and stands in the middle until sufficiently purified by the heat. After this ordeal he is allowed to enter the Māchhi class.

“The Sīndi language,” says Burton, “is perfectly distinct from any spoken in India. It is used with many varieties from the northern boundary of K̄ātiāwār as far north as Bahāwalpur, and extends from the hills in the west to the desert which separates Sind from the eastern portion of the Indian peninsula. Its grammatical structure is heterogeneous, the noun and its branches belonging to the Sanskrit, 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. Pure as well as corrupted Sanskrit words, perfectly unintelligible to unlearned natives of the Indian Peninsula, are perpetually occurring in Sīndi.”

Dr. E. Trumpp, a later authority, thus writes of it in 1872.—“The Sīndi is a pure Sanskritical language, more free from foreign elements than any other of the North Indian vernaculars. It is much more closely related to the old Prākṛit than the Marāthi, Hindi, Panjābi and Bangālī of our days, and it has preserved an exuberance of grammatical forms for which all its sisters may well envy it. The Sīndi is by no means an easy language, but is on the contrary beset with more intricacies and difficulties than any of its Prākṛit sisters. Still, on the other hand, it amply repays the philologist for the labour he may bestow on it; for the Sīndi has preserved a great many forms, for which we look in vain in the cognate idioms. The Sīndi which is spoken within the boundaries of Sind proper is divided into three dialects, which grammatically differ very little from each other, but offer considerable discrepancies in point of pronunciation. The dialect of Lower Sind, comprising the Indus delta and the sea-coast, is called *lāri*, from Lar, by which Lower Sind is designated. The dialect spoken north of Hyderabad is called *Siraiki*, from Siro, by which upper Sind is designated. The dialect in vogue in the Thar, or desert of Sind, is called *tharēli*, from ‘thar’ the desert.”

The literature contained in the Sīndi language is not considered

to be of much account, consisting mostly of translations from Arabic works on divinity and moral tales, as well as a few rude poems on the popular traditions of the country. These latter were composed by Sindi Muhammadans, and are written in the Arabic character called the "Nāskhi."

Among the six different classes naturalised in Sind are the four great families of the Saiyads: the Bokhāri, Matāri, Shirāzi, and the I.ĕkhirāyi, some of whom have been settled in the country for about three hundred years. They were greatly patronised by the princes of the Kalhora dynasty, and succeeded in obtaining considerable grants of land from successive rulers of that house; but they found the Talpurs, though of the same sect, were not inclined to be so liberal. Another of these classes, the Afghāns (or Pathāns), who came originally from Khorasān, have also been settled in Sind for some generations, and are generally found about Hyderabad and in northern Sind. They are far superior to the Sindi in personal appearance, strength, and courage.

The Sind Balochis are the descendants of a mountain tribe, inhabiting the tract of country known as Balochisthān, to the west of the range of mountains which separate it from Sind. They are said to have come originally from Aleppo in Syria. Many of them settled in Sind when the Talpur government succeeded that of the Kalhoras, and received as a reward for their services lands and pensions. Burton has thus drawn the character of the Baloch:

"He is a far superior being to the Sindi; is fairer in complexion, more powerfully formed, of a hardier 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."

In religion they are Sūnis, but the Talpur Mirs on their coming to Sind became votaries of the Shia sect. The Balochis are, as a rule, grossly illiterate, and their language, which is very little known, appears to contain no literature except the productions of their Bhats (or bards). The number of clans settled in the plains is nearly eighty, and of these the Rind is the chief, but many of these subdivisions merely denote families, or the descendants of men of renown whose names the families bear.

The fourth of the naturalised classes are the Slaves (or Sidis),

who were originally Africans, and came into Sind by way of Maskât. They were known as Zanzibâris, Bombâsis, and Habshis (Abyssinians), and were generally imported and sold when young. They became the inmates of the families which purchased them, and lived so comfortably, that at the conquest of the province by the British, emancipation was to them rather an evil than a benefit. They do not marry, as a rule, out of their own caste, and their progeny were slaves like themselves. When a Muhammadan Sindi married a Sidiâni, the half-caste offspring was called a Gaddo, while the children of a Sindi father and a Gaddo mother were known as "Kambrânis."

Of the last two classes on the list of Muhammadans, the Memons and Khwâjas, Burton thus writes :

"The Memons are found settled in Sind, especially about Hyderabad, Sehwan, and Karâchi. They doubtless were originally Kachhi Hindûs, who became Muslims, and probably emigrated to Sind during the Kalhora rule. Their avocations are trade, agriculture, and breeding camels; their dress is that of the Sindi, and their faith that of Abu Hanifî. Some of them are very learned men, and they have done more than any other class to introduce the religious sciences into Sind. No class of people in Sind is more highly spoken of than the Memon.

"There are but few Khwâjas settled in Sind. Their own account of themselves is that they originally emigrated from Persia, and it is almost certain that they fled from their native country when the Ismailyeh heresy (to which they still cleave) was so severely treated by Halâku Khân. They differ from the Ismailyehs in one essential point, viz., whereas that people only believe in seven Imâms, the Khwâjas continue the line up to the present day. They are therefore heterodox Shias, as they reject Abûbakar, Omar, and Osmân, and reverence Ali, Hasan Husain, Zainul Abidin, Muhammad-i-Bakr, and Imâm Giâfari Sâdik. The Khwâjas, male and female, all wear white, red, and coloured clothes, avoiding dark-blue, the usual colour of the country. They have their own Mukhî in Karâchi, and never go to the Muslim Kâzis to settle their religious differences. Under the Mukhî are a number of inferior officers called Wâris, and their probity (among their own caste) and strictness of life are highly spoken of." At present the Khwâjas are numerous in Karâchi.

**Hindûs.**—The Hindû population of Sind may be divided into the following principal castes or divisions. Brahmans, Kshatrias, Waishias, and Sûdras, with their different subdivisions, all of which have been so well described by Captain Burton in

his writings on the "customs, language, and literature of the people of Sind," that copious extracts are here made from them.

✓ "The Hindū portion of the community occupies in Sind the same social position that the Muhammadans do in India. It is very probable that few or none of the Hindū families which existed in Sind at the time of the first Muslim inroad have survived the persecution to which they were subjected, 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 Panjābi origin, as their features, manners, religion, ceremonies, and opinions, as well as their names, sufficiently prove."

Of the Brahmans we find two chief castes which do not intermarry, viz., Pokarno and Sārsudh. The former are Shēwaks (or worshippers) of Māhārāj, and are therefore pure Hindūs. They do not eat flesh; they wear the tarban, not the Sind cap; they shave their beards and dress very much like the common traders or Shāukārs. The Pokarno considers himself superior to the Sārsudh; he can generally read if not understand Sanskrit, and is skilled in drawing out the "Janam-patri," or horoscopes of children. Few of this caste learn Persian or undertake business of any kind, public or private. They live by instructing the Hindūs in their Dharma or religious duties, by deciding horary questions, and writing out the Tripno or astrological aspect of a man's fortunes, &c. 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 Pokarno takes the affix Dās, Rām, Chand, Rāi, Mal, Ji, and Misr before or after his name; as Misr Sukhdēvji, Tāro Misr.

The Sārsudh worships Māhādēva (or Shiva), and Bhauani his Sakti (or consort). Most of the Tirthas, or places of Hindū pilgrimage in Sind and Balochisthān, are sacred to the latter deity,—as Hinglāj—the Makli Hills near Tatta and Dhāra Tirth ✓ in the Laki Hills near Sehwan. The Sārsudh 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 Hindūs in Sind will not kill any animals themselves. The Sārsudh marries in his own caste. As regards dress, he wears the clothes of a Shāukār or Hindū merchant, and shaves the beard. Most of them wear a white tarban, whereas the Pokarno prefers a red one; and the former will occasionally

assume the costume of an āmil (or an individual in civil employment), whereas the latter, as a rule, never does so. There are considerable numbers of this caste at Hyderabad and Schwan. Few of them learn Persian, but confine themselves to Sanskrit and the Gurmukhī writings, and it is very rare to find any of them engaged in Government business.

Of the Kshatrias there are but few who can lay claim to the honours of that caste, and here it may be observed that it is general throughout India for the different castes of fighting Sūdras, whose peculiar Dharma or religious duty it is to engage in war and plunder, to call themselves Kshatrias, although according to Hindū history, all that race was annihilated by divine wrath. Burton affirms that the Kshatria of Sind is almost invariably a Wāni or Banya, who becomes a follower of Nanak Shāh's faith: in other words, a common Sikh; but this statement is by others held to be altogether incorrect. He generally engages in trade; some of them are āmils, and their studies are usually confined to Gurmukhī and the writings of the Gurus. They wear no peculiar costume, and do not necessarily shave or wear the beard; they are either deists or worshippers of the Hindū deities indifferently, and feed like the Sārsudh Brāhmins.

Of the Waishia, Wāni, or Banya caste, there is one great family, the Lohāno. It is as usual divided and subdivided almost *ad infinitum*, but the distinguishing features of the race are still sufficiently prominent. To treat of the Lohāno caste is to describe the main body of Hindūs in Sind. The Lohāno wears the thread of the twice-born, though he is a very imperfect specimen of the Waishia race. He eats meat, drinks spirits, and will not object to fish and onions. Some are followers of the Vaishnia faith, others worship the different incarnations of Shiva and his consort; some again are of the Sikh faith, while others venerate the river (Indus) god and his Vazir, under the respective names of Jind Pīr and Udēro Lāl. Their devotions are neither frequent nor regular; they generally content themselves with attending the Mēla, Jātrā, and Darsan (i.e., different kinds of religious fairs and meetings), where a great deal more licentiousness than devotion is to be met with.

They are said to possess a few works in Sindī written in the Khudāwādi character, but their prayers are usually in the Panjābī, rarely in the Sanskrit or Persian languages.

The Gurus (or religious instructors) read and explain books to their followers, and the Lohānos, who engage in trade, always keep their Vahiyūn or books in the rude and all but illegible

Sindi character. The two faiths are found mixed up in an unusual way in Sind; the Hindū will often become the Murid (disciple) of a Muslim, and *vice versâ*. So, too, the same Pirs, or saints, buried in different parts of the country, are not only respected by individuals of both religions, but the Hindūs will all have one name for each, and the Muhammadans another. Thus, the former venerate the river god under the name of Jind Pīr, whereas the latter call him Khwāja Khizr; in the same way Udēro Lāl becomes Shēkh Tahir; Lālū Jasarāj is converted into Pīr Mangho (Magar Pīr); Rājā Bhartari is called Lāl Shāhbāz. Of course the Hindūs claim these worthies, most probably with more justice than the Musalmāns, who have merely altered the name for their own purposes.

Contrary to the practice of high caste men in India, it is said in Sind that Hindūs who have been forcibly made Muslims and compelled to undergo circumcision, say the Kalima, 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. As a rule, however, this is not permitted.

The Lohāno may be divided into two great classes according to their several occupations: First, the āmils or Government servants: and secondly, the Shāukārs, Hatwārā, Pokhwārā, &c., i.e., merchants, shopkeepers, agriculturists, &c.

The āmils have adopted the Musalmān costume, wear the topi (cylindrical hat), the beard long, the suthan (or drawers), and only shave the crown of the head. They do not, however, trim the mustachios according to the Sunnat, but often put on the Tilak, or sectarian mark, and wear the shirt with a gore across the *left* breast, whereas the Muhammadans always have the opening down the *right* side. The āmils have not adopted circumcision, and neither eat nor intermarry with the followers of Muhammad. Like other Lohānos, they eat the same meat as the Sārsudh Brahman, buy flesh from Musalmāns (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, and dislike, though will not refuse, to marry a widow. In the Khudābādī caste of Lohāno, if a girl becomes a widow early in life, the deceased husband's brother generally marries her. The ceremony preliminary to marriage is called Mangno, or betrothal; it is conducted through the intervention of a Sārsudh

and a Jājik (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 cocoa-nuts as well as 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; Brāhmans and Gurus attend to read out the different formulas, and, lastly, the bride is taken to the bridegroom's house.

As regards education, the āmil used to begin by going to a Brāhman, where some ceremonies were gone through, and the Sanskrit alphabet was read to him. He then attended some Akhūnd, or teacher, and read from morning till night, with a short break about the middle of the day. The first book was the Bābnāmo, or spelling-book; next, a short collection of verses called the Sat Kitābi, then the Gulistān of Saadi, lastly the Insha of Harkaran. He also translated Persian into Sindi *vivā voce*, learnt to write the former tongue, and began arithmetic. When he had acquired the elements of the latter study, he was introduced into one of the Daftars by some relation, and he there put into practice that of which he had learned the theory.

As regards the general appearance and character of the āmil he may be described as a more robust, and better-looking man than the common Sindi, and this difference may be accounted for by his indulging in meat diet, and in spirits instead of bhang.

He is rather acute than talented, and evinces much readiness in accounts, and in managing money matters. Even the Mirs, with all their hatred and contempt for Kāfirs, could not collect or dispose of their revenues without the aid of Hindū āmils. But although the native rulers had checks over their officers, no Mir could ever consider himself safe from the most impudent frauds.

Some of the Shāukars (or Sēts), wear the costume of the āmil, others are dressed like the common Hindū shopkeeper, and agriculturists. The clothes of the latter are a tarban, an angarkho (or long cotton coat), a lung or poteyo, a kind of dhotar, a kamarbund and a bochhan, or handkerchief thrown over the shoulders. They shave the beard, but do not trim the mustachios; wear the janio (thread), and tilak, and shave the crown and back of the head, so as to leave merely a choti (or lock on the



top), and *chūna* (or bunches of hair on either side). For his education the trader goes to a *Wājho* (or *Hindū* teacher), who instructs him in the *Banyā-Sindi* alphabet, reading and writing, together with a little arithmetic and book-keeping. In a year or two he is supposed to have finished his studies, and begins to learn his business by practice. It is needless to say that these individuals prove themselves to be very acute, and show the same aptitude for business as their brethren in India. Some of them, as, for instance, the *Shikārpuri* merchants, wander over all Central Asia, and it is commonly said in *Afghānistān*, "that everywhere you meet with a *Jat* and a *Kirār*" (or *Sindi-Banyā*).

The names of the *āmils*, merchants, shopkeepers, and other members of the *Waishia* class, are usually of *Sanskrit* derivation, and the different affixes, *Mal*, *Chand*, *Rāi*, *Rām*, *Dās*, *Lāl*, &c., are generally added to the individual's name.

Of the *Sūdra*, or servile caste, there are several varieties. They have all adopted the *Janio* (thread) and *Tilak*, and intermarry in their own castes. The *Sonāro* is, properly speaking, a mixed caste, descended from a *Brahman* father and a *Sūdra* mother. In *Sind* he is considered as one of the servile race, and, like his brethren elsewhere, is distinguished for a superior degree of craftiness, and is usually a wealthy man for his station in life. The *Hindū* females in *Sind* wear a profusion of ornaments, and the *Muhammadans* have imitated the custom, but in a lesser degree. The *Khati*, or dyer caste, is a large one in *Sind*, as coloured clothes are much used by both *Hindūs* and *Musalmāns*. They generally live at some distance from the large towns, but many are nevertheless found there, and there is no religious prejudice against them. The "*Sochī*," or shoemaker, will not dress or tan leather; he buys it from the *Muhammadan Mochī* (or tanner), sews it, and, if required, embroiders it with silk. The *Hajām* (or barber) generally comes from about *Jaisalmir*, but he is of *Sindi* extraction, and wears the dress of his own country, though his *tarban* is generally of the *Jaisalmir* form.

The above are the chief *Sūdra* castes in *Sind*; they worship *Māhādēv* and *Dēvi*, and have no priests but *Brahmans*. The names of the *Sūdras* may be known by the absence of the affixes *Rām*, *Mal*, &c., as also by the use of the appellation of the caste after the individual's own name, thus: *Tejū Wāhan*, *Parsū Sonāro*, *Harū Khati*, *Khatan Sochī*, &c.

**Sikhs.**—Besides these different classes of *Hindūs*, there are now a good many of the nondescripts called *Sikhs*, resident at *Hyderabad*, *Sehwan*, and other places in *Sind*. They have

separated into two grand divisions, viz., the Lohāno Sikh, and the Akali, or Khālsa. The main difference seems to be that the latter will eat some meats, such as the domestic fowl, which the Lohāno 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. Their devotions are in the Panjābi language, and their holy books, as the *Adi Granth*, the *Dashama Granth*, and the *Panj Granth*, are composed in that dialect, and written in the *Gurmukhi* character. These sacred volumes are placed in *Dharamsālas*, or places devoted to their reception, and a *fakir* (called an *udhāsi*), with a *murid* (a young follower, technically called a "*tahlio*"), are set to watch over and preserve them.

**Religious Medicants.**—Of the religious medicants in *Sind* there are the *Sanāsi*, *Jogi*, *Gosāin* and *Ogar*, all of whom are of *Brahman* origin. The *Sanāsi* has ochre-coloured clothes, and wears a *tarban*, and not a cap. He subsists by begging, and acquires great consideration by the sale of his *mantras* and *jantras* (charms). He worships *Māhādēv*, and never marries. If he dies in the course of nature, he directs his body to be disposed of either by *dhartidak* (burying in the earth), or *jala-dak* (throwing into the water). The former is generally, the latter only occasionally, practised.

The *Jogis* have ochre-coloured clothes, but wear caps instead of *tarbans*. Their habitations are called "*āstān*," and they live by the same means as the *Sanāsi*. When dying, they are not allowed to lie down, but are placed in a sitting position, leaning forward on a *bairāgin* (a wooden pillow). For the *Jogi's* tomb they dig a pit, fill it half full of salt, place a *pahuri* (mattock) in the hand of the corpse, and then seat it upon the layer of salt, in the position called *patrole* (cross-legged), with the arms resting on the *bairāgin*. 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 *Gosāin* is in appearance like the *Sanāsi*, 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 *Jogi*, as the *Gosāin* does the *Sanāsi*. He carries a piece of hollow stick, fastened by a thread round his neck, and invariably blows through it before undertaking any action.

All the four classes above mentioned worship *Māhādēv*, *Gorak-nāth* (a son of *Māhādēv* according to their account), and *Babaki-*

nath, a peculiar *avatār* of Gorakṇāth, worshipped at Hinglāj, in Balochisthān, and so called from the Sindi word *bhabhkan* (to boil up), because when a votary approaches the holy spot the mud boils up of its own accord.

The Hindū females in Sind appear to be fond of intrigue, especially among their own people, and possess a considerable share of personal beauty. 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 Shikārpur, 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, but treats the fatherless offspring with a truly paternal kindness.

All the Hindūs, with the exception of the religious mendicants only, burn the bodies of their dead. When a rich man is near death, copious alms are then distributed to the poor; but if not wealthy, a little wheat and ghi are considered sufficient. After death the mourners bring seven pieces of pure wood, as that of the tamarisk tree, to make up the tatti (or bier). Upon this juar stalks are placed, then some white cloth, next a layer of cotton, then a piece of fine cotton cloth, and lastly the corpse in a "khafan" (kind of shroud), with a shawl, a piece of kimkhāb mashrū, gulbadan, or khudbāf, thrown over it, is tied down with fine string. Perfumes and flowers are also thrown upon it, and after a few short ceremonies, the bier is raised by four of the nearest relations, who are relieved of their burden by other friends of the deceased at certain intervals. When arrived at the "masān" (burning-place), a pot full of cold water is thrown over the body, which is placed upon a pyre of bābul wood; a Brahman then approaches, puts a piece of money and other articles in the mouth of the corpse, after which the four relatives, who first raised the body, light the pyre at the corners. The mourners retire till the corpse is consumed, when 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 till the expiration of twelve days.

**Revenue.**—The revenue of the province of Sind is derived mostly from the land, quite two-thirds of the whole amount being

drawn from this source, but the fluctuating nature of the annual inundation of the river, upon which nearly all the cultivation is mainly dependent, at times considerably affects this important item of the state revenue. As a general rule, remissions of revenue are disallowed in those parts of the province where the survey settlement has been introduced, except when any *extraordinary* injury happens to the crops. Nor are the causes of a failure of crops in Sind few or unfrequent; blight at times affects them to some extent; overflowing by the river waters—and the consequent destruction of *bandhs* is occasionally a serious calamity; while the visitation of locusts in a single season produces such wholesale mischief and devastation, as to necessitate the grant of remissions to a very considerable extent. From this last cause alone a remission of upwards of 1½ lakhs of rupees had to be made during the revenue year of 1869-70. The land revenue of Sind has, notwithstanding these obstructions, steadily increased in a highly satisfactory manner, and this is especially noticeable as regards the Shikārpur Collectorate, and the frontier district of Upper Sind. The net land revenue, after deducting alienations and remissions, which in 1853-54 was 21,56,336 rupees, had in 1873-74 risen to nearly 40 lakhs of rupees. The following table, showing the annual average of *net* land revenue for three distinct periods, each of six years' duration, will more clearly demonstrate the gradual increase which has of late years attended this particular item of the state revenue :

DISTRICTS.	Average for Six Years from 1856-57 to 1861-62.	Average for Six Years from 1862-63 to 1867-68.	Average for Six Years from 1868-69 to 1873-74.
	rupees.	rupees	rupees.
Frontier (upper Sind) . . . . .	89,690	1,88,115	2,30,603
Shikārpur . . . . .	12,89,044	16,53,072	17,25,721
Hyderabad . . . . .	10,74,164	10,09,162	11,16,556
Thar and Pārkar . . . . .	1,28,708	1,28,377	2,22,508
Karāchi . . . . .	5,56,555	6,40,472	6,27,140
Total land revenue Rs.	31,38,161	36,19,198	39,22,528

The total receipts from Sayer (*Sūr*) revenue during 1873-74 amounted in the aggregate to 17,55,648 rupees. This, as a source of revenue, collected from the different districts in Sind, is shown in the following statement for the three years ending 1873-74 :

DISTRICTS	1871-72.	1872-73	1873-74
	rupees.	rupees.	rupees.
Frontier (Upper Sind) . . .	54,122	38,297	48,559
Shikārpur . . . . .	4,31,945	3,59,771	3,22,187
Hyderabad . . . . .	4,18,755	4,07,574	3,88,862
Karāchi . . . . .	5,37,607	5,40,102	5,49,859
Customs . . . . .	5,31,832	3,91,439	3,68,921
Thar and Pārkar . . . . .	92,430	75,519	77,260
Total rupees . . . . .	20,66,691	18,12,702	17,55,648

The entire Government revenue, after deducting alienations, from the five districts in Sind, including also customs' collections, and the charges of collection of this revenue for the year 1873-74, are shown in one and the same table as follows :

DISTRICTS.	Entire Government Revenue.	Actual Charges of Collection.
	rupees.	rupees.
Frontier (Upper Sind) . . .	3,12,058	19,870
Shikārpur . . . . .	19,06,309	1,67,196
Hyderabad . . . . .	14,49,443	1,57,637
Karāchi . . . . .	10,21,878	1,53,740
Thar and Pārkar . . . . .	3,11,105	46,021
Customs . . . . .	3,68,921	50,498
Total rupees . . . . .	53,69,714	5,94,962

One of the most important charges against income is the cost of canal clearances. From 1853-54 up to 1864-65, a period of twelve years, no less a sum than 51,74,561 rupees had been expended, including establishments on canals generally throughout the province, excepting on those in the Thar and Pārkar District, the largest expenditure being in the Hyderabad Collectorate, where, during the six years ending 1864-65, the expenditure on revenue was very nearly 28 per cent., and the smallest in that of Shikārpur, where the expenditure was only a little over 6 per cent. The cause of this excessive cost in the former district is attributable in a great measure to the number and length of the canals to be cleared out by Government agency, those in the Hyderabad District being in this respect much more numerous than is the case in either the Shikārpur Collectorate or elsewhere in Sind. The total expenditure on canals throughout Sind in the year 1872-73 was 9,03,950 rupees, out of which sum 2,80,942 rupees alone were spent on the canals in the Hyderabad District.

The entire canal revenue for the year 1872-73 and 1873-74, as also the expenditure for the years 1871-72 and 1872-73.

in the different districts in Sind, are shown in the following table :

DISTRICTS.	Revenue.		Expenditure.	
	1872-73	1873-74.	1871-72	1872-73
	rupees.	rupees.	rupees.	rupees.
Karāchi . . . . .	5,58,431	5,22,222	1,92,211	1,44,814
Hyderabad . . . . .	10,45,144	9,76,248	3,04,978	2,80,942
Shikārpur . . . . .	13,91,832	13,78,407	1,70,961	2,82,832
Frontier District . . . . .	1,85,881	1,79,081	45,469	50,997
Upper Nāra (Shukārpur), Lower Nāra, Mithrau canal, Thar canal, and branches . . . . .	3,22,681	1,82,308	87,738	1,44,365
Total . . . . .	35,03,969	32,38,266	8,01,357	9,03,950

The receipts from the Sind Forest Department, a most important source of revenue to Government, have already been referred to in Chapter I., page 14.

**Trade.**—In referring to the trade of the Province of Sind, so much of it is concentrated at its chief port, Karāchi, under which heading it will be found entered into in considerable detail, that an account of it as carried on there will almost suffice for the entire province. To show that this is so, the real value of the total imports and exports of merchandise and treasure in the Province of Sind and its chief port, from and to foreign ports and ports in other Presidencies of British India, are here supplied in the following tables for a period of five years, ending with 1873-74 :

## IMPORTS.

## PROVINCE OF SIND (EXCLUDING KARĀCHI).

	1869-70.	1870-71	1871-72	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees	rupees.
Merchandise . . . . .	2,90,192	4,12,347	4,49,456	5,17,387	3,78,054
Stores on Government account	..	..	..	..	..
Treasure—Private Trade . . . . .	43,836	74,650	59,459	32,353	24,369
"    Government . . . . .	..	..	..	..	..
Total rupees . . . . .	3,34,028	4,86,997	5,08,915	5,49,740	4,02,423

## KARĀCHI.

	1869-70.	1870-71.	1871-72.	1872-73	1873-74.
	rupees.	rupees.	rupees.	rupees	rupees
Merchandise . . . . .	2,04,35,881	1,78,92,913	1,58,78,167	1,58,84,900	1,64,28,759
Stores on Government account	28,50,064	9,08,006	11,47,334	6,12,064	8,71,252
Treasure—Private Trade . . . . .	3,89,191	1,49,208	3,10,390	2,36,553	2,27,228
"    Government . . . . .	38,109	24,000	..	1,02,802	3,17,000
Total rupees . . . . .	2,27,13,745	1,89,74,127	1,73,35,897	1,68,36,319	1,77,44,239

## EXPORTS.

## PROVINCE OF SIND (EXCLUDING KARĀCHI).

	1869-70.	1870-71	1871-72	1872-73	1873-74
	rupees.	rupees.	rupees.	rupees.	rupees
Merchandise—Country . .	14,91,887	14,31,793	22,83,732	24,32,520	12,53,994
"    Foreign . .	2,002	1,475	2,075	6,539	3,753
Stores on Government account	..	..	..	..	..
Treasure—Private Trade . .	..	..	..	..	..
"    Government . .	..	..	..	..	..
Total rupees . .	14,93,889	14,33,268	22,85,807	24,39,059	12,57,747

## KARĀCHI.

	1869-70.	1870-71.	1871-72.	1872-73	1873-74
	rupees.	rupees	rupees.	rupees.	rupees
Merchandise—Country . .	1,84,44,093	1,83,69,374	1,25,02,457	1,69,96,502	1,97,45,591
"    Foreign . .	2,96,152	4,41,683	3,92,809	3,90,206	2,86,322
Stores on Government account	25,500	19,560	10,000	..	22,500
Treasure—Private Trade . .	1,09,426	87,340	91,998	67,946	2,27,278
"    Government . .	29,070	..	25,00,000	21,852	8,42,500
Total rupees . .	1,89,04,841	1,89,17,957	1,54,97,324	1,74,76,506	2,11,24,191

The chief staple articles of export from Sind, are cotton, wool, and grain of different kinds.

**Cotton.**—As cotton has for several years past become an article of considerable commercial export from Karāchi, it will be necessary here to give some notice of the remarkable rise of this important staple, the produce of both the Panjāb and Sind. This latter province formerly imported the cotton it needed to the amount of many thousands of maunds annually, principally from Kachh and Gujarāt, but about 1840 the plant began to be cultivated extensively in Sind itself. In 1861, cotton, of the indigenous kind only, was first exported from Sind, and this gradually increased, till in 1866 it reached 28,128,900 lbs., or 63,734 pressed bales, and 29,220 cwts. of unpressed cotton; again, in 1870 the quantity exported reached 28,789,818 lbs., or 69,759 pressed bales, and 12,324 cwts. of unpressed cotton, the largest quantity of *pressed* cotton ever sent from the port of Karāchi in any single year. All this cotton was not however the produce of Sind, the average yield at present being not more than from 18,000 to 20,000 bales annually, from a cultivated area of from 55,000 to 60,000 acres, though it is calculated that the province possesses at least three millions of acres capable of growing the plant. The remainder is made up of cotton sent from the Mūltān, Lahor, and Amritsar districts of the Panjāb, which is nevertheless known in the home markets under the name of "Sind."

The quantity of cotton pressed and unpressed exported to Bombay and foreign ports from 1863 to 1874, a period of twelve years, is as follows :

	1863.	1864.	1865.	1866	1867	1868.
Pressed bales . . . . .	19,114	38,705	32,073	63,734	42,403	30,911
Unpressed cotton. Cwts .	321,773	148,543	10,773	29,220	7,321	6,384
	1869	1870	1871.	1872.	1873	1874
Pressed bales . . . . .	39,491	69,759	52,187	45,363	32,407	25,866
Unpressed cotton. Cwts .	11,362	12,324	2,019	2,539	890	3,470

A pressed bale of Sind cotton contains on an average 395 lbs., upon which a fee of *four annas* would represent a tax per pound of  $\cdot 12$  pies, one of *three annas* a tax of only  $\cdot 09$  pies per pound, and of *two annas* but  $\cdot 06$  pies. The following table will show the *quantity* and *value* of the exports of raw cotton from Karāchi from 1863-64 to 1873-74, taken from the records of the Collector of Customs :

YEAR	Quantity in Pounds	Value.
		rupees
1863-64	4,18,15,131	2,11,60,043
1864-65	2,07,43,381	1,06,31,206
1865-66	2,51,44,183	96,55,403
1866-67	1,73,92,887	58,00,023
1867-68	1,31,74,016	40,18,334
1868-69	1,45,06,332	47,11,707
1869-70	2,14,80,723	74,71,837
1870-71	2,45,19,383	83,01,551
1871-72	2,15,40,445	62,66,055
1872-73	1,49,16,129	43,71,244
1873-74	1,38,94,359	38,19,305

The Cotton Frauds Act (Bom. IX. of 1863) was introduced into Sind in March 1864. By it a cotton inspector with a small establishment was appointed to carry out the provisions of the Act, and a small fee, at first four annas, but afterwards reduced to three annas, and again to two annas in 1872, was levied on every pressed bale of cotton exported to foreign ports. A sub-inspector was subsequently appointed in 1866; the Act, though directed to be placed in abeyance from 1st July 1875, is for the present still in force. Sind cotton, which, as compared with Fair Dhollera cotton, showed in 1863 a difference in money value ranging from 4*d.* to 6*d.* per pound, had in 1870 so far improved in *quality* as to reduce this difference to but 1*d.* to 1½*d.* Cotton



experiments on a large scale, but with *exotic* seed only, were carried out, though unsuccessfully, in different parts of the province between 1853 and 1855. In 1868 other trials were again set on foot, and in 1869 a practical gardener from Scotland was sent to Sind to conduct experiments at the village of Salāro, near Hālā in the Hyderabad Collectorate. These experiments have not been confined solely to the production of various kinds of cotton, exotic and indigenous, but they have been extended to the raising of timber and fruit trees as well as flowers and vegetables. The land so taken up has thus been converted into a kind of economic garden. At the late Industrial Exhibition held at Karāchi in 1869, several prizes were awarded for the excellent show of raw cotton, both indigenous and from exotic seed, the produce of Sind. The great desiderata required to make Sind cotton more sought after in the cotton marts of the world, would seem to be an increased length of staple and greater cleanliness; these, it is believed, can be obtained only by more careful attention being given to the culture of the plant, and to the picking and cleaning of the wool. During 1869 and 1870 a large trade in cotton-wool sprang up with China, where Sind cotton is much used for padding the winter coats of the people in the northern part of that extensive empire. A description of cotton exported from Karāchi, and there known as "Dera Mūltān," is generally very free from stain, and is in great request among spinners in Continental Europe. It is from the yarn spun from this cotton that the bright white sun-bonnets worn by the female peasantry in the south of France are made. At a time in 1870 when "Fair Dhollera" cotton was quoted at from  $9\frac{1}{2}d.$  to  $9\frac{3}{8}d.$  per pound, good fair "Dera" realised from  $8\frac{7}{8}d.$  to  $9d.$  per pound.

**Wool.**—The wool trade of Sind may be considered another of its important staples, and it is one which, notwithstanding its great increase during the past twenty years, is still capable of much expansion and improvement. Both Sind and the Ferozpur district of the Panjāb furnish wool for exportation, but by far the largest and best supply of this article is received from Afghānisthān and Balochisthān, though the great complaint has been, and still continues to be, the dirty condition in which it comes into the market, a fact partly owing to carelessness and indifference on the part of the owner, and to the Banyas preferring to purchase it dirty and unwashed, because it weighs heavier. So early as 1853 some Sind wool was despatched to England, where it realised in sale about forty per cent. upon its actual value.

To improve the breed of sheep in Balochisthān, some rams of the best Leicester breed were imported into Sind in 1860, and

of these, three were placed with the Political Agent at the Court of the Khān of Kelāt, with the view of their being let out to native chieftains under certain restrictions. Some rams of the Hazara breed were also introduced at various times with the same object. In 1868, several packages of wool from sheep crossed by English rams were received in Karāchi from the Political Superintendent, Upper Sind Frontier, for valuation, and these were sent to brokers at Liverpool, who reported that they were perfectly distinct from any growth coming under the ordinary appellation of East Indian wool. The prices put upon these samples varied from 6*d.* to 10*d.* per pound, and the English brokers were decidedly of opinion that the wool would be much improved in value by a continuation of the cross between the indigenous ewe and a Cheviot or Leicester ram.

Colonel Sir Henry R. Green, formerly Political Superintendent, Upper Sind Frontier, has placed the following opinion on record with reference to the improvement of the wool trade in Balochisthān:

"I believe myself, that if two or three respectable native agents of European firms, with capital, could be persuaded to take up their residence at Kelāt, and who would only accept good clean wool, giving a fair price for it, that the sheep-owners would soon find out what was for their benefit, and they would then turn their minds to improving both the wool and the breed of sheep." The wool from the native sheep is in England used to make blankets, carpets, and coarse woollen cloths. To enable the wool intended for exportation from Karāchi to be sent in a more cleanly condition, certain sites for wool-washing, situate on the other side of the Layāri river, were made over to the Karāchi Chamber of Commerce by the Municipality in 1869, but notwithstanding this precaution, it was remarked by the Chamber, in their report of 1870, that the wool exported showed no improvement either in quality or condition. The *value* of the exports of wool from Karāchi to Bombay and foreign ports during the past twelve years, ending with 1873-74, is as follows:

1862-63	1863-64.	1864-65.	1865-66.	1866-67.	1867-68
rupees. 71,44,305	rupees. 66,11,326	rupees. 58,82,952	rupees. 64,18,801	rupees. 38,12,654	rupees. 35,26,033
1868-69	1869-70	1870-71.	1871-72.	1872-73.	1873-74.
rupees. 46,49,899	rupees. 29,99,747	rupees. 39,95,958	rupees. 63,50,924	rupees. 62,88,795	rupees. 63,48,740

**Salt.**—In the Shāhbandar district of the Karāchi Collectorate, and bordering on the Sirganda Creek, one of the eastern arms of the Indus, and readily accessible to small craft of from fifty to sixty tons burthen, are very extensive salt deposits of the purest description, and capable—according to Captain Burke, of the Bombay Engineers, who surveyed them in 1847—of supplying the whole world with the salt it needed for a hundred years. It is of a kind generally known as bay salt, but independently of its purity, it possesses several advantages over manufactured salt, being in large crystals, and in consequence less liable to waste. Large beds of salt have also been met with in the Hyderabad Collectorate and the Thar and Pārkar districts, but its exportation has been found unprofitable, owing to the heavy cost of transit. The Sirganda salt has at various times been exported to Calcutta, and other places, but the excise duty (eight annas per maund) charged upon it in Sind, when sent to British Indian ports, in addition to that charged at the port of receipt, has hitherto prevented it from competing with either English salt, or with the inferior description sent from Maskāt. In 1868, the duty on Sind salt exported to either foreign or British Indian ports was remitted, and the trade in consequence somewhat improved, but not to the extent that was anticipated. The following is a comparative statement of the *value* of salt exports from Sind from 1848–49 up to 1869–70, those years only being given in which salt was actually exported. These values, as will be seen, are of a very fluctuating character :

1848-49.	1854-55	1856-57	1857-58	1858-59	1859-60	1860-61
rupees 156	rupees. 44,587	rupees 13,074	rupees 28,000	rupees 2,09,561	rupees 26,310	rupees 2,04,023
1861-62	1862-63	1863-64	1864-65	1868-69	1869-70.	
rupees 5,88,575	rupees 54,047	rupees 65,287	rupees 1,516	rupees 22,100	rupees. 68,400	

A specimen of Sind salt was, in 1869, forwarded for examination by the Collector of Karāchi to the Chemical Analyser to the Bombay Government, who thus reported upon it :

“ It consists of a mass of large white crystals, which, with the exception of a thin exterior layer, are almost perfectly free from mechanical impurity. I failed to detect any bitter taste in the salt of which these crystals are composed. Specimens taken from the substance of the mass were found not to contain more than

'35 per cent of impurity, consisting chiefly of small quantities of lime, magnesia, and combined sulphuric acid. The salt, therefore, appears to me to be of excellent quality, and, commercially speaking, very pure; in fact, it is much more free from impurity than salt prepared by evaporation from sea-water."

**Harbour Works Improvements.**—The importance of a harbour and port at Karāchi for receiving sea-going vessels of large tonnage had engaged the attention of Sir Charles Napier soon after the conquest of Sind, but up to 1851 only one English sailing ship had entered the harbour, owing to a belief then prevailing that the bar at its entrance was rocky. In 1852, and at subsequent periods, numerous borings were made on the bar to a depth of 21 feet below low-water mark, but sand only was found, and the publication of this fact, together with better directions for entering the port, removed in some degree the prejudice entertained against it by shipmasters. In 1856 a scheme for improving the harbour by deepening the water on the bar was submitted for the opinion of Mr. James Walker, an eminent London engineer, who considered it perfectly feasible, and that compared with its great public importance, it could be accomplished at a moderate expense. His estimate of the cost of the works necessary for carrying out this object, that is to say, for providing principally for an ample width of passage for navigation, with a depth of 29 feet at high water spring tides and 25 feet at neap tides, was made in 1858 after the completion of a survey by his assistant, Mr. William Parkes, C.E., and was as follows:

	£.
1. Manora Breakwater . . . . .	110,000
2. Kiamāri Groyne . . . . .	42,000
3. Napier Mole Bridge . . . . .	40,000
4. Native Jetty or Quay . . . . .	28,000
5. New Channel . . . . .	18,000
6. Chini Creek Stoppage . . . . .	9,000
7. East Pier (if required) . . . . .	40,000
Total cost . . . . .	<u>£287,000</u>

This was exclusive of basins, quays, and graving dock, the cost of which was put down at 360,000*l.*, but being secondary considerations they were not included in the first estimate.

The bar, which it was the main object of this scheme to remove into deeper water, was found in 1856 to begin at Manora Point, and to stretch across the entrance of the harbour eastward nearly 1000 yards. Near the point it was about 300 yards wide, diminishing gradually towards the east. The depth on it at low

water spring tides ranged from 9 to 12 feet; at high water the average was 16 feet, and its greatest depth of water varied from 18 to 23 feet. This bar was supposed to be the result of the current from the harbour meeting the coast tide, its velocity being checked and rendered insufficient to support and carry out into the tideway the matter brought apparently from the westward in front of the harbour by heavy seas during southerly gales. In 1859 60 sanction for the expenditure of 128,000*l.* on a portion of these works was obtained, and between that year and 1866, the Kiamāri Groyne (or stone bank), including the East Pier, and extending for a length of 8,900 feet from Kiamāri Island to opposite Manora Point, was constructed at a cost of 3,64,000 rupees. The screw-pile bridge on the Napier Mole, the Natiye Jetty, and the removal of Deep-water Point, were also completed, while the work of the New Channel and the Chini Creek Stoppage were in course of progress. The total expenditure on these works up to the 30th April, 1866, was 28,43,000 rupees, and it was calculated that a quantity of sand, equal to 32,700,000 cubic feet, had been washed out from the harbour and entrance between 1858 and 1866, a period of eight years. The state of the bar in 1866 showed it to have extended 1000 feet to the eastward, while the west channel, near Manora Point, had quite silted up. It had also greatly narrowed about the middle of its length and had become semicircular in form. The channel from the lower part of the harbour to Kiamāri and the anchorage ground had both deepened and improved. Mr. Walker's scheme had, however, met with opposition at an early stage of its progress. In 1861, Colonel Tremenheere, chief engineer in Sind, took an unfavourable view of the project from the first, and persistently urged its abandonment. He believed that Mr. Walker's reports on the harbour had been based on very imperfect and erroneous information, but his objections will be found stated in full in his report, dated 19th May, 1864. The questions at issue were in 1865 referred to Messrs. D. & T. Stevenson, harbour engineers, of Edinburgh, whose opinion was altogether unfavourable to Mr. Walker's design, and, acting upon this, the Secretary of State for India in 1866 directed the improvement works to be stopped. In Messrs. Stevenson's opinion it was stated that the sea was the true cause of the accumulation at the entrance to Karāchi harbour, that this accumulation was of great extent *in front* of the harbour, and not a sudden diminution of depth, but a very gradual shoaling, and lastly, that the water in the bay itself was very shoal, so that in point of fact there was really no decided

“bar” properly so-called. On this opinion becoming known a committee, composed of two engineers and the master attendant of the Karāchi Port, was assembled in 1866, who reported that:

1. The effect produced by the works already executed had hitherto been greatly underrated and much misunderstood.
2. The effect was all in the precise direction anticipated by Mr. Walker; and
3. The effects so produced afforded every ground for hoping that Mr. Walker’s plan, if fully carried out, would effect all that was anticipated.

This report, which was sent by the Bombay Government to the Secretary of State for India, also fully demonstrated the necessity for constructing the Manora Breakwater, and it at the same time pointed out that the actual cost of the attempted improvement of the entrance was only 5½ lakhs or but one-fourth of the entire amount already expended. In 1867 the question of the Karāchi Harbour Improvements was referred by the Secretary of State for India (Lord Cranbourne) to the Governor of Bombay, Sir Seymour Fitzgerald, who early in 1868 visited Karāchi, and after an examination of the works strongly advised their resumption according to the plan originally laid down by Mr. Walker. In July of that year Mr. Parkes returned to Karāchi, reporting on the works already executed, which he believed had exerted a beneficial effect on the harbour, by enlarging the water area for the accommodation of 55 vessels of a tonnage ranging from 500 to 1200 tons, instead of, as formerly, for 20 ships of from 500 to 900 tons. Though admitting that no actual improvement of the entrance had as yet been effected, he strongly advised the immediate construction of the Manora Breakwater to a length of 1500 feet, as well as the admission of the Chini Creek waters into the harbour, and to these suggestions the Secretary of State extended his sanction. In March 1869, the work of depositing rubble stone, brought from the coast lying between Karāchi and Cape Monze, for the base of the breakwater was commenced, and up to the latter end of October 1870 about half the length, or 750 feet from the shore, had been formed. On 1st November of the same year the first concrete block of the breakwater (weighing 27 tons) was laid by the Commissioner in Sind, Sir W. L. Merewether, with much ceremony, and on the 22nd of February 1873 it was completed to its full length of 1503 feet, the time occupied in its construction being within two years and four months. It affords complete shelter to the western channel over the “bar” during the south-west monsoon. This channel, which has been gradually deepening, has now a depth of 20 feet

at low water spring tides, and is widened to 500 feet, the breadth it was originally intended to be. The total expenditure on these Harbour Works up to the 31st December 1873, including establishments and value of plant, buildings and land, was 449,798*l*. The expenditure on establishments amounted to 14 per cent on the gross expenditure on works.

**Sind Railway.**—It was in the month of December 1855 that an agreement was entered into by a company (afterwards known as the Sind Railway Company) with the Hon. East India Company's Government for the construction of a line of railway to join the two towns of Karāchi and Kotri (both in the Karāchi Collectorate), the entire distance being 106 miles, the main object in view being to facilitate the transmission of goods from Karāchi to Northern Sind and the Panjāb, and *vice versa*, and thus save the long river and sea route from Kotri, *viā* the Indus Delta to Karāchi. The preliminary surveys were executed and the permanent line set out during 1857-58, and on the 29th of April, 1858, the first sod was turned with much ceremony by the then Commissioner in Sind, Sir Bartle Frere. In January 1859 that portion of the line running from the landing-place at Kiamāri up to the Company's workshops was completed, but it was not till the 13th of May, 1861, that the entire line from Karāchi to Kotri was formerly opened for traffic by the then Commissioner, J. Duncan Inverarity, Esq. On the 1st of July, 1870, the Sind Railway was amalgamated with the Panjāb and Dehli Railway and Indus Steam Flotilla, under the name and title of the Sind, Panjāb and Dehli Railway.

The length of this line, as previously mentioned, is 106 miles, but there are besides forty-five miles of sidings and six of branches. It is enclosed throughout, thirty miles by wire-fencing and the rest by stone-wall. The ruling gradient along its whole length is one in two hundred. For forty and a half miles there is an ascending, and for thirty-four and a half miles a descending gradient, while a distance of about thirty-one miles is quite level. The line runs over a tract of country the greater part of which is uncultivated, and in its entire length does not touch at a single town of any importance. The route so taken would seem to have been selected with the object of avoiding as much as possible the crossing of canals and the consequent necessity of erecting many bridges. The line, as at present constructed, crosses but two large rivers, the Malir and Bāran, the former in its course draining an area of 770 square miles, and the latter one of 1250 square miles. The number of bridges and culverts, notwithstanding this precaution, is considerable, there being one hundred

and eighty-six in all, large and small, of which, however, but forty-five are of any size. The principal bridges and culverts are those at the Malir, Pipri, Ghaghar, Khargot, Jhūlaji, Dābēji, Danai, Būndan Wāri, Khārasir, Rāna Pitiāni, Jūngshāhi, Khūmbāra, Krinjala, Loyach, Kūni, Harūla, Rhode, Meting, and that over the Bāran. Of these the Malir bridge, with 21 spans of 78 feet each, and the Bāran, with 32 spans of 55 feet each, take the first rank both as regards size and importance. The former has been a source of endless trouble and expense to the Sind Railway Company, owing to the violent nature of the freshes of the Malir river after a heavy rainfall, and to the insufficiency of the water-way to carry off its flood waters. The line suffered from floods in the very same year (1861) it was opened for traffic, and again in the following year, entailing a cost of upwards of seven lakhs of rupees for repairs. In 1863 and again in 1865 the damage from the same cause was slight, but in 1866 the Malir, Jūngshāhi, Jhūlaji, Khargot, Danai and Khūmbāra bridges all suffered severely from floods, ten piers of that over the Malir having to be rebuilt and raised six feet at a cost of upwards of three and a half lakhs of rupees. The other five bridges were also partly rebuilt, either of stronger material or to allow of additional water-way. In 1869 the Malir bridge was again very seriously damaged by the river floods; eight spans were destroyed, but these have since been replaced by screw piles at an estimated cost of 1,12,719 rupees. The original cost of this bridge was 4,82,247 rupees.

The Sind Railway between Karāchi and Kotri has six stations, namely: the Malir, Dābēji, Jūngshāhi (for Tatta), Jhimpir, Meting (for Jerruck) and Bulhāri. The station buildings at Karāchi and Kotri are both but temporary erections, and will probably so remain till the through traffic from the Panjāb by the contemplated extension line shall justify the construction of more substantial edifices. There are two passenger stations at Karāchi—one on the McLeod Road for the accommodation of persons residing in the old town and its immediate neighbourhood, the other at the end of Frere Street in the cantonments, for the residents of which, as well as for those in the Sadar Bazār and Civil Lines Quarters, it is more readily accessible than the McLeod Road Station.

At Jūngshāhi, midway between Karāchi and Kotri, the station building is of a more solid construction, being of stone and provided with a refreshment room. The smaller stations at Meting, Dābēji, Jhimpir, and Bulhāri are also of masonry construction.

The workshops of the Sind Railway are situate in the Frere Town quarter of the municipality on a gently rising ground, and



are very extensive, comprising a number of shops for the erection of engines, and the building of carriages, &c. The blacksmiths' shop alone is 245 feet long by 47 feet broad, there is a still larger shop for the carriage department, which is 245 feet in length, with a breadth of 137 feet. These workshops were built on a large scale, with the object of providing, at some future time, for the necessary rolling-stock of the contemplated Panjāb extension line.

The receipts and expenditure of the Sind Railway from the year it was first opened for traffic down to the end of 1874, are shown *half-yearly* as follows, and it may here be noticed that the increased number of passengers of all classes in the years 1867 and 1868 may be accounted for by the transmission of a large body of troops to Abyssinia, at a time when the military expedition to that country was determined upon. This will also account, in a great measure, for the increased quantity of goods carried during those two years, which, with the single exception of the first half of 1866, was the largest ever conveyed by the Sind Railway Company.

The rolling-stock of the Sind Railway in December 1874 comprised twenty-five engines and 734 vehicles, besides 116 ballast waggons, as against twenty engines and 140 vehicles in May 1861, when the line was first opened for traffic. The greater number of these vehicles are intended for goods traffic, the passenger carriages being comparatively few, numbering in all not more than forty-four. The staff of the Sind Railway comprises a deputy agent (who is also the head of the Indus Flotilla), a chief engineer and assistant, superintendent of railway workshops, traffic assistant, and an auditor and storekeeper. There is also a deputy consulting engineer, who is an officer of Government.

YEARS	Receipts.	Expenditure		Profits.	
		Amount.	Per Cent. of Gross Receipts.	Amount	Per Cent. of Gross Receipts.
1st part of 1861 .	rupees 47,164	rupees 41,365	rupees 88	rupees 5,799	12
2nd ,, 1861 .	1,64,043	1,62,913	99	1,130	1
1st ,, 1862 .	2,73,124	2,11,890	78	61,234	22
2nd ,, 1862 .	4,12,368	3,34,463	81	77,905	19
1st ,, 1863 .	5,79,399	4,50,088	78	1,29,311	22
2nd ,, 1863 .	5,16,558	4,81,663	93	34,895	7
1st ,, 1864 .	5,61,391	5,05,081	90	56,310	10
2nd ,, 1864 .	4,79,537	4,36,771	91	42,767	9
1st ,, 1865 .	4,29,406	4,25,050	99	4,356	1
2nd ,, 1865 .	4,74,065	4,30,497	91	43,568	9
1st ,, 1866 .	5,87,758	4,70,630	80	1,17,128	20
2nd ,, 1866 .	5,06,949	4,37,753	86	69,196	14
1st ,, 1867 .	7,07,157	7,07,157	100	Nil	Nil

## INTRODUCTION.

YEARS.	Receipts.	Expenditure.		Profits.	
		Amount.	Per Cent. of Gross Receipts.	Amount.	Per Cent. of Gross Receipts
2nd ,, 1867	rupees. 5,79,538	rupees. 5,79,538	rupees. 100	rupees. Nil	Nil
1st ,, 1868	6,36,162	7,16,500	112	Loss	Nil
2nd ,, 1868	4,26,131	4,35,567	102	Loss	Nil
1st ,, 1869	4,69,105	3,07,563	66	1,61,543	34
2nd ,, 1869	3,33,418	3,61,654	108	Loss	Nil
1st ,, 1870	4,95,605	4,57,965	92	37,639	8
2nd ,, 1870	3,50,889	3,60,568	103	Loss	Nil
1st ,, 1871	3,85,953	4,18,388	108	Loss	Nil
2nd ,, 1871	4,33,532	3,57,524	82	76,008	18
1st ,, 1872	4,54,467	3,11,586	68	1,42,881	32
2nd ,, 1872	3,40,528	2,97,981	87	42,547	13
1st ,, 1873	3,35,401	2,76,553	82	58,848	18
2nd ,, 1873	4,07,664	3,21,334	68	1,46,330	32
1st ,, 1874	4,59,035	3,09,170	67	1,49,865	33
2nd ,, 1874	3,59,569	3,38,811	94	20,758	6

The passenger and goods traffic, both for a period of thirteen and a half years ending 1874, is as follows :

## PASSENGER TRAFFIC (1861 to 1874).

YEARS	First Class.	Second Class.	Third Class	Total
	No	No.	No.	No
2nd part of 1861	223	2,459	38,047	40,729
1st ,, 1862	268	2,686	46,526	49,480
2nd ,, 1862	198	3,289	52,096	55,583
1st ,, 1863	259	3,854	65,441	69,554
2nd ,, 1863	376	4,029	50,047	54,452
1st ,, 1864	697	3,344	53,203	57,244
2nd ,, 1864	935	2,674	49,871	53,480
1st ,, 1865	803	2,341	55,423	58,567
2nd ,, 1865	1,006	2,085	49,522	52,613
1st ,, 1866	915	1,707	43,767	46,389
2nd ,, 1866	874	1,574	43,874	46,322
1st ,, 1867	1,068	3,074	67,807	71,949
2nd ,, 1867	784	2,595	59,356	62,735
1st ,, 1868	959	2,489	65,196	68,644
2nd ,, 1868	874	1,765	53,617	56,256
1st ,, 1869	668	1,448	48,249	50,365
2nd ,, 1869	837	2,310	43,202	46,349
1st ,, 1870	529	1,489	44,516	46,534
2nd ,, 1870	1,257	2,428	44,956	48,641
1st ,, 1871	697	3,374	39,196	43,267
2nd ,, 1871	1,175	5,317	33,131	39,624
1st ,, 1872	772	5,580	34,359	40,711
2nd ,, 1872	785	1,609	30,368	32,762
1st ,, 1873	458	1,629	32,195	34,282
2nd ,, 1873	833	1,670	33,137	35,640
1st ,, 1874	745	1,421	36,517	38,683
2nd ,, 1874	871	1,478	32,636	34,985

MISCELLANEOUS.

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GOODS TRAFFIC (1861 TO 1874).

YEARS.	Ordinary Goods carried.	Amount realised	Cost per Ton
	tons.	rupees	rupees
2nd part of 1861 . .	16,520	76,295	4·61
1st ,, 1862 . .	31,378	1,58,658	5·05
2nd ,, 1862 . .	54,096	2,73,998	5·06
1st ,, 1863 . .	68,712	3,93,053	5·72
2nd ,, 1863 . .	77,049	3,75,459	4·86
1st ,, 1864 . .	71,087	4,24,186	5·96
2nd ,, 1864 . .	62,083	3,58,632	5·77
1st ,, 1865 . .	52,326	3,13,589	5·99
2nd ,, 1865 . .	60,400	3,61,992	6·00
1st ,, 1866 . .	74,925	4,85,429	6·48
2nd ,, 1866 . .	60,052	4,03,309	7·71
1st ,, 1867 . .	73,089	5,65,669	7·74
2nd ,, 1867 . .	61,425	4,29,945	7·00
1st ,, 1868 . .	64,255	4,96,263	7·72
2nd ,, 1868 . .	42,556	3,16,175	7·43
1st ,, 1869 . .	38,799	3,60,614	9·29
2nd ,, 1869 . .	30,679	2,47,449	8·06
1st ,, 1870 . .	40,744	4,06,455	9·97
2nd ,, 1870 . .	34,751	2,80,266	8·06
1st ,, 1871 . .	35,576	3,12,126	8·77
2nd ,, 1871 . .	51,219	3,61,109	7·05
1st ,, 1872 . .	45,906	3,72,873	8·12
2nd ,, 1872 . .	38,778	2,73,747	7·05
1st ,, 1873 . .	33,713	2,69,975	8·01
2nd ,, 1873 . .	66,284	3,96,276	5·97
1st ,, 1874 . .	53,828	3,79,728	7·05
2nd ,, 1874 . .	45,530	2,87,595	6·32

**Karāchi Exhibition.**—On the 23rd of December, 1869, the first Industrial Exhibition ever held in the province was opened with much ceremony in the Frere Hall, at Karāchi, by the Commissioner in Sind, Sir W. Lockyer Merewether, in the presence of the Bishop of Bombay, and a large assemblage of visitors, civil, military and naval. In the extensive rooms of the Hall were arranged a varied assortment of articles, the productions not alone of Sind, but of the Panjāb, Bahāwalpur, Kachh, Afghānistān—of several of the districts of the Madras and Bombay Presidencies, and of other places as well. In live stock the show was not considered to be favourable, but in agricultural and animal products it was extensive and creditable. The display of dyes, cotton, fibres, drugs, oil, and ghi, the produce of Sind itself, was held to be good, and many of these articles obtained prizes. In forest and mineral products, and in materials used in construction, the building stone of Sind, as, also, its salt, saltpetre, and different parts of woods, attracted attention, and won several prizes. In skin and manufactures, the carpets made in the Shikārpur Jail—the

gold, silver, and silk embroideries of Hyderabad—the lacquered ware of Hālā and Khairpur—and the lūngis of Tatta occupied a prominent place, and were deservedly admired. In machinery and implements the display was small, but many articles were not sent, owing to a rumour having prevailed that the Exhibition would never be held. In the upper rooms of the Frere Hall a large number of pictures, engravings, and photographs, as well as some statuary, all owned by residents in Sind, were carefully and systematically arranged, in addition to many rare and choice articles from China, Japan, and other countries. Specimens of instruments used in land and ocean telegraphy, together with some of the latest improved electrical machines, were also shown. The Exhibition was opened for eight days, and taking into consideration the many difficulties encountered in carrying out a project of this nature for the first time in Sind, it was fairly attended. Silver and bronze medals, of suitable device and excellent workmanship, as well as money prizes, were distributed amongst the successful competitors. The sum raised by donations, subscriptions, entrance fees, &c., on account of the Exhibition, amounted in the aggregate to 20,636 rupees, of which 12,000 rupees alone were contributed from the local funds of the different Collectorates of Sind. It was subsequently determined to invest the balance (about 1000 rupees) remaining to the credit of the Exhibition Fund, and place the interest accruing from it at the disposal of the educational authorities in Sind, so as to provide an annual money prize for the most successful student in the province at the matriculation examination, without any distinction of caste or class. The Karāchi Industrial Exhibition may, on the whole, be considered as successful in its results, and it is expected it will be followed, at no distant date, by others in different parts of the Province.

-It is more than thirty years since British rule was first introduced into the Province of Sind, but the improvement that has taken place during that period has been very marked, and will appear still more striking, if the condition of the country and its people at the time of the conquest be compared with that now prevailing. Canals—those great means by which the precious waters of the Indus are conveyed to the thirsty soil of Sind—have been either constructed or improved with no sparing hand. It may be that experience is still required to devise the best plan for irrigating to the greatest extent possible as much land as can be properly cultivated by the present sparse population of the province, but it is astonishing to find how much has already been

done in this respect. The Eastern Nārā, with its supply channel at Rohri, the Mithrau, the Bēgāri, and the Sukkur and Shāhdādpur canals are among the great works which have been either cut or improved upon during British rule, at the same time numerous smaller channels have been excavated, which, though appearing individually but of little account, are all an additional means of wealth to the province. Excellent roads with rest-houses have been made in many parts of Sind, and a railway has been constructed which does away with the old and uncertain river-route, and only requires to be joined to the Panjāb line to enhance its usefulness. There is telegraphic communication not only with British India, but with Europe itself. The river, capricious and erratic, but nevertheless *the* great source of wealth to the province, is carefully looked after by a special department, and all obstructions to navigation, where possible, are removed. A fleet of steamboats plies regularly upon its waters, taking up and bringing down the various manufactures of Europe, as well as the produce of Sind, and of different parts of the Panjāb. Steam-ferries are stationed at two of its permanent banks for the conveyance of travellers and goods. Municipalities, as well as medical dispensaries, have long since been established in all the large towns with marked advantage, and the former have been an important means of introducing a better system of sanitation, making the towns more cleanly, and in consequence healthier and less liable to the attacks of epidemic disease. Vaccination has made itself known with much success throughout the length and breadth of the province, and is carried out by a special department. Education has also spread mightily through the country, the Government schools gradually supplanting the private vernacular institutions, which are at best but poor and inefficient places of instruction for native youth. The advantages of postal communication have been widely circulated, and are being appreciated by the native community. A fair and equitable system of assessment has for some years past and is still being carried out to the great benefit of the cultivating classes. Fine and commodious barracks for British troops have been built at Karāchi and Hyderabad, with every useful appliance to preserve the health of the English soldier in the trying climate of Sind. If regard be had to the large towns of the province, such as Karāchi, Shikārpur, and Hyderabad, and a comparison be made of their present state with that at the time of the conquest, there will be found much cause for congratulation in the great work of improvement that is everywhere apparent. Nowhere is this so evident as in Karāchi, a place which in 1842, when ceded to the

British, had a population of not more than 14,000 souls, who resided in what is now called the old town municipal quarter. It was a miserable and dirty town, and, having no landing-place, passengers from seaward had to be conveyed in small boats as far as was possible, through a mass of liquid fetid mud, and then be carried on men's shoulders for a further distance, till dry land could be reached. But all this is changed; a good mole road and handsome bridge connect the island of Kiamāri with Karāchi, and excellent metalled roads of great extent and length lead to nearly every part of the town and camp, and are everywhere available for wheeled conveyances. Handsome buildings (public and private) are more numerous than could be expected in a place of its size, and many of the wealthy natives have of late years begun to build large and commodious houses for themselves in an improved style. Nor must the Karāchi Harbour Works be forgotten in this list of improvements; upon them have already been expended above forty lākhs of rupees, and the acknowledged success of this great scheme now only needs the junction of the Sind and Panjāb lines of railway to induce a great flow of commerce into the chief city and port of this Province. And all the improvements here referred to have been carried out in Sind in little more than *thirty* years. There are no doubt many important matters which still require attention, none more so than a good and sufficient water-supply for the towns of Karāchi and Hyderabad, with a proper system of drainage for the former city. On these points carefully prepared plans have long since been under consideration, and the Hyderabad project is now in course of execution. Still, it is believed that enough has here been mentioned to show that the Indian Government, through the chief consecutive ruling authorities of the Province, has not neglected Sind, and that in conjunction with the already completed and successful scheme of Harbour Improvement, all that now seems necessary to secure a brilliant future for not only its chief town but the entire Province is the speedy extension of its railway to the Panjāb.

## ABĀD—ABJI.

**Abād (new)**, an alienated village in the Sukkur talūka of the Sukkur and Shikārpur Division, distant nineteen miles from Shikārpur. It has road communication with Gosarji. There are no Government officers in this place. The population, numbering in all 876, consists of 700 Musalmāns of the Lakha tribe, and 176 Hindūs of the Kārra caste. Their chief employments are agriculture and trade.

**Abdū**, a Government town in the Sukkur talūka of the Shikārpur and Sukkur Deputy Collectorate, situate on the old road connecting the towns of Sukkur and Shikārpur, and distant twelve miles from each. It has road communication also with the yillages of Chak and Mūngrāni. It is the head-quarter station of a Tapadār, and has a travellers' bangalow, a small *thāna* school and a cattle pound. The population, numbering in all 1201, consists of 734 Muhammadans, mostly of the Korēshi, Mahar, Machhi, and Sūmra tribes; the remainder (467) being Hindūs of the Brahman, Lohāno, and Sonāro castes. The occupation of the inhabitants is chiefly agricultural. The place appears to possess neither trade nor manufactures of any importance.

**Abid Markiāni**, a Government town in the Naushahrō Abro talūka of the Shikārpur and Sukkur Deputy Collectorate, distant twenty miles south from Shikārpur. At present there are no roads leading to or from this village, but two have been projected, one to Dakhan and the other to Wasil. This village is the head-quarter station of a Tapadār, and has a cattle pound. The population, numbering in all 892, consists of 664 Muhammadans, principally of the Markiāni tribe, while there are also 228 Hindūs, chiefly of the Lohāno caste. Their occupation is mainly agriculture and trade.

**Abji**, a Government village in the Naushahro talūka of the Naushahro Division, situate nine miles south-west from Tharu-

shah, with which town, as also with Naushahro (nine miles), Mithāni (three miles), and Moro (fifteen miles), it has road communication. It is a tapādār's station, and has police lines for three constables, as well as a Government vernacular school, attended by thirty-eight pupils. The population is 1147, and their occupation is for the most part agricultural. The trade of this town is principally in grain and sugar. There are no manufactures of any consequence. This town is said to have been founded by one Aban, a Sahato, about 120 years ago.

**Adalpur**, a Government town in the Ghotki talūka of the Rohri division, distant about thirty-six miles north-east from Rohri and four miles from Ghotki. It has road communication from Ghotki, Malik, and Mathēlo. It is the head-quarter station of the Tapādār of the Adalpur tapa, and has, besides his *dēra*, a vernacular school, police thāna with three policemen, and a *dhak*, or cattle pound. The inhabitants, numbering in all 1177, who are mostly engaged in trade and agriculture, consist of 778 Muhammadans, divided into many different sub-divisions of tribes, of which the Kalwars are the most numerous, there being also some Bhūtas, Dhārējas, Malaks, and Katis. The Saiyads are only ten in number. Of the Hindūs there are 359, nearly all being of the Banya caste. The chief person of note in this village is one Izat Khān, a large Zamindār. The trade of this place is in wheat, juār, bājri, grain, indigo, cotton, oil, ghi, &c. There are no manufactures. This town is said to have been founded by one Jām Jhēlū Dhārējo, about A.D. 1456.

**Adam-jo-Tando**, a town in the Alahyār-jo-Tando talūka of the Hālā Deputy Collectorate, fourteen miles east from Hālā and twenty north from Alahyār-jo-Tando, situate on the Sāngrowāh canal. It has road communication with both these towns as well as with Mirpur, Shāhdādpur, Udēra, Ghotāno, and Berāni. It possesses a Tapādār's *dēra*, a subordinate judge's court-house, police lines, a branch post-office, dharamsāla, and a Government vernacular school. There is also a municipality, established in 1860, the revenue of which in 1873-74 was 5527 rupees. The inhabitants, numbering 3457, are mostly Hindūs, there being 2109 of this class; the greater number are Lohānos and Panjābis: of Muhammadans there are 1174, the prevailing tribes being Khas-kēlis, Sūmras, and Mēmōns. Their chief occupations are agriculture and trade. The trade of the place is principally in silk, raw cotton, grain, ghi, oil, and sugar. Its value is roughly estimated at about 41,000 rupees, and the transit trade at 65,000 rupees. The town does not appear to possess any special manufacture.



Adam-jo-Tando was built about eighty years ago by one Adam Khān Mari, whence its name. The chief men of note in this town are Karimdād Mari, Sultan Ali Khān Mari, and Dāūd Khan.

**Aghāni**, a Government village in the Larkāna talūka of the Lakāna Division, situate on the Ghar canal. There are no public buildings of any kind in this place. The population, numbering in all 1023 souls, consists of 895 Musalmāns of the Bhuta and Aghāni tribes, and 128 Hindūs, whose occupations are agriculture and trade.

**Ajanshāh**, a village in the Hālā talūka of the Hālā district, three miles to the east of Hālā, and situate on the high road leading from that town to Shāhdādpur. The Sārangwāh canal flows past it. No Government officers reside here, nor are there any public buildings. It has 879 inhabitants, the Muhammadans being chiefly of the Saiyad and Sariah tribes, and the Hindūs for the most part Lohānos. The population is, on the whole, agricultural. The chief men of the place are Saiyads and Amils; of the former, Saiyad Bēgshāh is the most important individual. Ajanshāh is supposed to have been founded during the Kalhora dynasty by one Hasan Shāh, about A.D. 1777 (H. 1155).

**Alahyar-jo-Tando**, a talūka (or sub-division) of the Hālā Deputy Collectorate, having seven tapas and fifty-nine villages, with an area of 705 square miles, and a population of 59,746 souls. The revenue, imperial and local, of this talūka during the past five years, ending 1873-74, is as follows:—

	1869-70.	1870-71	1871-72	1872-73.	1873-74.
	rupees.	rupees	rupees.	rupees.	rupees.
Imperial . . .	88,493	1,19,327	1,07,472	1,08,822	98,025
Local . . .	6,641	7,040	7,780	8,006	4,410
Total rupees .	95,134	1,26,367	1,15,252	1,16,828	1,02,435

**Alahyar-jo-Tando**, the chief town of the talūka of that name in the Hālā Deputy Collectorate, in latitude 25° 21' N., and longitude 68° 40'. It is thirty-two miles south-east from Hālā, and twenty-four east from Hyderabad, and is situate on the Gāhorowāh canal. It has road communication with Hyderabad, Mīrpur, Hālā, Adam-jo-Tando, Nasarpur, Gorchāni, and Khokhar. It is the head-quarter station of a Mūkhtyārkar, whose *dēra* is in the fort, and possesses a Deputy Collector's bangalow (also in the fort), a subordinate judge's court-house, a dispensary, a Govern-

ment Anglo-vernacular school, as also one for female children, market, rural and district police lines, a branch post-office, dharam-sāla, and a cattle pound (or *dhak*). The town has also a municipality, established in 1856, the revenue of which in 1873-74 was 6827 rupees, while the disbursements were 6326 rupees. The fort, which is near the canal, is small in area, and was erected in the time of the Talpur dynasty. Alahyar-jo-Tando is one of the most populous towns throughout the Hālā district, having 3913 inhabitants, made up of the two great classes, Muhammadans and Hindūs. Of the former there are 1447, who are mostly Mēmons and Patolis; the Hindūs number 2333, chiefly of the Brahman, Lohāno, and Panjābi castes. Their occupation is principally agriculture and trade. The chief men of note in this town are Mirs Shāh Muhammad and Khān Muhammad. The trade of the place is in sugar, ivory, grain of sorts, ghi, silk, cloths, cotton, and oil. Cotton is extensively cultivated in this talūka, while the greater part of that from Mirpur passes through this town on its way to Karāchi by either Ghotāna or by Gidū Bandar. Among the imports are cloths, raw silk, ivory, and metal pots—the latter coming mostly from the town of Nagodi in the Jodhpur (Marwar) State. The value of the local trade is, at a rough estimate, about 1,16,000 rupees, while that of the transit trade is computed at 1,61,000 rupees. The principal manufactures are the weaving of coloured cloths and silk, and ivory work. The ivory is made up into armlets (for which there is a great demand among the female community), hūkah mouthpieces, and other articles. The town is said to have been founded, about ninety years since, by one Alahyar, a son of Mir Fateh Khān Talpur, whence its name. During the sovereignty of the Talpurs it attained to considerable commercial importance, as it was on the high road between the two large towns of Hyderabad and Umarkot, and much of the trade of Shikārpur and northern Sind found its way there, but this fell off to a great extent after the conquest of the province by the British in 1843, and still more so on the opening of the line of railway between Kotri and Karāchi in 1861, which at once diverted the trade of northern Sind into other channels.

**Amri**, a Government village in the Manjhand talūka of the Sehwan Deputy Collectorate, situate on the main road running from Kotri to Sehwan and close to the river Indus. It is twenty-three miles north of Manjhand, and the same distance south of Sehwan, and is the head-quarter station of a Tapadār. There are police lines for four men, a staging bangalow, dharamsāla and cattle pound (*dhak*). The population, numbering in all 867,

consists of 757 Musalmāns and 107 Hindūs; their chief employment is agriculture. There is a local and transit trade in grain and ghi, but to what extent is not known.

**Amrote** (old), a Government village in the Naushahro Abro talūka of the Sukkur and Shikārpur Division, distant seven miles south-west from Shikārpur. Though the population is large, numbering 1522, of whom 1277 are Musalmāns and 245 Hindūs, there appear to be no roads leading to or from it, and no public buildings of any kind. The principal occupations of the people are agriculture and trade.

**Arāzi**, a village in the Sehwan talūka of the Sehwan Deputy Collectorate, distant six miles north-west of Sehwan, and two miles west of Būbak, having rough communication by camel tracks with this latter town and Bhān. It is the head-quarter station of a Tapadār, and possesses a municipality, established in 1861, with an annual income which in 1873-74 amounted to 1201 rupees. It has a Government vernacular school, a cattle pound, as also a small police post. The inhabitants number 2039, of whom 1301 are Muhammadans (mostly Saiyads, Chandias, Khokhars, Mēmōns, and Sūmras), and 738 Hindūs of the Brahman and Lohāno castes. Agriculture and trade are the chief employments of the population. The principal resident of note is one Saiyad Muhammad. There is no trade, nor are there any manufactures in this place.

**Arija**, a Government village in the Labdarya talūka of the Larkāna Division, situate ten miles south of the town of Larkāna. The population, numbering in all 1163 souls, consists of 1080 Musalmāns, mostly Saiyads, and but 83 Hindūs, who are Brahmans, &c. Their occupations are principally agriculture and trade.

**Aror** (pronounced Alor), an old ruined town situate five miles to the east of Rohri, and connected with it by a road which passes over a bridge said to be very ancient. In the bed of the river which once flowed near this place are two stones set up, it is supposed, to mark the ancient course of the Indus—then known as the Mihrān. The city is reported to have been built of *pakka* brick and stone on a rocky hill, having its walls then washed by the Indus, and it seems probable that the change in the course of the river, caused, it is presumed, by an earthquake, took place somewhere about A.D. 962 (or Hijri 341). It was the capital of the Hindū Rājās who governed Sind, though no specimens of Hindū architecture have been found there. Little else is known relative to this city, since no record of any moment exists concerning the

time between the invasion of India by Alexander the Great and the conquest of Sind by the generals of the Khalifas, excepting a few puerile legends. Amongst the present ruins of Aror are the mazjid of Alungir, and the tombs of the two Saiyads, Shakar Ganj Shāh and Khatal-ū-din Shāh. To the former, which is a plain white sepulchre, frequent pilgrimages are made. Muhammad Masūm Nāmē, in his History of Sind, states that the city of Aror was captured by Muhammad Kāsīm Sākifī about A.D. 711 (H. 93), the then reigning Hindū prince, Rāi Dahir, being killed in the assault.

**Badin (or Badino)**, a talūka (or sub-division) of the Tanda Deputy Collectorate, containing an area of 795 square miles, with 8 tapas, 115 *dehs*, and a population of 51,593 souls. The revenue (imperial and local) of this sub-division during the past five years, ending 1873-74, is as follows:—

	1865-70.	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . .	rupees. 95,260	rupees. 1,14,863	rupees 1,09,061	rupees 1,11,631	rupees 96,210
Local . . .	9,426	9,577	12,551	11,631	8,962
Total rupees.	1,04,686	1,24,440	1,21,612	1,26,221	1,05,172

**Badin (or Badino)**, a Government village and the head-quarters of the Mūkhtyārkar of the talūka of the same name. It is situate on a spot between the Ghāri Māndhar and Kaziāh canals, in latitude 24° 33' N., and longitude 68° 52' E., and is distant 62 miles S.S.E. from Hyderabad, and 41 from Tando Muhammad Khān, with which latter town it is connected by a trunk road passing through it to Luāri and Rahim-ki-Bāzār. It has communication also with Tando Bāgo, *via* Wāhnāi, and with Sirāni and Khorwāh by cross roads. As the head-quarter station of a Mūkhtyārkar, it possesses a *kutcherry* with jail attached, together with police lines, affording accommodation for three officers and eleven constables, as well as a post-office and cattle pound. It has also a municipality, established in 1857, with a revenue which in 1873-74 amounted to 1347 rupees, while the disbursements for the same year were 1531 rupees. The municipal revenue has increased considerably of late, owing to the receipts from the Cattle Pound Fund being now made over to it. There is an annual fair held at this town for twelve or thirteen days during a part of the month of June, which is attended by about ten thousand persons. The fees levied at this fair are given to the municipality, on the understanding that it pays all the expenses—an arrange-

ment which of late years has not proved advantageous. The inhabitants, who are 978 in number, consist of 414 Hindūs and 564 Muhammadans, the majority of the former being traders and shopkeepers, and the latter Lahoris, cultivators and weavers. Some Pirs of note reside at Badin, but the chief of these, Bhawan Shāh, died a few years ago.

The manufactures of this place comprise the making of shoes; agricultural implements, such as spades and axes; earthenware, and wooden wheels (or *nārs*) for irrigational purposes. It has a large trade in rice, bājri, and other cereals, as well as in ghi, sugar, molasses, cloths, metals, tobacco, skins, cotton, country liquor, and drugs. The transit trade is confined to a few articles only, these being cloths, bājri, juār, and oil. Badin possesses a Government vernacular school, and good, well-built district bangalow, and a dharamsāla, the latter maintained at the expense of the municipality. This town was once much larger than it is at present, but its former site was on the right (or western) bank of the Ghāri Māndhar canal. The whole town was destroyed by Madat Khān, the famous Pathān, in his raid into Sind. The present town is supposed to have been built by Sawālo, a Hindū, about 127 years ago.

**Bagirji**, a Government village in the Sukkur talūka of the Sukkur and Shikārpur Division, distant 16 miles south of Shikārpur. It has a Government vernacular school. The population, numbering in all 905, consists of 622 Musalmāns of the Pathān tribe and 283 Hindūs.

**Bambura**, a ruined city near the town of Ghā in the Mirpur Sakro talūka of the Jerruck district, in latitude  $24^{\circ} 4' N.$ , and longitude  $67^{\circ} 41' E.$  It was known as the Kāfir, or Infidel city, and is presumed to have been in existence before the first Muhammadan invasion of Sind in A.D. 711-12. It is stated that there are reasons for supposing that this ancient place was known during the eighth century under the names of Debal, Dewal, or Dawul, and that it was the first town that was stormed by the Muslim invader, Muhammad Kāsim Sākifi. The catapults used by this general are said to have been brought by sea to this place, which is thought to have been at that time the principal port in Sind on the western side of the Indus delta. This ancient city, it is said, exhibits marks of great antiquity, displaying the remains of ramparts, bastions, towers and houses, and bearing evidence of former population and trade in the number of coins washed up during heavy rain. At the time of its destruction there was a temple renowned for its sanctity in the fort, whence the town is

supposed to have been called by Muhammadan historians Dewal, or the temple, but it is believed that before the Muslim invasion it was known under the name of Mahara, or Mansawar.

**Bangŭl Dĕro**, a Government village in the Rato Dĕro talŭka of the Lĕrkĕna Deputy Collectorate, in latitude  $27^{\circ} 43'$  N., and longitude  $68^{\circ} 27'$  E., and distant 12 miles N.E. of Lĕrkĕna, with which town and Rato Dĕro it has road communication. A Tapadĕr resides here. The population numbers in all 1442 souls, comprising Muhammadans of the Bhŭta Visar and Dakhan tribes, and 300 Hindŭs, but the number of each class is not known. There are no manufactures, nor does there appear to be any trade of importance, either local or transit.

**Bĕlo**, a talŭka (or sub-division) of the Shĕhbandar Deputy Collectorate, having an area of 294 square miles, with 6 tapas, 82 "dehs," and a population of 28,471 souls. The revenue, imperial and local, of this sub-division for the four years past, ending 1873-74, is as follows:—

	1870-71.	1871-72.	1872-73	1873-74.
Imperial . . .	rupees. 65,382	rupees. 69,097	rupees. 71,042	rupees. 69,065
Local . . .	8,894	12,039	12,410	16,330
Total rupees .	74,276	81,136	83,452	85,395

**Bĕlo**, a village in the talŭka of the same name in the Shĕhbandar Deputy Collectorate, 4 miles from the river Indus, and the head-quarter station of the Mŭkhtyĕrkar of the talŭka, and also of a Tapadĕr. It is distant  $32\frac{1}{2}$  miles north-north-west of Mugalbhĕn, and  $10\frac{1}{2}$  miles west from Daro. Besides the Mŭkhtyĕrkar's *dĕra*, there is a police sub-thĕna here, with a force of 19 men, under the charge of a chief constable; a dharamsĕla for travellers, and a cattle pound. The population, numbering in all 691 souls, is made up of 359 Muhammadans of the Saiyad and Muhĕna tribes: the Hindŭs are 332 in number, and are chiefly Lohĕnos and Bhĕtĕas. There does not appear to be any trade or manufacture of any importance in this town.

**Beyr**, a Government village in the Kambar talŭka of the Larkĕna Division, 16 miles west from Larkĕna. It has road communication with Kambar. The population, numbering in all 1322 souls, comprises 1102 Musalmĕns and 220 Hindŭs, whose principal occupations are trade and agriculture.

**Bhĕn**, a Government village in the Sehwan talŭka of the

Sehwan Deputy Collectorate, distant 12 miles north-west of Sehwan, with which town, as also with the villages of Johi, Bubak, and Dadu, it has road communication. This place possesses police lines with four men, is the head-quarter station of a Tapadār, and has a staging bangalow, a post-office, Government school, and a cattle pound. The population, numbering 1084 persons, comprises 833 Musalmāns, and 251 Hindūs, whose occupation is chiefly agriculture. This place has neither trade nor manufactures of any consequence.

**Bhēlāni**, a Government village in the Kandiāro talūka of the Naushahro Division. It is situate on the postal road leading from Hālāni to Mahrābpur, and is distant 18 miles north-east of Tharushah. It has road communication also with the village of Khānwāhan. There are no Government officers stationed at this place. The population, numbering in all 1537, consists of Muhammadans and Hindūs, but the number of each is not known. Their occupation is mainly agricultural. The trade of the place is in grain, and the only manufacture that of cotton cloth. The population of this village would appear to have somewhat diminished, since Lieut. Jameson, in his report of 1852, states that it then had 1781 inhabitants, of whom 945 were Hindūs, and 836 Muhammadans: the number of houses was 231 in all, and the shops 37. Conjointly with Hālāni, which adjoins this village, it is an old town, having been upwards of 200 years in existence, and therefore founded prior to the advent of the Kalhora dynasty.

**Bhiān**, a Government village in the Kotri talūka of the Sehwan Deputy Collectorate, 23 miles north of Kotri, and half a mile eastward of the main road running from Kotri to Sehwan. It is the head-quarter station of a Tapadār, and has a small police post, a dharamsāla for travellers, and a cattle pound. The inhabitants, numbering 1592, comprise 1111 Muhammadans, principally of the Saiyad, Muhāna, Bhiān, Chuna and Laghāri tribes, and 481 Hindūs, who are mostly Lohānos. The population is chiefly engaged in cultivation and trade. This place seems to have no particular trade or manufactures.

**Bhiria**, a Government town in the Naushahro talūka of the Deputy Collectorate of that name. It is situate on the high road running from Hyderabad to Rohri, and is 6 miles east of Thāru Shah, and 8 miles north-east from Naushahro, with both which places, as also with Kandiāro, Hālāni, and Chang (in the Khairpur territory) it has road communication: the postal road also from Naushahro to Thāru Shah runs near this town. It is the head-quarter station of a Tapadār, and has police lines for four men.

In addition to the Tapadār's *dēra*, or office, there is a vernacular school, market, and a commodious dharamsāla. This place also possesses a municipality, established in 1861, the income of which in 1873-74 amounted to 1825 rupees, and the expenditure to 1707. The population, numbering 2549, comprises but 926 Muhammadans, chiefly of the Saiyad and Mēmon tribes, and only 135 Hindūs, who are for the most part Lohānos, the remainder (1488) being very probably Sikhs. The occupation of the people is principally agricultural. In 1852 this town, according to Lieut. Jameson, had 2798 inhabitants, of whom 1573 were Hindūs. There were then 231 houses and 100 shops, and this village, in point of population, *then* ranked second in the Naushahrō Pargana. A small quantity of oil is manufactured here for home consumption, and a large quantity of grain passes annually through this town for shipment by the Indus to other places.

**Bhitshāh**, a town in the Hālā talūka of the Hālā Deputy Collectorate, 4 miles east from Hālā, with which place, as well as with Adam-jo-Tando, it has road communication. No Government officers reside here, the Tapadār of Bhitshāh having his *dēra* at Khandu. The population numbers 1640, but the number of Muhammadans and Hindūs is not known. The former are of the Wasan, Sand, Khāskēli, and Bugria tribes, and the latter are nearly all Lohānos. The trade of the place is mostly in rice, juār, bājri, cotton, and ghi. The chief men of note in this town are Pirs, and it is the residence of Pir Miān Alabakhsh, to whom the four tombs in the place belong. These tombs, which were erected about 150 years ago, are built of burnt glazed bricks, and are in good condition. A fair takes place here annually in the month of May, and is attended by upwards of 4000 Muhammadans. It is in honour of Shāh Abdūl Latif, the founder of the town, which dates from A.D. 1727 (H. 1105).

**Brahmanābād**, a very ancient and ruined city in the Shāhdādpur talūka of the Hālā Deputy Collectorate. This place was visited by Mr. A. F. Bellasis, late of the Bombay Civil Service, in 1854, and his interesting description of the ruins, together with a short memorandum on the same subject by Captain (now Major-General Sir F. J.) Goldsmid, of the Madras army, is as follows:—

“Brahmanābād, or Bambra-ke-Thūl,\* its more modern and Sindī name, is an ancient and ruined city, situated on the dry bed of a large river, said to have been one of the old courses of the Indus. It lies in an easterly direction, about 8 miles from

\* Bambra, a name frequently applied to old ruined cities in Sind. Thul, a tower, a bastion.



the town of Shāhdādpur, and about 21 from Hālā. It is about 44 miles N.E. of the city of Hyderabad, and about 16 miles from the right bank of the Mithrau canal.

“Brahmanābād in its palmy days was a large and fortified city, built entirely of baked bricks. Its present appearance is one vast mass of ruins, forming irregular mounds, varying in dimensions according to the size of the original houses, of which these ruins are the humbler representatives. Some idea may be formed of the extent of Brahmanābād, when I state its circumference is within a few yards of four miles, measured by a perambulator. Besides Brahmanābād, at a distance of about a mile and a half, is the distinct and ruined city of Dalāri, the residence of its last King, and five miles in another direction is the ruined city of Depur, the residence of his Prime Minister (Wazir); and between these cities are the ruins of suburbs extending for miles far and wide into the open country.

“Brahmanābād appears to have been the commercial city, where the merchants and traders lived; Dalāri, where the King and his Court resided, in luxury and pleasure; and Depur, where the Prime Minister transacted with his officers the affairs of state. The city of Brahmanābād is entirely surrounded with a rampart, mounted with numerous turrets and bastions.

“On first entering Brahmanābād, so extensive and so complete are its ruins, you feel lost in contemplating its utter desolation; and it takes some time before the eye becomes accustomed to the confusion and disorder that characterise the place. After a little examination, the most prominent object that presents itself is the ruin of a high tower of brickwork standing isolated on a large heap of ruins, clearly indicating its former extent and importance. This may have been the citadel, or one of those circular towers such as are seen in Sind to this day in the forts of Hyderabad and Umakot.

“Amid the chaos of ruins you may further observe several open spaces or squares, evidently the bazars and market-places of the city: some of these are of great extent, running through the fort. A little imagination, and you might picture to yourself that here were barracks for troops; that in this open space they were wont to hold their parades; that this was the exchange of the money-lenders; this the river gate of the city, where customs were levied. Again, it were easy to imagine the noble Indus gliding in a mighty stream past the city walls, her waters studded, as at present, with many a boat, and many a quaint-cut sail, and many a *pala* fisherman, giving perspective to the landscape. It were easier still to

picture along the banks of the river, and immediately under the city walls, the busy haunts of trade : here you might say with certainty were the native craft moored to the bank ; here piles of goods and merchandise were often heaped ; and there, too, you might safely say were crowds of noisy, money-making Hindūs, chattering, bartering, and wrangling after the most approved fashion of modern times. Turning from the contemplation of what may have been to the chaos of surrounding ruins, the only memorials of the past, one is led to inquire what could have caused the utter destruction of a city so large and so strong.

“ Very little is known of the history of Brahmanābād, except what tradition tells : as usual, it is mixed up with fable ; but, wanting records, even fable has its value. The popular account of Brahmanābād, as far as I have been able to procure it, is as follows :—

“ That about seven or eight centuries ago, Brahmanābād was a rich and flourishing city. That in those days a very wicked king, named Dolora, reigned in those parts, and among his many iniquities he made a law that all young maidens who married any of his subjects were to pass the wedding night in his palace. The breach of this law was death. Now, a certain rich noble had a daughter, beautiful and fair, and she was about to be married. But this law was an insuperable obstacle to the father’s wishes. In his difficulties, he went for assistance to a priest of great sanctity, who was supposed to have the power of communicating with both heaven and hell, and asked for advice. The priest told the rich man that he could only devise one way of helping him, and that was by destroying the whole city of Brahmanābād, if King Dolora did not by a certain day abrogate this iniquitous law. The rich man besought the priest very earnestly to save the city : he offered him jewels, and silver and gold, to devise some other means ; but the priest was firm, and said he had looked well into futurity, and that there was no other remedy. Then, said the rich man, save my daughter’s honour, should even Brahmanābād be ruined. Accordingly, there went forth a prophecy, proclaiming to all the inhabitants, that if by a certain day King Dolora did not abrogate this wicked law, Brahmanābād would be utterly destroyed, and warning all faithful people to flee the city before the impending calamity came to pass. The king took no heed, and continued in his wicked ways, living in pleasure and luxury in the midst of his lascivious court. The day came, and with it a most awful tempest, followed by a violent earthquake. The city of Brahmanābād was laid low in ruins, and in its fall king, courtiers, and unbelievers were buried.

“Those who had believed the prophecy of the priest, and had made their escape from the city before this calamity took place, are said to have wandered about Sind for a whole year, seeking for a spot whereon they might settle and build them another city. They searched in vain for a site as beautiful as that of their ruined Brahmanābād; for lands as fertile and rich, for trade as great and flourishing. At last they came to Nasarpur,\* and that being the best place they had seen since they had left their own beautiful city, they settled there, and built them another brick city, and there they dwelt. This too has disappeared, and Nasarpur is now a mud-built town, like all the rest of the towns in Sind; but the remains of the old brick city are to be seen to this day. Such is the legend of Brahmanābād and its inhabitants.”

I have consulted Saiyad Sadir Ali Shah, a learned Saiyad of Tatta, and have referred to the few Sindi books that give any account of Brahmanābād, and from these authorities I gain the following particulars:—

“The Saiyad states that the city appears to have been founded before the Hindū dynasty of the Brahmans, which commenced in the first year of the Hijri, or A.D. 622. He says it is mentioned in the Tufat-ul-Kiram that Chach, the first of the Brahman kings who ruled in Sind, appointed his younger brother Chandar as his viceroy at Alor, and employed himself in arranging the boundaries of his kingdom, having subdued Mah, the Chief of Sehwan, and Agher, the Chief of Brahmanābād. From this the Saiyad infers that the city was probably founded during the reign of the Rājas before the Brahman dynasty.

“The Saiyad also states that the city must have been ruined before the expiration of the fourth Hijri century, or about A.D. 1020, as he finds it mentioned in the Tufat-ul-Kiram, in the narration of the Sūmras, that Chota Amrāni, brother of Dolora Amrāni, departed to Bāghdād on account of his brother's injustice. This Chota Amrāni embraced Islamism, and married the daughter of a celebrated Arab, whom he brought to Sind in the fourth century, together with a number of Arabs, who, in company with Saiyad Ali Musui, had been made over to him by the Khalifa of Bāghdād.

“The Chachnāma contains a history of Chach, the first of the Brahman kings of Sind, and of his dominions. It was written in

\* Nasarpur is a city of acknowledged antiquity, and, like Brahmanābād, situated on the banks of one of the old branches of the Indus. It is

still a place of some repute and learning, and has a not inconsiderable trade.

the original Arabic, about A.D. 700. Therein is mention made of Brahmanābād as the chief city of one of the divisions of the kingdom of Cyrus bin Sahirai, who lived before the time of Muhammad. It also contains an account of the battles fought there, but gives neither the date of its foundation nor its destruction.

"The Tufat-ul-Kiram contains a comprehensive general history of Sind, and was written about ninety years ago (A.H. 1180), and is a modern work in comparison with the Chachnāma.

"The Chachnāma was written by Ali Kūfi, who came to Sind with the army of Muhammad Kāsim, sent in A.D. 710 by the Khalifa Walid, son of Abdul Malik of Bāghdād. Muhammad Kāsim defeated Dahir, the son of Chach, conquered Sind, and overthrew the Brahman dynasty of kīngs in 711 A.D.

"It was on the 11th of March, 1854, that I, in company with Mr. C. W. Richardson, viſited the ruins of Brahmanābād.

"A few officers had previously viſited, at different times, these ruins, and had collected some coins and other curiosities, which are readily found on the surface, and many others had been obtained from villagers, who are in the habit of digging in the ruins for bricks, and thus find a variety of beads, stones, and coins, but no person had ever attempted systematically to excavate. Mr. Richardson and I were therefore resolved to devote two or three days to Brahmanābād, and to endeavour, by carefully removing one of the heaps of rubbish, to disclose any remnants of a house that might have been concealed therein for centuries.

"We selected for excavation a heap of ruins standing on the verge of the principal bazar or square. We had not commenced many minutes before we came upon the edge of a wall: clearing it, we soon came upon a cross wall, and then upon another, and another, until a house with a variety of rooms began fast to take shape, and disclose its proportions. We had not dug two feet before we came to quantities of bones, and at that, and greater depths, skeletons were so numerous that it was hardly possible to dig a *paura* full of earth without bringing up particles of bones. As far as I could judge, many were undeniably human bones, and others those of cattle and of horses. The human bones were chiefly found in doorways, as if the people had been attempting to escape, and others in the corners of the rooms. Many of the skeletons were in a sufficiently perfect state to show the position the body had assumed; some were upright, some recumbent, with their faces down, and some crouched in a sitting posture. One in particular, I remember finding in a doorway: the man had evidently been rushing out of his house, when a mass of

brickwork had, in its fall, crushed him to the ground, and there his bones were lying extended full length, and the face downwards. These bones, on exposure to the atmosphere, mostly crumbled to dust, and it was very difficult to obtain anything but fragments. But in excavating, you often obtain a good section of the skeleton, and thereby can easily tell the position of the body.

“ Besides bones, I found large quantities of pottery in great varieties, and much of a very superior description to any I see nowadays in Sind. A good deal of the pottery was glazed in colours of great brilliancy, and some of the vessels are of a fine kind of earthenware or china. Pieces of glass and crystal were also found, both in the excavations and on the surface of the ruins, in quantities, and the glass of all kinds of colours. Fragments of cups, bottles, and platters were very numerous. Some of the glass was beautifully stained of a deep blue colour, and other portions were worked in raised and ribbed patterns, displaying a high standard of art in their manufacture. Stones for grinding grain; others for grinding curry-stuff, and some for mixing paints; several stones for sharpening knives and tools; numerous large pieces of korundum or emery, also used by cutlers to sharpen swords and instruments; quantities of cornelians and cornelian chips, and agates, and other pretty stones; balls, beautifully turned, of ivory, agate, and marble; coins, chiefly of copper, some few of silver; beads and ornaments of cornelian and glass, in every variety. In one of the rooms I found a large grain jar, ribbed in circles; its mouth was arched over with brickwork. I at first took it for a well, but afterwards discovered it to be a sunken grain jar. The diameter of its mouth was two feet, and inside it was empty for four feet, the bottom portion being filled with mould, possibly the decomposed remains of the grain.

“ The city must have been famed, like the present cities of Ahmadabad, and Kambay in Gujarāt, for its works in cornelians and agates, and it is probable that it was from that province that a trade was carried on for these stones. There are no cornelians of the kind found indigenous in the alluvial plain around Brahmanābād, and the mines of Kapatbanj in Gujarāt are probably the nearest place from which they could have been imported. From the quantity of cornelians, chips, &c., besides grinding and sharpening stones, found in the excavations, I am led to conclude that the house excavated must have been inhabited by a lapidary.

“ Among the copper coins are many of liliputian size—so small that their value in the present day would hardly be calculable. In a city where such coins were employed in the most ordinary and

daily money transactions, how cheap must have been the price of food !

“ Among the curiosities found at Brahmanābād, showing an advanced state of art, are some beautiful engravings on cornelians and agate. Many of them are perfect gems of art, and, like the intaglios of Rome, are polished on the inside of the device—an art, I believe, now lost. Some that were found had upon them a bull, and others a lion ; some merely a name in Arabic, and some in characters resembling the Devanāgri or Sanskrit : most of these appeared cut in ovals and circles, and would be well suited for the purpose of a signet ring ; others were ready cut into these shapes, but without any inscription or device, as if the engraver kept an assortment for the choice of his customers, who had only to express their wish—what device, what name—and the hand of the cunning artist was prepared to make any engraving ordered.

“ I am not aware that lapidaries of the present day are able to produce figures and patterns upon cornelians without making an incision in the stone—no process of burning, no application of acid, will leave a permanent mark upon a cornelian ; but yet at Brahmanābād many of the cornelian ornaments are found figured with various patterns in white lines, on a perfectly smooth surface, and, after having withstood the damp of ages, are, when dug up, quite fresh.

“ Among the glass discovered were several pieces in a state of decomposition, some with all the beautiful metallic colours of the soap bubble, some that had become quite opaque, and other pieces with both sides in the last stages of decay, and only a thin fibre of glass in the centre.

“ Finding glass in this decomposed state is testimony of the antiquity of Brahmanābād ; if other evidence be wanting, we have it in the decomposed state of the bones. These bones I have shown to several medical men, and they are all agreed that they are of great antiquity. Dr. Beatty in particular, when he examined a skull and several other bones, told me that he did not recollect to have seen bones in any museum apparently of such great age ; that all the animal matter in the cellular cavities of the bones was completely exhausted, and that such a process of decay would take centuries of time so completely to effect.

“ I am aware that in certain soils the decomposition of bone is very rapid ; thus in graveyards, where the soil is wet and clayey, instances are not uncommon that, after a body has been buried forty or fifty years, not a vestige of a bone could be discovered, so complete and rapid had been the process of decay ; but in soil

like that of Brahmanābād, dry alluvial sand, upon which rain rarely falls, I presume decomposition would be very gradual.

“Of the bones found, many were unquestionably human; others the bones of camels, horses, oxen, dogs, and fowls. In one of the rooms excavated, among a number of bones, we came upon a quantity of stuff that looked very like ashes, but which I believe to be the remains of smaller bones, whether of men or animals, reduced to dust. A bushel of it might have been collected, and there are two bottles full of it among my collection from Brahmanābād. Many of the teeth found are curious, and show the signs of great antiquity: the enamel on some is pretty perfect, but is very liable to peel off with the slightest pressure.

“A variety of women’s bangles or bracelets were also found; some of glass, others of brass and copper, and a number of ivory, worked over in patterns.

“Among the collection are two round solid balls of pottery, the use of which it is difficult to imagine. The most probable supposition is that they were used as missiles, and may have been employed by the defenders of the city against an invading force.

“The most curious relic \* I found was a hexagonal cylinder, of what I imagined to be wood, or perhaps ivory, with an inscription in Arabic in Kufic characters on each side. It is three inches in length, and two and three quarters in circumference. It was probably a talisman or charm, which, when wrapped up in silk or leather, was worn round the arm or neck. It was unfortunately fractured soon after it was discovered, and has been put together with glue by Mr. Richardson. The Arabic inscriptions, as far as they were legible, are ‘Allah is merciful,’ &c.

“Finding such success during the first day’s excavation, I increased the number of excavators from twenty to seventy; and in the three days I was at Brahmanābād I excavated three distinct houses, two on one side, one on the other side of street fronting the principal bazar. A ground plan of the excavation is given: it has no pretensions to great accuracy, but is generally correct; many of the measurements were taken under a burning sun in the month of March, and others by torch-light. I also give a rough

\* Another curious relic of antiquity, which I have very recently received from Brahmanābād, is a brazen horse, with a rider thereon. It is caparisoned with a bridle, martingale, and a necklace ornament. It has no saddle, nor saddle-cloth, and its rider

rises, centau-like, out of the back of the horse. The horse stands about 5½ inches high; but, I regret to say, the head and shoulders of the rider have been broken off. I also found a small brazen bull, worn probably as a charm, half an inch in height.

sketch of the front elevation of two of the houses. In reference to the ground plan, it may be observed that there are several of the rooms without any door or entrance. This I can only explain by stating that some of the walls were found four, five, and six feet in height, and above the steps of the doorways, while others were found only a few inches above their foundation, and consequently below the doorways.

“Again, it might appear strange, to a person not acquainted with Hindū habits and customs, to find the bones of camels and cattle inside a house; but those who have lived in India will in that fact immediately recognise a custom to be seen in every Hindū or Musalmān city of the present day.

“The walls of the excavated houses,’ says Mr. Richardson, in his notes on Brahmanābād, are well and substantially built—here again showing the superiority of the men of old to those of the present day. The walls are all true, and at right angles to each other, as if built with the plumb and line, and not running in and out without regard to symmetry, as we see buildings nowadays in Sind. The walls are from a foot and a half to three feet thick, and no chunam or lime is used in their construction—nothing but common mud; the floors appear to have been tiled, and the whole building built upon a raised platform, about six or eight feet above the common level. Small as these remains are, they are quite enough to show that the city was well and substantially built, so much so that I am convinced that nothing but the hand of God could have caused such an overthrow. The ruin of ancient Babylon is not more complete.’

“I was at first of opinion that Brahmanābād had been destroyed by an invading army, who had pillaged the city and slain the inhabitants, and that time and decay had made it a heap of ruins. Old Badin, in Lower Sind, is an instance of this kind: there you see heaps of ruins not unlike those of Brahmanābād, but in the midst of the ruins you also see several buildings, such as mosques and temples, whose walls were too strong for the hand of man to overthrow, and upon whose strength time and slow decay alone make any impression. At Brahmanābād the ruin of the city seems to have been complete, and, with the exception of the fragment of the tower before described, nothing appears to have escaped utter destruction. This fact, added to the number of persons whose bones were found inside the houses, together with the quantities of coins and valuables that are to this day in Brahmanābād, shook my belief that an invading army had destroyed the city.

“Nor do I believe that the city was destroyed by fire. The



walls had not the appearance of a conflagration. The many delicate articles everywhere to be found in Brahmanābād, in a general conflagration of the city, must have been consumed: the glass, for instance, would have been fused; the bones would not have been in existence; and the delicate ornaments of the women would all have been destroyed, or borne the marks of fire, whereas nothing of the kind is discernible. The marks of fire were alone found on a few cooking-pots, and charcoal was also discovered near the flooring of the rooms, not in any quantity, but as much as it might be expected the occupants of such houses would be likely to have for cooking purposes. The charcoal was as fresh as if made yesterday.

“Mr. Richardson on this point observes: ‘We found no remains of wood, which might have been used in the construction of the buildings; and, save on the floors, and there only in small quantities, no charcoal, or remains of burnt wood, so we may fairly conclude the city was not burnt. Neither do the old walls we have excavated bear the evidence of having been under the action of fire. A few old iron nails were found, but quite decomposed, retaining nothing but the form of a large spike nail. The almost entire absence of chunam seems strange, it being so generally largely used by natives in the construction of their more substantial buildings. There is, however, no limestone to be found within forty miles of the place, and this may account for the want of it.’

“Under all these circumstances, I think it highly probable that the popular account that Brahmanābād was destroyed by an earthquake is true. It must have been some such convulsion of nature to have effected the complete and utter destruction of a city so strongly built as Brahmanābād: and I further think it probable that the same convulsion that shook the city to its very foundation changed the course of the river which once, without doubt, washed the city walls.

“Mr. Richardson gives three good reasons for supposing the city to have been destroyed by an earthquake; they quite coincide with the opinion I have given above; but as Mr. Richardson is a very keen observer, and as his account is graphically expressed, I give it without fear of tiring my reader with a repetition. He says: ‘That the city was destroyed by some terrible convulsion of nature is, I think, sufficiently evident—

“‘1st. Because the destruction is too complete to have been the work of time. A place so substantially built would in all probability have had some few buildings in a tolerable state of

preservation ; and also from the human remains found in one of the buildings which were excavated. These remains were found in the corners of the rooms. The wretched, terror-stricken inhabitants, finding their houses falling about them, like any other animal, crouched in the corner, and the falling material buried them. These remains (merely bones) were in a very decomposed state—so soft as to be easily crushed to dust in the fingers ; we were not able to get any entire bones. It is not probable these bodies were regularly buried in the places where we found them ; had they been so, the remains in all probability would have been found in a recumbent position, and not all crushed in a heap, as they appear now. I picked up one brick which entered corner-ways into a skull, and which, when taken out, had a portion of the bone adhering to it, but it was so fragile that I fear it cannot be preserved.

“ 2nd. Had the city been destroyed by an invading army, the destruction would hardly have been so complete ; had twenty barrels of powder been placed under each individual building the ruin could hardly have been more perfect ; besides, whatever mischief the soldiery of a conquering army might have committed on buildings and other property, they would surely have carried off coins and other valuables, which are now found in infinite numbers on the surface, but, generally speaking, so decomposed, from exposure to the elements, that the legends are obliterated. However, a careful and diligent search might be successful in procuring more perfect specimens than those yet seen, and might throw some light on the history of the city, &c. &c.

“ 3rd. Had the city been regularly deserted, the inhabitants would surely have carried their valuables with them—money in particular, and ornaments. The place must have been inhabited chiefly by Hindūs, as its old name, Brahmanābād, would imply ; and unless the Hindūs of former days were a very different people from the present race, and supposing they had had time and opportunity, they would have carried off all their property, even to the last pie.’

“ I do not think that any objection to the supposition that Brahmanābād was destroyed by an earthquake can be founded on the fact that a large portion of the tower has remained standing so long after the city itself has been deserted. It may owe its partial preservation to its superior size and solidity, and the fragment which has been standing within the memory of the present inhabitants is evidently but a very small portion of the original edifice.

“In the time of the Kalhoras, so much remained that the reigning prince ordered the demolition of the steps leading to the top, for the purpose of frustrating the designs of robbers, who used the tower as a place of observation, from which to watch travellers as a preliminary to plundering them. A large portion of the tower, without the steps, was standing till about thirty-five years ago, when it fell, and has since remained in much the same state as it is now—a mere fragment.

“Besides Brahmanābād, there are the remains of several other cities on or near the supposed ancient course of the river Indus, showing that when that stream flowed by Umarkot into the Gulf of Kachh, this older valley of the Indus was a fertile and populous country.

“There is the ancient city of Alor, near Rohri. Of his Highness Mir Ali Murād’s territory, which next intervenes, little is known; but directly you re-enter British territory, the remains of antiquities again appear. Lieutenant Jameson in a recent letter writes: ‘I paid a visit to an ancient city in the Naushahro Pargana, but there was nothing to discover. Ruins there are none, and the only thing that betrays former civilization is the vast quantity of old bricks with which the ground is strewn in every direction. There are one or two other places in the Moro Pargana (immediately south of Naushahro), and from their uniform appearance and situation they must have formed a line of cities or towns on or near the banks of the Indus in a former dynasty, when the course of the river lay near them.’

“South, again, of these localities is Brahmanābād, and farther south, between Khipra and Umarkot, I have heard of other ruins, and the remains of cities; and again, near the borders of the Rann of Kachh, are the ruins of old Badin. Besides these there may be others, as this part of the country is little known.

“Another striking feature in this valley is, that along its whole length you can trace the dry bed of a large river. The main stream I take to have been the Eastern Nāra, which, flowing past Umarkot and through Kachh, found an outlet into the Gulf of Kachh, or perhaps at Lakhpat, and in modern times lost itself in that vast lagoon the Rann. This main stream threw off in its course several branches, the Dhoras or Purāns, the dry beds of which are clearly defined traversing the country fifteen to twenty miles west of the main stream, but parallel to it.

“Lieutenant Lambert, writing from Mehrāb-ke-Got, near Wangake-Bāzār, on the borders of the Rann of Kachh, says: ‘I have just seen the Purān; it is a splendid clear river bed, as large and

distinct, and nearly as deep, as the Fulēli, and the country about contains the finest land, all waste. There is in its bed, where I have just been, a large pool about one hundred yards across each way, which is always filled with water, and contains fish of large size (30 or 40 lbs.), and, according to the people here, the pool is without bottom. Strange to say, there is no cultivation from it. There is an idea that, because the Hindūs hold yearly fairs there, it is unlucky to cultivate from it. The sandhills are about six or eight miles beyond, and the Nāra runs along the foot of them; and I saw, in the short distance I went along the Purān, two branches said to communicate with the Nāra. I saw the Purān again above Mora, as clear as here. It has not been traced yet between Mora and Mirpur, but from Mirpur downwards to Wangake-Bāzār, Lieutenant Pirie has traced it, and it is clear the whole way.'

"I give these extracts because they throw some light on a very interesting country, of which very little is known, and I trust they may encourage further research in others. There can be little doubt that this valley was broader than the present valley of the Indus, that its soil was even more fertile, and its population, judging from the remains of its ancient cities, more numerous. There is not at the present day a city in Sind which, if overthrown by an earthquake to-morrow, would make such a show of ruins as Brahmanābād.

"In concluding this paper, I must add that I hope to revisit Brahmanābād next cold season, and to continue the excavations, and that I shall be glad of the company of an antiquary, who is inclined to join my camp, and to dig among the ruins of the Sind Pompeii."

"Since March 1854, when I first commenced to excavate amid the ruins of Brahmanābād, I have visited the ancient city on three several occasions. In these rough notes I purpose to mention the result of my researches, and, without entering into much detail, I proceed to describe any discoveries of special interest.

"On the occasion of our second visit, we selected for excavation a heap of ruins adjoining the site of the house first excavated, and standing on the verge of the same bazar. The house was built of burnt brick, and the rooms of similar construction to those before described. Among the first things of interest found were some very curiously carved stone slabs, raised about five inches from the ground, on four feet. They were carved out of a solid block of stone, but, with one exception, were all more or less broken into pieces by the weight of the walls that have fallen

upon them. I was, however successful in finding all the pieces of some of them, so that the whole could be put together. They varied in size from two to two and a half feet square.

“The most beautiful was one of red sandstone, similar to that now found at Porbandar in Kachh. The slab is square, with a large circular space in the centre, the corner pieces being ornamented with peacocks and snakes. This circular space is slightly depressed, for the retention of water, and on one of the sides of the slab is a bull’s head, with the water escape passing through the bull’s mouth. In this specimen the four corner feet were panelled, and exquisitely carved with bas-relief figures, two on each foot. Two feet were wanting, but on the two found the figures were, a lion on one panel, and on the other a warrior armed with sword and shield. On the other foot are two female figures, one playing the sarindah, a kind of guitar still in use. The other female appears to be admiring herself in a looking-glass, which she holds in one hand, while with the other she is dressing her hair. These feet are connected with each other by a cornice of open tracery of great beauty, running along the sides of the slab, and the whole forming a beautiful specimen of carving.

“The figures, and all the emblems and ornaments used, are Hindū, such as are seen on old Jain temples. One remarkable fact is that the figures carved on this slab are quite perfect, and have not been mutilated by any iconoclast.

“The followers of the Prophet were such zealous image-breakers, that in their invasions and conquests they rarely failed to mutilate every idol they saw. Among the Kafir Kots near Jerruck, where some Būdhist remains were found highly ornamented with figures, not one escaped defacement; even on a cornice, where the figure of Būdh was repeated again and again, the chisel of the iconoclast had taken the trouble to deface every head. It may therefore be inferred, from finding these figures entire, that Hindūism was still paramount in Brahmanābād at the time of its destruction by an earthquake, and that the tide of Muhammadan invasion had either barely reached so far into Sind, or that the conquest was far from complete; and this is an incidental coincidence which accords with history.

“I found many other slabs of the same kind, but none so richly carved; they were all found buried very deep in the ruins, and near the lower floors. Their use was evidently connected with religious worship. They may have been probably used by the Hindūs of Brahmanābād to place their idols upon, and to perform

the ceremonies of their ablutions; but, strange to say, although I made careful search, I found no idol. It has been suggested that these idols were their household gods, their Penates, and these would be the very first things the inhabitants would endeavour to save.

“Among many other curious articles found, four lumps of clay, with the proof impressions of a number of seals, deserve mention. The seal engraver to whom these belonged was evidently in the habit of keeping proofs of all the seals he engraved and sold, by taking their impressions in these lumps of fine clay. The characters and devices of the seals were quite fresh on the impressions, and there are as many as fifteen to twenty impressions on each lump of clay.

“On the third occasion that Mr. Richardson and I visited Brahmanābād, we excavated a house in the same bazar, but some little distance higher up, and were richly rewarded by finding some beautifully-carved figures in ivory. The largest is about four inches long—a female standing figure with a lotus in one hand; many of the other figures appear to be dancing-girls; the female with a looking-glass, on the slab above described, is again to be recognised, and also another warrior; an elephant, fully caparisoned, and others; in all about fifteen figures. These also were in no way defaced by the hand of the iconoclast. From the manner in which they were found, all close together, I conclude that they were portions of a richly-carved ivory box; some appeared injured by fire. The ivory is much decomposed, and is very brittle, and, with pressure between the fingers, may be reduced to powder.

“In this same house we were further repaid by finding nearly a complete set of ivory chessmen, one set white, the other black. The kings and queens are about three inches high, and the pawns about one: the other pieces of different intermediate heights. All have been made for use on a board with holes, for each piece has a peg in it, similar to chessmen used nowadays on board ship, to prevent the pieces being easily knocked down, and the game disturbed. The ivory of these too is in a very decayed state, and very brittle; every particle of animal matter seemed completely exhausted, and the ivory reduced to a substance not unlike lime or chalk. Dice were also found: some square cubes of ivory, numbered exactly as dice used at the present day; others the long dice, used by the natives to play the game of Panchweshi. The discovery of these chessmen is a curious fact: they are probably the oldest known set in existence, and tend to confirm

Sir William Jones's assertion that chess was a game of Brahminical origin.

"We also found the remains of an inlaid tortoiseshell or ebony box. I at first thought it was the chess-board, as it was found in the same house as the chessmen, although in a different room; but I could find none of its numerous pieces with a hole fitting the pegs of the chessmen. It had been an elaborate piece of inlaid workmanship. Some of the fragments are circular, others oblong, others triangular; some with a border pattern cut upon them, others with open carved work; and I think a careful examination of the pieces will show that the box was inlaid in ivory, ebony, and tortoiseshell, and perhaps with other materials.

"I have had accurate drawings taken of most of these relics, of the carvings on the slabs, of the ivory figures, of the ivory chessmen, &c. &c., and these I have sent, with the originals, to Lieutenant-Colonel Sykes, F.R.A.S., at the East India House.

"Pottery, glass, glazed ware, &c., were found in great variety and abundance, as described in my first paper on Brahmanābād; also copper coins, cornelians, and cornelian chips; onyxes, agates, beads, women's bangles of glass, of ivory, and of brass. Bones and teeth, both of men and of animals, were abundant in every house. In one was found the head of a rat: in others, the bones of fowls; and the teeth of camels, oxen, and horses were very common. Beyond a few engraved seals, I found nothing with any inscriptions.

"On the fourth occasion we determined to excavate in quite a different part of the city. We selected a very large mound of ruins near to the standing tower, supposed to be the site of King Dolora's palace, but here we were not so fortunate, as we found nothing of special interest. I do not think we excavated sufficiently deep to reach the foundation. The walls of this house were far more substantially built, and the apartments of larger dimensions. Some of the walls, three and four feet in thickness, were to be seen thrown out of the perpendicular, as if by the rude shock of an earthquake. In this building more lime than usual was found, and the face of one wall had been plastered with it.

"Respecting the cornelian ornaments found figured with patterns in white lines, on a perfectly smooth surface, and which I thought were so curious in my first paper, I have made further inquiry: and while at Sehwan, in Upper Sind, an old city famed for cornelian engravers, I found some stones figured in exactly a similar manner. On examination it was ascertained that the

chief ingredients used were potash, whitelead, and the juice of the Kirar bush (*Capparis aphylla*), made into a thick liquid, and applied with a pen on the cornelian, which, on being exposed to a red heat in charcoal, rendered the device indelible.

“On my last visit to Brahmanābād, I made inquiry of an old cultivator if he had ever seen any of the round solid balls of pottery mentioned in my first paper. ‘Sāhēb,’ rejoined the old man, ‘come to the Toph Khāna (arsenal), and I will show you plenty.’ I followed his guidance, and he led me outside the city walls, and across the dry bed of the river, and there, in the plain, sure enough were a number of these pottery balls. I could distinctly see the square heaps, in which they had been piled in regular rows like round shot; and, scattered over the plain, numbers of single ones were to be found, slightly embedded in the soil. They were of various sizes, some as large as 12-pounders, others about the size of billiard balls. The old man accounted for there being so many scattered about the plain by saying that in ancient times a great battle had been fought on that spot. The smaller balls might have been used in a sling, but the larger ones would have required some engine like the balista to propel them.

“I shall now conclude these observations with an account of Brahmanābād by Captain (now Major-General) F. J. Goldsmid, of the Madras Army, who was employed in Sind, and whose intimate knowledge of Persian gave him many opportunities of consulting Persian books and MSS. After reading my first paper on Brahmanābād, he drew up the annexed memorandum, which I give in an appendix, as it contains many additional particulars relating to the history of the city.

*“Memorandum on Dilu Rāi and Bhambro or Brahmanābād.  
By Captain F. J. GOLDSMID, Madras army.*

“It is by no means easy to form a complete chronological chain of events from the various links supplied by native chroniclers. Want of accordance, of intelligibility, of the information most essential—these are serious drawbacks to satisfactory and uniform workmanship. The following few notes may be useful in drawing conclusions as to recent discoveries; they are from the same source whence the Saiyads of Tatta derive their historical knowledge. Sabir Ali Shāh is himself the lineal descendant of the author of the ‘Tufat-ul-Kiram.’ The Chachnāma contains the name of Brahmanābād frequently. It was a bone of royal contention to the Hindū dynasty, which included the Sahāsis and



their sons. The Ayin Akbari refers to it as the ancient capital of the territory known in after years as the Sarkar Tatta. It is therein described to have been once a very populous city, containing a fort of 1400 bastions, a *tenab* distance from each other. Considerable vestiges of the fortifications were extant in A.D. 1600, in the reign of Akbar.

“ 2. There are two Dilu Rāis in early Sindian history, and the dominion ascribed to each proves that the Moslem conquest of Sind was far from complete for the first three or four generations after the invasion of Muhammad Kāsim in A.D. 711.

“ 3. The first bearing the name is met with in the account of the Lieutenants of the Bani Umia, whose respective reigns may be thus adverted to :—

“ 1st. Ahruf bin Dias. He held Alor. The Hindūs revolted after the second year of his government, and the country from Debalpur (Tatta) to the sea remained in the hands of the Muslims.

“ 2nd. Abu Hife.

“ 3rd. Tañrim bin Tiab.

“ 4th. Amr bin Abdulla.

“ 5th. Amr bin Musalim.

“ 6th. Suliman bin Asham.

“ 7th. Abdul Kitah.

“ This period, is from 93 to 133 Hijri, during which there appears to have been also in Sind a king named Dilu Rāi, of the race formerly dominant, who lived in Dilur, so called after his own name. It may be natural to suppose that the revolt above alluded to was but a renewal of the struggle on the part of the vanquished Hindūs, with a view of ousting the invaders, whom they succeeded in driving to the borders of the sea.

“ 4. During the same period of forty years, there is mention made of a second Hindū king, named Bhambu Rāi, the founder of Bambura, in connection with whose reign is introduced the tale of Sasui and Panhu. Now if the locality given to the legend be that of the city in question, the Hindūs must at the time of its foundation have re-possessed nearly the whole country. ‘It is situated on the right of the road from Wateji to Ghāra.’ Lieutenant Burton adds: ‘The town is supposed to have been built upon the plain, and was destroyed by Divine wrath in one night, in consequence of the ruler’s sins;’ thus identifying it with the Bhambura on the opposite bank, the subject of these notes.

“ 5. In the account of the Lieutenants of the Bani Abbas, we

hear of fresh armies and fresh conquests. It is related that one of these chiefs, 'Mūsa, 'restored all that he took,' or was 'as generous as successful,' and received his dismissal from headquarters in consequence. The inference would be, that extension of territory was a grand aim of the Muslims in those days; nor could this well be denied by any true believer, the object being synonymous with extension of the faith.

"6. During this government (Bani Abbas), and probably at some period in the fourth century of the Hijri, or indeed the date mentioned in the paper on Brahmanābād, it was found desirable to strengthen the Arab tenure in Sind by an additional number of settlers. The Bani Tamin and the men of Saumra were the most famous of these. From the latter spring the Sūmras, who eventually ruled the land. During this emigration we learn that Chota Amrāni, brother to Dilu Rāi II., lent his aid to the cause by proceeding to Bāghdād, and returning with a hundred Arab followers. But the narrative of his importation of a wife is the more important to elucidate the present question, and is related in the 'Tufat-ul-Kiram' as follows:—

"They say that Dilu Rāi, after the destruction of Alor, came to reside at Brahmanābād. He had a brother by name Chota Amrāni, son of Amr. The Almighty had converted him in youth to the blessings of Islam. He had left the city and learnt the Kuran by heart, also the usages of Islamism, in the most approved fashion. On his return, his friends wished him to marry: some one said jestingly on the occasion, 'Let this renegade go to the Kuba, and wed with the daughter of such and such a famous Arab.' By good luck, and his brother being then young, he determined to go on a pilgrimage. When he arrived at his destination, he saw a woman at a shop busily reading aloud the Kuran. He stood to listen. The reader said, 'Why are you standing there?' 'To hear the Kuran,' he replied: 'if you will kindly teach me the various readings I will be your slave.' The woman said, 'My teacher is such a one, the daughter of such a one: if you will change your clothes, and put on a maiden's vesture, I will take you to her.' He consented, and was shortly in the damsel's presence. She was skilled, among other accomplishments, in astrology. One day the woman who had introduced Chota asked some questions from her regarding her own daughter's marriage. When the reply had been duly communicated, Chota said, 'Since you know the state of others, assuredly you are acquainted with your own.' The damsel replied, 'It is well remembered; you have now looked into your own destiny.' She

added, 'I am to be united to a man from Sind.' He asked, 'When?' She answered, 'Soon.' He continued, 'Where is the man?' She consulted her tables, and replied, 'You are the man.' When the veil had thus been removed from Chota's destiny, the expounder of the Kuran said, 'Begone, and come no longer in the guise of another. Take off these clothes, appear as yourself, and seek my hand, for I am destined to be yours.' Then, after acquainting her parents, she became the bride of Chota. The latter returned to Sind, and took the beautiful Fatima with him. When he reached the city of Dilu Rāi, that tyrant had established a custom that all newly-married women should in the first instance be brought to him. Chota went to his brother, and sought to dissuade him from so infamous a practice, but all argument proved vain. At length, one day, when Chota was absent from home, the king proceeded to his brother's house. He had heard much in praise of Fatima, and longed to see her. But intelligence of the occurrence was quickly conveyed to the husband, who returned to watch his brother's actions in secret. Convinced of the baseness of the tyrant's purpose, he rushed from his hiding-place, rescued his young and virtuous wife from the grasp of her tempter, and instantly quitted the city. A voice said, 'This city is about to be swallowed up by the earth, owing to the wickedness of its ruler. Let him save himself who takes due warning.' A few obeyed, and were watchful. The first night the city was spared, by the wakefulness of an old woman at a wheel; the second by means of an oil-presser; the third night the city went headlong into the earth,—only one minaret was left, as an example.

"In supposing the date of the destruction of Brahmanābād to accord with the epoch inferred by the Tatta Saiyad, I should remark that Muhammad of Ghazni annexed Sind to his dominions in about 1025. It is not at all likely that this conqueror would have left standing so powerful a subject as King Dilu Rāi, whose territory extended from Brahmanābād even up to Dēra Ghāzi, Khān and Silpur; for the children of Saif-ul-Malik, the merchant, and his wife Badia-uz-Zemain (whose treatment by Dilu Rāi was the cause of the ruin of Alor), are said to have been buried in the above locality 'in the king's dominions.' If Saiyad Ali Mūsūi, then, accompanied Chota on his return from Bāghdād in 1020, the destruction of the city may be supposed to have almost immediately followed their arrival in Sind."

**Būbak**, a town in the Sehwan talūka of the Sehwan Deputy Collectorate, situate on the north-east shore of the Mañchhar lake, and 9 miles west of the town of Sehwan. It is surrounded by a

kind of ditch, intended, no doubt, to resist water encroachment, but which seems calculated to make the place unhealthy; and it is worthy of remark that this village suffered very severely in 1869 from a visitation of cholera. It has road communication with the towns of Sehwan, Bhān, and Talti.

Būbak possesses a municipality, established in 1854, with an annual income which in 1873-74 amounted to 1622 rupees; it is the head-quarter station also of a Tapadār, and has a Government vernacular school, post-office, a police post of three men, and a cattle pound. The inhabitants, numbering about 5703, consist of 4285 Musalmāns, principally of the Kori, Chaki, Jamot, and Machhi tribes. The Hindūs are 1418 in number, chiefly Brahmans and Lohānos. The population are mostly engaged in agriculture and trade.

The chief persons of note in this town are Makdūms, Nūr Muhammad, Dost Muhammad, and Hāji Muhammad. The manufactures are in carpets, for which this village is famous, as also for its bhang (or *sukho*), a preparation of the *Cannabis sativa*; but the trade would appear to be of no importance. Būbak is said by some to derive its name from a Jamot who founded it, while others state it to be from a plant of that name which grows near the town. There used to be some wealthy Zamindārs resident in Būbak, but owing to much of the best land having been encroached upon by the Manchhar lake, and to the Zamindārs holding at the new settlement more land than they could well cultivate, they have of late become greatly impoverished.

**Budhāpur**, a village in the Kotri talūka of the Sehwan Deputy Collectorate, distant 22 miles north of Kotri, and situate on the main road leading from Kotri to Sehwan. There is a police sub-thāna with six men. The inhabitants number in all 992 souls, of whom 897 are Muhammadans of the Shora, Duro, and Machhi tribes, the remainder (95) being Hindūs of the Lohāno caste. Their chief employment is agriculture. This place possesses neither manufactures nor trade of any consequence.

**Būkēra**, a village in the Alahyar-jo-Tando talūka of the Hālā Deputy Collectorate, 6 miles south from Alahyar-jo-Tando, and 18 east from Hyderabad. It has road communication only with the former town and Khokhar. No Government officers reside at this town. The population, numbering in all but 700, comprises Muhammadans and Hindūs (the number of each not known); the former are mostly Būkeras, Mēmōns, and Khaskēlis, while the Lohāno caste predominates in the Hindū community. Their principal occupations are agriculture, trade, and fishing. The

place has no trade of any consequence, either local or transit, and there are no manufactures of any kind. There are four tombs in this town which are held in some repute among the Musalmān community. One, called Shēkh Bhanapotra's tomb, is said to be 500 years old; the second, Pir Fazal Shāh's, is supposed to have been erected 400 years ago; the third, that of Kaimshāh Korēshi, was built 70 years since, and stands in need of repair; while the fourth, Pīr Firozshāh's, is of a comparatively recent date, being not more than 20 years old. All of these have stone foundations; the superstructure is of burnt brick, with coloured decorations. A fair is held at these tombs twice a year, viz., in November and December, and is attended by some thousands of Muhammadans. The town itself is supposed to have been founded by one Kaimshāh Korēshi, nearly 700 years ago. The chief men of note resident in this town are Pirs Alabakhsh, Varioshāh, and Ismāil Shāh.

**Bukkur**, a fortified island on the river Indus, lying between the towns of Sukkur and Rohri, in latitude  $27^{\circ} 41' N.$ , and longitude  $68^{\circ} 55' E.$  It belongs to the Sukkur and Shikārpur Deputy Collectorate, and may be said to be a rock of limestone, oval in shape, 800 yards long, 300 wide, and about 25 feet in height. The channel separating it from the Sukkur shore is narrow, being not more than 100 yards wide, and, when the river is at its lowest, 15 feet or so deep in the middle. The eastern channel, or that which divides it from Rohri, is much broader, being, during the same state of the river, about 400 yards wide, with a depth of 30 feet in the middle. The Government telegraph line crosses the river here from Rohri to Sukkur by the island of Bukkur; it is an aerial line, and passes, by means of two towers erected on the eastern and western side of the island, to and from similar towers built on the Sukkur and Rohri shores. A little to the north of Bukkur, and separated from it by a narrow channel, of easy passage, is the small isle of Khwāja Khizr (or Jind Pīr), containing a shrine of much sanctity, while to the south of Bukkur is another islet known as Sādh Bēla, well covered with foliage, and also possessing some sacred shrines. Almost the whole of the island of Bukkur is covered by the fortress, the walls of which are double, and from 30 to 35 feet high, with numerous bastions; they are built partly of burnt and unburnt brick, are loopholed, and have two gateways, one facing Rohri on the east, and the other Sukkur on the west. The fort presents a fine appearance from the river, and has a show of great strength, which in reality it does not possess. At present Bukkur is only used as a jail\* (established there in

\* This jail was directed to be abolished from the 1st January, 1876.

1865), which is subsidiary to that at Shikārpur. The prisoners occupy two barracks formerly tenanted by European soldiers when this fort was garrisoned with British troops, and these buildings are capable of accommodating 320 convicts. Various articles are manufactured in the jail workshops by the prisoners—who number on an average 200—such as table-cloths, towelling, carpets, *postins* or winter coats, reed chairs and sofas, &c. The place is considered from its situation to be healthy, the mortality among the convicts being not more than about four per cent. That Bukkur, owing to its insulated position, must always have been considered a stronghold of some importance under native rule, is evidenced by its being so frequently a bone of contention between different states. So early as A.D. 1327, when Sind was an *appanage* of the Delhi empire, Bukkur seems to have been a place of note, from the fact of trustworthy persons being employed by the Emperor Muhammad Toghāk to command there. During the reign of the Samma princes this fort seems to have changed hands several times, being occasionally under their rule, and at times under that of Delhi. During the reign of Shāh Bēg Arghūn, the fortifications of Bukkur appear to have been partially, if not wholly, rebuilt, the fort of Alor being broken up to supply the requisite material. In A.D. 1540 this fortress was threatened with capture by the fugitive Delhi emperor, Humaiyūn, who came up against it, but effected nothing. In A.D. 1574 the place was delivered up to one Keshū Khān, a servant of the Mogal emperor, Akbar Shāh. In A.D. 1736 the fortress fell into the hands of the Kalhora princes, and at a subsequent date into that of the Afghāns, by whom it was retained till captured by Mir Rustam Khān of Khairpur. In 1839, the year of the Afghān war, the fort of Bukkur was ceded by the Khairpur Mirs to the British, to be occupied by them during that campaign, and it so remained till the conquest of the province in 1843. Bukkur was the principal British arsenal in Sind during the Afghān and Sind campaigns.

**Buthi**, a Government village in the Kambar talūka of the Larkāna Division, 16 miles north of Larkāna. Has no direct communication with any town, and possesses neither police lines, school, nor any public building. The population numbers 1289 in all, of whom 1139 are Musalmāns of the Rahan, Juneja, and Ahera tribes, and 150 Hindūs, who are Lohānos. Their chief occupations are trade and agriculture.

**Chak**, a town in the Sukkur talūka of the Shikārpur and Sukkur Deputy Collectorate, distant 12 miles north of Sukkur, with which town, as also with Abdū, Abād-Melāni and Rustam, it has road

communication. There is a police *thāna* with a force of 12 men, and a travellers' bungalow. The population numbers 1258 persons, of whom 801 are Muhammadans, chiefly Sitars and Mahars, with a few Saiyads, Pirs and Pathāns. Of the Hindūs there are 457 of the Brahman, Lohāno, and Sonāro castes. The occupation of the inhabitants is mainly agricultural. Some coarse cloths are manufactured here to a small extent.

**Chāchra Talūka.** (See UMARKOT TALŪKA.)

**Chāchra**, a village in the Chāchra talūka of the Thar and Pārkar district, distant 48 miles south-east from the town of Umarmkot, with which place, as also with the villages of Chelār, Islamkot, Mitti, Gadra, and Kesar, it has road communication. It is the head-quarter station of a Mūkhtyārkar and Tapadār, and has a police thāna with 13 men. There are also civil and criminal courts, a Government school, dharamsāla, and cattle pound. It has a municipality, established in 1862, the receipts for the year 1873-74 being 1535 rupees, and the expenditure 1924 rupees. The inhabitants, numbering about 1649, comprise but 183 Muhammadans, principally of the Rājput and Kumbar tribes, while the 1466 Hindūs are mostly Brahmans, Lohānos, Mengwars and Bhils. The Musalmān portion of the population are engaged in agriculture and cattle-breeding, while the Hindūs carry on all the trade, which is chiefly in ghi, oil, metals, sugar, cloth, gum, and grain. There are no manufactures of any importance in this town.

**Chelār**, a Government village in the Chāchra talūka of the Thar and Pārkar Political Superintendency, situate about 34 miles south-east from Umarmkot, with which town, as also with Nabisar, Mitti, and Chāchra, it has road communication. It is the head-quarter station of a Tapadār, and has a police station for three men. There are also a school, dharamsāla and cattle pound. The population, numbering 1100, comprises but 30 Musalmāns, mostly Memons, the remaining 1070 being Hindūs, chiefly Brahmans and Lohānos. Their principal employments are agriculture and trade. Neither the trade nor manufactures appear to be of any consequence. The place is said to have been founded by one Kala Sadu, an Umarmkot Sodho.

**Chor**, a Government village in the Umarmkot talūka of the Thar and Pārkar Political Superintendency, distant 14 miles north-east from Umarmkot, with which town, as also with the villages of Chāchra, Ranahu, Sundro, and Khipra, it has road communication. It is the head-quarter station of a Tapadār, and has a small police post of two men, a dharamsāla, and a Government

school. The population numbers about 951 souls, of whom but 121 are Musalmāns, mostly of the Kumbar tribe, while the remainder are Hindūs of the Brahman, Lohāno and Bhil castes. The principal occupation of the inhabitants is trade, agriculture, and cattle-breeding: of the local trade the chief articles of export are ghi, oil, and grain of sorts; the imports being piece-goods, sugar, tobacco, &c. There are no manufactures of any consequence in this town.

**Chujna**, a Government village in the Kambar talūka of the Larkāna Division, distant 13 miles from Larkāna. There is a Tapadār here and a *dhak* or cattle pound. The population numbers in all 853, of whom 717 are Musalmāns of the Saiyad and Bhuta tribes, and 136 Hindūs, mostly Lohānos.

**Dādū**, talūka (or revenue sub-division) of the Sehwan Deputy Collectorate, with an area of 746 square miles. It has 9 tapas, 71 villages, and a population reckoned, by the census of 1872, at 66,350 souls. The revenue, imperial and local, of this talūka for the four years ending 1873-74, is as follows:—

	1870-71.	1871-72	1872-73	1873-74.
Imperial . . .	rupees 1,55,995	rupees. 1,03,001	rupees 1,41,936	rupees 1,34,678
Local . . .	12,075	9,245	10,416	11,484
Total rupees .	1,68,070	1,12,246	1,52,352	1,46,162

**Dādū**, the chief town in the talūka of the same name, and the head-quarter station of a Mūkhtyārkar. It is situate on the main road leading from Sehwan to Larkāna, is distant 24 miles north of Sehwan, and has road communication also with Bhān, Johi, and Rukan. It possesses a municipality, established in 1856, with an annual income ranging from 1300 to 3900 rupees, a Mūkhtyārkar's kutcherry, with subordinate jail, Government (Anglo-vernacular) school, post-office, travellers' bangalow, dharamsāla, and a cattle pound. Dādū has also a police thāna with a force of 24 men, of whom two are mounted. The inhabitants, numbering 3357, consist of 2434 Muhammadans of the Saiyad, Mēmon, Chaki and Lashari tribes, and 923 Hindūs, mostly Lohānos. Their chief employment is agriculture and trade. The trade and manufactures of this town are of no consequence.

**Dakhan**, a Government village in the Naushahro Abro talūka of the Shikārpur and Sukkur Deputy Collectorate, seated on the Ghār canal, distant 18 miles S.S.W. from Shikārpur, with which town,



as also with Garhi Yāsin, Rato-Dēro and Gahējā, it has road communication. This place was formerly the head-quarter station of a Mūkhtyārkar, till the kutcherry building fell into ruin. A Tapadār now resides here. There is a police station with a force of 10 men, a Government vernacular school, a dharamsāla, and a cattle pound. The population is 1177 in number, comprising 689 Muhammadans, principally of the Abto tribe, and 488 Hindūs, who are mostly Lohānos. Their occupation is chiefly agriculture and trade, but this latter and the manufactures of the place do not appear to be of any importance.

**Danna Towers.** (See MEHAR DEPUTY COLLECTORATE.)

**Darbēlo**, a Government village on the Naulakhi canal, in the Naushahro talūka of the division of the same name, situate 5 miles north of Tharushah, with which town, as also with Kandiāro (6 miles) and Abād (5 miles) it has road communication. It is the head-quarter station of a Tapadār, and possesses a dharamsāla and vernacular school. The population, numbering in all 1159, comprises Muhammadans of the Kalhoro and Pir tribes, and Hindūs of the Lohāno caste, but the number of each class is not known. Their occupation is for the most part agricultural. Some common country cloth is made here, and the town exports grain to other places, by way of the Naulakhi canal, to the annual value of 20,000 rupees. There is an old but decayed mosque here, but nothing apparently is known of its history.

**Daro**, a Government village in the Mirpur Batoro talūka of the Shahbandar Division, situate on the Pinyāri river about 8 miles north-west of Mirpur Batoro, with which town, as also with Belo and Bano, it has road communication. It is the head-quarter station of a Tapadār, and in addition to a small police post has a dharamsāla and cattle pound. The Pinyāri river is here crossed by a fine masonry bridge of six spans, each 25 feet wide. There is also a municipality, established in March 1875. The population numbers in all 1012 persons, of whom 762 are Musalmāns and 250 Hindūs. Agriculture is the chief employment of the inhabitants. This place would seem to possess neither trade nor any manufactures.

**Dars**, a Government village in the Moro talūka of the Naushahro Division, one mile distant from Moro, with which town and Abji it has road communication. It is the head-quarter station of the Tapadār of Wadpāgia. The population is 902, consisting of Musalmāns and Hindūs, but the number of each class is not known. Their chief occupation is agriculture. The principal man of note residing in this town is Pir Nabi Bakhsh. There is little or no trade in the place.

**Daulatpur**, a Government village in the Moro talūka of the Naushahro Division, situate on the high road from Hyderabad to Rohri, 32 miles south from Thārushah, and 12 miles south from Moro, with which places, as also with Mirpur ferry (5 miles), Thatt (17 miles), and Rukan (8 miles), it has road communication. It is the head-quarter station of a Tapadār, and has police lines for six men. There is a dharamsāla, a good district bangalow, and an old fort, now converted into a cattle pound. The population numbers in all 1159, consisting of Muhammadans, mostly of the Hotpotra tribe, and Hindūs of the Lohāno caste, but the number of each is not known. The inhabitants are principally engaged in agricultural operations. There is no manufacture or trade of any consequence, but what little trade it does possess is kept up mainly by the passenger traffic of the trunk road on which the town is situate.

**Depārja**, a Jāgir village in the Moro talūka of the Naushahro Deputy Collectorate, distant 24 miles south-west from Thārushah, and 8 west from Moro. There are no roads leading to or from this place, but it is connected with the Indus by the Malkar *dhandh*, which forms a sort of harbour for boats. There are police lines for the accommodation of three men. The population, numbering in all about 1109, consists of Muhammadans, who are mostly of the Depārja and Kaurāja tribes, and Hindūs of the Lohāno caste, but the number of each class is not known. The occupation of the inhabitants is chiefly agricultural. Some common cotton cloth is manufactured here, and grain is annually exported to other places to the value of about 6000 rupees.

**Dēri Kot.** (See GHAIBI DERO.)

**Dēro Mohbat**, a talūka (or sub-division) of the Tanda Deputy Collectorate, having an area of 670 square miles, with 4 tapas, 66 *dehs*, and a population of 30,445 souls. The revenue (imperial and local) of this sub-division during the past five years, ending 1873-74, is as follows :—

	1869-70.	1870-71.	1871-72	1872-73	1873-74.
Imperial . .	35,411	54,979	51,609	51,779	46,100
Local . . .	3,735	4,736	4,643	4,573	4,046
Total rupees	39,146	59,715	56,252	56,352	50,146

**Dhar Yaro.** (See MEHAR DEPUTY COLLECTORATE.)

**Diji Fort** (also called **Ahmadabad**) is a stronghold in the

territory of His Highness Mir Ali Murād Khān Talpur, in latitude 27° 24' N., and longitude 68° 58' E., and is close to the town of Kot Diji, a favourite residence of this Mir. It is built on a range of low limestone hills, known as the Ghār, running south-east and north-west, on which are found the remains of many marine animals, such as the cockle and oyster. This place, which is about 12 miles south of Khairpur, consisted of a number of fortifications crowning several eminences connected by a single mud-wall, well loopholed. It has a large tower, supposed to have been the receptacle of the wealth of the Khairpur Mirs, and on the south side there was a magazine and a powder manufactory. This fort is now used as a prison: as a place of strength it is not thought to be of any importance, being nearly commanded from the south-east quarter and open to capture by escalade. The town of Kot Diji, near the fort of the same name, is said to have a population of 2570 souls.

**Dipla**, a talūka (or revenue sub-division) of the Thar and Pārkar Political Superintendency, bordering on the Rann of Kachh, having two tapas, four “*dehs*,” and a population calculated at 14,524 souls. The revenue (imperial and local) of this talūka for the four years ending 1873-74 is as follows:—

	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . .	rupees 3,136	rupees 22,661	rupees. 21,043	rupees. 21,476
Local . . .	1,215	1,548	2,591	1,685
Total rupees.	4,351	24,209	23,634	23,161

**Dipla**, a town in the talūka of the same name of the Thar and Pārkar district, distant about 80 miles south from Umarkōt. It has road communication with the villages of Rahim-ki-bazār, Baliāri, Mitti, Nawakot, Islamkot, and Kalohi. It is the head-quarter station of a Mūkhtyārkar and Tapadār, has a police thāna of 19 men, civil and criminal courts, Government school, dharamsāla, and cattle pound. There is also a municipality, established in 1863, the income of which in 1873-74 was 789 rupees, and the expenditure 655 rupees.

The population of this town is estimated at but 893 souls, of whom 655 are Musalmāns, mostly of the Mēmon, Kalar, Pahra, and Kumbar tribes. The Hindūs are chiefly Brahmans, Lohānos, and Bhils. The trade of this place consists principally in the export and import of various articles, such as ghi, grain of sorts,

oil, cotton, copper, iron, dried fruits, piece goods, sheep and goat skins, tobacco and sugar. There are no manufactures of any consequence. In this village there is a mud fort, now in ruins, supposed to have been constructed during the rule of the Talpur Mirs.

**Frontier District of Upper Sind.**—This district, forming the northernmost portion of the province of Sind, lies between  $27^{\circ} 56'$  and  $28^{\circ} 27'$  of north latitude, and  $68^{\circ}$  and  $69^{\circ} 44'$  of east longitude. It is bounded on the north and west by the Derajāt and the territory of the Khān of Kelāt, on the east by the Indus, and on the south by the Shikārpur Collectorate, and in it is included a hilly tract to the north, triangular in shape, and about 260 square miles in area. The greatest length of this district from east to west may be set down at 114 miles, its greatest width from north to south at 20 miles, and its entire area at 2225 miles.

The hilly and triangular-shaped portion of the district mentioned above was received from the Panjāb in 1866, and has the hill of Gyandāri as its extreme northern apex, a nahā running from it to Mithri, forming a natural boundary between this district and the Panjāb, while on the other side a line drawn from the hill to the Lehni frontier tower, separating it from the Kelāt territory, defines its western boundary. The following table gives a list of the talūkas and tapas, including the tract from the Derajāt which forms part of the Kashmor talūka, into which this district is divided, together with the area, population, and chief towns in each talūka:—

Talūka.	Area. Square Miles.	Tapas.	No. of Villages	Population.	Towns having 800 inhabitants and upwards
1. Jacobabad	475	1. Jacobabad . 2. Jehānpūr . 3. Khera Garhi . 4. Alipur . .	28	35,545	1. Jacobabad. 2. Garhi Khera.
2. Thul (or Mirpur) . .	968	1. Thul . . . 2. Mirpur . . 3. Shirgarh . . 4. Mubārakpur . 5. Ghauspur . .	29	34,807	1. Thul 2. Mirpur.
3. Kashmor .	782	1. Kashmor . . 2. Kandkot . . 3. Badāni . . . 4. Kūmbri . . .	19	25,232	1. Kashmor.
	2,225		76	95,584	

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The area in English acres of each talūka, showing that cultivated, cultivable, and un-arable, is also shown below :—

Talūka.	Total Area in English Acres	Cultivated and Cultivable	Un arable.
	acres.	acres	acres
1. Jacobabad . . .	304,000	177,491	126,509
2. Thul . . .	619,520	80,331	539,189
3. Kashmir . . .	500,480	58,715	441,765

PHYSICAL ASPECT.—The Frontier district of Upper Sind, with the exception of the hilly tract of country previously referred to as having been incorporated from the Derajāt, is a flat level plain, half of which is covered with thick jungle and subject to annual inundation. In a few parts of the district high and extensive sand-hills form a feature in the landscape, and numerous high mounds on the plains attest the remains of former towns and villages. The land itself lies from 170 to 273 feet above mean sea-level, and is highest on its eastern side, near the river Indus, whence it slopes towards the west. Thus Kashmir is 257 feet and Jacobabad but 180 feet above the sea. This latter town is said to be quite 90 feet below the level of the Indus at Mithri.

HYDROGRAPHY.—Though the water system of the Frontier district is not yet sufficiently developed to allow of all its available land being brought under cultivation, an extensive area is nevertheless capable of being irrigated by the existing canals led from the Indus, which, as previously mentioned, forms its eastern boundary for nearly 50 miles, and is the chief source of its agricultural productiveness. The principal canals are the “Bēgāri,” the Nūr wāh, the Sonwāh, the Desert canal, and the Mirzawāh, all of which are cleared and kept up by Government. These again have numerous branches which may be termed “Zamindāri” canals, being under the management of those of the Zamindārs whose estates are irrigated by them. The “Bēgāri” canal is the largest in the water-system of this district, and taps the Indus at its extreme south-eastern boundary, forming for about 50 miles of its course a well-defined line of demarcation between this district and the Shikāipur Collectorate. In 1851 this canal was at its head only 24 feet wide, with a depth of 9 feet, but in 1852 sanction was obtained for enlarging it at a cost of 1,30,094 rupees, and on the 13th April, 1854, the work having been satisfactorily completed, the

water was admitted into it from the Indus, and this reached Jacobabad, 50 miles distant, in sixteen hours. Subsequently the tail of the "Bēgāri" canal was enlarged and extended further to the westward near Khera Garhi, at an outlay of 30,000 rupees, and on the 3rd August, 1856, the water was admitted into this portion, which was 32 miles in length. In that same year the "Bēgāri" was capable of being navigated by large boats from one end to the other, a distance of nearly 78 miles. The *net* revenue on the Frontier district side from this canal amounted in 1851-52 to 24,129 rupees, but this in 1857-58 had increased to 1,06,940 rupees, and in 1870-71 to 1,57,345 rupees. Improvements to this canal, together with its extension for the irrigation of the Sir lands, have been carried out during the past few years, and for some distance the main channel has been increased to the full width of 57 feet.

The Nūr wāh, the largest offshoot from the "Bēgāri," and tapping it at a distance of 40 miles from the head of the latter, is next in importance. It is 19 miles in length, was cut in the time of Nūr Muhammad Kalhora, from whom it takes its name, and waters the tapas of Jacobabad and Alipur. Sanction was obtained in 1852 for enlarging this canal, and the work was carried out at a cost of 25,344 rupees; it is navigable for 10 miles. The Son wāh, another branch of the "Bēgāri," and tapping it at 19 miles from its head, is 18 miles in length, and waters the tapas of Mirpur and Thul. The Mirzawāh, between 9 and 10 miles long, also branches off from the "Bēgāri," and waters the lands in the tapas of Mirpur and Mubārakpur. The Desert canal, formerly known as the Maksūd wāh, runs 35 miles into the desert tract west of Kashmir, irrigating from 30,000 to 40,000 acres of land. Its total length is intended to be 90 miles, and it will pass near the Dil Murad fort in the territory of the Khān of Kelat, afterwards turning south towards the Frontier district. The Jacob wāh and Briggswāh canals in the Kashmir talūka were formerly used chiefly to fill what is called the "Sind Hollow," an old bed of the Indus traversing the Kashmir and Thul talūkas, and which is now yearly covered with fine "rabi" crops; they are now quite closed up. The tract between the "Sind Hollow" and the river Indus is much cut up with "*dhandhs*" (flood hollows), and "*dhoros*" (old river channels).

At Kashmir a navigable canal, the commencement of the present Desert canal, 4 miles in length, connects that town with the Indus. It has been found, owing to the increased supply

brought in by these canals, that the water in wells at Jacobabad has risen at least seven feet nearer to the surface than before. The canals in this district are now under the general supervision of the Executive Engineer of the Bēgāri Division, though the annual clearances are carried out partly by his department and partly by the Deputy Collector and his subordinates.

The following is a list of the principal canals in this district, with the average annual revenue and cost of clearance, for the five years ending 1873-74 :—

Name of Canal	Length	Width at Mouth.	Average Annual Cost of Clearance for Five Years ending 1873-74	Average Annual Revenue for Five Years ending 1873-74	Remarks
1. Bēgāri . .	mile . 85	feet. 57	rupees. 11,419	rupees 83,151	Main feeder. Taps the Indus at the extreme south-eastern boundary of the Frontier district.
2. Sonwāh . .	19	24	5,942	20,912	Is a branch of the Bēgāri, striking off from it in the Thul talūka.
3. Mirzawāh . .	9½	26	2,119	25,281	A branch of the Bēgāri, striking off from it in the Thul talūka.
4. Nūrwāh . .	19	30	8,541	20,227	A branch of the Bēgāri.
5. Budwāh . .	4	10	926	1,936	A branch of the Nūrwāh.
6. Desert Canal	35	26	9,869	30,439	Taps the Indus in the Kashmor talūka.

FLOODS.—Before the year 1861-62 floods in the Frontier district were by no means so common as they have been of late years; that of 1862-63 was disastrous in its effects, but was not followed by any other of importance till 1871, when a heavy river flood occurred, causing numerous breaches in canals. Again in 1872 and 1873 the floods were heavy, but of comparative insignificance when compared with that which took place in 1874, this latter being of greater extent and duration than any previously known. It began early in June with a high river flood, and by the 19th of

that month, what is known as the Kashmor *Īt*, or flood, began to spread over the district, flowing in a westerly direction; this was augmented in volume by hill floods from Kachi, and conjointly with high winds which prevailed in portions of June, July, and the early part of August, had the effect of destroying in a greater or less degree nearly 80 towns and villages, besides nearly sweeping away the important town and military station of Jacobabad. To prevent a recurrence of such disasters, a large and strong "*bandh*" has now been constructed, from the town of Kashmor down to the mouth of the Bēgāri, with the object of proving against any future encroachment of the Kashmor flood.

CLIMATE.—The climate of the Frontier district may be considered a peculiar one, as being perhaps the driest in the world, and as showing at times very remarkable variations in temperature. There are but two seasons, the "hot" and the "cold;" the first extending from May to September, and the other from October to April. It must, however, here be mentioned that the temperature during the months of April and October is very uncertain. From the beginning of November to the end of March, a period of five months, the climate is temperate and enjoyable. During December and January the cold is frequently very great, the thermometer sometimes indicating as low a temperature as 27°. Ice and frosts prevail in consequence, and the latter are not unfrequent in February, and even in March. The mean monthly temperature of the "cold" season, as taken from the register kept at Jacobabad from 1864 to 1868, is found to range from 58 to 73°, the mean maximum being 88° in March, and the mean minimum 49° in December. A thermometer placed in the sun's rays at noon during the month of March has shown a mean high temperature of 122°. During the "hot" season, extending over seven months (from April to October), the nights in April and May are comparatively cool, though the days are hot; but it is in the following months of June, July, and August that the full force of the heat is experienced, the difference in temperature, during both the day and night, being then very slight, at times almost nothing at all. In September the nights become somewhat cool, with occasional dews, and by about the middle of October a sensible change in the temperature takes place, amounting sometimes to as much as 10° between two successive nights. The mean monthly temperature of the "hot" season ranges from 80° to 102°, the mean maximum being 108° in June, and the mean minimum 67° in October. A thermometer placed in the sun's rays at noon during May has



indicated a mean temperature of  $134\frac{1}{2}^{\circ}$ . The following table will show the result of certain thermometrical observations kept at Jacobabad during five years, from 1864 to 1868. Other observations recorded from 1848 to 1860, and again from 1872 to 1874, are also included :—

Months	Mean Temp	Mean Maximum.	Mean Minimum	Direction of Winds	Remarks.
January .	58	67	50	N.E. & N.W.	Rain often falls during this month.
February .	64	76	52	N.N.E., E. & S.	Light rain for a few days.
March .	73	88	59	N.W. & N.E.	Dust-storms occasionally, with high winds.
April . .	86	98	74	N.E.	Dust-storms regularly, with hot winds.
May . .	95	107	84	S.E. & N.W.	Dust-storms, with remarkably dry air.
June . .	99	108	90	S.E.	Calms.
July . .	97	107	87	S.E.	Rain occasionally, and dust-storms.
August .	93	103	83	S.E. & S.W.	A little rain sometimes falls in this month.
September.	89	99	79	S.E. & N.E.	Dews at night.
October .	79	90	67	Variable.	Great changes in temperature this month.
November.	69	80	59	S.E. & N.E.	Cloudy; weather, as a rule, very dry.
December .	60	72	49	North.	Rain falls occasionally this month.

The heat in the eastern portion of the Frontier district is believed to be less intense than at Jacobabad, a cool breeze blowing at night during the hot months. This may perhaps be attributable to its close proximity to the river Indus. The annual rainfall in this district is between four and five inches, though twelve inches have been known to fall in one year (1869). The months of January, August, and December seem to be those in which rain is most frequent. The rainfall in the eastern part of the district is supposed to be somewhat heavier than at Jacobabad. The following table will show the quantity of rain gauged at Jacobabad during a period of eleven years ending with 1874 (*see next page*) :—

Year.	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov.	Dec	Total
1864	..	..	..	'60	1'18	..	'7	'52	..	..	..	..	2'37
1865	'50	'26	1'53	'04	..	..	..	'13	..	..	..	1'10	3'56
1866	'08	..	'24	..	'71	..	..	2'10	..	..	..	..	3'13
1867	..	..	..	..	..	..	..	'91	..	..	..	'06	'97
1868	'21	1'86	'18	..	..	'22	2'23	..	..	..	..	'19	4'89
1869	'96	'50	2'59	'44	..	'42	3'09	2'10	1'70	'25	..	..	12'05
1870	..	..	'72	..	..	'31	..	1'75	'85	..	..	..	3'79
1871	..	'23	..	..	..	'07	'39	'57	..	..	..	'08	1'34
1872	'18	'02	'55	'57	..	..	'63	4'50	1'32	..	..	..	7'77
1873	1'07	..	..	..	'58	..	'03	2'47	..	..	..	'20	4'35
1874	'46	'10	'06	'36	..	..	4'92	2'61	..	..	..	..	8'51

The diseases prevailing in this district are "intermittent and other kinds of fevers," occurring mostly in September, October, November, and December, after the annual inundation: affections of the lungs, stomach, and bowels, in the same months; rheumatism, in August and December, and acute eye diseases in September, October, and November. Measles was epidemic in 1866, small-pox in 1867 and in the beginning of 1868, cholera in 1861 and again in August, September, and October 1867, and hooping-cough during the first half of 1868.

SOILS AND CULTIVATION.—Of the geological features of the Frontier district of Upper Sind there is little to be said. The general nature of the soil is an alluvial deposit brought down by the canals from the Indus, occasionally covered with a layer of drift sand from the desert which lies along its northern boundary. The soils are much the same as those met with in the Shikārpur district. Alluvial land is known under the name of "*phori*." There is also the "*kalrāthi*," or salt soil, and the "*wārāsī*," or sandy soil, the former of which, after being flooded two or three times, is capable of producing tobacco, barley, and rice. The latter soil, as well as the "*phori*," are mostly cultivated with grain and pease (*matar*) crops.

The different modes of cultivation are known under the names of—1, "*Mok*," where the land is below the surface of the water by which it is irrigated; 2, "*CHARKHI*," where the land is watered by a wheel from a canal or well; and 3, "*SAILĀBI*," or land overflowed by the river during the annual inundation.

POPULATION.—The population of the Frontier district is composed mainly of Muhammadans and Hindūs, with a slight sprinkling of Europeans, Indo-Europeans, Parsis, &c. No regular census, except that of 1872, has been taken since 1854, but in 1866 an estimate was made which placed the entire population of the district at about 75,000, or 34 persons to the square mile.

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By the census of 1872 the entire population of this district was found to be 95,584, inclusive of the cantonment population of Jacobabad, which then numbered 5599 souls. This would give about 43 persons to the square mile. Irrespective of the inhabitants in the Jacobabad cantonment, who do not appear to have been in any way included with other classes of the population, the following table will show the various nationalities of which these latter are composed, so far as can be obtained from the census records :—

Classes	Population.		Remarks.
Europeans . . . . .		9	Under the term "all others" are no doubt included Balochis, Jats, and other tribes.
Indo-Europeans . . . . .	2		
Indo-Portuguese . . . . .	1		
Other Mixed Races . . . . .	10		
<i>Hindūs.</i>			
Brahmans . . . . .	80	13	
Waishya . . . . .	8,475		
Sudras . . . . .	160		
<i>Muhammadans.</i>			
Sayads . . . . .	366	8,715	
Shekhs . . . . .	306		
Pathans . . . . .	326		
Mogals . . . . .	39		
All others . . . . .	80,140		
Other Asiatics . . . . .		81,177	
		50	
Grand Total . . . . .		89,964	

The following statement will show the Jacobabad cantonment population according to religion :—

—	Number
Christians . . . . .	75
Muhammadans . . . . .	4,143
Hindūs . . . . .	1,377
All others . . . . .	4
Total . . . . .	5,599

The Balochis are divided into the great families of—1, the "Jamālis," inhabiting the western portion of the district; 2, the Jakrānis," residing in the neighbourhood of Jacobabad (many of

them are in the district police) ; 3, the "Dūmbkis," living near Jacobabad and Kūmbri ; 4, the "Khosas," all over the district ; 5, the "Būrdis," Būrdika ; and 6, the "Mazāris," near Kashmor. These again are sub-divided into numerous lesser families. The chief families of the "Sammās" are the Mahar, Chachar, Buhra, Pitāfi, Machhi, Sudhaya, Subhaya, and some others. They are able-bodied, and both sexes are comely in appearance. The "Jats," who are known as Leshāri, Brahmani, Waswāni, and Babbar, live in encampments of mat tents, and are engaged in tending and rearing camels. They also are well made and handsome. The food of these different tribes consists of unleavened wheaten or juār bread, with milk and butter, and occasionally meat, eggs, and vegetables. They are addicted to the use of "bhang" and tobacco, and drink spirituous liquors. The dress of the men is of cotton, and is made up of a tarban, breeches, and a long loose shirt, with a *lungi*, or *dopata*, thrown across the shoulders, or wound round the waist. The dress of the women is, excepting the tarban, much the same as that of the men ; the breast portion of the shirt, is, however, generally embroidered with either red silk or cotton thread. The following extracts from the late General Jacob's report on the chief border tribes residing within the British territory of Northern Sind, written in 1854, at a time when he was Commandant and Political Superintendent on the Frontier, will not only show their predatory habits, but the effectual means which were subsequently taken to reclaim them :—"These tribes are the Mazāris, Būrdis, Khosas, Jamalis, Jatois, Dūmbkis, Jakrānis, and others. The Mazāris inhabit the country on the right bank of the Indus between Mitankot and Būrdika. This tract is chiefly in the Panjāb, a small part only falling within the boundary of Sind. The habits of this tribe were wholly, and are still to a great extent, predatory. They continually plundered the river-boats, and made frequent incursions into the Bahāwalpur territory on the left bank of the Indus. They were often at war with the Bhūgtis and Maris, and did not hesitate to attack the Dūmbkis and Jakrānis at Pūlaji, Chatar, &c., from whom they occasionally succeeded in driving off much cattle. The Mazāris are the most expert cattle-stealers in the border country, and have the reputation of being brave warriors. Not many of the tribe now remain in Sind, even in the Kashmor district. Most of them have left that part of the country and taken up their abode with their chief and brethren in the Panjāb, where they are allowed to bear arms, which they are not permitted to do in Sind. They still make occasional plundering excursions into the Bahāwalpur

country, and the British territory on the eastern bank of the Indus. The Būrdīs reside chiefly in the district called after them, Būrdīka, which lies on the western bank of the Indus, between the Mazāri district on the north, and the Sind canal on the south. This tribe first came in contact with the British in 1838, when the fortress of Bukkur was handed over to the latter by Mir Rustam of Khairpur. The habits of this tribe were formerly wholly predatory, and up to 1847 the Būrdīs made frequent marauding inroads on their neighbours in Kachhi and in the hills, as well as in Sind. In 1839 the Būrdīs, in common with the Baloch tribes of Kachhi, continually plundered the British convoys moving towards Afghānistān; on this account the chief, Šāer Muhammad, was imprisoned by Mir Rustam of Khairpur (whose subjects the Būrdīs were), and sent to Mr. Bell, then Political Agent in Upper Sind. This tribe continued in the practice of murder and robbery, as before, until the year 1842, when, the country being well guarded, they abstained altogether from plunder. On the deposition of Mir Rustam, and the conquest of Sind by the British in 1843, Būrdīka came under the rule of Mir Ali Murād, and the Būrdīs resumed their predatory habits with more than wonted vigour, till, in 1844, Mir Ali Murād seized the chiefs of the tribe and kept them in close confinement in the Dijī fort till December 1844, when they were released, and accompanied the Mir, with a large number of their tribe, in the hill campaign, in conjunction with Sir Charles Napier. After the predatory tribes of Kachhi (Dūmbkis, Jakrānis, &c.) had been transported and settled by Sir Charles Napier on the Sind border, they joined the Būrdīs and Khosas in carrying on frequent plundering excursions in secret: their lawless proceedings were generally attributed to the Bhūgtīs and other hill men, till, in 1847, the Sind Horse were again posted on the Frontier, and Major Jacob discovered and broke up the whole confederacy of robbers on the British border, and punished many of the offenders. At this time every one in the country went armed, but Major Jacob applied for, and obtained, permission to disarm all men not in Government employ, and this rule was rigidly enforced. Mir Ali Murād also gave Major Jacob full power over all his subjects on the border, but the greater part of the Būrdīka district was covered with a most impenetrable jungle, affording great facilities to the practice of robbery, which, in spite of every effort, was carried on by the Būrdīs occasionally, in gangs of from six to twenty men, calling themselves Bhūgtīs, but being really inhabitants of Sind. In order to lay open this wild country, Major Jacob obtained permission to cut roads

through the jungle. This was done, and, together with other measures which were adopted, proved completely successful in calming the country, which thenceforth became quiet, orderly, and peaceable; the people have taken wholly to agricultural and pastoral pursuits, and cultivation has greatly increased. Būrdik became British territory in 1852, when the lands of Mīr Rustam, which had been given to Ali Murād at the conquest of Sind, were again resumed by him. The Khosas are a very numerous Baloch tribe, not confined to any one locality, but scattered all over the country from Nagar Pārkar to Dādar. The men are plunderers, cultivators, soldiers, or shepherds, according to circumstances. There are several villages of this tribe on the Sind border. They have now but few peculiarities to distinguish them from the other tribes of Sind and Kachhi; they are said originally to have been Abyssinians, and some have derived their name from 'Kush,' but of this nothing certain, or even probable, can be discovered. The Jatois and Jamālis are two Baloch tribes, both numerous and scattered about the country of Upper Sind and Kachhi. They are cultivators and artificers, and, as bodies, are not predatory. The Dūmbkis and Jakrānis were the most formidable and warlike of all the Baloch tribes, hill or plain. Up to 1845 they resided in the plains of eastern Kachhi, where they held the lands of Lhari, Wazira, Pūlaji, Chatar, &c. After Sir Charles Napier's hill campaign in 1845, that portion of the Dūmbki tribe which had surrendered to him at Traki was placed under a chief, by name Jamāl Khān, on lands near Jani-dēro on the Sind Frontier. Daria Khān and Türk Ali, with the Jakrānis, and some men of other clans, are settled at Jāni-dēro itself and its neighbourhood. The lands were granted to these men free for three years (afterwards altered to a free grant in perpetuity), and it was expected that they would now take to agricultural pursuits, and entirely give up their former predatory habits. But though a commissioner was appointed to superintend them at Jāni-dēro, and troops posted at Shāhpur in Kachhi, the Dūmbkis, Jakrānis, Khosas, Būrdis, &c., made repeated plundering excursions from British Sind into the neighbouring countries, both hill and plain. The Bhūgtis did the same from their side into Sind; murder and robbery everywhere prevailed. The troops shut up in forts did nothing to protect the people. The district along the border was left uncultivated; the canals were not cleared out for years, and nearly all the peaceable people left the country. The troops were perfectly isolated in their entrenchments; no supplies were drawn from the country folk, but all were fed as if on ship-

board, by the commissariat. Even at the distant post of Shāhpur in Kachhi, the troops and camp-followers were supplied with every article of consumption from the public stores, forwarded by the commissariat department, at an enormous cost, from Shikārpur, 60 miles distant. The cavalry horses were fed in like manner. Notwithstanding that the Bhūgtis had been proclaimed outlaws, a price set on the head of every man of the tribe, and all of them ordered to be treated as enemies wherever they were found, they were not subdued, nor, indeed, in any way weakened by any of the proceedings of the Governor of Sind. The removal of the Jakrānis and Dūmbkis from Kachhi left the Sind border temptingly open to their incursions, and they failed not to take advantage of the circumstances, until at last, becoming more and more bold by impunity, they assembled a force of some 1500 armed men, mostly on foot, and on the 10th of December, 1846, marched into Sind, passed through the British outposts, which dared not attack them, to within 15 miles of Shikārpur, and remained twenty-four hours within British territory, secured every head of cattle in the country around, and returned to their hills, some 75 miles distant, with all their booty in perfect safety. A regiment of cavalry and 200 Native rifles were sent from Shikārpur to repel the invaders. The cavalry came upon them at Hūdū, about 45 miles from Shikārpur. The Bhūgtis halted *en masse*, their unarmed attendants meanwhile diligently continuing to drive on the cattle towards Sor, Kūstak, and the hills. The British troops, however, were ignorant of the ground, thought the robbers too strong to be attacked, and returned to Shikārpur without attempting anything further. The Bhūgtis ultimately reached the hills, with all their plunder, without the loss of a man, save one killed by a distant random shot from the matchlock of a Jakrāni. One regiment of the Sind Horse, then at Hyderabad, was now ordered up with all speed to the Frontier, where it arrived on the 9th of January, 1847. Major Jacob was appointed to command the Frontier, and since then has held this post. On arrival at Khānghar, desolation and terror were found to prevail everywhere in the country; no man could go in safety from place to place, and even on the main line of communication from Shikārpur to Jagan an escort was necessary. Not a man of the Baloch settlers, the Jakrānis and Dūmbkis, had as yet attempted any peaceful labour, or even put his hand to any agricultural implement. At Khānghar there was no village, no bazar, and but four or five wretched huts, containing in all twenty-two souls. The cavalry detachment was found by the Sind Horse, on arrival, *locked up* in the fort, the gate

not being even opened at eight o'clock in the morning. They, during the previous four years, knew little or nothing of the country or of the people on the border; the men of the Sind Horse were familiar with both, and this gave them confidence and power. After assuming the command and relieving the outposts, Major Jacob at once ordered all idea of *defensive* operations to be abandoned; every detachment was posted in the open plain, without any defensive works whatever; patrols were sent in every direction in which it was thought an enemy might appear, and these parties crossed and met so often that support was almost certain to be at hand if wanted. The parties were sent to distances of 40 miles into and beyond the desert, and along the Frontier line. Whenever a party of the Sind Horse came on any of the plunderers, it always fell on them at once, charging any number, however superior without the slightest hesitation. Against such sudden attacks, the robber horsemen never attempted a stand; they always fled at once, frequently sustaining heavy loss in men, and never succeeding in obtaining any plunder. These proceedings, and especially the tracks, daily renewed, of our parties all over the desert, and at all the watering-places near the hills, far beyond the British border, alarmed the robbers, and prevented them ever feeling safe, and they soon ceased to make attempts on British territory, though still plundering in Kachhi. Meanwhile, Major Jacob had discovered that not only the Būrdīs and Mazāris, who were always inveterate marauders, but the Baloch settlers at Jāni-dēro, had been all along systematically carrying on plundering excursions on a considerable scale, entirely unknown to the commissioner residing among them. The existence of these proceedings had never been suspected until pointed out by Major Jacob, and they were at first thought impossible, but having good information of what was going on, Major Jacob caused the places of these predatory rendezvous to be suddenly surrounded by parties of the Sind Horse, just after the return of a body of Jakrāni plunderers from a foray, and the robbers were all secured, with their horses, arms, and a large quantity of stolen cattle. Concealment was no longer possible, and Major Jacob now obtained permission to disarm every man in the country not being a Government servant, which was at once done. At the same time, Major Jacob set five hundred of the Jakrānis to work to clear out the Nūrwāh canal (a main-feeder cleared by Government, though then belonging to Mir Ali Murād). This experiment was perfectly successful, and soon after the Baloch settlers took to manual labour in their own fields with spirit, and even pride. From that time



they were really conquered, and commenced to be reformed; they are now the most hard-working, industrious, well-behaved and cheerful set of men in all Sind."

The crimes most prevalent among the inhabitants of the Frontier district are—1, Murder, the causes being either jealousy or retaliation for personal injuries or affronts; 2, "Cattle-lifting," the facilities for concealing stolen cattle being great; and 3, "Causing grievous hurt." Dacoity and unnatural offences are of rare occurrence. The ranks of the criminal population of the district are greatly swelled by travelling Pardēsīs from Hindūstān, who infest the Frontier.

The following tables will give the criminal and civil returns of this district for the past four years, ending 1874:—

## I. CRIMINAL.

Year.	Murders.	Hurts, Assaults, and use of Criminal Force	Thefts.		Receiving Stolen Property.	House-breaking	Highway Robbery.	Other Offences
			Cattle	Others				
1871	8	17	69	118	9	.	2	4
1872	9	21	57	67	22	1	1	22
1873	6	9	45	34	32	5	3	17
1874	1	5	73	122	16	2	...	49

## II. CIVIL.

Year.	Suits for Land.		Suits for Money.		Other Suits.		Total	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1871	3	10,300	222	46,545	3	5,140	228	61,985
1872	4	392	358	40,112	6	722	368	41,226
1873	3	165	256	35,776	5	319	264	36,260
1874	2	232	393	52,347	6	1,063	401	53,642

PRODUCTIONS—MINERAL, ANIMAL, AND VEGETABLE.—Of the "mineral" productions of this district but little is known, nor, from the peculiar nature of the soil, can much be expected. Among the wild animals are the tiger and hyena, but the former is only occasionally seen. Wild hogs and jackals abound. Foxes

are sometimes met with ; and antelopes, hog-deer (*Pharho*), and a species of Sambar known by the name of *goin* are to be found in the dense jungles adjoining the Indus. The principal game-birds are the ūbara, or talūr (bustard), partridge (black and grey), quail and grouse ; and among water-fowl, the mallard, Brahmani duck, teal, herons, and snipe. The domestic animals are those common to India. The cattle of the district, used for draught, are poor in form ; but the Kachhi breed, from the Nāri river, near Bāgh, is famous throughout both Sind and the Panjāb. Much attention is bestowed by the Balochis in this district on the breeding of mares. The sheep are of the *Dumba* kind, remarkable for development of tail ; the mutton is excellent. Experiments in crossing the indigenous ewes with English and Hazāra rams are still in progress. The vegetable productions of this district are numerous. The principal forest and other trees, including those also introduced during the past two or three years from the Himālayas and elsewhere, are as follows :—

English Name.	Vernacular.	Botanical.	Remarks.
Cypress . . .	Farash (or Asrin)	<i>Cupressus</i> (?)	
Tamarisk . . .	Jhao (or Lāi) . . .	<i>Tamarix Indica.</i>	
Willow Poplar.	Bahan . . . . .	<i>Populus Euphratica.</i>	
Bābul . . . . .	Babar (or Kikar) . . .	<i>Acacia Arabica.</i>	
Wild Caper-tree	Karil (or Kirar) . . .	<i>Capparis Aphylla.</i>	
Pilū . . . . .	Pilū (or Khabar) . . .	<i>Salvadora Oleoides.</i>	
... . .	Dyar . . . . .	...	
Kandi . . . . .	Kandi . . . . .	<i>Prosopis specigera.</i>	
Blackwood . . .	Sissu (and Tāli) . . .	<i>Dalbergia Sussū.</i>	
.. . . .	Nim . . . . .	<i>Asadrachta Indica.</i>	
Acacia . . . . .	Siras . . . . .	<i>Acacia speciosa.</i>	
Bamian . . . . .	Bar . . . . .	<i>Ficus Indica.</i>	
Indian Fig-tree	Pipal . . . . .	<i>Ficus religiosa.</i>	
Tamarind . . . .	Ambli . . . . .	<i>Tamarindus Indica.</i>	
Tallow-tree . . .	...	<i>Stillegia Sebifera.</i>	Introduced of late years.
Indian Mahogany	Toon . . . . .	<i>Soymida Febrifuga.</i>	do.
Poplar . . . . .	Chunar . . . . .	<i>Populus fastigiata</i> (?)	do.
Papaw . . . . .	Paputa . . . . .	<i>Carna Papaya.</i>	do.
... . .	Lēsuri . . . . .	<i>Cordia myxa.</i>	Very com- mon.

There are several thriving plantations of different kinds of timber-trees in this district, but no forests under the direct control of the Sind Forest Department. The jungles at Kandkot, Bhanar, and Gublo are dense, but the wood is small. Some mango and date plantations are now on trial, and may eventually turn out to be a source of revenue to Government. There are but two forests actually conserved in this district ; these are the Briggs

Bêlo (169 acres in area) and the Dickenson Bêlo (530 acres), both situate in the Alipur tapa of the Jacobabad talûka. The revenue from these and from jungles generally in this district in 1873-74 was 7256 rupees.

The chief grain and other crops grown in this district, in the order of their importance, together with the area of each cultivated, in 1873-74, are given in the following table :—

English Name.	Vernacular.	Botanical	Area Cultivated in 1873-74.
			acres
Millet . . .	Juâr . . .	<i>Sorghum vulgare</i> *	43,121
Millet . . .	Bājri . . .	<i>Pennisetum vulgare</i> . . . . .	8,439
Wheat . . .	Kanak . . .	<i>Triticum vulgare</i> . . . . .	43,731
Rice . . .	Chaul Sari	<i>Oryza sativa</i> . . . . .	990
Barley . . .	Jau . . .	<i>Hordeum Hexastichon</i> . . . . .	2,772
Grass . . .	Kring . . .	<i>Seta Italica</i> . . . . .	..
Pulse . . .	Mung . . .	<i>Phaseolus Mungo</i> . . . . .	8
Gram . . .	Chana . . .	<i>Cicer arietinum</i> . . . . .	2,395
Chickling Vetch	Matar . . .	<i>Lathyrus Sativus</i> . . . . .	1,521
Vetch . . .	Mash or Māh . . .	<i>Phaseolus radiatus</i> . . . . .	½
Pulse . . .	Mot . . .	...	157
Rape-seed . . .	Til . . .	<i>Sesamum Indicum</i> . . . . .	3,935
Mustard . . .	Sarson . . .	<i>Sinapis ramosa</i> . . . . .	52,673
Cotton . . .	Vaun . . .	<i>Gossypium herbaceum</i> . . . . .	684
Indigo . . .	Niru . . .	<i>Indigofera tinctoria</i> . . . . .	193
Tobacco . . .	Tamāku . . .	<i>Nicotiana tabacum</i> . . . . .	15
Melons . . .	Gidhro and Chauho . . .	<i>Cucumis melo and Citrullus vulgaris</i> . . . . .	171
Hemp . . .	Bhang . . .	<i>Cannabis sativa</i> . . . . .	11

The fruits common to the district are the melon, mango, the "beri" (or plum), and the *khajūr* (or date). A great variety of fruit-trees have lately been introduced into the gardens at Jacobabad; these are nectarines, peaches, oranges, lemons, figs, apricots, lichi, grapes, loquats (*Eriobotrya*), papaw (*Papaya*), strawberries, and some others. The crops of the district are known under the names of "Rabi," "Peshras," and "Kharif." The first comprising wheat, barley, mustard, pease, *matar*, grain, &c., is sown in November and December, and reaped in April and May. The second includes cotton, melons, and gourds generally, which are sown in March and April. The indigenous cotton cultivated in the Frontier district, though small in quantity, is of strong fibre and good colour. So highly was a specimen of it, grown in the Thul talûka, considered at the late Karāchi Exhibition in 1869, that it gained the first prize, as being the best sample among a number of others of indigenous Sind cotton. The "Kharif"

crops comprise chiefly juār, bājri, and til; these are sown generally by the end of May or middle of June, and are reaped in October and November. Indigo was first cultivated in the Frontier district in 1859, and may now be considered one of its chief products, as the soil of the Jacobabad talūka in several parts is said to be admirably adapted for the cultivation of this dye. Rice is also becoming an important article of cultivation. The area under "Kharif," "Rabi," and "Peshras" cultivation, in acres, during the years 1872-73 and 1873-74, was as follows:—

Talūka.	1872-73.			1873-74.		
	Kharif.	Rabi.	Peshras.	Kharif.	Rabi.	Peshras.
1. Thul . . .	acres 22,354	acres. 40,412	acres. 241	acres. 17,059	acres. 22,385	acres. 240
2. Kashmir .	16,789	16,955	625	15,386	16,951	700
3. Jacobābād .	27,553	31,582	435	20,046	38,304	350

The principal implements used in agricultural operations in this district are the "*kar*," or plough; the "*kodar*," or crooked spade, for digging canals; the "*vaholo*," a kind of pick for rooting up trees and tiger-grass; the "*rambo*," or weeding-hoe, and the "*kīn*," or bullock-drag spade. For irrigational purposes the "*hurlo*," or single wheel, and the "*nār*," or double Persian wheel, are in use.

**MANUFACTURES.**—Under the head of manufactures in this district may be noticed that of saltpetre, but to a small extent only. Salt is made in considerable quantities in the Kashmir and Thul talūkas; the right of manufacture in 1870-71 realised no less than 6091 rupees. The lacquered wood-work of Kashmir, as also "*dabbas*," leathern jars for holding oil and ghi, made at the same place, are worthy of mention. Embroidered Sind shoes are made up in large quantities at Mirpur and Ghauspūr; and woollen carpets and saddle-bags are manufactured to some extent by Baloch and Jat women.

**FISHERIES.**—The fisheries of the Frontier district are not now so remunerative as formerly. The principal fish caught in the dhandhs and river are the "*dambhro*," "*malhi*," goj (or eels), khaga (catfish), and occasionally the "*pala*," or salmon of the Indus. The chief fishing stations are at Gublo, Kashmir, Badāni, Gihalpūr and Chui. The contract for carrying on these fisheries

is sold by Government, and a few years since realised as much as 2300 rupees per annum; but in 1869 it had decreased to 1200 rupees, owing in a great measure to several previously well-stocked dhandhs having dried up, and to one of great extent having been made over to Shikārpur. The average annual revenue derived from the fisheries in the Frontier district during the five years ending 1874, was 1480 rupees.

COMMUNICATIONS.—There are, it is said, upwards of 900 miles of roads of all descriptions in the Frontier district, many of them fairly constructed and well kept up; but there are no travellers' bangalows on any one of them, though dharāmsālas are found at several of the large towns, while on the frontier road from Jacobabad to Kashmor the old outpost stations are used by travellers as post-houses. Supplies and water are procurable at all the principal villages. This district as yet possesses no line of railway, but in 1858 the preliminary survey of one to run from Sukkur, *viâ* Jacobabad, towards the Bolān pass, was made by some civil engineers (Mr. W. Brunton and his staff) of the Panjāb railway. The electric telegraph wire passes through the district, the station being at Jacobabad, and this is connected with Shikārpur on the south, and Dēra Ghāzi Khān, by Rājanpur, on the north. As regards postal communication, the only office in this district is at Jacobabad; the duties of the district post are conducted by the police and the Mūkhtyārkar. The following table will show the principal lines of road in this district, with other information concerning them (*see page 172*).

The Upper Sind Frontier district was surveyed in 1859–60, but as a former summary settlement, fixed in 1858–59, is in force for twenty years, no other has since been introduced. The Survey and Settlement Department have, however, commenced operations, and the work of measurement was progressing fairly.

ADMINISTRATION.—For the political, judicial, and revenue administration of this portion of Sind, there is a Political Superintendent, who is also the magistrate of the district and commandant-in-chief of the large military force stationed there. He has two European assistants under him, who are both invested with magisterial powers. At the head-quarter station of each of the three talūkas is a Mūkhtyārkar, with a number of Tapadārs under him in different parts of the district. The cattle pounds in this district are five in number, and are situate [at Jacobabad, Khera Garhi, Thul, Ghauspūr, and Kashmor. The proceeds from these pounds more than exceed twice the expenditure on them.

From	To	Length in Miles.	Description of Road.	Remarks.
Jacobabad . . .	Shikārpur . . .	28	Main.	Good road passes by village of Hamāyūn (Hamau), 12 miles from Jacobabad, in Shikārpur district, where there is a travellers' bangalow: dharamsāla at Jacobabad.
Jacobabad . . .	Dilmurād . . .	8	do.	
Jacobabad . . .	Tower Bēgāri . . .	14	Branch.	A dharamsāla at Tower Bēgāri.
Jacobabad . . .	Nasarābād . . .	6	do.	A dharamsāla at Nasarābād.
Jacobabad . . .	Rojhān . . .	12	Main.	There is an old bangalow, as also old Sind Horse lines at Rojhān.
Dilmurād . . .	Garhi Hasan . . .	12	do.	A landhi at Garhi Hasan.
Garhi Hasan . . .	Tangwāni . . .	14	do.	Old Sind Horse lines at Tangwāni.
Tangwāni . . .	Kandkot . . .	12	do.	Ditto at Kandkot.
Kandkot . . .	Kumbri . . .	16	do.	Ditto at Kumbri.
Kumbri . . .	Kashmor . . .	16	do.	From Kashmor on to Shāhwali (in the Panjāb) is 12 miles.
Tower Bēgāri . . .	Chausūl . . .	14	Branch.	A dharamsāla at Chausūl.
Chausūl . . .	Rato Dēro . . .	8	do.	At Rato Dēro is a bangalow and musāfirkhāna. This town is in the Lārkhāna division.
Nasarābād . . .	Shāhpur . . .	24	do.	Shāhpur is in the Khān of Kelāt's territory; there is a dharamsāla there.
Rojhān . . .	Muhammadābād . . .	12	do.	Old Sind Horse lines at Muhammadābād.
Muhammadābād . . .	Khera Garhi . . .	12	do.	Ditto and dharamsāla at Khera Garhi.
Khera Garhi . . .	Mehar-ke-khū . . .	16	do.	A dharamsāla at Mehar-ke-khū.
Mehar-ke-khū . . .	Chausūl . . .	8	do.	Ditto at Chausūl.
Chausūl . . .	Shikārpur . . .	20	do.	

Each pound is managed by a mūnshi with a small establishment, who is directly subordinate to the Mūkhtyārkar. A new Court of Civil Justice was established in 1870 at Jacobabad ; it is placed under the jurisdiction of the District Court of Shikārpur. The District and Sessions Judge of Shikārpur holds sessions at the town of Jacobabad twice in the year.

EDUCATION.—As regards education, it may be mentioned that there are but five vernacular schools (Government) throughout this district, attended by 151 pupils. Two of these are in the Jacobabad talūka, two in the Kashmor, and one in the Thul talūkas.

MILITARY ESTABLISHMENT.—The military force of this district is large, and consists of 1480 Siledār cavalry, divided into three regiments, better known as the "Sind Horse," raised in 1839 by the then Resident in Sind, Colonel Pottinger. There is besides an infantry regiment of 700 men, known as "Jacob's Rifles," who have the management also of a mountain train battery. The permanent outposts held by this force extend along the base of the Mari and Bhūgti hills as far as the Panjāb border. The police of this district consist in all of but 115 men, of whom 32 are mounted. The district police number 90 and the town police 25 men.

REVENUE.—The Government revenues are derived from the land tax and sayar, the latter including a variety of cesses, the chief being abkāri, drugs, stamps, and salt. The collectors employed in getting in the revenue are tapadārs. The money assessment on land varies according to the period of its lease ; thus, when taken up for 7 years, the payment *per* "bigā" is but 5 annas and 4 pies ; if from 1 to 3 years, 10 annas and 8 pies ; and if for one year only, one rupee *per* "bigā." The excise revenue in this district is levied under the contract system, and the money is paid into the Treasury in monthly instalments by the contractor. The following table will show the receipts of imperial revenue under various heads for the last four years, ending with 1873-74 (*see next page*) :—

Items	Realizations in			
	1870-71.	1871-72	1872-73	1873-74
	rupees.	rupees.	rupees.	rupees
Land Tax . . . . .	2,05,808	2,62,357	2,86,914	2,52,990
Abkari . . . . .	12,035	10,850	9,225	11,165
Drugs and Opium . . . . .	8,145	6,900	6,460	5,170
Stamps . . . . .	8,365	9,006	9,479	11,840
Salt . . . . .	6,091	6,706	10,338	8,648
Registration Department . . . . .	904	602	594	635
Postal ditto . . . . .	3,240	4,002	4,442	5,081
Telegraph ditto . . . . .	..	5,557	1,549	1,938
Income (Licence and Certificate) Tax . . . . .	7,079	8,497	2,696	..
Fines and Fees . . . . .	11,605	1,241	1,017	2,911
Miscellaneous . . . . .	2,659	178	319	265
Total rupees . . . . .	2,65,931	3,15,896	3,33,033	3,00,643

The following statement, exhibiting the *average* collections of net land revenue in the Frontier district during three distinct periods, dating from 1856-57 to 1873-74, will conclusively show the great increase which has taken place during the past 18 years:—

For 6 Years—from 1856-57 to 1861-62.	For 6 Years—from 1862-63 to 1867-68.	For 6 Years—from 1868-69 to 1873-74.
rupees. 89,706	rupees. 1,88,115	rupees. 2,41,762

Of local funds there is no record previous to 1867-68, but from 1870-71 to 1873-74 the revenue derived from this source was as follows:—

Items.	1870-71.	1871-72.	1872-73	1873-74.
	rupees	rupees.	rupees	rupees
Cesses in Land and Sair Revenue . . . . .	2,435	3,762	2,880	569
Percentage on Alienated Lands . . . . .	405	103	175	105
Cattle Pound and Ferry Funds . . . . .	2,907	5,023	4,822	5,156
Fisheries . . . . .	1,225	1,225	1,500	1,954
Fees and Licences . . . . .	276	..	..	2,353
Tolls . . . . .	..	..	..	667
Total rupees . . . . .	7,148	10,113	9,377	10,804



FRONTIER DISTRICT OF UPPER SIND. 175

No	Name of Jāgīrdar.	Talūka and Village.	Cultivable Land.		Uncultivable.	Yearly Amount of Government Revenue represented			
			acres	gūntas		acres	gūntas.	rup	a
T. JACOBABAD.									
1	Ghulām Alikhān Jak- iāni . . . . .	Jāni Dēro . .	6518	6	1795	0	4211	1	0
2	Jamāl Khān Dūmbki	Rind Wahi . .	1678	0	147	5	1083	15	5
3	Mubāiak Khān Ram- dāni and Dingono	Nawāzo . . .	3019	0	2858	0	1950	6	9
4	Khān Mūndrāni } Dād Muhammad Khān } Jakrāni . . . . . }	Dodāpur . . .	2710	5	820	4	1751	2	9
T. KASHMOR.									
5	Jafr Khān Rind . .	Kandkot . . .	516	0	...		333	5	4
6	Khūda Bakhsh Bhūgti	ditto. . . . .	412	8			266	10	9
7	Yar Muhammad Kahri	ditto. . . . .	258	0			166	10	9
8	Muhammad Khān Kahiri	ditto. . . . .	258	0	..		166	10	9
9	Hasan Khān Kahiri . .	ditto. . . . .	258	0	..		166	10	9
10	Ibbar Khān Rind . . .	ditto. . . . .	258	0	...		166	10	9
11	Sanjai Khān Rind . . .	ditto. . . . .	154	8	...		100	0	0
12	Azam Jān . . . . .	ditto. . . . .	516	0	...		333	5	6
13	Motan Khān Jakīāni . .	ditto. . . . .	154	8	...		100	0	0
14	Yar Muhammad Khoso	ditto. . . . .	154	8	...		100	0	0
15	Mir Baloch Khān } Dūmbkhi . . . . . }	ditto. . . . .	1032	0	..		666	11	9
16	Wali Muhammad Baj- koni . . . . . }	ditto. . . . .	15	4			10	0	0
17	Dodo Khān Bhūgti . . .	ditto. . . . .	258	0	...		166	10	9
18	Islam Khān Bhūgti . . .	ditto. . . . .	258	0	..		166	10	9
19	Māi Mehndi . . . . .	ditto. . . . .	258	0	..		166	10	9
20	Rugho Khān Bhūgti . . .	ditto. . . . .	258	0	...		166	10	9
21	Wazir Khān Dūmbki	ditto. . . . .	516	0	...		333	5	6
22	Dih Jān Nothāni . . . .	ditto. . . . .	154	8	...		100	0	0
23	Alum Khān Jakrāni . . .	ditto. . . . .	77	4	..		50	0	0
24	Jām Beg Jakrāni . . . .	ditto. . . . .	77	4	..		50	0	0
25	Ghulām Ali Khān } Jakrāni . . . . . }	Kūmbri . . . .	154	8	...		100	0	0
26	Motamshāh Saiyad . . .	ditto. . . . .	19	1			12	5	11
T. THUL.									
27	Mubārak Khān Ram- dāni . . . . . }	Bakhe Tower	77	4	...		50	0	0
28	Shāh Ali Fakir . . . . .	Daniapūr . . .	7	3	...		5	0	0
29	Ali Khān Pathān . . . .	Chaudron . . .	...		...		263	13	4
30	Kalandar Khān Pa- thān . . . . . }	ditto. . . . .	...		...		693	3	2
31	Pir Imāmudin . . . . .	Mirpur . . . .	...		...		3006	12	1
32	Pir Muhammad Asbruj	ditto. . . . .	...		...		3006	12	1

\* A three years' average. This is part of Government revenue.

The Hakāba cess ceased to be credited to local revenue after 1868-69, all proceeds from this source having after that year been transferred to imperial revenue.

**JĀGIRS.**—Of assignments of land held in Jāgir, the preceding table will show the persons possessing such in the three talūkas of the Upper Sind Frontier district, with the particulars of each holding (*see p.* 175).

**MUNICIPALITY.**—There appears to be but one municipal institution in this district, and this is at Jacobabad. The receipts in 1873-74 were 21,941 rupees, and the expenses 21,110 rupees.

**TRADE AND COMMERCE.**—The internal trade and commerce of this district is principally in grain, the greater part of which is sent to the Panjāb. The quantity and value of this trade do not, unfortunately, appear to be known, so that it has been found impossible to give any reliable tabular statements of either the imports or exports.

The transit trade from Central Asia into Sind *viā* the Frontier district is believed to be considerable, but no regular statistics of this traffic appear to have been kept. This trade is carried on by means of camels, ponies and asses, by the following routes:—From Kandahar, Herat, Kābul and Bokhāra—1, by Quetta (or Shāl) and Kelāt, and 2, by Quetta and the Bolān pass; 3, from Persia by Makrān, and 4, from Tul Chotiāla by Bāgh. The merchandise brought from these places consists of wool, woollen apparel, manjit, fruit of sorts, carpets and horses; of these latter some are purchased for the use of the cavalry at Jacobabad, and others generally proceed to Karāchi by the Kelāt road. On the articles so introduced into Sind a duty of 8 annas per maund, and of 5 annas per horse, is levied by the Khān of Kelāt at Quetta. It is believed that when the railroad is completed between Sukkur and Mūltan, both these places will become the two great points of attraction for the trade from most parts of Central Asia, and \*cause the present mountain road *viā* Kelāt to be abandoned.

**Gadra**, a Frontier town in the Umarmot talūka of the Thar and Pārkar Political Superintendency, 60 miles east from Umarmot, with which place, as also with Kesar, Chachra, Jaisalmir, and Balmir, it has road communication. It is the head-quarter station of a Tapadār, and has a police thāna with a force of 8 men. There is a dharamsāla, Government school, and a cattle pound. The village also possesses a municipality, established in 1862, the income of which in 1873-74 was 714 rupees, and the expenditure 878 rupees. The population, numbering in all about 1126 souls,

comprises but 48 Musalmāns of the Manganhar, Kumbar, and Sumājā tribes, the remainder being Hindūs, chiefly of the Brahman, Lohāno, Sodho, Mēngwar, and Bhil castes. The occupation of the people is principally agriculture, cattle-breeding and trade; neither the local trade nor manufactures appear to be of any consequence.

**Gahējā**, a Government village in the Naushahro Albro talūka of the Shikārpur and Sukkur Deputy Collectorate, situate on the main road leading from Lārkāna to Shikārpur, and distant 14 miles south-west from the latter town, with which, as also with Dakhan and Rūk, it has road communication. It is the head-quarter station of a Tapadār, has a police thāna, travellers' bangalow, a dharamsāla, and a cattle pound. The population, numbering in all 1123, comprises Muhammadans, mainly of the Gahējā tribe, and Hindūs, who are chiefly Lohānos, but the number of each class is not known. The occupation of the inhabitants is principally agriculture and trade.

**Gāji Kuhāwar**, a Government village in the Nasirabad talūka of the Mehar Deputy Collectorate, 12 miles north from Mehar, with which town, as also with Nasirabad, Hamal and Wārah, it has road communication. There is a cattle pound here. The population numbers 938, of whom 620 are Muhammadans and 381 Hindūs, the latter chiefly Lohānos. There is a local and transit trade in grain, but no manufactures whatever.

**Gambat**, a somewhat large town in the Khairpur State, belonging to His Highness Mir Ali Murād Talpur. It is about 12 miles south from Khairpur, and 10 miles or so east of the Indus; no made roads appear to lead either to or from it. At one time Gambat was one of the principal places in this part of Sind for the manufacture of cotton goods, the quantity annually produced being about 5000 pieces. The population of this town in 1844 was computed at 3000 souls, and now at 4537; but this latter may possibly be too high an estimate, when the present generally miserable condition of the Khairpur territory is taken into consideration.

**Garēlo**, a small Government village in the Labdarya talūka of the Lārkāna Deputy Collectorate, distant 10 miles south-west of Lārkāna. It has no direct road communication with any town, but is distant about a mile from the Lārkāna and Mehar main road. The population, numbering 904 souls, comprises 554 Muhammadans of the Janjāni, Machhi and Khokhar tribes, who are mostly engaged in agriculture. The Hindū portion of the population (350) are chiefly engaged in the grain trade. There is

no manufacture of any importance in this place. There is a small police station here.

**Garhi Adū-Shāh**, a Government village in the Sukkur talūka of the Shikārpur and Sukkur Deputy Collectorate, 16 miles north from Sukkur. It is connected by roads with the towns of Sukkur, Jafribād, Aliwāhan, Bhatar and Adur-jo-Takio. There is a small police thāna here. The population, numbering in all 1327, consists of 790 Muhammadans of the Sūmra, Chāchar and Katpar tribes, and 537 Hindūs of the Brahman, Lohāno and Sonāro castes. Their occupation is chiefly agricultural. One of the Great Trigonometrical Survey pillars is set up in this village.

**Garhi Khera**, a village in the Jacobabad talūka of the Frontier district, 36 miles south-west from Jacobabad, with which town, as also with Shāhdādpur, Larkāna, Dodapur and Shikārpur, it has road communication. It is the head-quarter station of a Tapadār, and has a police thāna and cattle pound. The population, numbering in all 974, consists of 365 Hindūs and 609 Musalmāns, whose chief employments are trade and agriculture. The trade is mostly in *ghi* and grain. This town is seated on the route used by the Kafilas from Khorasān.

**Garhi Yāsīn**, a large village in the Naushahro Abro talūka of the Shikārpur and Sukkur Deputy Collectorate, distant 8 miles south-west of Shikārpur, with which town, as also with Dakhan, Jagan, Gārhi-Khera, Jamāli, and Naushahro, it has road communication. A Tapadār resides here, but it is expected this place will soon be made the head-quarters of a Mūkhtyārkar. There is a police thāna, post-office, a school, travellers' bungalow, dhāmsāla, subordinate jail, and a cattle pound. This place also possesses a municipality, established in 1870, the income for the year 1873-74 being 6201 rupees, and the expenditure 5439 rupees. The population, numbering 4808, comprises 1814 Muhammadans, chiefly of the Pathān tribe, and 2994 Hindūs, principally Banyas. Their occupation is mostly cultivation and trade.

The Zamindār of this town, by name Ataūlah Khān Barakzai, is very liberal in his views, and is ever ready to assist in any Government work. It was chiefly through his exertions that the municipality was established here. The chief trade of the place is in oil, large quantities of which are manufactured.

**Gathar**, a large Government village in the Kambar talūka of the Larkāna Division, 16 miles west of Larkāna, and near the Kambar and Nasirabad road. Though having a population of 2531 souls, of whom 1174 are Musalmāns and 1357 Hindūs, this place has no police lines, school, or any other public building.

The chief occupation of the people is trade and agriculture, but to what extent nothing seems to be known.

**Ghaibi Dēro**, also known as **Dēri Kot**, a Jāgir town in the Kambar talūka of the Lārkāna Deputy Collectorate, in latitude  $27^{\circ} 38' N.$ , and longitude  $67^{\circ} 34' E.$ , distant 32 miles N.N.W. from Lārkāna, and 20 miles W.N.W. of Kambar, with which latter town it has road communication viā Pawhāro. It is the chief town in the Jāgir of Ghaibi Khān Chāndio, a descendant of the celebrated Wali Muhammad, a chieftain of great power among his clan under the Talpur Mirs. Among the buildings at this place is a fort in which the Jāgirdār resides, and there is also a district bangalow, and musāfirkhāna. The population, numbering 857 souls in all, comprises 487 Muhammadans, chiefly of the Chāndia tribe, whose employment is mostly agricultural. The Hindūs (370) are for the most part grain-dealers. There are no manufactures, nor does there appear to be any trade, either transit or local, worthy of mention.

This town has no particular history of its own, except in connection with the Ghaibi Khān and the Chāndia tribe, of which he is the head. The Chāndias have long been established in this part of the division, formerly known as Chāndko, and the first record of them is found in a *sanad* granted by the Talpur Mirs in 1818, by which much of the land now held by the present chief was made over in Jāgir. At the time of the conquest of the province by the English, Wali Muhammad, the then chief of the Chandias, marched with a force of 10,000 of his tribe to join the Mirs, but was too late to render them any assistance. In 1842-43 this Jāgirdār was attacked and seized by Mir Ali Mūrād, of Khairpur, but Sir Charles Napier restored his Jāgir to him. In 1859, the Jāgir lands held by the present chief were confirmed to Ghaibi Khān and his descendants.

**Ghāro**, a Government village in the Mirpur Sakro talūka of the Jerruck Deputy Collectorate, in lat.  $24^{\circ} 44' N.$ , and long.  $67^{\circ} 36' E.$ , and distant 14 miles north of Mirpur Sakro, and 8 miles south-east from the Dabeji station of the Sind railway. It is situate on a creek of the same name, and has road communication with Mirpur, Babro, Dabeji, Wateji and Gujo. A bridge of four arches, built in 1860, spans the creek a little to the eastward of this village. There is a police post here with three men, as also a Deputy Collector's bangalow and a dharamsāla. The population, numbering 828 souls, consists of 242 Musalmāns and 586 Hindūs, whose chief employment is in the grain trade which is carried on with Karachi, Tatta and Mirpur Sakro. Formerly Ghāro was an

important place, boats reaching it by the creek from Gisri-bandar in less than twenty-four hours. It was then said to have had a population of 1500 souls, mostly Lohānos and Jokias, the former Hindūs, the latter Musalmān converts; but the railway from Karāchi to Kotri has greatly diverted the trade from this place. The creek was navigable for vessels of 12 *kharwars* as far as the town.

**Ghoghāro**, a Government village in the Lārkāna talūka of the Lārkāna Deputy Collectorate, in latitude 27° 29' N., and longitude 68° 4' E., distant 14 miles west by south from Lārkāna. It does not appear to have direct road communication with any town, but is distant two miles from the Lārkāna and Wāra road, and the same distance from that running from Lārkāna to Nasirābād. The population, numbering in all 1415, comprises 1175 Muhammadans of the Mangan, Siāl, and Wagan tribes, who are chiefly engaged in agriculture. The Hindūs (240) are grain-dealers and cultivators. This town has some trade, principally in rice, as it is situate in the middle of perhaps the finest rice-producing district in all Sind.

**Ghorēbāri**, a talūka (or sub-division) of the Jerruck Deputy Collectorate, having an area of 537 square miles, with 10 tapas, 97 villages, and a population of 32,362 souls. The revenue (imperial and local) of this sub-division, during the past five years ending 1873-74, is as follows:—

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74
Imperial . .	rupees. 67,527	rupees 90,605	rupees. 83,809	rupees. 85,723	rupees. 75,050
Local . .	7,619	7,134	9,099	9,353	8,588
Total Rs.	75,146	97,739	92,908	95,076	83,638

**Ghotāna**, a village in the Hālā talūka of the Hālā district, situate close to the Ghāra Mahmud canal, and distant but four miles south from Hālā. It has road communication with Adam-jo-Tandō and Hālā. No Government officers reside here, and there are no public buildings of any kind, excepting a police lāndhi and a small dharamsāla, built in 1872. It possesses a municipality, established in December 1860, the revenue of which in 1873-74 was 1465 rupees. The number of inhabitants is 953; of these 553 are Muhammadans, and 341 Hindūs. They are chiefly of the Muhāno and Lohāno tribes.

The trade of Ghotāna is, for its size, somewhat considerable,

but is mostly of a transit nature. The town is only two miles distant from the river Indus, where there is a landing-place, at which grain, cotton, oil and other articles are received from various towns, such as Shikārpur, Adam-jo-Tando, Alahyar-jo-Tando, &c., for re-exportation elsewhere. The local trade, which is chiefly in grain and seeds, is valued roughly at about 13,000 rupees. The transit trade, which is large in grain, cotton, seeds and potash, is estimated *approximately* at 1,26,000 rupees.

**Ghotki**, a talūka (or sub-division) of the Rohri Deputy Collectorate, containing an area of 372 square miles, with 8 tapas, 64 villages, and a population of 46,406 souls. The revenue (imperial and local) of this sub-division during the past four years ending 1873-74, is as follows :—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Imperial . . . .	1,38,028	1,28,096	96,778	93,725
Local . . . . .	12,562	11,592	9,087	8,397
Total Rs.	1,50,590	1,39,688	1,05,865	1,02,122

**Ghotki**, a Government town and the head-quarter station of the Mūkhtyārkar of the talūka of the same name in the Rohri Deputy Collectorate, in latitude 28° 10' N., and longitude 69° 17' E., distant 38 miles north-east from Rohri. It is situate in a low, level, alluvial country much covered with jungle, and is not more than 7 or 8 miles from the river Indus. This town is on the main trunk line running from Rohri to Mūltān, and has road communication with the villages of Gemro and Mirpur (through Mathēlo, Kadirpur, and Adalpūr). The Government buildings are the Mūkhtyārkar's kutcherry, Government vernacular school, a police thāna with accommodation for 12 policemen (mounted and foot), a cattle pound, musāfirkhāna, post-office, travellers' bangalow, subordinate Judge's Court-house, and a newly erected Court-house for the Sessions Judge of Shikārpur when on circuit in the Rohri district. A bangalow for the Deputy Collector of this division has also been built here, as it is intended to make this town the head-quarter station of the Rohri Deputy Collectorate. Ghotki possesses a municipality, established in 1855; the receipts in 1873-74 were 2942 rupees, and the expenses 1563 rupees. The population of this place is 3689, who are chiefly occupied in trade and agriculture; of these 1803 are Muhammadans, mostly of the Pathān, Malak, Saiyad, Mochi and Lohar castes, and there are 1867

Hindūs, the greater number being Banyas. The chief persons of note residing in Ghotki are Pirs; some of these are Pir Ali Shāh, Pir Abid Shāh, Pir Rasūl Bakhsh, Pir Nasur Dīn, and several others. There is in this town a mazjid of some note, known as Musan Shāh's mazjid, erected in H. 1148 (A.D. 1732) by a Saiyad of that name who was famed for his great sanctity. It is constructed of burnt brick, and is quadrangular in shape, being 113 feet long by 65 feet broad, with an extensive courtyard in front, and is surmounted by a cupola covered with glazed tiles. The interior has a coating of coloured plaster, and is decorated besides with carved and painted wood-work. This building is by far the largest of its class in Upper Sind, but it is at the same time the only object of interest in the place. The trade of Ghotki is chiefly in wheat, juār, bājri, grain, indigo, sugar-cane, wool, oil, ghi, &c. The Lohars of this town are famous for their manufacture of pipebowls, rings, and pots of various kinds. Wood-carving and colouring are also carried on here in a very creditable manner. This town is said to have been founded by one Pir Mūsa Shāh, about the year 1747.

**Gidu-jo-Tando**, a Government village in the Hyderabad talūka, seated on the Indus and connected with the town of Hyderabad by a fine road  $3\frac{1}{2}$  miles in length. It has communication also with the tandas of Mir Husain Ali Khan and Mir Ghulan Husain. Gidu is within the limits of the Hyderabad municipality, and possesses a police thāna with eight men, a Government vernacular school, post-office, and dharamsāla. The population, numbering 1832 persons, consists of 1170 Muhammadans and 662 Hindūs, the latter mostly Lohānos. The local trade of this place is of no importance, but the transit trade, which is chiefly in cotton and grain, is very large, especially in the former article, the produce of the Hyderabad and Thar and Pārkar districts. There is communication with Kotri, on the opposite side of the river, by a steam ferry, which plies backward and forwards from sunrise to sunset at a fixed rate of fares.

**Gosarjī**, a Government village in the Sukkur talūka of the Sukkur and Shikārpur Division, distant 16 miles south-west from the town of Shikārpur. It has road communication with New Abād, and is the head-quarter station of a Tapadār. The population, numbering in all 813, is composed of 459 Musulmāns of the Mahar tribe, and 354 Hindūs; their chief occupations are agriculture and trade.

**Guni**, a talūka (or sub-division) of the Tanda Deputy Collectorate, having an area of 989 square miles, with 9 tapas, 129 dehs. and a



population of 59,971 souls. The revenue (imperial and local) of this sub-division, during the past five years ending 1873-74, is as follows :—

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74
Imperial	rupees. 88,566	rupees 1,21,846	rupees. 1,14,693	rupees. 1,08,111	rupees 1,02,354
Local	11,645	13,431	16,096	14,122	13,098
Total Rs.	1,00,211	1,35,277	1,30,789	1,22,233	1,15,452

**Habb**, a river on the western frontier of Sind, which for some distance forms a natural line of demarcation between that province and Balochistān. It is said to take its rise at a spot near either Zehri or Hoja Jamot, in the province of Las, but by others at a place not far from Kelāt. For about 25 miles in the upper part of its course it flows south-easterly, and then turning due south, hold its way for about 50 miles in that direction. It then turns to the south-west, and, after a total length of about 100 miles (Preedy states 300), falls into the Arabian Sea on the north-west side of Cape Monze (Rās Muāri), in latitude  $24^{\circ} 50' N.$ , and longitude  $66^{\circ} 36' E.$  The Habb is, next to the Indus, the only permanent river in Sind. Its course is described as a succession of rocky or gravelly gorges in the Pabb mountains, having in some places as great a fall as six feet in the mile, so that, after heavy rain in the hills, a large body of running water is generated, which rushes down with tremendous force towards the sea. In the dry season water is only to be found in pools, which are deep and in many places abound with fish and alligators. Among the fish found in the Habb are several kinds of barbel, among others the kariāh (*Barbus tor*) and the pitohi (*Barbus titius*). There are also the chelāri (*Danio devario*) and the pharbadan (*Chela bacaila*). Delhoste states that the Habb is said never to fail, even in the driest seasons. In connection with this river it will not be out of place here to mention the exertions, which for some years past were made in the cause of irrigation by the late Khān Bahādūr Murād Khān, the owner of a great extent of land bordering on the Habb. This public-spirited individual had previously done good service to the British Government as contractor to the camel train, and, as some reward for these services, a tract of land adjoining the Habb river, 10,999 bigās (or 5438 English acres) in area, was in 1859 made over to him on the following terms: To be held free for the first ten years; for the following twenty years to be taxed at four annas *per bigā*, and after that in perpetuity at

eight annas *per bigā*. With the object of carrying out an extensive system of irrigation, Murād Khān had constructed, at a cost of about three lākhs of rupees, a *bandh* or dam across the river, 800 feet in width and 15 feet high, but this was subsequently washed away by one of those sudden freshets which, after heavy rains in the hills, are common to this turbulent stream. At a later period his grant of land was increased in area to 33,719 acres, of which, however, not more than about 7000 acres were capable of cultivation. To this increased grant were attached the following conditions: For the first twenty-five years to be held free of all rent, after which, for a further period of twenty-five years, the sum of 625 rupees, and ever after that 2500 rupees were to be annually paid to Government. These conditions were subsequently annulled on a representation made to Her Majesty's Principal Secretary of State for India by Sir Bartle Frere, when Governor of Bombay, who, in 1866, when on his tour in Sind, visited Murād Khān's farm at the Habb. In that same year Murād Khān proposed to supply the town of Karāchi with water from the Habb river by means of an aqueduct from his *bandh* across that stream, the distance being about 19 miles, and the estimated cost of the undertaking 10,31,000 rupees. The quantity of water to be supplied daily was 23 lākhs of gallons, or say 28½ gallons per head for a population of 80,000 persons. Some water from this river had been sent to Bombay for analysis, but it was found to be largely impregnated with saline matter, the total impurities in a gallon of it amounting to 75·53 grains, of which 40·14 were common salt, and 27·76 were sulphates. This unfavourable condition of the water was accounted for by Murād Khān, who stated that when the samples were drawn the river was very low, only a small stream from pool to pool; that the water sent for analysis was taken, not from the pool at the foot of the pumps, but from a hole in the sandy bed, where it is possible some saline impurities may have been deposited. The river water is invariably used by all for drinking and other purposes, and no complaints have been made of its possessing saline properties. The Bombay Government eventually declined to take into consideration his proposition to supply Karāchi with water until the completion of the *bandh*; and the matter has so remained down to the present time. Murād Khān possessed extensive and powerful pumping machinery on the banks of the Habb river, and his attention had for some years past been directed towards constructing another "dam," a work which he had great hopes of completing some time in 1872. The dimensions of this *bandh* or dam are as follow: Entire breadth from one side of the river to the other, 810 feet; and the

greatest height from foundation to low-water line, 23 feet. The width of the *bandh* wall at low-water line is 13 feet, with a slope towards the northern or upper side of 1 in 4, so that the total width at the base is 19 feet. The foundation of the *bandh* is carried through a fine sand down to the solid rock (a sandstone). It is expected that, with an additional height of 8 feet to this *bandh* from low-water line, there will be sufficient water collected to irrigate 3000 acres of land, and that with a further elevation of 5 feet, it would be possible to irrigate not less than 6000 acres. As a further means of irrigating a fine portion of this estate lying to the south-west, a canal about  $3\frac{3}{4}$  miles, at present, in length has been cut at a spot a short distance below the *bandh*; it is 5 feet in width, and runs towards a chain of hills forming the southern boundary of Murād Khān's land. This canal, which will be supplied with water from the waste channel of the *bandh*, is expected to irrigate about 3000 acres of land.

**Hairo Khān**, a Government village in the Dadu talūka of the Sehwan Deputy Collectorate, distant 37 miles north-west from Sehwan, and 24 miles west from Dadu. It has road communication with the villages of Phulji, Gul Muhammad, Haji Khān and Johi, and is the head-quarter station of a Tapadār, with lines for two policemen, and a cattle pound (*dhak*). The population, numbering in all 1044, comprises 872 Musalmāns and 172 Hindūs; their occupation is for the most part agricultural. The local transit trade is in grain and mol, but to what extent is not known.

**Hālā**, a large division (or Deputy Collectorate) of the Hyderabad district, lying between the Deputy Collectorates of Naushahro, the Tanda, and the Duāba of Hyderabad.

BOUNDARIES AND DIVISIONS.—It is bounded on the north by the Sakrand talūka of the Naushahro Deputy Collectorate; on the south by the Hyderabad talūka and a portion of the Tanda district; on the east by the Thar and Pārkar district; and on the west by the river Indus, which skirts the division for a distance of 43 miles. Its extreme length from north to south may be computed at 58 miles, and from east to west at about 57 miles; the entire area of the district being 2500 square miles, according to the Deputy Collector's estimate, but 2558 according to the Sind Survey Department. It is divided into four talūkas, having 24 tapas, with a total population of 216,139, or 84 souls to the square mile, as shown in the table on the next page.

The area in English acres of each talūka, showing the amount cultivated, cultivable, and un-arable, is also tabulated as follows:—

Talūka.	Total Area in English Acres.	Cultivated.	Cultivable.	Uncultivable.
1. Hālā . . . . .	acres. 335,426	acres. 47,256	acres. 258,622	acres. 29,547
2. Alahyar-jo-Tando . . . . .	451,175	100,835	272,885	77,455
3. Shāhdādpur . . . . .	484,061	49,319	374,741	60,001
4. Mirpur Khās . . . . .	329,568	18,512	96,717	214,339

Talūka.	Area in Square Miles.	Tapas.	No. of Villages.	Population.	Towns having 800 Inhabitants, and upwards.
1. Hālā . . . . .	524	1. Chāchri . 2. Bhitshāh . 3. Saidabad . 4. Sekhāt . 5. Matāri . 6. Hālā . . .	70	78,237	1. Hālā (new). 2. Hālā (old). 3. Ajanshāh. 4. Bhitshāh. 5. Ghotāna. 6. Matāri. 7. Tājpur.
2. Alahyar-jo-Tando . . . . .	705	1. Misan . . 2. Sākhiro . . 3. Alahyar-jo-Tando . . 4. Adam-jo-Tando . . 5. Nasarpur . . 6. Khado . . 7. Khokhar . .	59	59,766	1. Alahyar-jo-Tando. 2. Adam-jo-Tando. 3. Khokhar. 4. Nasarpur. 5. Bukera.
3. Shāhdādpur . . . . .	756	1. Gango . . 2. Gambat . . 3. Alibahar . . 4. Jamān . . 5. Lāndhi . . 6. Jhol . . .	63	55,707	1. Shāhdādpur.
4. Mirpur Khās . . . . .	515	1. Mirpur . . 2. Gorchāni . . 3. Kharho . . 4. Miromari . . 5. Ropāh . .	39	22,449	1. Mirpur Khās.
	2,500		231	216,139	

ASPECT.—This district, like other portions of Sindh lying near the Indus, is flat and unpicturesque to a degree, without any hills to vary the landscape, being, in fact, a level alluvial plain, watered to a considerable extent by canals fed from the river. The only objects, excepting the forest lands near the Indus, that break the dreary view, are the rows of trees planted on the sides of the

canals, the courses of which can by these means be readily traced with the eye for miles together. Much of this division consists of sandy and unprofitable land, covered with bush jungle, and this is especially the case with the Mirpur talūka, which borders on the Thar and Pārkar district. The Hālā Deputy Collectorate is probably, on an average, not more than 70 feet above sea-level.

HYDROGRAPHY.—There are no floods or torrents in the Hālā district. The *ghāros*, or branches of the Indus which intersect a portion of this district, are four in number, and are known as the Rāna, Bhanot, Mahmuda, and Gāhot *ghāros*: the supply of water in the Mahmuda is perennial. The canal system is extensive, comprising in all 95 canals of various dimensions; of these 94 are Government, and but one Zamindāri. The former are under the supervision of the Executive Engineers for Canals, and are cleared out, when necessary, during the cold season; the latter, called the “Kaliānwāh,” 10 miles long and 10 feet wide at mouth, waters the “jāgir” of Mir Ahmad Khān, and is cleared out by him at his own expense. These canals begin to fill about the month of May, in proportion to the annual rise of the Indus, and are dry again by the end of the following September or beginning of October. The following is a list of the Government canals, nine of which derive their water direct from the Indus, the others being simply branches or off-shoots from them:—

Name of Canal.	Length in Miles.	Width at Mouth.	Average Annual Cost of Clearance for 5 Years, ending 1873-74.	Average Annual Revenue for 5 Years, ending 1873-74.	Remarks.
1. Alibahar . .	32	feet. 20	rupees. 1,546	rupees. 6,016	Taps the Indus at Nakur, tal. Sakrand; waters the tapas of Chāchri and Alibahar.
2. Sobho Chākarwāh.	6	6	528	1,772	Branch of the Alibahar.
3. Barhūnwāh .	15	11	1,022	4,146	„ do.
4. Sumēr wāh .	5	9	338	1,634	„ Barhūnwāh.
5. Manjriwāh .	4	7	172	1,458	„ Sumēr wāh.
6. Musawāh, .	3	7	171	810	„ do.
7. Khahi wāh .	2	7	115	1,010	„ Musawāh.
8. Yaruwāh . .	7	7	234	2,040	„ Alibahar.
9. Aliganj . .	7	7	84	978	„ Yaruwāh.
10. Marak (great), and Vahandri.	10	28	5,002	2,280	Taps the Indus at Nakur, tal. Sakrand; waters the tapas of Saidābād and Chāchri; is navigable.

Name of Canal.	Length in Miles.	Width at Mouth.	Average Annual Cost of Clearance for 5 Years, ending 1873-74.	Average Annual Revenue for 5 Years, ending 1873-74.	Remarks.
		feet.	rupees.	rupees.	
11. Jām wāh . . .	8	11	352	3,763	Branch of the Marak (great).
12. Lohāno (great)	27	17	939	5,296	„ Vahandri; is navigable.
13. Mahmūd wāh .	16	8	435	4,183	„ Lohāno.
14. Behram wāh .	8	8	156	2,239	„ do.
15. Ganjbahar .	6	20	4,149	898	„ Vahandri; is navigable.
16. Lohāno (small)	7	20	396	1,760	„ Ganjbahar; is navigable.
17. Jām wāh (great)	9	16	1,478	5,604	„ Lohāno; is navigable.
18. Rāj wāh . . .	4	6	526	852	„ Jām wāh.
19. Jām wāh . . .	6	6	557	3,334	„ do. (great).
20. Bhubhar wāh .	16	11	1,354	8,368	„ do. Marak).
21. Nindowāh . .	2	7	113	628	„ Bhubhar wāh.
22. Shāh wāh . .	27	18	2,457	13,165	„ Lohāno-Kaloi; is navigable.
23. Shāhdād Lāndi	13	10	154	1,929	„ Shāh wāh.
24. Hüzür wāh . .	9	7	201	4,181	„ Shāhdād Lāndi.
25. Shāhdād Jhol.	11	11	284	2,080	„ Shāh wāh.
26. Shāhdād Kario	3	8	33	785	„ Shāhdād Jhol.
27. Wangi Bijar wāh	5	8	166	1,881	„ Shāh wāh.
28. Bijar wāh . .	13	8	3,057	5,010	„ do.
29. Khair wāh . .	4	8	137	517	„ do.
30. Muhammad Ali wāh.	9	8	313	820	„ do.
31. Ghāro, great (with Ghāro and Bhānot).	20	75	2,585	16,478	Taps the Indus at Bhānot, T. Hālā; waters the tapas of Hālā and Saidābād; is navigable.
32. Marak (small)	7	13	2,445	13,36	Branch of the Ghāro.
33. Paruwāh . . .	5	6	968	1,935	„ Marak (small).
34. Ghāro (small)	11	16	672	1,145	„ Ghāro (great).
35. Awat wāh . . .	33	15	2,147	15,713	„ Gahot.
36. Upāuwāh . . .	5	6	398	1,379	„ Awat wāh.
37. Malko Wanageri.	4	9	177	2,255	From the Dhandh Gahot.
38. Lakiwāh . . .	8	8	246	4,971	„ Ghāro Bhanot.
39. Sarang wāh . .	16	14	1,572	8,629	„ do. is navigable.
40. Aliganj . . .	13	14	1,302	4,500	„ Ghāro; is navigable.
41. Nur wāh . . .	2	10	376	592	Taps the Indus at Nakur, T. Hālā; waters the Saidābād tapa.
42. Sāngrowāh and Tyrwhitt wāh.	42	23	1,475	13,904	From the Mahmūda, T. Hālā; is navigable.
43. Kario Agokapri	4½	11	498	1,941	„ Sāngrowāh.

Name of Canal.	Length in Miles.	Width at Mouth	Average Annual Cost of Clearance for 5 Years, ending 1873-74	Average Annual Revenue for 5 Years, ending 1873-74	Remarks.
44. Dosawāh . .	15½	feet 18	rupees 1,051	rupees 2,061	From the Sāngrowāh; is navigable.
45. Kario-naubat .	3	6	168	814	„ Dosawāh.
46. Sangro (small)	7	15	242	479	„ Sāngrowāh (great).
47. Piruwāh . .	8	10	245	1,371	„ Sangro.
48. Kandarwāh . .	4	6	160	541	„ Piruwāh.
49. Mirwāh Kathri	3	8	71	529	„ do.
50. Rawakwāh . .	4	15	203	310	„ Sangro (small); is navigable.
51. Bhūmphār wāh	6	10	89	745	„ Rawakwāh.
52. Kāhūwāh . .	14	14	658	2,220	„ Rawakwāh.
53. Lūndowāh . .	5	8	134	724	„ Kāhūwāh.
54. Lēt wāh . .	15½	12	518	3,312	Branch of the Rawakwāh; is navigable.
55. Naowāh . .	3	10	71	1,580	„ Lēt wāh.
56. Alibahar . .	20	15	341	5,340	Taps the Indus at Khandu, T. Hālā; waters the Bhit-shāh and Tando Adam tapas.
57. Kari Shumāli.	1	36	31	...	Taps the Indus at Mehar, T. Hālā; waters the Bhit-shāh and Sekhāt tapas.
58. Ghalūwāh . .	48	36	180	9,364	Branch of the Kari Shumāli.
59. Khālkawāh . .	6	10	145	1,203	„ Ghalūwāh.
60. Bhūmphār wāh	21	10	149	6,389	„ Khālkawāh.
61. Alākhkār wāh.	10	8	506	3,472	„ Ghalūwāh.
62. Khānwāh . .	5	8	233	2,008	„ do.
63. Niri Ghalū . .	1	8	70	647	„ do.
64. Abūlwāh . .	7	7	373	1,388	„ Niri Ghalū.
65. Bjarwāh . .	12	6	397	3,161	„ do.
66. Nāngnai . .	25	9	1,528	7,931	„ Ghalūwāh.
67. Muādwāh . .	4	6	110	1,289	„ Nāngnai.
68. Dhoro Ghalū.	7½	16	127	520	„ Ghalūwāh.
69. Jarawār wāh .	13½	8	346	1,861	„ Dhoro Ghalū.
70. Sanhrowāh . .	18	11	758	2,428	„ do.
71. Chhahowāh . .	9½	8	164	1,464	„ Sanhrowāh.
72. Manjriwāh . .	4	6	10	939	„ do.
73. Mirwāh (great)	25	14	466	4,947	„ Dhoro Ghalū.
74. Bēlarowāh . .	6	7	173	1,636	„ Mirwāh (great).
75. Mirwāh-mari .	5½	4	61	2,255	„ do.
76. Nasirwāh . .	27	28	751	10,794	Taps the Indus at Jakri, tal. Hālā; waters the Sekhāt and Matāri tapas; is navigable.
77. Khairwāh . .	4	7	190	1,437	Branch of the Nasirwāh.
78. Gūnwāh . .	4	8	199	1,961	„ do.
79. Sujāwalwāh . .	4	7	880	1,093	„ do.
80. Gāhorowāh . .	13	15	1,232	6,400	„ do. is navigable.
81. Sonwāh . .	8	11	386	1,351	„ Gāhorowāh.

Name of Canal.	Length in Miles.	Width at Mouth.	Average Annual Cost of Clearance for 5 Years, ending 1873-74.	Average Annual Revenue for 5 years, ending 1873-74.	Remarks.
82. Siriwāh . . .	10	8	357	2,789	Branch of the Sonwāh.
83. Karia Mir Ahmad Khān.	2	5	63	374	" Gāhorowāh.
84. Khēsānowāh . . .	21	14	6,889	5,340	" Nasirwāh.
85. Kamālwāh . . .	2	4	50	511	" Khēsānowāh.
86. Jamālwāh . . .	5	7	192	1,197	" do.
87. Jāmwāh . . .	13	6	296	2,340	" do.
88. Rāmwāh . . .	5	6	149	1,430	" Jāmwāh.
89. Mirwāh . . .	9	6	143	806	" do.
90. Gānbwāh . . .	10	10	271	2,893	" do.
91. Bhūrkowāh . . .	5	7	187	1,074	Taps the Indus at Saheb Lamo, tal. Hālā; waters taps of Matāri.
92. Sarafāzwāh . . .	77	19	(See under Tanda, Division No. 83.)		Taps the Indus at Sadik Memon, tal. Hālā; waters the Matāri, Nasarpur., and Khokhar tapas; is navigable.
93. Imāmwāh . . .	35	10	...	...	Branch of the Fulēli, tal. Hyderabad.
94. Behrāmwāh . . .	4	9	1,064	1,035	" Imāmwāh.

**METEOROLOGY.**—The climate of the Hālā district does not appear to differ in any particular respect from that of other portions of the Hyderabad Collectorate. There are only two seasons—the hot and cold, the former commencing about the beginning of April and lasting till the beginning of November, the remaining portion of the year being considered as the cold season. The change from cold to hot weather is at times very sudden: the hottest months of the year are unquestionably April, May, June, July and August, the mean daily maximum of heat, even in April, not unfrequently rising as high as 102° Fahr., whereas the mean daily minimum in January, the coldest month of the year, is often as low as 44°. The following table will show the average mean maximum and minimum range of the temperature at Alahyar-jo-Tando for a series of years, as taken from the records of the dispensary at that station (*see p. 191*). The average annual temperature of Hālā during the past three years ending 1874 is found to be much the same as that of Tando Alahyar, the mean daily maximum being 90°, and the mean daily minimum 69°.

The rainfall in the Hālā district has not, it would seem, been recorded at any of the principal towns for any successive number of years, but, so far as can be ascertained, it does not exceed, on



an average, more than 5 or 6 inches yearly. In 1868 the fall at Alahyar-jo-Tando, as observed at the dispensary, was 5' 14 inches ; but in 1869 it was 19' 55 inches, an extraordinary and exceptionally large quantity for Sind. The following table will give the *monthly* fall of rain at Hālā and Tando Alahyar during the three years ending with 1874 :—

Months.	1872.		1873.		1874.	
	Hālā	T. Alahyar.	Hālā	T. Alahyar.	Hālā.	T Alahyar.
January . . .	..	..	..	..	'13	'33
February . . .	..	..	..	..	2'10	'40
March . . .	..	..	..	..	..	..
April . . .	..	..	..	..	..	..
May . . .	..	..	..	..	..	..
June . . .	..	..	..	..	1'50	..
July . . .	3'54	3'95	..	2'85	3'24	4'54
August . . .	1'70	1'42	7'23	3'85	4'18	5'00
September . . .	'60	1'54	..	..	..	..
October . . .	..	..	..	..	..	..
November . . .	..	..	..	..	..	..
December . . .	..	..	..	20	..	..
Total . . .	5'84	6'91	7'23	6'10	11'15	10'27

The sickly season, as elsewhere in Sind, is in September and October, when the inundation waters fall and the canals dry up ; but, as a general rule, the people throughout the Hālā district do

Months.	Mean daily Minimum.	Mean daily Maximum	Prevailing Winds.	Remarks.
January . . .	47 8	69 6	N. and E.	Water sometimes freezes in this month, and in December.
February . . .	53 6	78 1	N. and E.	
March . . .	64 9	88 5	N. and E.	
April . . .	74 6	95 5	Various.	
May . . .	81 0	103 5	N.W. and S.W.	Dust-storms frequent in the hot season.
June . . .	84 6	102 6	S.W.	
July . . .	82 5	99 8	S.W.	
August . . .	82 0	94 1	S. and W.	
September . . .	78 8	93 1	S. and W.	
October . . .	69 7	92 1	N. and E.	
November . . .	62 4	85 6	N. and E.	
December . . .	50 4	74 5	N. and E.	Fogs occur during this month.
Mean daily Average . . .	69 3	89 7		

not suffer very much from the effects of intermittent fever, a fact which may in a great degree be attributed to the absence of floods and their necessary consequence, extensive marshes. Fevers of a mild type, however, prevail from October till December. Cholera prevailed to a considerable extent in an epidemic form in 1865, and again in 1869.

**GEOLOGY AND SOILS.**—The entire Hālā district is an extensive alluvial plain, and possesses no striking geological characteristics apart from those which generally distinguish the valley of the Indus. Wherever water is available, cultivation can be carried on, except in spots where the “kalrāthi,” or salt soil, prevails; but where irrigation is not forthcoming, the land is a desert. That part of the district bordering on the Indus, and which is well watered by canals, is highly productive and bears excellent crops. The different kinds of soils prevailing in this district are four in number: 1, Dasar, which contains a large admixture of sand, but in productive capabilities is good; 2, Paki, which is a hard and firm soil; 3, Wāriāsi, a sandy soil; and 4, Kalrāthi, a soil strongly impregnated with salt, unculturable, as nothing will grow on it, but from it salt is in some places manufactured. There are no minerals of any description whatever in the Hālā district. An unctuous kind of earth called “chāniah,” or *chāniho*, is said by an old writer to have been obtained from some lakes near the town of Hālā; and he further states that it was eaten in considerable quantities, especially by the women. The truth of this is, however, very questionable, as “chāniah” is represented by others to be a form of soda, and largely used in the manufacture of tiles and glazed pottery, for which Hālā has always been famous.

**ANIMALS.**—The wild animals found in the Hālā district are wolves, foxes, jackals, pig and “*pharho*” (or hog-deer); the latter are very numerous. The game birds are geese, duck, partridges, quail and snipe. Snakes of various kinds abound, as elsewhere throughout Sind, especially in the inundation season, and are, as usual at that time, very destructive to human life. The domestic animals are the horse, camel, bullock, buffalo, donkey, sheep and goat. Camels and bullocks are used for draught and in turning water-wheels for the irrigation of land. Large flocks of goats are to be met with everywhere throughout the district.

**VEGETABLE PRODUCTIONS.**—The staple vegetable productions of the Hālā district are juār, bājri and cotton. In addition to these, wheat, barley, tobacco, grain, rice, jāmbho (*Eruca sativa*), sugar-cane, matar (*Lathyrus sativus*), and til (oilseed) are also grown in considerable quantities. Among vegetables may be mentioned melons

of different sorts, cabbages, turnips, pumpkins, carrots, onions, &c. Of fruits, the produce of garden cultivation, there are the mango, guava, grape, orange, lime, pomegranate, tamarind and pharūa, or phalsa (*Grewia Asiatica*). The chief forest trees are the bābul (*Acacia Arabica*), pipal (*Ficus religiosa*), bhar (*Ficus Indica*), nim (*Azadirachta Indica*), bahan (*Populus Euphratica*) kandi (*Prosopis specigera*), and tāli (*Dalbergia latifolia*). They are grown in the forests of this district, which number fourteen in all, and skirt the banks of the Indus in the Sakrand and Hālā talūkas for many miles. The names, area, and revenue of these forests, with other particulars, are shown in the following table :—

Forest.	Area in English Acres.	Revenue in 1873-74.	Remarks.
1. Jakhri .	1,625	3,353	Planted about 60 years ago, by H. Y. Mīr Ghulām Ali Khān
2. Matāri .	5,353	8,110	do. 60 do. do.
3. Sekhāt .	2,066	6,143	do. 77 do. do.
4. Khēbiāni .	760	2,088	do. 45 do. by Mīr Nasir Khān.
5. Khānot .	5,933	5,717	do. 80 do. by Mīr Ghulām Ali Khān.
6. Rāno .	1,627	1,792	do. 77 do. by Mīr Maiān Behram Khān.
7. Nūrketi .	3,268	3,163	do. 77 do. do.
8. Bhanot .	841	294	do. 77 do. do.
9. Kēti .	3,291	...	Planted about A.D. 1830, by Mīr Sobhdar Khān.
Total .	24,764	30,660	

These forests, which are under the special management of the Government Forest Department, may thus be said to cover an area of about 40 square miles. By far the most important tree in these forests is the "bābul" (*Sindi "babar"*), the wood of which serves as an excellent fuel for river steamers, and is useful in carpentry; the leaves are used for dyeing purposes, and the pods as food for cattle. The revenue of these forests is derived mainly from grazing fees, cultivation, sale of felled timber, firewood, bābul-pods and seeds, fisheries and fines.

FISHERIES.—The fisheries in the Hālā district are not of much consequence, and, with the single exception of the pala fishery in the Hālā talūka, brings in but a very small annual revenue to Government. Besides the pala fish, which is plentiful at certain seasons in that part of the Indus skirting the Hālā Deputy

Collectoratē on its western side; but is not found in any of the canals, there is the gandan, ŷerki, khago (cat-fish), and goj (eels), all of which are caught in the canals and dhandhs. The following table will show the average annual revenue derived by the Government during the three years ending with 1873-74, from the annual farming of the various fisheries throughout the Hālā district :—

Talūka.	Name of Fishery.	Revenue.	Total Revenue
		rupees.	rupees.
	The Indus . . . . .	823	
	Nakur . . . . .	362	
	Gahot . . . . .		
Hālā . . . . .	Kolāb-Mahmuda . . . . .		
	Dhandh "Khēbrāni" . . . . .		
	Sekhāt . . . . .		
Shāhdādpur . . . . .	Kūn-Dāro . . . . .	2	1,185
Mirpur-Khās . . . . .	Duba . . . . .	7	3
		Total .	7
			1,194

There are several "dhoros," such as the Sājnāh and Purān, in the Mirpur talūka, where fish are caught, but no contracts are entered into by parties with Government for these fisheries.

POPULATION.—The total population of the Hālā district by the census of 1872 is 216,139; of these 176,773 are Musalmāns, and 39,366 Hindūs, and other miscellaneous castes. There are thus 84 souls to the square mile—a large number when compared with other districts in Sind. The Muhammadan and Hindū inhabitants are classed in separate tables as follows :—

## MUHAMMADANS.

Tribes.	Number.	Sub-divisions.	Remarks.
1. Balochis	36,250	Talpūr, Laghāri, Lashāri, Gorchāni, Nundāni, Mari, Khosa, Chāndio, Būgri, Lakhāni, Khatian, Lund, Thora, Ubra, Mehrāni, Vudadāni, Nizamāni, Bodāni, Korāi, Jamāli, Bagrāni, Rind, Kambrāni, Kaloi, Malukāni, Khoikhāni, Kapri, Zurdari, Lungmāni, Kimāni, Chang, Khokhar, Sungrāni, Dishak, Rūstamāni, Nunhāri, Nofhkothāni, Jaskāni, Jatoi, &c.	The sub-divisions of Sindis are derived mostly from the names of their families.
2. Mogals .	335		
3. Pathāns .	421		
4. Sindis .	115,254	... ..	
5. Saiyads .	3,974	Shirāzi, Matiāri.	
6. Other tribes	20,539		
Total .	176,773		

## HINDŪS.

Caste.	Number	Sub-division.	Remarks
1. Brahmans .	736	Pokarno, Sarsudh.	Among this number is the great family of the Lohāno.
2. Kshatrias .	96		
3. Waishya .	32,171		
4. Sudras . .	6,039		
5. Miscellaneous	324		
Total . .	39,366		

DRESS.—The dress of the people inhabiting this district is much the same as that generally worn by the inhabitants of Central Sind. Among the Musalmāns the *patka*, or turban; the "*sathun*," or trousers; the *palurān*, or shirt, &c. mostly worn. The Hindū community adopt the *pagri*, or turban, the *angarko*, a kind of shirt or coat, and the *dhoti*, or loin-cloth.

FOOD.—The food of the poorer classes is generally juār, bajri and rice, with fish occasionally. Among the richer classes, mutton, poultry, rice and wheat are eaten, but the two former kinds of food are confined mostly to the Musalmān portion of the population.

CHARACTER.—In character the Muhāmmadan is more open, independent, and less timorous than the Hindū, but he is, on the other hand, not so thrifty and less addicted to business. Nearly all the trade of the district is in the hands of the latter, while the Muhammadan cultivates the land and does all the work of the artisan.

LANGUAGE.—The language of the people of this district is Sindi, but the great majority readily understand Hindūstāni. Many of the higher classes among the Muhammadans possess, as a general rule, a knowledge, though somewhat limited, of the Persian tongue.

CRIME.—The crimes most prevalent among the inhabitants of the Hālā district are theft and house-breaking, but crime generally would appear to be upon the increase. The following tables will give the criminal and civil returns of this district for the three years ending with 1874 :—

## CRIMINAL.

Year	Murders	Hurts, Assaults, and use of Criminal Force	Thefts.		Receiving Stolen Property	House-breaking	Highway Robbery.	Other Offences.
			Cattle	Others				
1872	7	234	173	187	48	102	4	332
1873	8	314	159	189	42	76	1	535
1874	6	281	173	124	30	78	...	919

## CIVIL.

Year.	Suits for Land.		Suits for Money.		Other Suits		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1872	5	745	1628	1,22,682	20	1233	1653	1,24,660
1873	3	149	1361	1,13,267	8	373	1372	1,13,789
1874	2	170	1277	1,44,493	17	1126	1296	1,45,789

ESTABLISHMENTS.—The revenue and judicial administration of this district is precisely the same as that carried out in other Deputy Collectorates of Sind, the chief revenue and magisterial

duties being vested in a Deputy Collector, who has also the full powers of a magistrate throughout his charge. Under him are the Mūkhtyārkaras of the four talūkas of Hālā, Sakrand, Alahyar-jo-Tando, and Mīrpur; they are native revenue officers, with monthly salaries ranging from 100 rupees to 200 rupees, and have each an establishment of six mūnshis and peons; they collect the Government revenue of their respective districts, and exercise likewise magisterial authority to a limited extent. Under the Mūkhtyārkaras are the Tapadārs, of whom there are 24, one over each of the tapas, or lesser sub-divisions of a talūka. Their monthly salaries range from 15 rupees to 20 rupees.

The Canal establishment consists of a number of surveyors, sazāwalkārs, munshis, and maistris, distributed over the four talūkas of this district. There is also a water-gauge establishment of five "darogas," who are, however, employed for only five months in the year. The cattle pound (or *dhak*) establishments, situate at Hālā, Saidābād, Matāri, Shāhdādpur, Alahyar-jo-Tando, Adam-jo-Tando, Nasarpur, Mīrpur, and Gorchāni, are each under the charge of a munshi, with a small establishment to assist him; they are supervised by magisterial officers.

There is but one Civil Court for the entire Hālā district; its head-quarters are at the town of Hālā, and it is presided over by a native subordinate judge (formerly called a munsif), whose jurisdiction extends to suits of the value of 5000 rupees and under, and who visits during the year the following places on circuit:—Adam-jo-Tando, Alahyar-jo-Tando, Mīrpur-Khās, and Shāhdādpur. His jurisdiction extends as far as Sakrand, in the Naushahro division. His establishment consists of a nāzar (or sheriff), with five munshis, two bailiffs, and a number of peons and messengers. This court is immediately subordinate to the district judge of Hyderabad.

The police force employed in the Hālā district numbers 164 of every kind, there being thus but one policeman to every 1029 of the population; of these 43 are mounted, 74 armed and unarmed, and 47 are municipal police. This force is distributed as follows (*see next page*):—

Talūka.	Mounted Police.	Armed and Un-armed Foot Police.	Municipal Police.	Remarks.
1. Hālā. . . . .	14	21	15	An inspector and 11 constables are included under the heading "Mounted Police."
2. Alahyar-jo-Tando .	11	21	25	
3. Shāhdādpur. . . .	11	17	4	
4. Mirpur . . . . .	7	15	3	
Total . . . . .	43	74	47	

REVENUE, IMPERIAL AND LOCAL.—The imperial revenue of the Hālā Deputy Collectorate is derived for the most part from the land tax; the next important items being the *abkārī* (or excise), stamps, and the income and certificate taxes. The local revenue is chiefly made up from cesses levied on the imperial land and sayer (*sair*) revenue, as also from ferry-funds, fisheries, &c. The following tables will show the imperial and local revenues of the past four years, ending with 1873-74 :—

## I. IMPERIAL REVENUE.

Items.	Realizations in			
	1870-71.	1871-72.	1872-73	1873-74
	rupees	rupees.	rupees	rupees
Land Tax . . . . .	3,28,776	3,13,461	3,12,869	2,92,859
Abkārī . . . . .	20,435	19,325	21,790	24,812
Drugs and Opium . . . .	7,735	6,955	7,185	7,692
Stamps . . . . .	15,315	27,305	30,780	30,546
Salt . . . . .	1,125	729	1,124	1,245
Postal Department . . . .	2,530	748	847	634
Income and Certificate Taxes. . . . .	22,790	15,567	3,485	..
Fines and Registration Fees	17,047	2,520	4,142	5,224
Miscellaneous . . . . .	7,760	3,348	3,030	6,692
Total rupees . . . . .	4,23,513	3,89,958	3,85,252	3,69,704



## II. LOCAL REVENUE.

Items.	Realizations in			
	1870-71.	1871-72	1872-73.	1873-74
Cesses on Land and Sayer Revenue.	rupees 19,782	rupees 21,308	rupees. 21,502	rupees. 17,829
Percentage on Alienated Lands . . .	618	593	. 649	656
Ferry Funds . . . . .	7,237	7,418	7,448	3,631
Fisheries . . . . .	1,610	1,073	1,181	1,307
Fines and Licences				
Sales of Land in Non-Municipal Towns . . . . .		33	123	15
Total rupees . . . . .	29,247	30,425	30,903	23,438

REVENUE SURVEY AND SETTLEMENT.—A topographical survey of this part of the Hyderabad Collectorate was carried out during the years 1863-64-65, and settlement operations were afterwards effected in the four talūkas of this district, viz., Shāhdādpur, Mirpur, Hālā, and T. Alahyar, commencing from the Kharif seasons of 1869-70, 1870-71, 1871-72, and 1873-74 respectively, and lasting for ten years. The following are the different survey rates, as introduced by the Settlement department into each of these talūkas (*see p.* 200).

Formerly the Government assessment was levied in *kāsgi*, or payments in kind, and not in cash; but as the Zamindārs derived no benefit from this system, but were considerable losers by it when the prices of grain ranged high, they begged that they might pay the Government due in money, and to this no objection was made. Zamindāri lands are generally cultivated by tenants, who for their right of occupancy, besides purchasing live-stock, and providing wheels, &c., make over to the Zamindār *one-third* of the produce of the land, the latter paying the Government dues. From land were crops of cotton, water-melons, &c., are raised, the Zamindār only receives from two to three rupees *per bigā* from his tenants.

Talūka	When Introduced, and for what Period.	Class of Village.	Maximum Rates per Acre on				Average per Acre on Assessed Cultivable Land.	Remarks.
			Inundation Wheel Land.	Perennial Wheel Land.	Sailāb.	Mok.		
1. Hālā . . . .	{ In 1871-72, for ten years . . . . .	I.	1 4	4 0	3 0	2 4	} 0 12	{ Three villages (one Government and two Jāgir) remain unsettled.
		II.	1 2	3 8	2 8	2 0		
		III.	1 0	3 0	2 0	1 12		
		IV.	0 14	2 8	1 8	1 8		
		V.	0 12	2 0	1 0	1 4		
		VI.	0 10	1 8	0 8	1 0		
2. Shāhdādpur . . . .	{ In 1869-70, for ten years . . . . .	I.	1 2	..	3 0	2 0	} 0 9	{ Two villages (one Government and one Jāgir) remain unsettled.
		II.	1 0	..	2 8	1 12		
		III.	0 14	..	2 0	1 8		
		IV.	0 12	..	1 8	1 4		
		V.	0 10	..	1 0	1 0		
3. Mirpur . . . . .	{ In 1870-71, for ten years . . . . .	I.	1 0	..	..	1 12	} 0 8	{ Four villages (one Government and three Jāgir) remain unsettled.
		II.	0 14	..	..	1 8		
		III.	0 12	..	..	1 4		
		IV.	0 10	..	..	1 0		
		V.	0 8	..	..	0 12		
4. Tando Alahyar . . . .	{ In 1872-73, for ten years . . . . .	I.	2 0	1 2	3 0	..	} a. p. 10 2	Two villages (Jāgir) remain unsettled.
		II.	1 12	1 0	2 8	..		
		III.	1 8	14	2 0	..		
		IV.	1 4	12	1 8	..		

The Hakāba (or water rate for canal clearance) in these talūkas is two annas per rupee of assessment.

LAND TENURES AND JĀGIRS.—The land tenures obtaining in this district are chiefly of two classes: 1st, lands held on the Government assessment rates, of which some account has already been given, but for further information on this head reference can be made to Chapter IV. of the Introductory portion of this work; and, 2nd, where they are held free of assessment, either wholly or in part. These latter include jāgirs of four classes, garden grants to patels, &c. Of the jāgirs, the first class embraced all grants conferred under the Kalhora and Talpur dynasties upon parties who belonged to powerful tribes, and were men of rank. These grants, on the decease of the incumbent, were continued to his lineal heirs male, the Government receiving five rupees per cent. on the net produce of his land. The second-class jāgirs included those which were conferred by the great Talpur Mir, Ghulām Ali; they lapsed to the Government on the death of the incumbent's first male issue—that is to say, they could be held for one generation only. The third class were those granted *after* the death of Mir Ghulām Ali (A.D. 1810), by his brothers, Mirs Karam Ali and Murād Ali. On the death of the jāgirdār the grant went to his heir, the Government receiving one-fourth only of the produce: on the death of the heir, the jāgir lapsed to the Government. The fourth-class jāgirs included those granted after the death of Mir Murād Ali (A.D. 1833); they lapsed to the Government immediately on the death of the incumbent, and were, in fact, but life-grants. The following is a tabulated list of the jāgirdārs of various classes in the Hālā district, showing the extent of land held by each, with other particulars (*see next page*).—

Name of Jāgrdār.	Class.	Talūka and Village.	Cultivable Land.	Uncultivable Land.	Yearly Amount of Government Revenue from		
					Chauth	Hakāba.	Jāgīr Cess
			acres. gūntas.	acres. gūntas	rup. a.	rup. a.	rup. a.
		<b>T. SHAHDĀDPUR.</b>					
1. Ghulām Husain . . . . .	1	{ Bārāchri . . . . . Shāhdādpur . . . . . Dathro . . . . . Kbado . . . . . Jarāri . . . . . Bīrhūn . . . . . Topan Dahiri . . . . . Wango . . . . . Kharho . . . . . Dhabro . . . . . Ubhpur . . . . . Liyāri . . . . . Gas . . . . . Jamān . . . . .	1,723 9	27,615 23	...	504 3	54 0
2. Mīr Jān Muhammad Khān Talpur . . . . .	1	{ Liyān . . . . . Gango . . . . . Batri . . . . .	903 1	3,147 25	106 14	337 14	109 4
3. Mīr Budho Khān Talpur . . . . .	1	{ Liyān . . . . .	309 9	7,709 9		88 11	
4. Mīr Ahmad Khān Talpur . . . . .	2	{ Gango . . . . . Batri . . . . .	156 10	1,901 1	92 7	55 8	
5. Fateh Khān Būrgri . . . . .	2	Gango . . . . .	339 1	2,479 28		113 13	
6. Ghulām Muhammad Būrgri . . . . .	2	Gango . . . . .	317 30	2,500 39		140 0	
7. Sher Muhammad Nizamāni . . . . .	2	Maladasi . . . . .	8 37	765 22	94 9	59 7	30 0
8. Ahmad Khān Nizamāni . . . . .	2	Maladasi . . . . .	117 0	512 15		72 1	
9. Alī Murād Thara . . . . .	2	Mauwah . . . . .	49 0	140 0		15 0	
10. Jān Muhammad Thara . . . . .	2	Mauwah . . . . .	145 9	573 5		46 8	

11. Mīr Muhammad Thara . . . . .	2	Suikandar . . . . .	95 6	434 6	28 12	15 9	5 12
12. Ahmad Khān, son of Alahshaiyo Thara . . . . .	2	{ Mūrād Ali . . . . . Rind and Samar Khadro . . . . .	206 23	518 21	.	63 6	11 8
13. Hamzo Bagrāni . . . . .	2	{ Barandi . . . . . Topan Dahuri . . . . .	161 19	621 36	36 11	42 9	15 8
14. Muhammad Hasan Mari . . . . .	2	Beāni . . . . .	258 35	1,754 39	128 10	59 15	12 0
15. Yar Muhammad Nundāni . . . . .	2	Suikandar . . . . .	55 27	131 37		20 14	...
16. Ahmad Khān Nizamāni . . . . .	2	Suikandar . . . . .	154 14	785 15		55 11	...
17. Alī Muhammad Nizamāni . . . . .	2	Suikandar . . . . .	135 16	332 7		50 11	...
18. Alahdād Nizamāni . . . . .	2	Suikandar . . . . .	89 5	290 11		37 3	...
19. Yar Muhammad Thara . . . . .	2	Mūrād Ali Rind . . . . .	122 8	242 4		41 8	...
20. Umar Khān Nizamāni . . . . .	3	Chhumbh . . . . .	161 3	1,037 4		60 0	18 8
21. Haidar Ali Nizamāni . . . . .	3	Maladasi . . . . .	17 20	706 33	138 0	62 6	20 12
22. Latifali Nizamāni . . . . .	3	Ahdi Jūnējo . . . . .	122 36	376 39	58 0	34 7	.
23. Khairū Bagrāni . . . . .	3	Gango . . . . .	77 38	250 27		28 2	.
24. Umēd Ali Jagarāni . . . . .	3	Gango . . . . .	122 1	219 3		37 8	...
25. Muhammad Khān Nundāni . . . . .	3	Gango . . . . .	86 10	115 38		30 2	2 4
26. Sahēb Khān Nundāni . . . . .	3	Gango . . . . .	15 5	9 9		5 11	.
27. Baharo Nundāni . . . . .	3	Gango . . . . .		5 3			.
28. Hayat Khān Talpur . . . . .	3	Barandi . . . . .	152 17	426 10		57 5	.
29. Khair Muhammad, son of Alībaksh Jagrāni . . . . .	3	Dhabro . . . . .	33 0	75 36		11 4	2 4
30. Baloch Khān Laghāri . . . . .	3	Chhumbh . . . . .	45 3	194 33		16 14	...
31. Dado Laghāri . . . . .	3	Chhimbh . . . . .	91 2	380 10		34 2	...
32. Manik Laghāri . . . . .	3	Chhimbh . . . . .	25 0	221 6		9 6	...
33. Aligohar Laghāri . . . . .	3	{ Bhūmphār . . . . . Sutiāro . . . . .	484 18	1,738 8	252 3	180 14	46 0
34. Alahdād Būrgri . . . . .	3	Bhūmphār . . . . .	50 4	298 28	..	17 2	...
35. Muhammad Khān Būrgri . . . . .	3	Bhūmphār . . . . .	7 30	52 12	..	2 14	...
36. Gehno Būrgri . . . . .	3	Bhūmphār . . . . .	51 0	113 20	..	1 13	...
37. Nehāl Būrgri . . . . .	3	Bhūmphār . . . . .	51 0	31 38	..	...	...
38. Jafir Khān Būrgri . . . . .	3	Bhūmphār . . . . .	60 38	532 24	..	19 7	...
39. Karam Ali Laghāri . . . . .	3	Beāni . . . . .	29 15	75 23	..	9 9	...

Name of Jāgirdār.	Class	Tāiūka and Village.	Cultivable Land.	Uncultivable Land.	Yearly Amount of Government Revenue from		
					Chauth.	Hākāba	Jāgīr Cess.
			acres. gūntas	acres gūntas	rup. a	rup. a	rup. a.
40. Ghulām Ali Laghāri . . . . .	3	Berāni . . . . .	6 0	129 35	.	1 14	.
41. Nabi Bakhsh Laghārī . . . . .	3	Berāni . . . . .	24 0	107 15	.	7 8	.
42. Haidar Laghāri . . . . .	3	Berāni . . . . .	36 11	103 26	.	13 6	.
43. Esau Chāndio (now Baloch) Khān	3	Jarāri . . . . .	3 8	21 34	.	1 4	.
44. Auhimād and Karimād Baghar	3	Sukandar . . . . .	1 27	126 35	.	15 10	1 4
45. Jam Laghāri . . . . .	3	Sukandar* . . . . .	30 8	14 33	.	11 6	.
46. Mahmūd Nizamāni . . . . .	3	Sukandar . . . . .	98 11	313 38	...	36 14	...
47. Umēd Ali Kapri . . . . .	3	Lūndo . . . . .	33 0	284 15	.	3 12	5 8
48. Sahēb Khān Kapri . . . . .	3	Lūndo . . . . .	237 6	267 33	160 14	38 14	.
49. Sijawal Nizamāni . . . . .	3	Maujwāh . . . . .	41 15	49 31	...	15 0	.
50. Muhammad Husain Bagrāni	3	Gango . . . . .	167 19	883 12	.	46 4	16 8
51. Ahsan Ali Nundāni . . . . .	3	Gango . . . . .	...	37 38	...	.	.
52. Pir Bakhsh Nundāni . . . . .	3	Gango . . . . .	...	28 5	...	.	2 0
53. Bagū Nundāni . . . . .	3	Gango . . . . .	...	9 0	.	.	.
54. Alīm Khān Nundām . . . . .	3	Gango . . . . .	0 15	8 1	.	0 2	.
55. Gul Muhammad Būrgri . . . . .	3	Rhokar . . . . .	.	25 16	.	.	.
56. Murād Thara . . . . .	3	Murād Ali Rind . . . . .	.	27 18	.	.	.
57. Muhammad Hasan Thara . . . . .	3	Murād Ali Rind . . . . .	.	25 10	.	.	.
58. Kūstam Bagrāni . . . . .	3	Barandi . . . . .	33 26	9 15	.	12 7	.
59. Gul Hasan Nundāni . . . . .	4	Gango . . . . .	.	15 10	.	.	.
60. Gul Muhammad Nizamāni . . . . .	4	{ Barandi . . . . . Sukandar . . . . . }	114 36	522 27	.	44 2	.
61. Husain Khān Laghārī . . . . .	4	Berāni . . . . .	151 5	332 26	.	46 14	.
62. Behram Fugrān . . . . .	4	Gango . . . . .	51 8	39 23	.	14 2	.
63. Sūltān Bagrāni . . . . .	4	Gango . . . . .	11 0	22 24	.	3 12	1 4
64. Yaro Nundāni . . . . .	4	Gango . . . . .	.	9 26	.	.	16 8
65. Mir Muhammad Jagrān . . . . .	4	Barandi . . . . .	10 3	27 82	.	3 13	.

66. Ghulām Ali Rind . . . . .	4	Barandi . . . . .	10 0	12 17		3 12	
67. Muhammad Murād Nizamāni . . . . .	4	Rāmrahi . . . . .	24 9	74 21		7 15	
68. Shāh Bēg Mari . . . . .	4	Gas . . . . .	148 0	210 28	78 2	46 12	
69. Mīr Hasan Laghāri . . . . .	4	(Gul Muhammad) Laghāri . . . . .	152 39	550 30		44 5	19 4
		Ahdi Junejo . . . . .					
70. Bachal Nizamāni . . . . .	4	Sūkandar . . . . .	79 2	140 18	39 2	22 0	
71. Ghulām Ali Nizamāni . . . . .	4	Sūkandar . . . . .	259 37	512 7	..	97 7	
72. Alahbakhsh Nizamāni . . . . .	4	Jūnjāni . . . . .	151 10	377 39		56 11	
73. Musū Bagrāni . . . . .	4	Khadro . . . . .	5 0	3 36		1 14	
74. Daria Khān and Kamal . . . . .	4	Lūndo . . . . .	38 20	82 9		11 4	
75. Alibakhsh Laghāri . . . . .	4	Sūmar . . . . .		23 32			
76. Imāmbakhsh Rind . . . . .	4	Topan Dahuri . . . . .	33 30	90 4		11 4	2 0
77. Khūdabakhsh Thara . . . . .	4	Sūkandar . . . . .	42 7	97 13		15 15	
78. Chūto Bagrāni . . . . .	4	Khadro . . . . .	6 5	5 35		1 14	
79. Kamal Nundāni . . . . .	4	Gango . . . . .	..	11 13			
T. MIRPUR.							
1. Mīr Alibakhsh Khān . . . . .	2	(Kāk . . . . . Mubārak . . . . . Chanro . . . . . Chaho . . . . .)	1,255 0	20,000 0	611 13	539 3	
2. Mīr Būdho Khān . . . . .	2	Waghūri . . . . .	495 0	10,000 0	..	99 7	
3. Mīr Ali Murād Khān . . . . .	2	Mubārak Sunro . . . . .	376 0	5,000 0	118 8	122 8	16 4
4. Muhammad Hasan . . . . .	3	Deh Khān . . . . .	295 5	1,078 0	129 13	123 9	12 8
5. Sohrāb Khān Notkāni . . . . .	3	Khadro . . . . .	4 0	106 30	..	1 9	3 12
6. Karam Khān . . . . .	4	Bhitāro . . . . .	10 0	101 33		3 14	2 12
7. Bāgo Laghāri . . . . .	4	Chelāro . . . . .	..	37 8			
8. Jehān Khān, son of Ali Khān Laghāri . . . . .	4	Chelāro . . . . .	5 0 <sup>4</sup>	41 29		1 14	
9. Nasir Khān Laghāri . . . . .	4	Chelāro . . . . .		20 38		..	
10. Sobhdār Laghāri . . . . .	4	Chelāro . . . . .	5 0	26 27		1 14	

Name of Jāgirdār.	Class.	Talika and Village.	Cultivable Land.	Uncultivable Land.	Yearly Amount of Government Revenue from		
					Chauth.	Hakāba.	Jāgir Cess.
			acres gūntas.	acres. gūnts.	rup. a.	rup. a.	rup. a.
11. Hasan Laghāri . . . . .	4	Chelāro . . . . .	.	22 9	.	..	..
12. Wali Muhammad Laghāri . . . . .	4	Chelāro . . . . .	.	15 12	.	..	..
13. Sabzul Laghāri . . . . .	4	Chelāro . . . . .	.	24 32	.	..	..
14. Miāndād Laghāri . . . . .	4	Chelāro . . . . .	10 0	5 10	.	3 12	..
15. Alahdād Laghāri . . . . .	4	Chelāro . . . . .	5 0	12 16	..	1 14	..
16. Lashkar Khān . . . . .	4	Chelāro . . . . .	.	27 17	..	..	..
<b>T. ALAHYAR-JO-TANDO.</b>							
1. Mīr Būdhō Khān Talpur . . . . .	1	Jarki . . . . .	400 0	851 22	.	96 2	..
2. Mīr Būdhō Khān Talpur . . . . .	1	Misan . . . . .	559 20	6,290 0	.	159 13	..
3. Rato Khān Khokhar . . . . .	1	(Suhno . . . . . Bukera . . . . .)	336 0	1,006 22	..	129 13	63 0
4. Birokhān Khokhar . . . . .	1	Tarlā . . . . .	1,203 0	6,664 12	445 5	315 14	..
5. Dāūdkhān Mari . . . . .	1	Mihan . . . . .	80 0	200 20	..	20 10	..
6. Mīr Nasir Khān . . . . .	1	Daho . . . . .	146 0	591 20	..	55 2	..
7. Muhammad Hasan . . . . .	1	Halpotani . . . . .	60 0	415 21	52 15	32 4	4 0
8. Sohrāb Nizamāni . . . . .	2	Būmbhki . . . . .	20 0	75 12	..	7 8	..
9. Mehro Nizamāni . . . . .	3	Būmbhki . . . . .	35 0	60 12	..	13 2	..
10. Mehro Nizamāni . . . . .	3	Moriāni . . . . .	36 0	89 12	..	11 4	..
11. Sabzul Mari . . . . .	3	Khaki . . . . .	108 0	33 10	58 8	25 5	9 12
12. Nabī Bakhsh Mari . . . . .	3	Khaki . . . . .	16 20	62 22	..	5 10	..
13. Nabī Bakhsh Mari . . . . .	3	Pu . . . . .	100 0	..	..	33 12	..
14. Kam Khān Nizamāni . . . . .	3	Visarki . . . . .	100 0	2,300 8	36 15	24 12	..
15. Kam Khān Nizamāni . . . . .	3	Gāhki . . . . .	60 0	240 8	26 13	21 5	..



16.	Kaim Khān Nizamāni . . . . .	4	Balūki . . . . .	113	1	200	0	36	7	19	7	...
17.	Kaim Khān Nizamāni . . . . .	4	Hotki . . . . .	232	0	81	0	36	14	93	6	...
18.	Ghulām Muhammad Nizamāni . . . . .	3	Bhānoki . . . . .	200	16	700	0	80	2	43	1	...
19.	Ghulām Muhammad Nizamāni . . . . .	3	Hotki . . . . .	80	0	720	0	81	2	54	0	...
20.	Ghulām Muhammad Nizamāni . . . . .	3	Saharki . . . . .	100	0	800	0	44	9	28	12	...
21.	Tājo Khān Mari . . . . .	3	Māngno . . . . .	78	0	122	0	.	.	24	6	...
22.	Tājo Khān Mari . . . . .	3	Hinjoro . . . . .	109	0	91	0	.	.	26	12	...
23.	Tājo Khān Mari . . . . .	3	Khaki . . . . .	57	0	100	6	.	.	15	0	...
24.	Ali Murād Mari . . . . .	3	Pui . . . . .	114	0	75	2	37	8	26	12	5 8
25.	Wali Muhammad Mari . . . . .	3	Pui . . . . .	96	2	93	2	..	..	30	0	..
26.	Saiyad Khān Mari . . . . .	3	Būmbhki . . . . .	120	29	1,800	0	127	12	45	9	..
27.	Saiyad Khān Mari . . . . .	3 & 4	Halpotāni . . . . .	190	22	600	0	233	5	71	13	..
28.	Nasir Jamāli . . . . .	3 & 4	Būmbhki . . . . .	40	0	560	0	..	..	23	13	..
29.	Kāsim Jamāli . . . . .	3	Halpotāni . . . . .	20	0	76	7	..	..	7	8	..
30.	Sabzul Mari . . . . .	3 & 4	Halpotāni . . . . .	65	0	31	7	..	..	26	1	..
31.	Sahēb Khān Jamāli . . . . .	3	Būmbhki . . . . .	40	0	168	38	..	..	12	6	..
32.	Adam Jamāli . . . . .	3	Sahatki . . . . .	20	0	31	30	..	..	7	8	3 10
33.	Ghulām Haidar . . . . .	4	Aghāmāno . . . . .	5	0	207	20	..	..	1	14	..
34.	Bahir Khān Mari . . . . .	4	Moriān . . . . .	36	0	153	2	..	..	11	4	..
35.	Ghulām Shāh Mari . . . . .	4	Moriāni . . . . .	18	0	181	3	..	..	5	10	..
36.	Ghulām Shāh Mari . . . . .	4	Būmbhki . . . . .	45	0	50	17	..	..	16	14	..
37.	Damāli . . . . .	4	Moriāni . . . . .	12	0	107	3	..	..	3	12	..
38.	Damāli . . . . .	4	Būmbhki . . . . .	15	0	90	17	..	..	7	8	..
39.	Hasan Ali Mari . . . . .	4	Moriāni . . . . .	30	0	169	3	..	..	9	6	..
40.	Hasan Ali Mari . . . . .	4	Būmbhki . . . . .	40	0	73	7	..	..	15	0	..
41.	Fatēh Khān Mari . . . . .	4	Moriāni . . . . .	20	0	61	10	..	..	5	10	..
42.	Fatēh Khān Mari . . . . .	4	Būmbhki . . . . .	10	0	79	19	..	..	3	12	..
43.	Ali Murād . . . . .	4	Wāriyāso . . . . .	12	0	69	22	..	..	5	10	..
44.	Nasir Nundāni . . . . .	4	Wāriyāso . . . . .	18	0	82	22	..	..	3	12	..
45.	Nabi Bakhsh Nundāni . . . . .	4	Wāriyāso . . . . .	6	0	65	22	..	..	1	14	..
46.	Karimdād Mari . . . . .	4	Gūlar . . . . .	180	0	269	19	15	0	51	2	2 0
47.	Mir Yar Muhammad . . . . .	4	Kāmāro . . . . .	150	20	637	0	..	..	53	11	..

Name of Jāgirdār	Class.	Talūka and Village.	Cultivable Land.	Uncultivable Land	Yearly Amount of Government Revenue from		
					Chauth.	Hakāba	Jāgir Cess.
			acres gūntas.	acres. gūntas.	rup. a.	rup. a.	rup. a.
48. Ghulām Muhammad Nizamāni . . . . .	4	Nilofari . . . . .	50 0	100 0	..	15 3	..
49. Ali Muhammad Walēri . . . . .	4	Nilofari . . . . .	11 35	..	..	5 10	..
50. Imdād Ali Mari . . . . .	4	Moriāni . . . . .	..	199 3	..	..	..
51. Imdād Ali Mari . . . . .	4	Būmbhki . . . . .	15 0	98 17	..	5 10	..
52. Nazar Mari . . . . .	4	Moriāni . . . . .	..	81 10	..	..	..
53. Nazar Mari . . . . .	4	Būmbhki . . . . .	39 19	100 0	..	8 12	..
54. Budo Mari . . . . .	4	Moriāni . . . . .	..	81 10	..	..	..
55. Budo Mari . . . . .	4	Būmbhki . . . . .	25 0	114 19	..	9 6	..
56. Gūl Muhammad Mari . . . . .	4	Būmbhki . . . . .	238 25	..	87 14	80 2	..
57. Ghulām Husain . . . . .	4	Hotki . . . . .	5 0	39 25	..	1 14	..
58. Alibahar Thara . . . . .	4	Halpotāni . . . . .	220 0	256 24	31 9	13 1	26 0
59. Alibakhsh Lūnd . . . . .	4	Halpotāni . . . . .	20 0	24 25	..	7 8	..
60. Gūl Muhammad Nizamāna . . . . .	4	Saharki . . . . .	105 19	105 0	..	37 8	..
61. Ghulām Husain Katian . . . . .	4	Visarki . . . . .	31 10	..	35 0	13 7	..
62. Malīk Sirdā Khān . . . . .	4	Gāhki . . . . .	103 0	1,316 0	..	38 3	15 0
63. Abdūla Jamāl . . . . .	4	Umar Jhaki . . . . .	100 36	130 2	..	39 15	..
64. Khair Muhammad Jamāl . . . . .	4	Halpotāni . . . . .	..	96 7	..	..	..
65. Ghulām Haidar Jamālī . . . . .	4	Halpotāni . . . . .	..	96 7	..	..	..
66. Bakur Jamāl . . . . .	4	Halpotāni . . . . .	..	96 7	..	..	..
67. Rochal Jamāl . . . . .	4	Halpotāni . . . . .	..	51 26	..	..	1 0
68. Sher Khān Jamālī . . . . .	4	Halpotāni . . . . .	..	96 0	..	..	2 4

		T. HALĀ.							
1.	Mir Ahmad Khān Shahdadāni . . . . .	I	{ Chharao Khēbrāni . . . }	1,000 0	1,233 0	5,300 0	384 4	...	
2.	Mir Muhammad Khān . . . . .	I	Chharao	1,750 0	750 0	..	163 4	...	
3.	Mir Jān Muhammad . . . . .	I	{ Panjoro Pinghāro . . . }	2,250 0	700 0	...	136 3	42 10	
4.	Mir Ghulām Husain . . . . .	I	Panjoro	50,022 0	260 0	.	187 2	14 0	
5.	Mir Muhammad Ali . . . . .	I	{ Saharki . . . Palejāni . . . }	1,918 0	700 0	..	103 2	...	
6.	Mir Mubārak . . . . .	I	{ Saharki . . . Palejāni . . . }	1,918 0	700 0	...	...	...	
7.	Ahmed Khān Thakrāni . . . . .	I	Chharao	532 0	150 0	..	650 0	.	
8.	Nawāb Muhammad Khān . . . . .	I	Tajpūr . . .	10 0	531 0	..	...	10 0	
9.	Sher Muhammad Nizamāni . . . . .	I	Kalri . . .	150 0	100 0	34 7	65 10	...	
10.	Ghulām Mustafa Khān . . . . .	I	Jahki . . .	400 0	250 0	..	136 13	43 0	
11.	Ali Muhammad . . . . .	I	Jahki . . .	2,000 0	450 0	260 3	379 0	42 10	
12.	Ghulām Shāh . . . . .	I	Jahki . . .	5,000 0	150 0	..	52 12	8 0	
13.	Ali Khān (dead) . . . . .	I	Jahki . . .	403 0	100 0	34 10	52 7	...	
14.	Tau Khān Mari . . . . .	I	Jahki . . .	407 0	100 0	70 2	98 4	...	
15.	Ghulām Ali Khān Jamāli (dead) . . . . .	I	Pinghāro	250 0	945 0	..	96 11	...	
16.	Hamzo Bagrāni . . . . .	I	Chitori . . .	150 0	50 0	79 2	129 6	8 4	
17.	Ghulām Muhammad Khān Khatian . . . . .	I	Sipaki . . .	1,829 0	300 0	..	129 6	.	
18.	Muhammad Husain Khatian . . . . .	I	Chharao	739 0	2,500 0	..	225 0	...	
19.	Nazar Ali Khatian . . . . .	I	Jakhri . . .	3,567 0	12,500 0	..	..	...	
20.	Ahmad Khān Nizamāni . . . . .	2	Kalri . . .	100 0	50 0	..	33 0	.	
21.	Ghulām Muhammad Nizamāni . . . . .	2	Kalri . . .	50 0	3 0	..	0 15	.	
22.	Ali Murād Būgri . . . . .	2	Jakhri . . .	406 0	100 0	..	85 0	...	
23.	Muhammad Khān Nizamāni . . . . .	2	Ghoghāt . . .	...	650 0	..	..	...	
24.	Alibakhsh Nizamāni . . . . .	2	Ghoghāt . . .	50 0	25 0	..	20 10	7 0	
25.	Muhammad Husain Notkāni . . . . .	3	Char . . .	160 0	140 0	...	150 0	..	

Name of Jāgirdār.	Class.	Talūka and Village.	Cultivable Land	Uncultivable Land.	Yearly Amount of Government Revenue from		
					Chauth.	Hakāba.	Jāgir Cess
			acres gūntas.	acres gūntas.	rup a.	rup a	rup. a.
26. Alaobago . . . . .	3	New Hālā . . . . .	150 0	150 0	..	22 8	..
27. Yar Muhammad Thara . . . . .	3	New Hālā . . . . .	70 0	75 0	..	18 12	..
28. Ali Muhammad . . . . .	3	New Hālā . . . . .	..	80 0	..	..	..
29. Musū Būrgri . . . . .	3	New Hālā . . . . .	30 0	157 0	..	9 6	..
30. Alibakhsh Būrgri . . . . .	3	New Hālā . . . . .	..	40 0	..	..	2 0
31. Nabi Bakhsh Būrgri . . . . .	3	New Hālā . . . . .	..	53 0	..	..	..
32. Muhammad Khān Laghāri . . . . .	3	New Hālā . . . . .	..	40 0	..	..	..
33. Muhammad Hasan Laghāri . . . . .	3	New Hālā . . . . .	..	45 0	..	..	..
34. Ahmad Khān Nizamāni . . . . .	3	New Hālā . . . . .	64 0	..	..	..	..
35. Khair Muhammad . . . . .	3	Panjmoro . . . . .	25 0	119 0	..	3 12	2 4
36. Muhammad Sadik Masi . . . . .	3	Panjmoro . . . . .	25 0	50 0	..	11 9	..
37. Chapa Khān Mari . . . . .	3	Rawaki . . . . .	250 0	1,900 0	..	82 8	..
38. Umēd Ali Bagrāni . . . . .	3	Chitori . . . . .	5 0	..	..	5 10	..
39. Ali Murād . . . . .	3	Chitori . . . . .	100 0	58 0	..	31 14	0 6
40. Alibakhsh Nizamāni . . . . .	3	Chitori . . . . .	65 0	..	..	..	..
41. Mīr Husain Laghāri . . . . .	3	Chhāchri . . . . .	25 0	7 0	24 0	32 7	3 10
42. Nabi Bakhsh Jamāli . . . . .	3	Pinghāro . . . . .	25 0	20 0	..	11 8	2 8
43. Bandah . . . . .	3	Sadūni . . . . .	40 0	40 0	..	22 0	..
44. Kaim Khān Nizamāni . . . . .	3	Salāro . . . . .	64 0	4 0	..	15 0	3 3
45. Muhammad Khān Nizamāni . . . . .	3	Salāro . . . . .	..	14 0	..	..	..
46. Husain Khān Laghāri . . . . .	3	Kalri . . . . .	25 0	50 0	21 4	34 6	..
47. Abdūla Nizamāni . . . . .	3	Kalri . . . . .	150 0	75 0	39 8	24 14	2 8
48. Muhammad Khān Nizamāni . . . . .	3	Kalri . . . . .	..	329 0	..	..	..
49. Latif Ali Nizamāni . . . . .	3	Kalri . . . . .	280 0	..	..	..	..
50. Khauro Bagrāni . . . . .	3	Chitori . . . . .	25 0	50 0	..	22 8	..
51. Karam Jamāli . . . . .	3	Chitori . . . . .	5 0	12 0	..	2 4	..
52. Ghulam Husain Jamāli . . . . .	3	Chitori . . . . .	15 0	..	..	13 2	..

53. Pahūr Jamāli . . . . .	3	Chitori . . . . .	44	0	25	0	13	2	...
54. Tahir Mari . . . . .	3	Bhanot . . . . .	1,000	0	600	0	117	2	..
55. Ghulām Haidar Talpur . . . . .	3	Sādum . . . . .	226	0	100	0	3	12	..
56. Ghulām Murtuza . . . . .	3	Jakhri . . . . .			172	0	..		...
57. Taj Muhammad Laghāri . . . . .	3	Jakhri . . . . .	580	0	100	0	45	0	...
58. Dost Muhammad Laghāri . . . . .	3	Jakhri . . . . .	580	0	100	0	59	0	..
59. Bandali . . . . .	3	Sadri . . . . .	203	6	100	0	73	15	..
60. Kansar Khān . . . . .	3	Sipaki . . . . .			12	0			..
61. Muhammad Araf Khatian . . . . .	3	Sipaki . . . . .	655	0	100	0	73	15	..
62. Taj Muhammad Khatian . . . . .	3	Sipaki . . . . .	30	0	8	0	1	14	..
63. Khān Muhammad Khatian . . . . .	3	Sipaki . . . . .			2	0			..
64. Imāmbakhsh . . . . .	4	Khēbrāni . . . . .	500	0	150	0	48	12	...
65. Nur Mahammad Khatian . . . . .	4	Khēbrāni . . . . .	400	0	125	0	56	4	..
66. Ghulām Husain Talpur . . . . .	4	Khēbrāni . . . . .	40	0	40	0	9	6	..
67. Sher Muhammad Būrgri . . . . .	4	Khēbrāni . . . . .	...		34	0	..		...
68. Ali Muhammad Būrgri . . . . .	4	New Hālā . . . . .			34	0			...
69. Muhammad Khān . . . . .	4	Kalri . . . . .			50	0			...
70. Latif Ali Nizamāni . . . . .	4	Kalri . . . . .	50	0	31	0	57	15	..
71. Haidar Ali Nizamāni . . . . .	4	Kalri . . . . .	40	0	10	0	7	8	..
72. Sūltān Ali Būrgri . . . . .	4	Chhāchhri . . . . .	5	0	16	0	20	10	..
73. Imāmbakhsh Rind . . . . .	4	Chitori . . . . .	30	0	39	0	25	10	..
74. Bhāi Khān Rind . . . . .	4	Chitori . . . . .	1	0	11	0	0	3	..
75. Nurkhān Rind . . . . .	4	Chitori . . . . .	20	0	11	0	0	9	..
76. Nawāb Rind . . . . .	4	Chitori . . . . .			14	0			..
77. Muhammad Sadik Mari . . . . .	4	Chitori . . . . .	100	0	50	0			..
78. Hamzo Bagrāni . . . . .	4	Chitori . . . . .	15	0	8	0	38	0	..
79. Alibakhsh Nizamāni . . . . .	4	Chitori . . . . .	...		23	0			..
80. Khān Muhammad . . . . .	4	Sadri . . . . .	3	0	15	0	3	12	..
81. Nabī Bakhsh Jatoi . . . . .	4	Pinghāro . . . . .	10	0	68	0	15	0	2 8
82. Mīr Khān . . . . .	4	Pinghāro . . . . .	7	0					..
83. Mehrāb . . . . .	4	Pinghāro . . . . .	7	0			5	10	..
84. Balak . . . . .	4	Pinghāro . . . . .	7	0					..

Name of Jagirdār.	Class.	Talūka and Village.	Cultivable Land.	Uncultivable Land.	Yearly Amount of Government Revenue from		
					Chauth.	Hakāba.	Jāgir Cess.
			acres. gūntas.	acres. gūntas.	rup. a.	rup. a.	rup. a.
85. Tahir Mari . . . . .	4	New Hālā . . . . .	50 0	30 0	...	...	...
86. Ghulām Muṭtuza . . . . .	4	Sipaki . . . . .	...	83 0	...	...	...
87. Tāj Muhammad Laghāri . . . . .	4	Sipaki . . . . .	49 0	...	...	...	...
88. Dost Muhammad Laghāri . . . . .	4	Sipaki . . . . .	49 0	...	...	...	...
89. Alibakhsh Laghāri . . . . .	4	Sipaki . . . . .	57 0	...	...	13 3	...
90. Alibakhsh Būrgri . . . . .	4	Jahki . . . . .	...	15 0	...	...	...
91. Nabi Bakhsh Būrgri . . . . .	4	Jahki . . . . .	...	15 0	...	...	...
92. Ghulām Būrgri . . . . .	4	Jahki . . . . .	...	15 0	...	...	...
93. Gazi Khān . . . . .	4	Jahki . . . . .	...	15 0	...	...	...
94. Khūdabakhsh . . . . .	4	Jahki . . . . .	...	15 0	...	...	...
95. Muhammad Saleh . . . . .	4	Jakhri . . . . .	311 0	...	...	52 8	...
96. Dariā Khān Laghāri . . . . .	4	Jakhri . . . . .	75 0	...	...	11 4	...
97. Gul Muhammad . . . . .	4	Jakhri . . . . .	175 0	...	...	21 9	...
98. Alibakhsh Nizamāni . . . . .	4	Jakhri . . . . .	30 0	...	...	5 0	...

The total number of "Seri" grantees throughout the Hālā Deputy Collectorate is 68, but these are confined to the two talūkas of Shāhdādpur and Hālā, there being 38 in the former, with grants to each of cultivated land varying from  $6\frac{3}{4}$  to  $29\frac{1}{2}$  acres, and in the latter 30, with grants of land of from 2 to 30 acres. The aggregate average held under these grants is 912 acres and 8 gūntas.

The number of "māfidars" is 48, of whom 27 are in the Hālā talūka, with grants of cultivable land ranging from one gūnta to 6 acres; in the Alahyar-jo-Tando talūka there are 14, with grants of cultivable land of from 18 gūntas to 196 acres; in the Mirpur talūka there are four, with grants of cultivable land varying from  $2\frac{1}{2}$  to 9 acres, and of uncultivable land from 9 to 100 acres. In the Shāhdādpur talūka are three māfidars, with grants of cultivable land ranging from 2 to 15 acres.

MUNICIPALITIES.—There are in all nine municipal institutions in the Hālā district, the earliest established being that of Alahyar-jo-Tando, which dates from 1856. Their revenues are chiefly made up from the following sources:—1. Fees levied on imported articles. 2. Licence fees collected under Act VIII. of 1866. 3. Cattle-pound fees, fines, &c. The principal items of disbursement are those on account of conservancy, police, public works, and grants-in-aid made to educational institutions. The several municipalities in this district, with their several receipts and expenses, will be found tabulated below:—

Where situate.	Date of Establishment.	Receipts in			Disbursements in		
		1871-72.	1872-73.	1873-74.	1871-72.	1872-73.	1873-74.
1. Alahyar-jo-Tando	1 July, 1856	rupees. 3,800	rupees. 6,375	rupees. 6,827	rupees. 4,448	rupees. 6,705	rupees. 6,326
2. Nasarpur . . .	1860	702	1,344	1,265	452	1,370	1,140
3. Adam-jo-Tando	Jan., 1860	3,107	5,680	5,527	3,317	5,593	5,604
4. Hālā . . . . .	1 May, 1860	1,924	1,360	2,756	2,059	1,296	2,632
5. Mirpur . . . . .	10 Oct., 1860	2,671	731	1,990	1,299	993	1,662
6. Ghotāna . . . . .	1 Dec., 1860	1,227	925	1,465	1,044	454	1,559
7. Matāri . . . . .	10 Oct., 1868	2,589	2,082	3,123	3,271	2,353	2,589
8. Shāhdādpur . . . . .	..	1,686	1,564	1,922	762	1,839	2,229
9. Khokhar . . . . .	1872	..	353	573	..	404	389

DISPENSARIES.—Throughout the Hālā district there are but two medical dispensaries: one at Hālā, established in 1860, and the other at Alahyar-jo-Tando, established in 1862. Both these institutions are under the charge of subordinate officers of the Govern-

ment medical department, and they are visited annually by the Deputy Surgeon-General of Hospitals of the Sind division. The charges incurred in keeping both these dispensaries upon an efficient footing are defrayed partly by Government, and partly by the municipalities of the two towns in which they are respectively situate. All information as to attendance of patients, &c., during the past two years, in these dispensaries, is contained in the following table :—

## HĀLĀ DISPENSARY.

	Total Admissions in		Casualties in		Average Daily Attendance in	
	1873.	1874.	1873.	1874.	1873.	1874.
In-patients . .	43	42	.	...	2·7	1·9
Out-patients .	1,243	1,692	2	1	15·4	20·2

## ALAHYAR-JO-TANDO DISPENSARY.

	Total Admissions in		Casualties in		Average Daily Attendance in	
	1873.	1874.	1873.	1874.	1873.	1874.
In-patients . .	58	47	10	6	3·8	2·6
Out-patients .	2,064	2,762	.	.	14·4	17·7

Cholera prevailed to some extent in this division during the years 1865 and 1869. Fevers of the intermittent type are common during the cold season, and skin diseases during the hot weather.

**LOCK-UPS, OR SUBSIDIARY JAILS.**—There are no large jails in this district, but simply “lock-ups,” or as they are called, “subordinate jails,” at each Mükhtyārkar’s head-quarter station, in which all untried prisoners are confined for a time. In these also convicts can suffer imprisonment up to one month.

**EDUCATION.**—There are in all twenty Government schools in the Hālā district, attended, on an average, by 849 pupils. The indigenous schools number 11, with 120 scholars. Other particulars having reference to education are given in the following table :—



Talūka.	Government Schools		Private Schools		Remarks.
	No.	Pupils	No.	Pupils.	
1. Hālā . . .	9	306	4	40	There is a 2nd grade Anglo-vernacular School at Tando Adam.
2. Alahyar-jo-Tando	7	418	3	63	
3. Shāhdādpur. .	3	94	4	17	
4. Mirpur Khās .	1	31	..	.	
Total . .	20	849	11	120	

AGRICULTURE.—The seasons for agricultural operations in the Hālā district are known under the names of Kharif, Rabi, and Peshras, and the different crops raised in these several periods are shown in detail in the accompanying table :—

Season.	Time when		Principal crops produced.
	Sown	Reaped.	
Kharif .	June .	September .	Juār, bājri, til, rice, cotton, chana (or gram), hemp, tobacco, water-melons, &c.
Rabi .	October	March . .	Wheat, barley, jambho and matar (oil-seeds), chana, onions, water-melons, and several kinds of vegetables.
Peshras .	March	May and June	Juār, bājri, sugar-cane, and cotton.

The cultivation in this district is mostly “charkhi” (*wheel* irrigation). The implements used in husbandry are the plough, hand-hoe, sowing drill, harrow (of a very primitive kind), spade and sickle. It is, however, in this district, at the village of Salāro, near Hālā, that in addition to a cotton experimental farm, superintended, under the auspices of Government, by a practical gardener from Scotland, an economic garden of considerable extent has been established, and as this is intended for the proper cultivation, by improved agricultural implements, of sugar, indigo, tobacco, vegetables—the planting out of fruit-trees and shrubs, both useful and ornamental—it is hoped that, if successful, the scheme will do much towards introducing into this district, and eventually through-

out Sind, better and more effective tools and implements, conjointly with a better and more careful system of agriculture than that now in force.

COMMERCE.—The import and export trade of the Hālā district is confined, not wholly, but in a great measure, to agricultural produce; this is more particularly the case with the export trade, the most important items in which are juār, bājri, cotton and til (oil-seed). The value of these four articles, as annually exported from this district, is, on an average, not under twelve lakhs of rupees, the value of all articles exported being under fourteen lakhs. Other important articles of export are silk, cloths of sorts, and ivory. The principal articles of import are rice, jambho (oil-seed), gūr (coarse sugar), til, sugar, ghi, dates, cloths of kinds, wool, ivory and metal pots. The average annual value of the import trade does not appear to exceed  $8\frac{1}{2}$  lakhs of rupees. The following table will show, though *approximately* only, the quantity and value of the average annual exports and imports of this district:—

## EXPORTS.

Articles	Quantity.	Value.	Remarks.
	maunds.	rupees.	
Juār . . .	1,30,000	3,90,000	Mostly from the Alahyar-jo-Tando, Shāhdādpur, and Hālā talūkas.
Bājri . . .	1,64,000	4,94,000	Mostly from Hālā and Shāhdādpur talūkas.
Til (oil-seed).	26,200	1,03,900	Principally from Alahyar-jo-Tando and Shāhdādpur talūkas.
Oil . . .	800	8,400	No export of this article from Hālā talūka.
Cotton . .	1,85,000	2,90,000	Exported from all four talūkas.
Cloth (of sorts)	...	22,000	Solely from Alahyar-jo-Tando and Hālā talūkas.
Silk . . .	150	30,000	From Alahyar-jo-Tando talūka only.
Ivory . . .	62	25,000	ditto ditto
Ghi . . .	200	5,000	ditto ditto
Boxes, &c.	...	2,000	From the Hālā talūka only.
Sūsis (or cloth for trowsers).	4,500 in No.	18,000	From Hālā and Alahyar-jo-Tando talūkas only.
Khēsis . .	360	2,880	From the Alahyar-jo-Tando talūka only.
Miscellaneous articles.	...	6,800	
Total value, Rs.		13,97,980	

## IMPORTS.

Articles.	Quantity.	Value.	Remarks.
	maunds.	rupees	
Juār . . .	8,500	21,200	
Bājri . . .	5,600	18,000	
Rice . . .	19,000	76,000	
Jambho (oil-seed).	15,500	50,500	Imported mostly by the Sāhdād-pur talūka.
Til . . .	6,900	27,600	Imported mostly by the Hālā talūka.
Mung ( <i>Phaseolus mungo</i> ).	1,600	8,000	
Matar ( <i>Lathyrus sativus</i> ).	950	2,235	
Jhao (barley).	1,500	4,900	
Chana (gram)	1,800	3,800	
Sāris . . .	500	800	By the Hālā talūka only.
Mah ( <i>Phaseolus radiatus</i> ).	650	2,600	
Gūr . . .	3,750	30,000	Mostly by the Shāhdād-pur talūka.
Indigo . . .	49	4,900	
Sugar . . .	3,900	55,600	Mostly by the Alahyar-jo-Tando talūka.
Tobacco . .	700	4,100	
Gñi . . .	1,750	44,500	ditto ditto.
Oil . . .	1,310	12,710	ditto ditto.
Dates . . .	1,250	49,000	
Cloths (of different kinds).	...	2,50,000	Mostly by the Hālā talūka.
Wool (of sorts)	2,180	64,963	
Spices . . .	240	3,080	
Potash . . .	7,500	11,200	
Ivory . . .	75	30,000	By the Alahyar-jo-Tando talūka only.
Metal pots .	...	35,000	
Miscellaneous articles.	...	40,945	
Total value, Rs.		8,51,633	

TRANSIT TRADE.—The following table will also show, *approximately*, the quantity and value of the traffic passing through the Hālā district, the total value being about 19 lakhs of rupees (*see next page*) :—

Articles.	Quantity.	Value.	Articles.	Quantity.	Value.
	maunds.	rupees.		maunds.	rupees.
Grains :			Sāris . . .	4,000	6,400
Juār . .	42,000	1,04,800	Khar Chaniah	2,000	3,000
Bājri . .	60,000	1,75,000	(or potash).		
Barley . .	20,000	70,000	Sugar . . .	100	1,200
Wheat . .	60,000	1,60,000	Raisins . .	50	500
Mung . .	10,000	40,000	Pomegranates	2,000 in No.	200
Rice . .	2,000	50,000	Almonds . .	200	2,400
Oil-seeds :			Gūr . . .	5,000	7,500
Til . . .	10,300	64,000	Fruits . . .	...	2,000
Jambhoand	5,000	15,000	Grapes . . .	50	2,000
Sireh.			Tobacco . .	3,000	12,000
Manjit . .	200	4,000	Oil . . .	2,000	16,000
Wan . . .	10,500	14,000	Ghi . . .	1,500	33,000
Cotton . .	1,30,800	8,58,800	Cloths (of sorts)	...	2,00,000
Cotton-seeds .	2,65,000	45,000			

MANUFACTURES.—The chief manufactures of the Hālā district are those of cloths called “*Sūsis*” and “*Khēsis*,” the former, of which two thousand, valued at 6000 rupees, are believed to be yearly manufactured at Hālā, are used for trowsers; the latter are parti-coloured cloths, some of them of very brilliant hues. They are principally made at the towns of New Hālā and Nasarpur, but the best “*sūsis*” are to be had at the former place. Another important manufacture, for which the Hālā district is famous, is that of glazed pottery, in the shape of tiles, dishes, plates, vases, flower-pots and other articles; of these several thousands, valued at 1500 rupees, are made yearly it is said at Hālā. They are at all times in great request, and, being reasonable in price, meet with a ready sale. It may be here mentioned that, at the Industrial Exhibition held at Karāchi in December 1869, several prizes were gained by the Hālā workmen in this manufacture. Dr. Stocks thus speaks of the manner in which this pottery is made, and of the ingredients of which it is composed:—“The body of the tile is clay. Three kinds of glazes are used—colourless, green, and brown; variety of colour is obtained in different ways on a bed of finer clay, laid on the surface to be glazed; metallic pigments, viz., those of manganese, cobalt and copper, are traced on the figures wished to be represented, and over these the transparent glaze, in the pulverized state, is placed. Thus prepared, the tiles are subjected to heat, when the body is converted into earthenware, the prepared fine clay in contact with it into white porcelain, the pigments into the figures, coloured purplish black, azure and green, and the glaze into the transparent glass which forms the surface and transmits to view the coloured figures. The tile

therefore presents these colours—white, black with purple tinge, azure and green : when the green glaze is used on a dark ground, white clay is laid, over which the green glaze is put, and when fixed the tile presents a dark green ground, with bright green figures. These tiles are in two colours. The brown glaze is used in the same way as the last, and gives the colours of dark brown and yellow. These comprise the colours commonly produced : the glazes are formed of the base of sand and litharge, 6 of the former to 20 of the latter, which is the transparent glaze. The green has added  $1\frac{1}{2}$  of oxide of copper, and the brown  $2\frac{1}{2}$  of *karmaji*, which appears to be oxide of iron with a little cobalt mixed with it. The sand used for the glaze is brought from Sehwan ; the flint for the porcelain clay from Mount Anjar : the cobalt is called *auria* ; the litharge, *mardar sing* ; and the substance called *karmaji*, which gives colour to the brown glaze, is principally oxide of iron. The preparation or native place of it is not known.”

The Hālā district is noted also for another manufacture—that of lacquered ware. Of this work the rings for table-napkins, work-boxes, pen-cases, rulers, vases, flower-stands, boxes with flat or rounded tops in nests, and a variety of other articles, are made, chiefly in the town of Khanot. The legs of *charpāis* (or native bedsteads) are also lacquered. The wood of which these articles are made, and on which the lacquer is laid, is from the *bahan* tree, and is remarkable for its lightness.

FAIRS.—There are in all 22 fairs held annually at various times and places in the Hālā district, and a few half-yearly, and even monthly. The following is a list of the principal fairs, at which the average attendance of people is 1000 and upwards (*see next page*) :—

Taluka.	Where held.	When held.	For what No of Days.	In whose honour.	Average Attendance, and by what Class
Hālā.	1. Lāl-Udēro	Yearly, in March	4	Udēro-Lāl*	Hindūs.
		Half-yearly, in November	1		35,000
		And monthly	1		3,000
	2. Hālā	Half-yearly, in Oct. and March	1	Makdūm Nūh	Muhamadans.
	3. Bhitshāh	Yearly, in May	1	Shāh Abdūl †	5,000
	4. Bhanot	Ditto, in March	1	Pir Bilāl	4,000
	5. Matāri	Ditto, in October	1	Rukanshāh	3,000
	6. Matāri	Ditto, in Sept.	1	Hāshimshāh	2,500
7. Tir	Ditto	1	Shēkh Tir	3,000	
8. Deh Khēbrāni	Ditto	1	Nūh Hotāni	2,000	
Alahyar-jo-Tando.	9. Bukēra	Ditto, in Dec.	1	Kaimshāh	5,000
	10. Nasarpur	Ditto	1	Muhammad Shāh	6,000
	11. Bukēra	Ditto, in Nov.	1	Pir Ferozshāh	3,000
	12. Near Adam-jo-Tando.	Ditto	1	Mushēk Hoti	6,000
	13. Kaisar Got	Ditto	1	Pir Kainsar	2,500
	14. Shēkh Mūsa	Ditto	1	Shēkh Mūso	1,000
	15. Pir Vahio	Ditto	1	Pir Vahio	1,000

\* This saint is known among Muhamadans as Shēkh Tahir.

† This saint died about A.D. 1731, and the tomb was erected in 1753.

ROADS.—There are nearly 600 miles of roads in this district, not one of which is metalled; but the sandy nature of the soil makes this not only unnecessary, but practically impossible, except at an enormous pecuniary outlay. But few of the roads are wholly or partially bridged, and those only on the principal lines of thoroughfare, nor are milestones put up on any of the roads, with the exception of those connecting Hālā with Sakrand, and Shāhdādpur. The following table (*see next page*) will show the different lines of road in the Hālā district, with other information connected with them.

POSTAL.—There are five non-disbursing post-offices and but two branch offices; the former are situate at Hālā, Adam-jo-Tando, Gidu-bandar, and Alahyar-jo-Tando; the latter are at Ghotāna and Narsarpur. The postal service is carried out by "Kāsīd," or foot-lines, which run from Hālā to Shāhdādpur, Hālā to Mānjhand ferry (on the right bank of the Indus), from Hālā to Adam-jo-Tando,

LINES OF ROAD IN THE HĀLĀ DISTRICT.

Road		Length in Miles.	Breadth in Feet.	Remarks.
From	To			
The Hyderabad boundary	The Umarkot boundary.	37*	24	With few exceptions, bridged throughout.
Hālā . . . . .	Sakrand . . . . .	25	24	Partly bridged, Bangalow and Dharamsāla at Hālā.
Alahyar-jo-Tando	Dero Mohbat . . . . .	22	12	do. B. and Dh. at Tando
Ditto . . . . .	Shāhdādpur . . . . .	32	12	do. Alahyar.
Ditto . . . . .	Matāri . . . . .	19½	12	do. Dh. at Shāhdādpur.
Hālā . . . . .	Mirpur Khās . . . . .	40½	12	do. B. and Dh. at Matāri.
Adam-jo-Tando	Ghotāna . . . . .	16	12	do. Dh. at T. Adam.
Mirpur . . . . .	Gorchāni . . . . .	16	12	Unbridged, B. and Dh at Gorchani.
Ditto . . . . .	Hālā (via Sūmra)	28½	12	Partly bridged.
Adam-jo-Tando	Sekhāt . . . . .	13½	12	do.
Mirpur . . . . .	Khipra boundary	13	12	Unbridged.
Hālā . . . . .	Shāhdādpur . . . . .	15	12	Partly bridged.
Ditto . . . . .	Bhitshāh . . . . .	5	12	do.
Ditto . . . . .	Khanot . . . . .	5	12	Unbridged.
Ditto . . . . .	Ghotāna . . . . .	4½	12	Partly bridged, Dh. at Ghotāna.
Matāri . . . . .	Shēkh Tir . . . . .	3	12	Unbridged.
Shāhdādpur . . . . .	Berāni . . . . .	14	12	do.
Hālā (branches)	Main road . . . . .	2½	12	Partly bridged.
Saidābād . . . . .	Brahminābād . . . . .	25	12	Unbridged, B. and Dh. at Saidābād.
Shāhdādpur . . . . .	Sānghar (boundary)	18½	12	do.
Alahyar-jo-Tando	Sāmāro (boundary)	38	12	do.
Ditto . . . . .	Muhammad Khān (boundary)	12	12	do.
Muhammad Khān	Adam-jo-Tando	13	12	do.
Tājpur . . . . .	Nasarpur . . . . .	3½	12	do. Dh. at Nasarpur.
Ditto . . . . .	Sarafrazwāh . . . . .	2	12	do.
Hālā . . . . .	Bhanot . . . . .	6	12	Partly bridged.
Matāri . . . . .	Unarpur Ferry . . . . .	4½	12	Unbridged.
Dalāri . . . . .	Berāni . . . . .	55	12	do.
Shāhdādpur . . . . .	Sakrand (boundary)	17	12	do.
Maksudo . . . . .	Gūl Muhammad	6¾	12	do.
Shāhdādpur . . . . .	Ditto . . . . .	13½	12	do.
Berāni . . . . .	Adam-jo-Tando	9¾	12	do.
Lāndhi . . . . .	Dalāri . . . . .	3½	12	do. B. at Lāndhi.
Shāhdādpur . . . . .	Kūn-Daro and Bhitshāh	8	12	do.
Dalāri . . . . .	Brahmanābād . . . . .	2	12	do. B. at Dalāri.
Sarangwāh . . . . .	Marak Brumbro . . . . .	1½	12	do.
Khokhar . . . . .	Hyderabad (boundary)	6	12	do. B. at Khokhar.
Khadro . . . . .	Shāhpur . . . . .	4	12	do.
Ditto . . . . .	Sānghar (boundary)	5½	12	do.
Adam-jo-Tando	Jhol . . . . .	19½	12	do. Dh. at Jhol.
Saidābād . . . . .	Nakur . . . . .	6	20	do.
Khanot . . . . .	River Indus . . . . .	3	12	do.
Ditto . . . . .	Ghotānā . . . . .	3	12	do.
Bhanot . . . . .	Mānjhand Ferry . . . . .	4½	12	do.
Nasarpur . . . . .	Hālā Havēli . . . . .	4	20	do.

\* On this line miles are inscribed on the telegraph posts.

and from Matāri to Shēkh Tir. The town of Alahyar-jo-Tando is served by the postal line which runs from Hyderabad to Mirpur.

There are also dharamsālas at Khebrāni, Kamil Laghāri, Landhi Khesāno, Landhi Khanah, Juman Thebo, and Myo Vahio.

ELECTRIC TELEGRAPH.—The Government electric telegraph line runs through the southern portion of the Hālā district from Hyderabad to Umarnkot, *via* Alahyar-jo-Tando; and again from south to north from Hyderabad to Rohri, but there are no telegraph stations in any part of this Deputy Collectorate.

FERRIES.—The following is a list of the 17 ferries in the Hālā district, with other particulars connected with each :—

Name of Ferry.	Where situate.	No. of Boats belonging to each	Remarks.
<b>TAL. HĀLĀ.</b>			
1. Sarafrāzwāh . . .	Wasi Mēmon . . .	1	On the route from Hālā to Hyderabad.
2. Ditto . . . . .	Bhinpur . . . . .	1	
3. Ditto . . . . .	Muso Khatian . . .	1	
4. Nāsirwāh . . . . .	Wasi Jangi . . . . .	1	
5. Ditto . . . . .	Dētha . . . . .	1	
6. Ditto . . . . .	Wasi Muhammad Murādshāh . . . . .	1	
7. Ghalū . . . . .	Hālā Havēli . . . . .	1	On the route from Nāsarpur to Hālā Havēli.
8. Sāngrowāh . . . . .	...	1	On the old postal road from Hyderabad to Sukkur.
9. Ditto . . . . .	Khandu. . . . .	1	
<b>T. ALAHYAR-JO-TANDO.</b>			
10. Ghalūwāh . . . . .	Shāhpur . . . . .	1	
11. Ditto . . . . .	Abdūla Jamāli . . .	1	
12. Ditto . . . . .	Sumra Nizamāni . . .	1	On the route from Alahyar-jo-Tando to Hālā.
13. Sarafrāzwāh . . . . .	Khokhar . . . . .	1	On the route from Alahyar-jo-Tando to Tando.
14. Sāngrowāh . . . . .	Ditto. . . . .	1	On the route from Adam-jo-Tando to Lal Udēro.
<b>TAL. SHAHDĀDPUR</b>			
15. Ganjbahar . . . . .	Pir Golo . . . . .	1	On the postal road from Hyderabad to Rohri.
16. Shāhwāh . . . . .	Lāndhi . . . . .	1	
17. Lohāno (small) . . . . .	Timūhi . . . . .	1	



ANTIQUITIES.—There are in this division several places worthy of note, either on account of their own individual antiquity, or as containing ancient buildings of some architectural interest. A description of the old and ruined city of Brahmanābād, situate in the Shāhdādpur talūka of this division, will be found in another part of this Gazetteer. (*See* BRAHMANĀBĀD.) Two miles from New Hālā is the ruined town of Khudabad, once the favourite residence of the Talpur chiefs of Sind, and where the remains of several of them rest in tombs of neat but plain construction. Thornton states that about 60 years ago it was a large town, rivalling Hyderabad in size and population, but that in 1844 not one habitable dwelling remained. The large tomb known as Fateh Ali Khān's is the only one of any note; it is in good order, and is said to have been built about 100 years ago. The foundation is of stone, but the superstructure is composed of burnt glazed brick. At Lāl-Udēro, in the Hālā talūka, where several fairs for Hindūs are held during the year, is a tomb said to be 500 years old; it is always kept in good repair. At Kāmāro, in the Alahyar-jo-Tando talūka, are four tombs; two of these, called after Pir Muhammad Ashraf, were built about 40 years since, the other two are called the Pāk Sānghar tombs, and are supposed to have been erected about 52 years ago. The foundations are of stone, and the rest of burnt brick with coloured decorations. They are kept in good repair. There is another tomb at Myo Vahio, also in the Alahyar-jo-Tando talūka, built about 60 years ago, and in good repair. Like those just mentioned, the material is of burnt brick, with a stone foundation.

**Hālā**, a talūka (or revenue sub-division) of the Hālā Deputy Collectorate, having 6 tapas and 70 villages, with an area of 524 square miles, and a population of 78,237 souls. The revenue, imperial and local, of this talūka, for the five years ending 1873-74, is as follows :—

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.
Imperial . . .	93,269	1,40,882	1,29,590	1,27,963	1,24,710
Local . . .	9,432	9,405	11,780	11,858	9,964
Total rupees .	1,02,701	1,50,287	1,41,370	1,39,821	1,34,674

**Hālā (Old)**, a town in the Hālā talūka of the Hālā district, 2 miles north from New Hālā, and situate on the border of a large

dhandh. It has road communication only with New Hālā and Khanōt. It is the head-quarter station of a Tapadār, and has a Government vernacular school. The population is 2467, comprising Muhammadans and Hīndūs, but the number of each is not known; of the former, the principal tribes are Mēmōns, Giranas, Saunis, and Hālās; of the latter, Lohānos, Sehlas, and Khetris. Their occupation is mostly agricultural. The local and transit trades are, comparatively speaking, insignificant. The chief men of note in the place are Kāzis, Mūllas, and Amils. This town is supposed to have been built about A.D. 1422 (H. 800), at a time when the Samma dynasty was ruling in Sind, but was partially abandoned in A.D. 1800, owing, it is said, to a threatened encroachment on the town by the river Indus.

**Hālā (New)**, formerly known under the name of Murtizabād, is the chief town in the Hālā talūka of the Hālā district, and is situate in latitude  $25^{\circ} 45' N.$ , and longitude  $68^{\circ} 28' E.$  It is seated, as it were, on the Aliganj canal, and is distant 36 miles north from Hyderabad. Hālā has extensive road communication with other towns. It stands some distance from the high-road which runs from Hyderabad to Rohri, with which, however, it is connected by two small branches. It has, besides, roads leading from it to Ghotāna, Bhitshāh, Old Hālā, Lal-Udēro, Shāhdādpur, and Adam-jo-Tando. The town contains numerous Government buildings, such as the Deputy Collector's bangalow, with a fine garden attached to it, a Subordinate Judge's court-house, Mūkhtyārkar's *dēra*, a dispensary, travellers' bangalow, dharamsāla, Government vernacular and female schools, a cattle-pound (or *dhak*), and police lines. Hālā also possesses a municipality, established in May 1860, the revenue of which in 1873-74 amounted to 2756 rupees, and the expenditure to 2632 rupees. The number of inhabitants is 4096, of whom 2646 are Muhammadans, and 1234 Hīndūs. Of the former the Mēmōns are the most numerous. The population is mostly agricultural. Among the Hīndūs, the Lohāno and Bhabra castes greatly predominate. They are all traders.

The chief persons of note residing in Hālā are Makdūms and Kāzis; of the former, Miān Makdūm Amin Muhammad is one of the most important. The trade of Hālā is chiefly in grain, such as bājri, juār, wheat, piece goods, ghi, cotton and sugar. Its value, *approximately*, is about 39,000 rupees. The transit trade, which consists principally of the articles above enumerated, is valued at about 70,000 rupees.

The manufactures are principally of glazed pottery, for which

Hālā has long been famous. The finer kinds are made from a clay obtained from the Indus, mixed in large proportion with ground flints; the decorations are of a brilliant character, and in some cases evince considerable taste. At present, vases, jars, dishes, plates, cups, saucers, tiles and other articles are largely manufactured, and as these are moderately priced, they meet with a ready sale. "Sūsis," or cloth for trowsers, and Sindian caps of excellent quality are also made in this town. The value of the articles so manufactured yearly may be estimated at about 7500 rupees. New Hālā was built about A.D. 1800, by one Makdūm Mir Muhammad, in consequence of Old Hālā, which is but two miles distant, being at that time threatened with encroachment by the river Indus. Among the antiquities of the place may be mentioned two tombs and a mazjid, the property of Makdūm Amin Muhammad. These shrines are in honour of a reputed Musalmān saint, Makdūm Nuh, born about A.D. 1505, and who died at the age of 87; and in consequence a fair is held here twice a year, in the months of March and October, when some thousands of people from all parts of the province assemble to do honour to the Pir. His remains are said to have been twice disinterred, owing to encroachments of the river Indus, his last resting-place being at New Hālā, where he was again laid about A.D. 1779. The foundation of this tomb was laid by Makdūm Muhammad Zamān, in A.D. 1795, and a cupola was added to it in the same year by Mir Fateh Ali Khān Talpur. The mosque to the north of the tomb was built by Mir Karam Ali Khān Talpur, and the other buildings in connection with this shrine were erected about the year 1810 by Makdūm Pinio Ladho. These tombs, which had been in a ruinous condition, have lately been repaired at a cost of 2000 rupees, half of which was contributed by the British Government, and the remainder by the owner of the shrines, Amin Muhammad.

**Halāni**, a Government village in the Kandiāro talūka of the Naushahro division. It is 16 miles north-east from Tharu Shah, and is close to the village of Bhēlāni, on the high-road leading from Hyderabad to Rohri, and has road communication with Mohbat-dēro-Jatoi, 10 miles distant. There is a Tapadār stationed here, and the place possesses a dharamsāla, district bangalow, and a vernacular school, but there are no police lines. The inhabitants, numbering in all 1633, comprise Muhammādans, mostly of the Sahata tribe, and Hindūs, chiefly Lohānos and Panjābis, but the number of each is not known. The occupation of the people is agricultural. Lieutenant Jameson, in his report on the Sahiti district, states that in 1852 this town had 1515 inhabitants, of

## 25 HUMAIYUN—HYDERABAD COLLECTORATE.

whom 1037 were Muhammadans, and that there were in all 291 houses and 53 shops.

There are no manufactures of any kind here, but there is an export trade in grain of the annual value of 7000 rupees. Halāni is supposed to be an old town, and to have existed prior to the Kalhora dynasty. It was near this place that the Baloch forces under Mir Fateh Ali Khān Talpur, about 1781, defeated the Kalhora sovereign, Abdūl Nabi Khān; and several tombs, presumed to have been raised to the memory of some chiefs who fell in this action, mark the spot at the present day.

**Humaiyun** (or **Humao**), a Government village in the Shikārpur talūka of the Sukkur and Shikārpur Division, distant 13 miles north-west of Shikārpur, with which town, as also with Jacobabad, Mian Saheb and Jagan it has road communication. It is the head-quarter station of a Tapadār, and has police lines for 20 men, a district bangalow and musāfirkhāna. The population, numbering in all 1005, consists of 713 Musalmāns of the Saiyad and Sidhaya tribes, and 292 Hindūs. Their chief employments are trade and agriculture.

**Husri**, a Government village in the Hyderabad talūka of the Hyderabad Collectorate, distant 6 miles south-east from the town of Hyderabad. It has road communication with Tando Kaisar, Tāndo Fazal and Hyderabad, and is the head-quarter station of a Tapadār. There are police lines for 6 men. The population, numbering 959 souls, comprises 620 Hindūs, mostly Lohānos, the remaining 339 being Muhammadans, chiefly Panwhars. Their principal employment is agriculture and trade.

**Hyderabad Collectorate**, a large district of the Province of Sind lying between the 24th and 27th parallels of north latitude, and the 68th and 70th meridians of east longitude. It is bounded on the north by the territory of his Highness Mir Ali Murād Khān Talpur; on the east by the Thar and Pārkar Political Superintendency; on the south by this latter district and the Kori river, and on the west by the river Indus and a portion of the Karāchi Collectorate. Its greatest length from north to south is 216 miles, with a breadth from east to west of 48 miles, the entire area being estimated by the Survey Department at 9218 square miles. It is divided into three Deputy Collectorates, and one distinct talūka (that of Hyderabad), as shown in the following table:—

Divisions.	Area in Sq. Miles.	Number of Dehs.	Population.
1. Naushahro . . . .	3,067	300	219,596
2. Hālā . . . . .	2,558	231	216,139
3. Tanda . . . . .	3,177	410	189,931
4. Hyderabad Talūka .	416	59	98,217
Total . . . . .	9,218	1000	723,883

The general aspect of this large district is that of an extensive alluvial plain, broken only by a small limestone range known as the Gānja hills. This range is situate in the Hyderabad talūka, and runs nearly due north and south, parallel to the river for about 13 miles. There are two small conical hills in the Tanda Deputy Collectorate close to the Indus and immediately opposite the Jerruck range. That part of the Hyderabad Collectorate bordering on the Indus is lined with forests, which to some extent break the otherwise monotonous landscape. The greater part of the land in the northernmost division of this district, that of Naushahro, is very fertile, but out of the limit of irrigation all is desert. This is the case also with the Hālā and Tanda divisions, where towards the east there is much sandy and unprofitable land. In the Tanda division, to the south and east, are extensive salt-plains, varied only by a few sand-hills on the Thar and Pārkar boundary. In the Hyderabad talūka, owing to its intersection by the Fulēli and to the presence of the small limestone range of hills previously mentioned, there is perhaps more diversity of landscape than is to be found in any other part of this extensive district.

Like other Collectorates in Sind, the chief revenue and magisterial authority is vested in a Collector and Magistrate, assisted by the Deputy Collectors and Magistrates of divisions of districts and by the Hūzur Deputy Collector, who is permanently stationed at the city of Hyderabad. There is also a District and Sessions Judge, who not only holds sessions at the towns of Hyderabad, Sakrand, Hālā, and Muhammad Khān's Tanda several times in the year, but at Umakot in the Thar and Pārkar Political Superintendency as well once a year. For the proper supervision of the different canal divisions, there are several executive engineers of the Public Works Department, with assistants and suitable establishments. The northern half of the Collectorate is included in the Rohri canal division, the canals in the southern half making up the Fulēli division, while those in the Nārā valley of this

district are included in what is called the Eastern Nārā division. There was also a Local Funds Engineer, who had to carry out works of local utility throughout the Collectorate, but this appointment has lately been abolished. The police force of the Hyderabad district, which is under the charge of a European District Superintendent, with his head-quarters at Hyderabad, comprises mounted, armed and unarmed foot police, and town and district municipal police, as shown in the following table :—

	Inspectors	Chief Constables.	Head Constables.	Constables.	Horse Police	Camel Police.	Total.
District Police	3	16	24	140	116	37	336
Town Police .	1	...	29	137	...	...	167
Armed Foot Police . }	...	3	36	240	...	...	279
Municipal Police . }	.	..	...	94	...	..	94
Total .	4	19	89	611	116	37	876

Taking 876 as the total number of the police in the Hyderabad Collectorate, this will give one policeman to every eleven square miles of area, and to every 824 of the population.

The entire revenue of the Hyderabad Collectorate, considered under the heads of imperial and local, is mostly derived from the land, but it has not shown that large and progressive increase which has characterized other districts in Sind. This remark will be borne out by observing the average *net* land revenue for three successive periods of time, each of six years, as follows :—

For Six Years, from 1856-57 to 1861-62.	For Six Years, from 1862-63 to 1867-68.	For Six Years, from 1868-69 to 1873-74.
rupees. 10,75,061	rupees, 10,66,709	rupees. 11,16,556

As regards Abkārī revenue, it may here be mentioned that the Government distilleries at Hyderabad and Kandiāro were both suppressed in 1863, since which all farms for the sale of liquor are sold by auction annually to the highest bidder. The following

table will serve to illustrate the Abkārī system as in vogue at the town of Hyderabad from the year 1856-57 down to 1873-74:—

Year.	Net Land Revenue.	Liquor Shops farmed.			European Liquor Licences.		Drug Revenue.	
		Farmers' Stills.	Farmers' Shops.	Receipts from Farms.	No of Shops	Receipts	Shops.	Revenue.
	rupees			rupees				rupees
1856-57	11,63,374	20	158	31,260	1	15	213	16,189
1857-58	12,75,004	21	175	29,679	2	30	229	14,906
1858-59	10,09,868	21	163	37,261	2	30	220	16,220
1859-60	10,36,925	21	170	41,176	2	80	246	20,377
1860-61	9,61,427	21	149	58,182	2	75	213	39,273
1861-62	11,47,184	21	118	51,962	2	50	233	44,460
1862-63	12,45,915	21	137	44,894	2	50	279	47,274
1863-64	11,17,685	20	139	40,848	3	150	274	42,026
1864-65	10,63,241	13	139	59,037	3	86	352	46,461
1865-66	8,75,141	6	141	45,700	2	50	381	47,839
1866-67	9,35,871	8	137	65,505	6	455	352	53,259
1867-68	10,70,664	4	141	73,320	6	450	293	47,992
1868-69	10,84,782	4	144	88,190	6	450	181	22,490
1869-70	11,21,241	5	144	83,915	6	600	178	22,230
1870-71	11,42,921	3	143	80,850	6	600	180	20,280
1871-72	11,29,694	3	146	73,952	7	650	180	43,760
1872-73	11,60,119	6	146	90,763	6	600	180	52,936
1873-74	10,60,581	8	146	96,400	6	600	180	53,043

The imperial and local revenues of the Hyderabad Collectorate for the past ten years, ending with 1873-74, are as follows:—

	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.
Imperial . .	rupees 13,71,123	rupees. 11,37,166	rupees. 12,66,141	rupees. 14,18,609	rupees. 14,68,921
Local . .	..	..	1,03,264	1,20,534	1,21,046

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . .	rupees. 15,44,169	rupees. 16,09,803	rupees. 15,48,448	rupees. 15,67,694	rupees. 14,49,443
Local . .	1,20,285	1,28,550	1,43,353	1,24,490	1,24,340

The Local Fund revenue is made up from three taxes (legalised under Act VIII. of 1865); these are—1, the one-anna cess; 2, the three-per-cent. jāgir cess for roads; and 3, the two-per-cent. jāgir cess for schools. Other sources of revenue under this head

are fisheries, cattle pound and ferry funds, travellers' bungalow fees, &c.

The canal revenue and cost of clearance in this Collectorate are items of considerable importance, the latter especially, as being one of a very expensive nature, owing to the large number of canals in this part of the province. The revenue derived from the canals and their cost of clearance during the past ten years, ending 1873-74, are as below :—

	1864-65.	1865-66.	1866-67	1867-68	1868-69.
Revenue . .	rupees. 9,35,726	rupees. 9,34,233	rupees. 9,89,132	rupees 9,76,790	rupees. 9,88,862
Cost of clear- ance . . }	2,36,786	2,59,547	2,13,532	2,39,007	1,96,243
	1869-70.	1870-71.	1871-72.	1872-73.	1873-74
Revenue . .	rupees. 9,91,587	rupees. 10,19,002	rupees. 10,01,321	rupees. 10,45,144	rupees. 9,58,506
Cost of clear- ance . . }	2,34,815	2,67,317	1,53,264	1,90,599	2,17,478

The forests in this Collectorate are 32 in number, and have an aggregate area of 183 square miles. They skirt the Indus from the Naushahro Deputy Collectorate down to the Tanda district; many of them are of large size, especially in the Naushahro division, those of Bhanwar, Bhorti, Khaira-dero, and Māri being each above 10,000 acres in area. The number of forests in each of the Deputy Collectorates, with other information connected with them, are shown in the subjoined table:—



Division.	Name of Forest	Area.	Revenue in 1873-74.	
Hyderabad Talūka.	Naushahro.	1. Mohbat-dēro . . . . .	75,269	61,482
		2. Bhanwar . . . . .		
		3. Sāmtia . . . . .		
		4. Kamāl-dēro . . . . .		
		5. Bhorti . . . . .		
		6. Dalipota . . . . .		
		7. Khāra-dēro . . . . .		
		8. Lalia . . . . .		
		9. Mār . . . . .		
		10. Mahiābpur . . . . .		
		11. Madd . . . . .		
	Hālā.	12. Nāsri . . . . .	24,764	30,660
		13. Kēti . . . . .		
		14. Jakhri . . . . .		
		15. Matāri . . . . .		
		16. Sekhāt . . . . .		
		17. Khēbrāni . . . . .		
		18. Khānot . . . . .		
		19. Rāno . . . . .		
		20. Nūrkēti . . . . .		
		21. Bhānot . . . . .		
		22. Kēti . . . . .		
	Tanda.	23. Khatro . . . . .	4,923	11,653
		24. Kātyār . . . . .		
		25. Tikhūr . . . . .		
		26. Khokhar . . . . .		
		27. Khirduhi . . . . .		
		28. Meeanee . . . . .		
		29. Kāthri . . . . .		
		30. Ghaliūn . . . . .		
		31. Khathar . . . . .		
	32. Husri . . . . .	12,070	18,370	

EDUCATION.—Though education has made considerable progress in the Hyderabad district, it is not thought to stand out so favourably in this respect as the Shikārpur Collectorate. The introduction of the Hindu-Sindi character into the Government schools is expected to increase the attendance of the children of the Banya classes, but time and experience must show whether this new character will become popular among them. The number of pupils attending schools in which this character is taught is now upwards of 600. Female education is spreading, though slowly, the greater number of the girls' schools being found in the chief town of the Collectorate. Little seems to be known of the private indigenous schools existing throughout the district, but it is well known that the instruction afforded in the vernacular schools of this class is very poor. In the town of Hyderabad is a well-conducted school belonging to the Church Missionary

Society; it has upwards of 100 pupils, who are taught up to matriculation standard. The following tabular statement gives the number of Government schools (and pupils) of various grades in this Collectorate during the six years ending 1873-74 (*see p. 233*).

The total number of private-aided schools throughout the Collectorate in 1873-74 was six, with 622 pupils.

There is but little to be said of the history of the Hyderabad Collectorate apart from the history of the entire province with which it is so closely mixed up. Much interest must necessarily attach to this part of Sind, in which was situate the town that was for so many years the capital of the country under the Kalhora and Talpur dynasties. It was the scene of the gallant defence of the British Residency in 1843, and in it, on the battle-fields of Meeanee and Dabo, was decided in that same year the fate of the province. The Collectorate has at various times undergone several changes in its area and boundaries. (From the date of the conquest the Umarnot district, incorporated in what was then known as the Mirpur Deputy Collectorate, formed a part of the Hyderabad Collectorate, but from 1859-60 it was detached and made over to the Thar and Pārkar Political Superintendency. In 1851-52 certain possessions of his Highness Mir Ali Murād of Khairpur were confiscated by the Government of India, and among these were the parganas of Kandiāro and Naushahro, which by these means became an integral part of the Hyderabad district. Formerly a large tract of country comprising the east delta (now a part of the Shāhbandar Deputy Collectorate) was included in the Hyderabad district, but this was transferred to Karāchi in 1861, from which year down to the present time no further changes appear to have been made in either its boundaries or area.)

Description of School.	1868-69.		1869-70.		1870-71.		1871-72.		1872-73.		1873-74.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
High School . . . . .	1	101	1	113	1	93	1	92	1	116	1	128
Normal School . . . . .	1	23	1	23	1	25	1	20	1	17	1	25
Engineering School. . . . .	...	...	...	...	..	...	1	23	1	14	1	9
Anglo-Vernacular Schools—1st Grade . . . . . }	1	182	1	163	1	152	1	157	1	136	1	146
Ditto, 2nd Grade. . . . .	3	160	3	105	4	239	3	117	2	119	2	222
Vernacular Schools . . . . .	15	889	33	1,678	47	2,359	58	2,916	48	2,438	48	2,688
Total Boys' Schools . .	21	1,355	39	2,082	54	2,868	65	3,325	54	2,840	55	3,227
Girls' Schools. . . . .	10	262	13	349	14	362	14	369	13	403	12	368
Grand Total . . . . .	31	1,617	52	2,431	68	3,230	79	3,694	67	3,243	67	3,595

**Hyderabad**, a talūka of the Collectorate of the same name ; it is bounded on the north by the Hālā talūka of the Hālā division ; on the west by the river Indus ; on the south by the Gūni talūka of the Tanda district, and on the east by the Alahyar-jo-Tando talūka of the Hālā Deputy Collectorate. The entire area of this talūka is 416 square miles, and it has 7 tapas and 59 villages. Its population, according to the census of 1872, is 98,217, including the city of Hyderabad, or about 236 souls to the square mile, as shown in the statement below :—

Talūka.	Area in Sq. Miles	Tapas.	Number of Villages.	Population.	Chief Towns.
Hyderabad .	416	1. Hatri . . . . 2. Gūndar . . . . 3. Husri . . . . 4. Khathar . . . . 5. Bhindo . . . . 6. Kāthri . . . . 7. Fazal-jo-Tando)	59	98,217	Hyderabad, Jam-jo-Tando, Kāsar-jo-Tando, Khatān, Gidu-Bandar, Husri.
	416		59	98,217	

The total area of this talūka is 266,240 acres, of which 34,988 are cultivated, 43,068 are cultivable, and 188,184 are unarable.

**GENERAL ASPECT.**—The appearance of this otherwise flat district is somewhat diversified by a range of limestone hills (the Gānja) extending in length nearly due north and south for about 13 miles, the southern portion terminating in the north-western part of the Tanda division. This range has an average altitude of not more than one hundred feet. In that part of the talūka bordering on the river Indus, there are some fine Government forests, one at Meeanee being of very considerable extent. The level portion of this district is intersected by numerous canals having large trees growing on either bank, and as there is much garden land scattered about the talūka, this portion of the Hyderabad Collectorate has a pleasing appearance when viewed from any height, such, for instance, as from the fort of the city of Hyderabad.

**HYDROGRAPHY.**—The canal system of this district is extensive, there being not less than 43 Government canals, large and small, which serve to irrigate it. Of these 7 are main feeders, the remainder being simply offshoots or branches from one or other of them. There is no zamindāri canal of any consequence. The

following is a list of the Government canals of this talūka with their average revenue and cost of clearance for a fixed period, together with other useful information connected with them :—

Name of Canal.	Length.	Width of Mouth.	Average Annual Cost of Clearance for 5 years ending 1873-74.	Average Annual Revenue for 5 years ending 1873-74.	Remarks.
1. Sarafīāz wāh . . .	miles. ...	feet. .	rupees (See under Tanda Division, No. 83.)	rupees.	This canal properly belongs to the Hālā and Tanda divisions, and merely passes through this talūka.
2. Lākhīrwāh . . .	4½	9	182	1,802	Taps Indus near Ghālūn village.
3. Fulēli (old) . . .	35	140	4,165	12,843	Ditto.
4. Fulēli (new) . . .	3	60	103	295	Taps Indus near village of Jam Shoro.
5. Wādhōwāh . . .	5	6	928	1,718	A branch of the new Fulēli.
6. Fasādīwāh . . .	3	7	560	832	Ditto.
7. Sangatwāh . . .	2	8	317	665	Ditto.
8. Kamāl wāh . . .	5	7	454	975	Branch of the old Fulēli.
9. Imām wāh Khokhar . . .	16	14	3,741	5,417	Ditto.
10. Nuīwāh . . .	13	15	2,009	4,816	Takes its rise from the old Fulēli, at village of Narēja, and waters the Bhūndo tapa.
11. Sind (small) . . .	2	8	225	3,551	Branch of the Nurwāh.
12. Vahandri . . .	4	9	179	1,875	Branch of the Sind (small).
13. Lūndo . . .	4	8	279	968	Ditto.
14. Sihoro . . .	5	7	429	2,038	Ditto.
15. Sind (large) . . .	13	14	1,591	4,061	Branch of the old Fulēli ; waters the Hūsri tapa.
16. Bahāwal wāh . . .	1½	6	118	618	Branch of the Sind (large).
17. Khairwāh . . .	2	7	103	1,056	Ditto.
18. Karamwāh . . .	feet. 4000 miles.	6	22	686	Ditto.
19. Morīwāh . . .	3	7	128	1,660	Ditto.
20. Nasirwāh . . .	2	4	107	666	Ditto.
21. Ashahadwāh . . .	2	6	782	200	Branch of the Fulēli.
22. Imām wāh Hūsri . . .	9	11	1,093	3,369	Ditto.
23. Khairwāh Jāgur . . .	1½	5	121	500	Branch of the Imām wāh Hūsri.
24. Kario Kāsum . . .	2	7	119	1,084	Ditto.
25. Bāgwāh . . .	5	6	240	1,844	Ditto.
26. Alibaharwāh . . .	1	5	57	498	Ditto.
27. Hūsriwāh . . .	4	7	237	1,719	Ditto.
28. Adowāh . . .	1	5	38	852	Ditto.
29. Bandiwāh . . .	feet. 2200 miles.	6	27	109	Branch of the old Fulēli.
30. Khairwāh Khatthar . . .	3	7	662	1,353	{Branch of the Imām wāh Hūsri.

Name of Canal	Length.	Width of Mouth.	Average Annual Cost of Clearance for 5 years ending 1873-74.	Average Annual Revenue for 5 years ending 1873-74.	Remarks.
31. Mirwāh Khathar	miles. 2 feet	feet. 7	rupees. 164	rupees. 550	Branch of the old Fulēh.
32. Chhandanwāh .	3600	4	7	72	Ditto.
33. Fuleh Gūndar- wāh . . . . .	miles. 1	4	...	57	Ditto.
34. Baghār-wāh . .	2	7	152	876	Ditto.
35. Faridwāh . . .	feet. 3000	5	25	21	Ditto.
36. Chhandan Dara	miles. 1	12	366	103	Taps Indus near village of Hāji Bhara.
37. . . . . angan Khādi .	7	11	618	1,739	Branch of the Chhandanwāh
38. Kāsgwāh . . . .	6	4	225	1,174	Ditto.
39. Jinduwāh . . . .	2½	4	97	443	Ditto.
40. Ali Thahimwāh .	2	4	31	284	Ditto.
41. Shaitānwāh . . .	¾	6	40	113	Ditto.
42. Hazār-wāh . . . .	2	4	46	521	Ditto.
43. Kāfiwāh . . . . .	¾	4	47	284	Branch of the new Fulēh.

These canals are supervised by the executive engineer in charge of the Fulēh division, who has under him one canal surveyor and one daroga, a sazwalkār (or sub-overseer) and thirteen *maistris* are also employed during a portion of the year. The annual clearance of the canals is attended to jointly by his department and by the revenue authorities of the district. There are no floods in this talūka excepting where the river, during the inundation season, overflows the low-lying lands of the two *dehs* Seri and Jām Shoro. There is a large *dhandh* lying between the villages of Adam Khān and Tando Fazal, which is supplied with water from the Nurwāh canal and its branch, the Sind (small).

CLIMATE.—The climate of the Hyderabad talūka is not unlike that of other parts of Central Sind. The natives consider the year to be divided into four distinct seasons, as follows: 1, Spring, lasting from February to March; 2, Summer, from April to July; 3, Autumn, from August to October; and, 4, Winter, from November to January; but these may very reasonably be resolved into two seasons only—the hot and cold, the one often succeeding the other so suddenly as to make any intermediate distinctive season a matter of impossibility. During the cold season the air is excessively dry, with the wind blowing generally from the north-

east. The temperature in winter is often so low as to allow of water being frozen in a night, and yet on the following afternoon the thermometer may show a temperature of quite  $75^{\circ}$ . In this way frost-bite and sun-stroke may—as observed by Dr. Holmsted, the Civil Surgeon of Hyderabad—occur on one and the same day. The heat at times during the summer months is also excessive, the mean *maximum* of the temperature of the atmosphere at the city of Hyderabad during the six hottest months of the year being about  $98^{\circ}$  in the shade. The average monthly temperature, as observed at that station, is shown in the following table, from which it will be seen that the mean yearly temperature is  $80^{\circ}$  :—

Month.	Temp.	Month.	Temp.
January . . . . .	64°	July . . . . .	90°
February . . . . .	71	August . . . . .	88
March . . . . .	81	September . . . . .	85
April . . . . .	87	October . . . . .	82
May . . . . .	91	November . . . . .	73
June . . . . .	92	December . . . . .	66

RAINFALL.—The average annual rainfall in this district for the past ten years, ending with 1874, may be set down at 6·76 inches, but the actual fall is very fluctuating. The following is the monthly return kept at the city of Hyderabad for a period of seven years, ending with 1874 :—

Month.	1868.	1869.	1870.	1871.	1872.	1873	1874	Remarks.
January . . . . .	..	1'49	..	..	..	'33	'29	No rainfall recorded before the year 1865 ; the fall in 1869 may be considered as exceptional.
February . . . . .	'35	'77	..	'56	..	..	'39	
March . . . . .	'14	'68	..	..	..	..	..	
April . . . . .	..	'34	..	..	..	..	..	
May . . . . .	..	..	..	'10	..	..	..	
June . . . . .	..	1'93	1'95	..	..	'17	..	
July . . . . .	'02	9'71	..	1'80	6'05	'34	3'98	
August . . . . .	'80	1'08	'62	'49	1'56	2'13	5'16	
September . . . . .	'56	4'23	..	..	1'20	..	..	
October . . . . .	..	..	..	..	..	..	..	
November . . . . .	..	..	..	'58	..	..	..	
December . . . . .	..	..	..	..	..	'18	..	
Yearly rain- fall . . . . .	1'87	20'23	2'57	3'53	8'81	3'15	9'82	

The prevailing winds in this district are northerly from November to March, and during the remainder of the year are mostly from

the south. At times—and especially during the month of May—the hot and fiery wind of the Desert is felt, accompanied with sand storms. Fogs are not frequent except in the months of October and November.

**SOILS.**—The prevailing soils in this part of the Hyderabad Collectorate are much the same as those met with in the adjoining Deputy Collectorates of Muhammad Khān's Tanda and Hālā. The only difference there may be is in the local names given for these soils. Thus Gisar (or Gasar) is a rich soil, clay largely predominating; Kohori is a black soil, with a slight admixture of sand; Ropura is a gravelly soil, and Miti, one in which chalk is abundant; Kalrāthi and Shor are salty soils, and Kalar a salt earth; Wāriāsi is a sandy soil, and Loho and Chikan are soils found in marshy lands. By far the richest and finest portion of this talūka is that lying between the Indus and the Fulēli rivers, which is capable of being irrigated to any extent, but the soil deteriorates the farther it is removed from the fertilizing influence of these streams. Among the mineral productions of this district may be mentioned "*mēt*," a kind of fuller's earth, which is dug from mines in the Gānja hills near Hyderabad; it is used extensively by the natives as soap. The right of producing this article is farmed out by Government, and brings in an annual revenue of about 4500 rupees.

**ANIMALS.**—The wild animals in this district are wolves, foxes, jackals, deer, and hog; of birds there are the falcon, crow, "tilur" (or bustard), partridge (black and grey), snipe, and several kinds of duck. Among reptiles, snakes and scorpions are very common. The domestic animals comprise the camel, horse, mule, ass, ox, buffalo, goat, and sheep. Poultry are common all over the district.

**VEGETABLE PRODUCTIONS.**—Juar, bājri, wheat, barley, rice, several pulses and oil-seeds are among the chief vegetable productions of the Hyderabad talūka. Sugar-cane, cotton, tobacco, and hemp are also cultivated. The fruits are mangoes, oranges, limes, apples, dates, figs, grapes, pomegranates, water-melons, and some others. Gardens are indeed very numerous in this talūka, but their cultivation is confined mostly to the banks of the Fulēli canal. Of timber trees peculiar to this district, the chief is the Bābul (Sindi *Babar*), which is extensively grown in the large forests bordering on the river Indus; other trees are the Bhar, Pipal, Nim, and a few others. The Government forests in the Hyderabad talūka are five in number, and their area and revenue are shown in the following return:—



Forests.	Area in English Acres.	Revenue in 1873-74	Remarks.
		rupees.	
1. Meeanee .	4,917	13,672	Planted in 1819 by the Mirs of Sind.
2. Kāthri .	756	625	" 1810 " "
3. Ghalūn .	3,041	1,672	" 1812 " "
4. Khathar .	2935	1,717	" 1790 " "
5. Husri .	421	684	" 1832 " "
Total .	12,070	18,370	

The management of these forests lies with the Sind Forest Department, and the revenue from them is derived principally from cultivation within forest limits, grazing fees, building and fire-wood, bābul pods, and mangoes.

FISHERIES.—The principal fisheries in this district are found, not only on the Indus, but also in the Fulēli and in several kolābs. The proceeds from them are derived mostly from the catch of the "Pala" fish, found in the Indus only, which is taken in large quantities, and forms an important article of food for the inhabitants during a portion of the year. Other fish are the *dambkro*, *jerkho*, &c., but the revenue from them is small and but of little account. The following table will show the names of the different fisheries in the talūka with the revenue drawn by Government from each :—

Name of Fishery.	Revenue derived by Government.
	rupees
1. Bādā . . . . .	798
2. Sīpki . . . . .	8,937
3. Kāro Khāho . . . . .	
Total . . . . .	9,735

POPULATION.—The entire population of the Hyderabad talūka, according to the census of 1872, is 98,217, of whom 65,627 are Muhammadans, 27,304 Hindūs, and 4454 Sikhs, the remainder comprising Europeans, Indo-Europeans, Parsis, Goanese, &c. This number includes the military force stationed at Hyderabad, which consists of a battery of Royal Artillery, a detachment of the English regiment of foot stationed at Karāchi, a native regiment of Balochis, and some men in the Ordnance Department, numbering between 1200 and 1300 officers and men, or with their families and followers, 1906 persons in all.

There are thus 236 souls to the square mile in this talūka, but this apparently large proportion for Sind is due to the fact of the city of Hyderabad, the largest town in the Collectorate, being included within the limits of this district. The Muhammadan portion of the community, who are mostly of the Sūni sect, may be classed as follows :—

MUHAMMADANS.			
Tribes.	Number.	Sub-divisions.	Remarks.
1. Balochis . .	9,939	Bhūgti, Chang, Jakrāni, Jaloi, Khoso, Laghāri, Mori, Magsi, Gopang, Nizamāni, Mashori, Nath-Koni, Rind, and Talpur.	This tribe is said originally to have come from Aleppo in Syria. The Rind sub-tribe holds the first place among them
2. Brahūis . .	136		
3. Mogals . .	927		
4. Pathāns . .	449		
5. Memon and Khwājas. )	1,402		
6. Sindis . .	46,361		
7. Saiyads . .	2,322		
8. Miscellaneous	2,955	Bokhāri, Matāri, Shirāzi, Lekhirayi.	Some of these are land-owners and extensive cultivators. They are said originally to have come from Arabia and Persia about 700 years ago.
Total . .	64,578		
HINDŪS.			
1. Brahmans . .	1,198	Pokarna, Sarsūdh.	
2. Khétrias . .	120		
3. Waishia . .	20,861	Lohāno.	
4. Sudras . .	4,540		
5. Miscellaneous	163	Sochi, Kachhi, Bhil.	
Total . .	26,882		

These tables do not include the cantonment population, numbering 1936 persons, of whom 1049 are Musalmāns, 422 Hindūs, 444 Christians, and 21 Budhists and others. There are also in the talūka 4454 Sikhs and Nanik Panthis. The character, dress, food, habitations, and language of the inhabitants of this talūka

differ in no material respect from what is observed in the neighbouring divisions of the Tanda and Hālā.

The Muhammadan is here, as elsewhere in Sind, readily distinguished from the Hindū by his superior *physique*; but, on the other hand, he is the lazier of the two, with little or no business habits, and very improvident. Both classes indulge in the habit of drinking a preparation of bhang, mostly at night; the Hindūs are also addicted to drinking a spirit made from bābul bark and jāgri. *Charas* is also smoked to some extent, and opium-eating is not unfrequently practised. The chief prevailing crimes in this district are cattle-stealing, other kinds of theft, and burglary. The following are statistical returns of the amount of crime and litigation for the four years ending 1874, but it must be borne in mind that this talūka includes the large town of Hyderabad, so far as the criminal and No. I. civil returns are concerned. The civil return No. II. is confined exclusively to the talūka, excepting the town of Hyderabad, and includes the cases tried by the judge of the Subordinate Civil Court of Muhammad Khān's Tanda :—

## CRIMINAL.

Year.	Murders	Hurts, Assaults, and use of Criminal Force.	Thefts.		Receiving Stolen Property.	House-breaking.	Highway Robbery.	Other Offences.
			Cattle.	Others.				
1871	1	237	83	241	27	62	..	676
1872	2	454	43	168	21	56	1	633
1873	..	333	54	166	11	35	.	1005
1874	1	408	55	114	14	55	3	1314

## CIVIL.—I.

Year.	Suits for Land.		Suits for Money.		Other Suits.		Total.	
	Number.	Value.	Number	Value.	Number.	Value.	Number.	Value.
1871	14	rupees. 1707	1163	rupees. 84,236	2	rupees. 135	1179	86,078
1872	6	1875	1186	91,694	7	582	1199	94,151
1873	11	957	1148	73,369	4	5121	1163	79,447
1874	9	3330	1367	1,08,412	6	680	1382	1,12,422

## CIVIL.—II.

Year.	Suits for Land.		Suits for Money.		Other Suits		Total.	
	Number	Value.	Number.	Value	Number.	Value	Number	Value.
1872	1	rupees 656	225	rupees. 26,229	3	rupees 390	229	rupees. 27,275
1873	1	85	230	26,307	1	184	232	26,176
1874	6	1030	234	32,304	..	..	240	33,334

ADMINISTRATION.—The revenue and magisterial charge of this talūka is vested in a Deputy Collector and Magistrate, with the usual office establishment; under him is a Mūkhtyārkar, seven Tapadārs, and two cattle-pound Mūnshis. The Hūzūr Deputy Collector and Magistrate of Hyderabad, who is permanently located at that town, takes cognisance, in addition to his account duties, and according to the magisterial duties conferred upon him, of such criminal cases as may be sent to him by the divisional magistrate of the talūka, while those taking place in the cantonments are attended to by a military judicial officer known as the Cantonment Magistrate. Civil cases in the talūka come under the jurisdiction of the judge of the Subordinate Civil Court of Muhammad Khān's Tanda, but those in the city of Hyderabad under the Subordinate Judge of the Civil Court there.

The police employed in the Hyderabad talūka, not including the city of Hyderabad, number in all 72 men, who are distributed about the districts in 15 thānas. Of these 32 are mounted on either horses or camels, 36 are armed and unarmed foot police, and 4 belong to the town police. The armed and unarmed foot police in the town of Hyderabad number 333.

REVENUE.—The revenue of the Hyderabad talūka, imperial and local, is shown separately for the past five years, ending 1873-74, in the following returns :—

## I. IMPERIAL REVENUE.

Items	Realisations in				
	1869-70.	1870-71	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees
Land Tax . . .	73,610	70,192	70,933	87,190	80,377
Abkāri . . .	55,325	45,703	46,847	54,728	63,229
Drugs and } Opium . . . }	9,000	20,955	8,500	9,500	10,534
Stamps . . .	33,399	37,243	38,789	44,586	37,565
Salt . . .	4,546	4,025	2,023	3,480	3,577
Registration } Department }	14	11	2,441	2,456	2,408
Postal do. . .	47	1	1	..	11
Telegraph do. .	3,086	2,558	2,665	2,989	2,815
Income (and } Certificate) }	12,418	17,797	11,488	3,711	..
Tax . . .					
Fines and Fees	643	1,074	1,121	765	848
Miscellaneous	99	8	2,156	414	263
Total Rs.	1,92,387	1,99,567	1,96,964	2,09,819	2,01,627.

## II. LOCAL REVENUE.

Items.	Realisations in				
	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees	rupees	rupees.	rupees.	rupees
Cesses on Land and Sayer } Revenue . . . }	9,108	9,390	8,619	10,371	4,891
Percentage on alienated } Lands . . . }	142	115	270	223	265
Cattle Pound and Ferry } Funds . . . }	3,130	2,769	3,882	2,907	5,101
Fisherics . . . . .	9,185	8,185	9,322	8,003	9,063
Fees and Licences . . .				2,339	858
Tolls . . . . .		..		..	
Total Rs.	21,565	20,459	22,093	23,843	20,178

In the matter of Abkāri revenue it is necessary here to mention that the Government distillery at Hyderabad was suppressed in 1863, since which period licences to manufacture spirits are sold annually under the orders of the Collector of the district, according to the provisions laid down in Act III. of 1852. There are three cattle pounds in the talūka, one at Hyderabad, another at Kaisar-jo-Tando, and the third at Khathar.

SURVEY AND SETTLEMENT.—the topographical survey of this district was taken in hand in 1856 and completed in 1858. The new settlement has been introduced into this district, and the following are the rates now in force :—

When introduced and for what period.	Class of Deh.	Maximum rates per acre on			Remarks.
		Mok.	Inundat on wheel.	Sailabi.	
In 1872-73 for ten years.	I.	r a. 2 12	r a. 1 4	r a. 3 8	Eight villages (of which 7 are Jāgir) still remain unsettled; average per acre on assessed cultivable land is 14a 7p.
	II.	2 8	1 2	3	
	III.	2	1	2 8	
	IV.	1 12	14	2	

The former rates obtaining in the talūka varied considerably in different parts of it. For ordinary *mok* land the rates ranged from 8 annas to 1 rupee *per jireb*; for rice land, 1 rupee to 1½ rupee *per jireb*; "charkhi," or inundation-wheel land, was assessed at from 17 to 30 rupees per wheel, or say about 3 rupees per acre, of actual cultivation.

TENURES.—The tenure prevailing in this district, as in other parts of Sind, is the Zamindāri which will be found fully explained in the introductory portion of this work (Chap. IV. page 79, *et seq.*).

JĀGIRS.—There are in this talūka about 50 individuals of different classes who possess land in jāgir, amounting in the aggregate to 63,902 acres, of which about 62,506 acres consist of cultivable land, the whole paying to Government an annual revenue of 4404 rupees. There is thus quite *one-fourth* of the entire area of this district held in jāgir, one of the largest of these holders being Mir Muhammad Khān Khanāni, who possesses 28,353 acres, cultivable and unarable, in several villages of this Division. The following is a list of the Jāgirdārs in this district, with the area of land held by each and the amount of annual revenue paid to Government :—

No.	Name of Jāgirdār.	Class.	Village	Cultivable Land.	Unarable Land.	Yearly Revenue paid to Government
				acres. g.	acres. g.	rup a.
1	Dero of Mīr Muhammad Khān Shahdadāni . . . .	1	Seri . . . .	266 32	..	21 1
2	Mīr Shah Nawar Khān . . . .	1	do. . . . .	81 23	..	5 3
3	Mīr Husain Ali Khān . . . .	1	do. . . . .	236 27	..	...
4	Mīr Ghulam Husain Talpur . . . .	1	do. . . . .	188 8	4 36	19 10
5	Mīr Jan Muhammad Talpur . . . .	1	Mori, Bhindo . . . .	999 18	69 26	166 13
6	Mīr Budho Khān . . . . .	1	Norai . . . . .	238 8	6 36	20
7	Mīr Ali Murad Khān . . . . .	1	{ Norai, Lyar, Fazal Talpur } . . . . .	18,246 26	219	1000
8	Mīr Muhammad Khān Khanāni . . . . .	1	{ Hotki, Kurar Lasa Haki, Dali, Rahuki, &c. . . . . }	27,853 12	500	1102 2
9	Mīr Ahmad Khān Talpur Khanāni . . . . .	1	Abri . . . . .	1550 21	60	215 10
10	Jam Murad Ali Jokhio . . . . .	1	Bhindo, Mori. { Ghotāno, Chuke Takio } . . . . .	2760	68 5	323 8
11	Mīr Ghulam Ali Khān . . . . .	2	{ Juvanshap } . . . . .	3935 20	128 26	526 5
12	Shah Muhammad Nizamāni . . . . .	2	Norai . . . . .	275 20	8 24	43 5
13	Ali Bakhsh and Ahmad Khān Nizamāni . . . . .	2	Bindo . . . . .	667 24	12 2	107 12
14	Ali Muhammad Laghāri . . . . .	2	Bhiapur . . . . .	28 21	16 20	..
15	Dātu Jamāli . . . . .	2	Gundar . . . . .	344 34	32	57 2
16	Dilshād Burgri . . . . .	2	Buchiki . . . . .	226 26	7 25	55 10
17	Fateh Khān Burgri . . . . .	2	do. . . . .	264 30	22 9	56
18	Muhammad Husain Burgri . . . . .	2	Barchāni . . . . .	640 26	14	83 8
19	Ghulam Haidar Khatian . . . . .	2	Sipaki . . . . .	449 30	37 37	46 15
20	Ali Murād Khudah Bakhsh and Palio . . . . .	3	{ Gul Muham- mad } . . . . .	219 19	3 2	.8 12
21	Sabzul and Masu Burgri . . . . .	3	do. . . . .	173 1	9 15	16 14
22	Isan Khān Laghāri . . . . .	3	Barchāni . . . . .	156 12	11 18	26 10
23	Karam Ali Laghāri . . . . .	3	do. . . . .	8 17	6	..
24	Bahadur Burgri . . . . .	3	BakhshoLaghāri . . . . .	29 21	3 11	8 3
25	Alah Bakhsh Burgri . . . . .	3	do. . . . .	33 28	3 17	5 10
26	Khio Burgri . . . . .	3	do. . . . .	47 31	5 32	10 11
27	Jehan Khān Talpur . . . . .	4	Husain Khān . . . . .	281 12	14 34	27 8
28	Kam Khān and Ghulam Muhammad . . . . .	4	Ghotāno . . . . .	747 25	53 36	185 6
29	Alun Khān Nizamāni . . . . .	4	Bhindo . . . . .	321 27	11 14	63 5
30	Fauzul Muhammad . . . . .	4	do. . . . .	80 11	8	9 6
31	Daria Khān . . . . .	4	do. . . . .	148 36	7 14	26 8
32	Wali Muhammad Khokhar . . . . .	4	do. . . . .	15 20	1 9	..
33	Alahdno Laghāri . . . . .	4	Barchāni . . . . .	92 35	3 17	12 8
34	Karam Khān Laghāri . . . . .	4	do. . . . .	4 33	2	...
35	Sardār Khān Laghāri . . . . .	4	do. . . . .	34 29	21	4 7
36	Husan Khān Laghāri . . . . .	4	do. . . . .	29 3	6 35	16 7
37	Sayad Alah Bakhsh . . . . .	4	do. . . . .	105 14	4 19	18 9
38	Dito and Mehar Ali Chalgrī . . . . .	4	Amilpur . . . . .	85 14	2 14	...
39	Mahmud, Umed, Ali, Ahmad and Muhammad Husain . . . . .	4	{ Bakhsho } . . . . .	98 12	2 10	19 12
40	Fateh Khān Talpur and Bejar Talpur . . . . .	4	do. . . . .	142 3	10 34	34 12
41	Ibrahim Khizmatgār . . . . .	4	{ Mirzapur, Ghaliun, Muradi, Samma and Narēja. } . . . . .	396 7	62 16	57 13

The number of "Serī" grantees throughout this talūka is 47, with grants of land to each ranging from 11 acres to 34 acres, the entire acreage so held being 1140 acres and 26 gūntas, while the "Māfidārs" number 42, with grants of land varying each from a few gūntas to several acres.

MUNICIPALITIES.—There are three municipal institutions in this talūka, but two of them are small and date only from 1873-74. That of Hyderabad will be found treated upon at greater length under HYDERABAD.

Where situate.	When e-ta- blished.	Receipts.			Disbursements.		
		1871-72.	1872-73	1873-74.	1871-72.	1872-73	1873-74
Hyderabad	1853	70,927	71,141	109,135	66,877	70,302	84,959
Adam-jo- Tando.	1873	...	...	403	...	...	82
Kaisar-jo- Tando.	do.	..	..	246	...	...	75

MEDICAL ESTABLISHMENTS.—The only medical establishments in this district which are at or near the city of Hyderabad are a lunatic asylum, situate on the road leading from Hyderabad to Gidū Bandar, and a civil and police hospital, as also a charitable dispensary, the two latter occupying one and the same building and situate on the western ridge of the hilly plateau on which the town is built. The position is good, and the building contains sufficient accommodation for 40 patients. A portion of the expenses of the charitable dispensary is defrayed by the municipality. The jail at Hyderabad also possesses a hospital for sick convicts within its walls; but this will be referred to when describing the prisons, &c., in the Hyderabad talūka. All these medical institutions are under the charge of the Civil Surgeon of the station, who is assisted in this duty by a suitable subordinate native establishment. The lunatic asylum comprises several detached buildings erected partly at the expense of a munificent Parsi gentleman, Mr. (now Sir) Kauasji Jehāngir Readymoney, who gave the sum of 50,000 rupees towards this object, the remaining portion (8000 rupees) of the expense being contributed by Government. The following table will show the attendance, &c., of patients at the Hyderabad Charitable Dispensary during the years 1873 and 1874:—



	Total Admissions in		Casualties in		Average Daily Attendance.	
	1873	1874.	1873	1874.	1873.	1874
In-patients . .	975	482	41	28	29	27
Out-patients .	17,465	18,110	..	..	107	118
	18,440	18,592	41	28	136	145

It was during 1869 that the town of Hyderabad was severely visited with cholera, which is thus described by Dr. Holmsted, the civil surgeon at that station :—“The first suspicious case occurred in Hyderabad on the 14th August, 1869, but the real epidemic commenced about the beginning of September and lasted till the end of October ; 592 cases occurred, and of these 364 died and 228 recovered. In September a heavy fall of rain took place, and this swept a quantity of deleterious matter into the tanks. The air, too, was very hot and stagnant. Immediately cholera became very prevalent and fatal, and that part of the town was most affected which was near to No. 3 tank, the water of which was very impure, and in many cases appeared to be the cause of the disease. Only two cases occurred in the jail. Just as the cholera disappeared, there commenced the most frightful epidemic of fever ever remembered.”

PRISONS.—The only large jail in this district is that at Hyderabad, which stands at an elevation of about 80 feet above the surrounding plain on the northern spur of the same plateau on which the city is built, and from which it is distant not more than 500 yards. The jail was erected in 1851, and covers an area of about 15,000 square yards, and the walls, which are about 14 feet in height, are constructed of *kacha* brick. In the interior, besides the prisoners' barracks, there is a hospital and dispensary, as also some large open factory sheds, where a number of the prisoners are daily employed in manufacturing various articles, such as carpets, table-cloths, towelling, trowser and sheeting cloth, dangari, camel kits, coir-mats, reed chairs (leather lined), boots, earthen piping, bricks, and chatties. The prisoners are also taught carpentry by a skilled mechanic. The Hyderabad jail can easily accommodate 600 convicts, but generally speaking the number incarcerated there ranges from 300 to 500. Of these about 100 are engaged in the jail manufactures previously mentioned, the gross value of which reaches about 1800 rupees yearly, and

the net income 500 rupees. Contracts are also entered into for digging canals, making roads, and repairing buildings by convict labour. At the Industrial Exhibition held at Karāchi in 1869, several articles made at the Hyderabad jail were favourably reported upon. The water supply of this jail is bad and scanty, and has to be brought, by means of an aqueduct, from a distance of more than a mile, from a well at a lower level, with the aid of three lifts, which are worked by the prisoners. The dry-earth system of conservancy is that followed out in this jail, and with excellent results, as the comparatively small amount of disease fully shows, though the average annual mortality among the prisoners during the past ten years has been about 5 per cent. Formerly vegetables were supplied to the convicts from the city market, but during the past five or six years a large garden has been planted out on the low ground to the west of the jail and cultivated entirely by convict labour, and from this the prisoners are now provided with the vegetables they need. There is at present no reformatory for juvenile offenders, but they are made to work in the prison factory under a trustworthy convict makhādam. There is no school yet established in this jail for the instruction of prisoners generally. The following table will afford such further information as may be necessary for a period of eight years ending 1874 :—

Year.	Average Strength.		Gross Cost of each Prisoner per Annum.	Net Cost after deducting Value of Labour.	Average Mortality per cent
	Males.	Females.			
1866-67	320	13	rup. a. p. 99 7 0	57 5 2	2·7
1867-68	288	14	86 6 8	46 11 9	4·6
1868-69	283	7	86 7 2	53 15 11	2·4
1869-70	432	9	77 11 1	56 1 11	10·8
1870	531	8	74 15 4	60 10 1	2·6
1871	524	9	59 14 7	47 11 9	1·7
1872	422	10	61 8 7	43 15 9	7·5
1873	524	11	53 6 7	41 0 8	8·2
1874	548	8	51 14 8	37 15 1	7·6

EDUCATION.—The number of educational institutions, Government and private aided, in this district of all descriptions (including those in the city of Hyderabad) in 1874 was 30, with an attendance of 2185 pupils. Of these 24 were Government schools, with 1563

pupils, the greater number of which are in the city of Hyderabad itself. Among these latter are an engineering establishment (9 pupils), a high (128 pupils) and normal school (25 pupils), as also several middle and lower class institutions. The girls' schools are all included in the above numbers. Among the private schools, the principal is that connected with the Church Missionary Society, located at Hyderabad from the year 1862, one well-conducted in every respect, and which has prepared several pupils who have at times successfully passed the Bombay matriculation examination; the attendance at this school is about 130. In connection with this society is also a girls' school (1867) with 88 pupils, and a vernacular school (1871) with 92 pupils. At Hyderabad, too, is the Roman Catholic school of St. Joseph's (established 1868), with an attendance of 21 pupils.

AGRICULTURE.—Four seasons are mentioned as those in which agricultural operations are carried on in this talūka, viz., Kharif, Rabi, Peshras, and Adawa, but it seems unnecessary to include the last as a special season. The times of sowing and reaping, and the principal crops produced in the three seasons, are as follow :—

Season.	Time when		Principal Crops Produced.
	Sown.	Reaped.	
1. Kharif .	{End of June to July .}	October .	{Juār, bājri, rice, cotton and tobacco.
2. Rabi .	December .	March . .	Wheat, barley, several kinds of pulses and oil-seeds.
3. Peshras	February .	December .	Sugar-cane, juār, and some kinds of pulses.

The system of cultivation is, as in the adjoining districts, carried on mostly by wheel (or *charkhi*) during the Kharif season, and by flood (or *mok*) during the Rabi season. Well cultivation is confined almost entirely to garden lands, the expense attending the digging of wells being in this district very heavy, owing to the great depth at which water is found. The cost of digging a well is said not to be less than 500 rupees, and they are in consequence not numerous. The opening of the line of railway from Karāchi to Kotri has done much towards increasing the value of garden property in and about the town of Hyderabad. The agricultural implements in this talūka being of the same kind as those used in the neighbouring districts of Hālā and the Tanda (*see* Muhammad Khān's Tanda), there is no necessity for entering into any detail of them here.

TRADE.—The exports and imports of this district, so far as the talūka itself is concerned, do not appear to be of any very great importance, but the transit trade is extensive, and the town of Hyderabad, with its large population, is not only an important producer, but must be a large consumer as well. Of the amount and value of the imports, which consist principally of European piece goods, silk, the precious metals, pearls, as also iron, copper and brass, sugar, ghi and oil, nothing certain appears to be known, though they must be considerable. It is the same with the transit trade, a great deal of cotton passing through Hyderabad from the eastern districts *en route* for Karāchi.

MANUFACTURES.—The principal manufactures of this talūka—which are carried on mostly in the town of Hyderabad—consist of coarse cotton-cloths and blankets, woven in nearly every village. For lacquered and ivory work, for gold, silver and silk embroideries, and for enamelled gold ornaments, Hyderabad has long been, and is still, famous. The lacquered work comprises work-boxes, map-cases, rulers, vases, and boxes of various shapes and sizes. The embroidered work in gold, silver, and silk consists of shawls, scarves, table-cloths, chair-covers, smoking-caps, slippers, and other articles. Specimens of these, sent at different times to the great Exhibitions held in London and Paris, have gained prizes for the excellent taste and workmanship shown in the work, and this was also the case at the local Exhibition held at Karāchi in 1869, where all the manufactures of Hyderabad were well represented. Formerly this town was renowned for its manufacture of matchlocks, sabres, daggers, suits of chain armour, shields, and other warlike paraphernalia, but this trade, since the conquest of the province by the British, has been gradually decaying. The art of enamelling, as pursued in Hyderabad, is of two kinds—one of blue *mina*, and the other of purple *purpora*. The latter is said to be practised by but one family, and was imported from Persia by a captive Mir, on his return to Sind, in the time of Nādir Shāh. A peculiar kind of spherical, flattened earthen pot or jar known as *māti* or “fisherman’s float,” for swimming on, is also largely made in this talūka, more especially for the use of those engaged in “pala” fishing. The various articles manufactured in the Hyderabad jail have already been mentioned under the head of Prisons.

FAIRS.—The only fair of any consequence held in this talūka is at Shēkh Bhirka, a village 20 miles distant from Hyderabad, in the month of October. It is in honour of a saint who gave his name to the village, and lasts\* four days. The attendance of people is

about 10,000, and the traffic carried on during the time the fair is being held is mostly in camels.

ROADS.—The Hyderabad talūka possesses in all about 170 miles of roads, 41 of these being main lines of communication, and the remainder branch. The subjoined table will show the principal roads, with other particulars connected with them :—

From	To	Length in Miles.	Description of Road.	Remarks.
1. Old Fulēli (Tal. Hyd.)	{ Sarafrāzwāh (Tal. Tando Alahyar) }	13	Main.	{ Bridged and furnished with mile-stones.
2. New Fulēli	{ Ditto through Meeanee }	12	do.	do.
3. Hyderabad	{ Seri Ferry, towards Muhammad Khān's T. }	13	do.	do.
4. Hyderabad	Gidū Bandar	3½	do.	{ Metalled and bridged throughout.
5. Got Dabo	Got Masu Burgri	7	Branch.	
6. Hyderabad	Mehrāni Hājipur	11	do.	
7. Hyderabad	Got Jam Shoro	3½	do.	
8. Hūsri (branch road).	Muhammad Khān's T.	15	do.	
9. Khathar	Ditto	11	do.	
10. Hūsri	Khathar	5	do.	
11. Khathar	Tando Fazul	6½	do.	
12. Dadrawāh	{ Khokhar (Tal. T. Alahyar) }	9	do.	
13. Tando Haidar	Tando Kaisar Khān	10	do.	
14. Hyderabad	Tando Fazul	15	do.	
15. Tando Jam Khān	Tando Kaisar Khān	3	do.	
16. Tando Kaisar	Hūsri	7½	do.	
17. Kathi (Ferry)	Got Masu Burgri	3	do.	
18. Halapotia	Meeanee Monument	2½	do.	
19. Meeanee	{ To mouth of old Fulēli and to Sarafrāzwāh }	6	do.	
20. Hyderabad	{ Dero Mohbat (T. Gūni) }	22½	do.	
21. New Fulēli	Sarafrāzwāh	10	do.	
22. Hyderabad	Meeanee Monument.	6	do.	

There are travellers' and district bangalows at Hyderabad, Meeanee, and Khathar, and dharamsalas at Hyderabad, Got Jam Shoro, and Tando Jam.

FERRIES.—There are now seven ferries in all in the Hyderabad talūka; of these the greater number are situate on the Fulēli. The following is a list of these ferries, with their situation, &c. (*see next page*):—

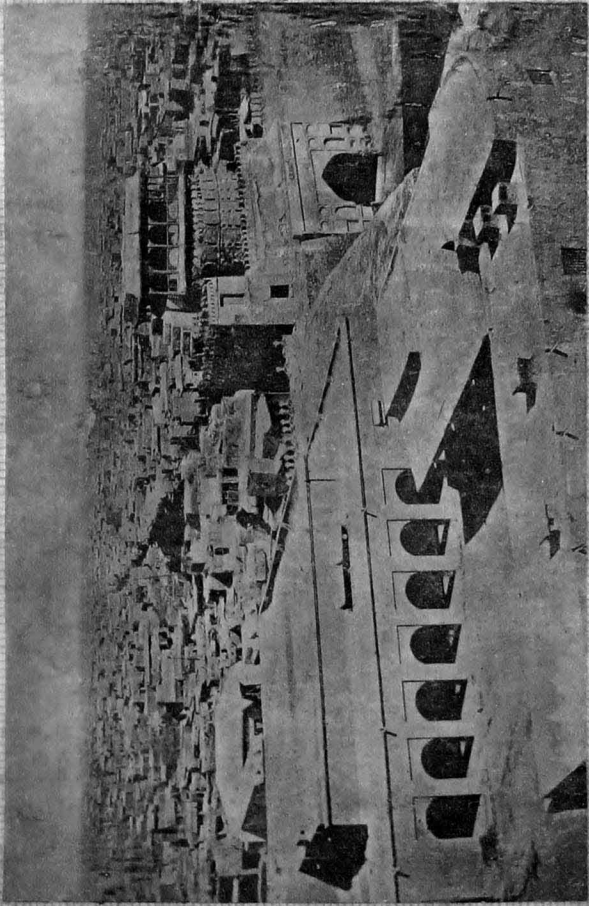
Ferry	Where situate.	No. of Boats employed.	Remarks.
1. Gidū Bandar	On Indus at Gidu.	A steam ferry, and several boats.	Steamer plies from sunrise to sunset between Gidu and Kotri.
2. Bada . . .	Opposite Bada, in the Sehwan Deputy Collectorate	1	
3. Gholi . . .	On Fulēli	1	
4. Nonāri . . .	do. at Nonāri	1	
5. Kathri . . .	do. at Kathri	1	
6. Hatri . . .	do. at Hatri	1	
7. Hūsri . . .	do. at Hūsri	1	

**ELECTRIC TELEGRAPH.**—The Government electric telegraph line at Gidū Bandar passes through this district, entering it from the Kotri side by means of an aerial line across the Indus; thence the line runs on to Hyderabad, where there is a telegraph office with a staff of signallers. From Hyderabad two lines branch off, one going northwards towards Rohri, and the other eastward, by way of Mirpur Khās, towards Umankot; the former will be discontinued so soon as the telegraph now under construction on the Indus Valley railway is completed.

**POSTAL LINES.**—The postal lines of communication in this district are three in number, all of them leading directly from the town of Hyderabad. The first, which is a horse-line, goes towards Rohri; the second runs to Mirpur Khās in the Hālā district, and the third to Bāgo-jo-Tando, in the Tanda division; these two latter are foot lines. There is but one post-office in the talūka, and this is at Hyderabad, which is also the sole disbursing office throughout the whole Collectorate.

**ANTIQUITIES.**—There are some old ruins at a place called Hingoria, near the town of Fazul Talpur, but there is nothing of any interest in connection with them.

**Hyderabad**, the chief town of the Collectorate of the same name in Central Sind, in latitude  $25^{\circ} 22' N.$ , and longitude  $68^{\circ} 22' E.$  It is situate in a tract of country formerly called the Dūāba, that is to say, in that part lying between the Fulēli and the Indus streams. It is here that the low calcareous range of hills known as the Gānja is met with, and it is on one of the most northerly hills of this chain that the city of Hyderabad is built. Huddle thus describes the position of this town with its fort (one of the bastions of which is a prominent object, many miles from the



VIEW OF THE CITY OF HARFAIME FROM THE FORT.

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place), as it appeared in 1836, during the Talpūr rule ; and it may here be remarked that this description holds good to the present day, with this exception, that the town is now somewhat more populous and much cleaner, and has a number of Government buildings and private European residences, which was not the case in the time of the Talpūr dynasty :—

“ The hill on which Hyderabad stands has the form of a parallelogram, with the same direction as that of the range. Between this elevation and the bank of the Fulēli there is a plain of nearly one mile average breadth ; and between its western side and the Indus there is another plain, which has an extent of three miles and a half in breadth. The eastern plain, or that of Fulēli, has a greater elevation than that which exists between the main river and the hill, so that on approaching the summit of the latter from the east, the ascent is not so great as when the approach is made from the opposite side. Besides, the hill of Hyderabad presents a single abrupt mural face on its eastern side, of 25 feet perpendicular height, the houses of the town being built close upon the margin, and only approachable at a few points, where the ascent has been made more easy by the side being reduced to an inclined plane. The west side of the hill presents two such perpendicular faces, the lower being separated from the more elevated by an intermediate plain of varied breadth (on an average a quarter of a mile), which forms a stage half-way between the low plain at the foot and the plateau which constitutes the summit of the hill. On this middle plain there are situated a few scattered huts, and its elevation above the low ground may be 25 feet, which may likewise be the difference of elevation between it and the superior platform. The latter has a uniform breadth of 600 yards, and a length of two miles. At its southern extremity is situate the citadel of Hyderabad, which is separated from the town by a dry ditch 40 yards broad, and forms the only artificial defence of this city. This, like the houses of the town, is built close to the margin of the perpendicular side of the hill, which is faced from its base upwards with the brickwork of the outer wall. This wall, reaching the level of the plateau, is carried to the height of 50 feet above it, and is supported on the inner face by a bank of earth or rubbish, which, from the level of the surface of the plateau, reaches to within a few feet of the embrasures. This gives the defence greater strength than a superficial examination of the rampart from the outside would lead the observer to attribute to it. On observing the inner face, the parapet is seen to form a very gently inclined plane, from within four feet of the top of the wall, until it reaches the general



level of the surface. The ditch which separates the citadel from the town, also insulates the southern extremity of the hill on which the citadel stands, and the communication is maintained by means of a bridge, which is situate in front of the principal entrance into the fort, and opposite the main street, or bazar, which stretches from this point to the northern extremity of the town in a straight line. The entrance is defended by a semicircular curtain; and in order to reach it, on whatever side the approach be made, you must traverse one-half of the breadth of the town, through streets of about ten yards wide. The buildings in the interior of the citadel present great confusion, much more so than is observed in the town itself. The structures are of all kinds, placed without any apparent arrangement, and only admit of communication between one part of the fort and another by narrow, crooked lanes. The bangalows in which the princes reside, the chambers set apart for public business, and in which they hold their Darbār, the dwellings of their domestics, their mosques, stables and harems, are all situate within this fort. There are no gardens, no maidān, or open square, for the purpose of exercise, or for ventilating the intricate mass of dwellings which are heaped together in close disorder, and are all surrounded by a high wall, which is over-topped only by the large round tower, the most conspicuous building in the citadel, and by two or three of the bangalows in which the Mirs reside. Within this stronghold the princes of Sind live immured, and seldom go out, except for hunting—an amusement, however, they only indulge in once or twice a year. The space occupied by the town of Hyderabad has a very regular form, and the result of several experiments made by our people to ascertain the area gave the following dimensions:—Length from the bridge, over the ditch of the citadel to the north extremity of the town, 1161 yards; mean breadth of the plateau occupied by the houses from east to west, 510 yards, giving a total area of 592,110 square yards. On this surface the buildings are densely accumulated, but the streets by which the communication is kept up are regularly arranged, and, though narrow, are tolerably clean. Besides the bazar before mentioned, which forms the main street, there are two others which run on either side parallel to it, and traverse the whole length of the town. These again are crossed at right angles by shorter streets which run east and west. No water is procurable, either on the portion of the plateau on which the town is built, or on that which stretches beyond the northern extremity of the city for the distance of a mile and a half, which is merely occupied by a few tombs of the

deceased rulers of the present and former dynasties, the surface being bare and stony. The inhabitants of Hyderabad are supplied with this necessary from the plain at the foot of the hill on which the city stands. The ditch situate at the base of the hill always contains some stagnant water, and serves the poorer classes ; but those who can afford it derive their supply from the Fulēli, through which, though the water is collected in small pools, there is still a feeble current, even in the dry season, from the main river, which prevents the water from becoming salt, as usually takes place when a body of water remains long stagnant, in consequence of the large proportion of salt in the soil of Sind." Heddle further remarks that no respectable persons then resided in the town itself, which was solely occupied by Banyas and the more menial attendants on the Court. Persons of respectability, who had no quarters within the fort, resided in some of the small hamlets situate mostly on the banks of the Fulēli, where also were the gardens belonging to the Mirs.

Hyderabad has extensive road communication with other places, being, as it were, the point from which numerous roads radiate in all directions. From it to the north runs the main trunk road to Rohri, passing through the large town of Hālā (distant 36 miles), Naushahro, Sakrand and Khairpur ; to the east it has communication with Umartot (distant about 90 miles), *via* the towns of Alahyar-jo-Tando and Mirpūr Khās ; to the south, with Muhammad Khān's Tanda (distant 21 miles) ; while to the west an excellent metalled road, about  $3\frac{1}{2}$  miles in length, and lined with trees on both sides, leads to Gidū Bandar, whence there is easy communication by steam ferry with the town of Kotri. In and around the city and the cantonments are also numerous roads, all under the care of the municipality, though metalled chiefly at the cost of local funds. The cantonments, occupied by a force of artillery and infantry (European and native), lie to the north and west of the town. Here is a very fine range of European barracks, consisting of 12 blocks, erected in 1850-51, each block being 241 feet long by 73 feet broad. There are also quarters for married soldiers, workshops, a gun-shed, skittle and ball alleys, and a plunge bath. The permanent artillery stables were built in 1860. In addition to these are two hospitals for the artillery and infantry, with medical subordinates' quarters attached to them. The Baloch Infantry lines occupy a portion of the plain to the south of the European barracks, and still farther to the south is a double line of mud-built bangalows, for the use of the officers attached to the military force at this station. Here, on a slightly elevated position,

and overlooking the Gidū Bandar road, stands the Protestant church of St. Thomas, erected in 1859-60, at a cost to Government of 45,000 rupees. It is 118 feet long, by 58 broad, and has a tower which is 75 feet in height to the top of the belfry. The church, which can accommodate 600 persons, has several stained-glass memorial windows. On the north side of the Communion table is a brass plate, showing the number of officers and men who fell in the battles of Meeanee and Dabba (Dabo); and on another plate, on the south side, is inscribed the date of the erection and consecration of this edifice.

Immediately to the south of the Kalhora and Talpur tombs, which cover the northern portion of the hill on which Hyderabad is built, stands the jail, erected in 1851, and distant about 500 yards from the town. The building occupies a site which, prior to the conquest of the province, was a private enclosure belonging to the late Mirza Khosru. It is a narrow quadrangle enclosed by *kacha* walls, and is capable of accommodating between 400 and 500 prisoners. It is about 80 feet in elevation above the surrounding plain, and its interior area may be computed at nearly 13,300 square yards. The water supply is both bad and scant, the water having to be brought upwards of a mile by means of an aqueduct from a well sunk in the lower ground to the east of the town, but the prisoners are fairly supplied with vegetables from the jail garden, which lies immediately under the hill to the westward. The average number of convicts in this jail is 430, the greater number being employed in making *kacha* bricks, carpets, matting, camel kits, towelling, reed chairs, &c. The system of sewage carried out in this jail is the dry earth, and this, from the dry nature of the climate, appears to be the best suited to the place. Proceeding from the jail southward towards the town, along the ridge of the hill are seen the Government Anglo-vernacular and High schools established respectively in the years 1857 and 1858, and to the right the Engineering and normal schools, the former dating from 1865, while the latter, occupying a building conspicuous by its tower, began its work in October 1864. Here also is the school belonging to the Church Missionary Society, established in 1862, and on the same side the fish, vegetable, grass and wood markets, all of these the property of the municipality. On the west of the hill is the Hyderabad post-office, and at a short distance below, to the left, is the Roman Catholic chapel erected in 1850; this latter building is 103 feet long, by 46 broad. Close by are the armed police lines and the soldiers' bazar, together with the municipal beef and mutton markets. Adjoining the road

which connects Hyderabad with Gidu Bandar, and in close proximity to the cantonment bangalows, is the Collector's kuteherry, or public office, a fine upper-storied building of red brick, 208 feet long, by 70 feet broad. Here also are the court-houses, new travellers' bangalow, and library (this latter was the old travellers' bangalow), as also several houses occupied by different civil officers of Government. Eastward from the kutcherry, and close to the fort of Hyderabad, is the civil and police hospital and charitable dispensary (all located in one building), seated on a somewhat elevated position. The hospital is capable of accommodating 40 patients. During the two years 1873 and 1874, there were treated in the charitable dispensary 18,440 and 18,592 persons respectively. Hyderabad also possesses a Freemason's lodge (Industry, No. 873, E.C.). It was first founded at Kotri in 1861, but placed in abeyance in 1870. In 1873 it was resuscitated and transferred to this town. Of the fort, a description of which has already been given, it will suffice to say that it is in area about 36 English acres, and contains the large house generally known as Government House, standing opposite the gateway. It belongs to one of the ex-Mirs, and has still a room called the Painted Chamber, in which is a native drawing representing the meeting of Ranjit Singh, the ruler of the Panjāb, with Lord Lake in 1803. Before the present cantonments at Hyderabad were built, the greater portion of the British troops were quartered inside the fort. In 1857 nearly all the old houses in the fort were pulled down, and the space left by them cleared for the erection of the new arsenal buildings, which in shape are like a sixteen-sided figure. In 1861 the arsenal was finally removed from Karāchi, and established in Hyderabad. In the magazine compound in this fort are buried several officers who fell in the battles of Meeanee and Dabba (Dabo).

On the road running between Hyderabad and Gidu Bandar is the lunatic asylum, which was only completed in July 1871. It comprises several separate buildings, and contains eight wards (each 36 feet by 18, with a height of 19 feet) for natives, and one for Europeans. There is also a hospital, three worksheds, and quarters for the superintendent and other officials. The number of patients at present in the asylum is about 100, but it can accommodate 138. The cost of each patient in 1874 was estimated to be Rs. 93 : 8. The staff employed to carry on the duties of this institution consists of a superintendent, hospital assistant, several warders, and a number of menial servants. This asylum may be said to owe its existence to the munificence of a Parsi gentleman,

Mr. (now Sir) Kauasji Jehāngir Readymoney, who contributed the sum of 50,000 rupees towards its erection; but this amount was afterwards supplemented by a Government grant of 8000 rupees, the entire cost being thus 58,000 rupees. It was opened for the reception of patients on the 3rd of September, 1871. The civil surgeon of Hyderabad is the superintendent of this institution. This asylum enjoys a good reputation, and many lunatics of the better class are placed here by their friends owing to the kind and judicious treatment the patients receive.

The Hyderabad municipality, established in the year 1853, has done much of late years towards improving the town, especially in a sanitary point of view; new roads have been made, and considerable improvements have been effected in those already existing. Altogether there are about twelve miles of metalled roads in and around the city, and these are now fairly lighted with kerosine oil-lamps. The approximate area of the Hyderabad municipality is about 15 square miles, its western boundary, which extends to the Indus, including Gidu Bandar and the old entrenched camp. The military barracks, officers' lines, commissariat lines, cemetery, and Jacob's tanks are excluded from municipal limits. The annual receipts and disbursements of the Hyderabad municipality, from its establishment down to 1873-74, are as follows:—

Year.	Receipts	Disbursements.	Year	Receipts	Disbursements
	rupees	rupees		rupees	rupees.
1854-55	11,483	6,751	1864-65	46,207	37,791
1855-56	13,982	17,937	1865-66	44,893	37,029
1856-57	15,414	13,523	1866-67	52,571	48,722
1857-58	15,955	16,084	1867-68	63,138	53,542
1858-59	18,086	20,552	1868-69	64,722	55,903
1859-60	29,874	24,339	1869-70	76,310	67,524
1860-61	37,649	40,694	1870-71	71,539	62,975
1861-62	32,443	26,355	1871-72	70,927	66,877
1862-63	34,659	26,312	1872-73	71,141	70,302
1863-64	35,449	40,377	1873-74	1,09,135	84,959

At Gidu Bandar also several improvements have been carried out by the municipality, and others are in progress. A rest-house and large carriage stand have been constructed, as also a moveable pier that can be extended 160 feet into the river, so as to adapt it for a landing-place during both the low and inundation seasons.

Money grants are annually made to schools and medical

establishments by the municipality, and the following institutions received payments during 1874, as noted below :—

The Government High School      Rupees 480 Sindi do.                              192 Girls' do.                              1,320		Roman Catholic School of St. Joseph's . . . . . } 240 School at Gidu Bandar . . . . . } 129·8 Hyderabad General Library . . . . . } 192
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In addition to these, the City Charitable Dispensary received about 1952 rupees from the municipality. The receipts of the Hyderabad municipality are made up mostly from town duties, market rents, cattle pound fees, fines and opium, and the principal disbursements are upon public works, police, establishment, scavenging, grants to schools and dispensary, lighting and horticulture. The magistrate of the district is the President of the Municipal Commission, which consists of 28 members, of whom 21 are either independent and non-official, and the managing committee of 9 members are drawn from these. Upwards of thirty articles of different kinds are liable to municipal taxation at various rates, and the following tables will show the receipts and disbursements, under their several heads, for the years 1873 and 1874 :—

RECEIPTS.

Items	1873	1874
	rupees	rupees
Municipal taxes . . . . .	70,764	84,410
Opium tax . . . . .	508	275
Market rents . . . . .	3,779	3,985
Municipal fines . . . . .	888	494
Sale of building sites . . . . .	247	153
Licence fees for public conveyances . . . . .	137	126
Licence fees for sale of poisons . . . . .	25	25
Cattle pound fees . . . . .	481	747
Government grant-in-aid . . . . .	6,565	1,200
Profit and loss . . . . .	3,596	3,838
Tank fishery . . . . .	125	80
Deposit account . . . . .	249	2,903
Dead stock . . . . .	1,013	233
Total rupees . . . . .	88,377	98,469

## EXPENSES.

Items.	1873.	1874.
	rupees.	rupees
Establishment and contingencies . . . . .	7,066	9,775
Scavenging . . . . .	8,622	8,174
Lighting . . . . .	2,381	3,001
Watering and preserving trees . . . . .	1,072	809
Education . . . . .	3,667	2,546
Dispensary . . . . .	2,038	2,489
Police . . . . .	12,932	11,509
Water works establishment, &c. . . . .	...	2,364
Charitable allowance . . . . .	36	36
Extraordinary charges . . . . .	842	425
Public works . . . . .	24,616	11,421
Dead stock . . . . .	2,725	2,027
Deposit account . . . . .	200	206
Municipal items . . . . .	992	99
Refund . . . . .	914	25
City survey . . . . .	..	12
Total rupees . . . . .	68,103	54,918

Action has at last been taken by the municipality towards providing a proper water supply for the city and camp of Hyderabad; at present the only drinking water obtainable by the great majority of the inhabitants is from the three city tanks, which are supplied with water from the new Fuleli by means of the Dowman-wāh. These tanks have a holding capacity of 6,092,000 cubic feet. A scheme of water supply from the Indus, near the entrenched camp, was put forward in 1865 by Mr. Charles Lee, the municipal secretary, who proposed to supply the town with 750,000 gallons daily, at a prime cost of five lakhs of rupees, and an annual expense of 61,250 rupees, but it was not sanctioned. Another design in 1870 by Mr. Robert Brunton, C.E. (formerly local funds engineer), was to bring water from the Indus at Gidu, making the fort a kind of reservoir, whence it could be easily distributed over the city and camp. This scheme, which is estimated to cost about 3,14,000 rupees, has been approved and is now under construction. The main features of this scheme are as follow:— The water is to be drawn from the Indus at Gidu Bandar, and deposited by suitable machinery into two large tanks situate about 500 yards or so from the river bank. From these tanks the water will pass by a conduit to the foot of the hill, on which Hyderabad stands, where it will be received in a large reservoir. From this it will be made to flow by two branches through galleries bored into the rock, one branch leading to a tank from which the cantonment will be supplied with about 100,000 gallons daily; the

other to a well inside the fort, from which the city will be furnished with the water it needs. The water will be raised to the required height from both the tank and well, by means of steam pumping apparatus. The cost of supplying the cantonment is estimated at 47,127 rupees, and the entire work is expected to be completed in two years.

Hyderabad is the head-quarter station of the following civil officers, viz., the collector and magistrate of the district, the Hüzür deputy collector, the deputy collectors of divisions of districts (during a portion of the year), the district superintendent of police, the district judge and subordinate civil judge, civil surgeon, cantonment magistrate, executive engineer, and of the officers of the public works and settlement departments (during a portion of the year). A Mükhtyārkar and inspector of town police are also stationed here; the latter officer has the supervision of the foot police, which, armed and unarmed, number 333 men. The population of the city of Hyderabad was found by the census of 1872 to be 35,272. Of these 13,065 were Musalmāns, 16,889 Hindūs, and 367 Christians, while 4951 belonged to other races. The suburban population is entered at 5880. The troops quartered in this town number on an average between 1200 and 1300 men and officers. These latter consist of a battery of Royal Artillery, a detachment generally of the European foot regiment stationed at Karāchi, a Baloch regiment, and a number of men of the Ordnance department. The garrison at Hyderabad during the past six years, ending 1874, has averaged in strength 1216 officers and men.

The Muhammadan portion of the population of Hyderabad are of the Baloch, Saiyad, Samma, Shēkh and Korēshi tribes. There are also Golas and Khāskēlis, the former slaves at one time, and the latter descendants of slaves purchased by Balochis and others from foreign countries. The Hindū portion of the inhabitants are principally Lohānos, divided into the two great classes of Amils, or Government servants, and Shāukars, or merchants, shopkeepers, &c. There are, besides these, Brahmans, Thakurs, several classes of the Fakir community, Sikhs, Jews, &c.

CLIMATE.—The climate of Hyderabad is considered to be always dry, and exceedingly so during the cold season. The mean temperature ranges from 64° in January to 92° in June; but the variation of temperature in the winter months is at times excessive. The average yearly rainfall of Hyderabad may be set down at about six inches—the heavy fall (20·23 inches) in 1869 being almost unprecedented in quantity. The prevailing diseases of the



place are intermittent fevers, chest affections, enlarged spleen and stone. Cholera has occasionally visited the town, the last outbreak—a severe one—occurred in 1869.

MANUFACTURES.—The manufactures of Hyderabad now consist principally of ornamental silks and cottons, silver and gold work, and lacquered ornaments, such as boxes, map and pen-cases, flower-stands, &c, for which this town has long been famous. Formerly the manufacture by skilled workmen of arms, such as sabres, matchlocks, daggers, spears, suits of chain armour, with helmets and shields, was a very important one, especially during the Talpur rule, but since the conquest of the province by the British this branch has greatly decayed. The peculiarly shaped earthen pots used by pala fishermen on the Indus, and known as *māti* or fishermen's floats, are made to a considerable extent in Hyderabad. The gold, silver, and silk-embroidered fabrics of this city have obtained great celebrity, not only in India, but in Europe also, and some fine specimens have at different times been displayed in various industrial exhibitions in England and continental Europe. The articles manufactured by convicts in the Hyderabad jail have already been referred to, but it may here be mentioned that, among the numerous fabrics displayed at the Karāchi Industrial Exhibition of 1869, the pile carpets, rugs, sheeting and towelling made at this jail obtained several prizes, as did also the embroidered table-covers, caps and slippers manufactured in the city by Balumal Dharmdas and Naryandas Jumentraī.

TRADE.—It is a matter of regret that nothing can be said of the trade of the town of Hyderabad, either local or transit, though it is well known that the latter must be very considerable, since much of the produce from the rich and fertile districts to the eastward passes through the town, *en route* for Karāchi and other places. Nor can the local trade be insignificant, when the municipal tax on various articles realises at times as much as 60,000 rupees per annum.

TOMBS.—On the northern portion of the hill range on which Hyderabad stands, is an extensive cemetery containing the tombs of several of the deceased members of the Kalhora and Talpur dynasties. Of the former there are two buildings (those to the extreme north), one of which is to the memory of Ghulam Shāh Kalhora, and the other to Sarafrāz Khān Kalhora. The first is a beautiful quadrangular edifice, with a handsome central dome, erected about A.D. 1768, of burnt brick, lime and stone, with decorations in carved stone, coloured inside in distemper and inscribed with sentences from the Kurān. The inner tomb itself is of

wāri, Richhal, Hajāmro, Sir and Kori. The influence of the tide on the Indus is felt nearly up to Tatta, and the spring-tides rise, on an average, nine feet.

Before the great earthquake which occurred in Kachh in 1819, the town of Shāhbandar (King's port), seated on the Bagāna (or Mal), was an important naval station of the Kalhora princes, and fifteen ships-of-war were kept there. Vessels from seaward then entered the Richhal mouth, the only accessible entrance, and passed into the Hajāmro, through what was then the Khēdewāri creek, and thence into the Bagāna or (Mal) to Shāhbandar. This passage was closed by the earthquake, and a new mouth, the Kukaiwāri, opened, which in 1837 was described as being about one mile wide at high water, but only 770 yards at low tide. It was *then* the grand *embouchure* for the waters of the Indus, though the navigation at the entrance was difficult and intricate; yet in 1867 this mouth was so completely blocked up with sand as to be quite unnavigable. The Khēdewāri mouth in 1837 had a depth at high tide of from 16 to 18 feet, and was then navigated for the first time by large boats, and subsequently by Government steamers. This branch left the main river 16 miles below the confluence of the Hajāmro, formerly called the Siān river. This latter (the Hajāmro) was in 1845 so small as to be only suited for the passage of small boats during the floods; since that year it has been gradually increasing in volume, has taken the place of the Khēdewāri, and is *now* the largest of the mouths by which the Indus finds its way to the sea. In shape the Hajāmro is not unlike a funnel, having its widest part near the sea. On the eastern side of the entrance is a large beacon, 95 feet high, and visible 25 miles, and two pilot-boats, well manned, are stationed inside the bar to point out its difficulties. Beacons have also been erected at the entrance of the Piti and Juna mouths, connecting the Indus with Gisri. Both these channels were at one time, before Karāchi and Kotri were connected by railway, much used by Government steamers during the south-west monsoon. The Kori mouth of the Indus, separating Sind from Kachh, once formed, it is supposed, the lower part of either the Fuleli river or the eastern Nāra. It is very shallow, and large boats are unable even to go up as far as Lakhpat, distant but 39 miles from the sea. The Sind shore is low and swampy and overflowed by every tide, and this is believed to have been in a great measure brought about by the earthquake of 1819. The soil of the Indus delta is said to be far from possessing qualities which render soils in general fertile. It consists chiefly of clay, mixed more or less with sand; in the

upper part of the delta clay predominates, with a stiff and plastic soil; in the lower part it is a very loose sand. It is in this latter portion of the delta that the river banks are so frequently being destroyed by the peculiar action of the stream, which, by undermining the basis, causes the upper part to slide into the river. Dr. Heddle, in his memoir on the Indus, thus describes this phenomenon:—"At a village where the steamer came to for the night, we had an opportunity of witnessing very closely the destructive effects of this action on the bank itself, on the houses of the village near it, and on the channel of the river. A large part of the bank gave way close to, but ahead of the boat, about the distance of eighty yards. The extent of bank which thus suddenly tumbled into the bed of the river must have measured nearly a hundred feet in breadth from the margin of the bank, and about four times that extent in length. The noise attending its fall resembled that of a vast body of water rushing over a precipice, and the agitation of the river that followed caused the boat to roll as if in a heavy sea. Some huts nearest the bank were also precipitated, and it was with difficulty that some of the property in these was saved. On the following morning we found that the part of the river into which the bank had fallen was converted into a shoal, partly above the water, which prior to the accident had a depth of three fathoms, and the steamer, in shoving off, was obliged to make a considerable détour to clear the shoal. When we consider that thirteen reports, produced by similar causes, may be heard from one spot in the space of a minute, we may obtain some idea of the rapidity and extent of the destructive action in this part of the Indus."

The marshy tracts of the delta afford good pasturage for cattle, and a grass called *pan* or *pana* (*Typha elephantina*), which grows there, by sinking to a depth of nine feet in the ground, is of great use in keeping the soil composing the river banks together: the leaves of this grass are manufactured into matting. The tamarisk and the mangrove are, it would seem, the only woods obtainable in the delta for fuel. That portion of the delta immediately above the swampy plains is the most fertile and productive, and is easily cultivated; and there are numerous canals which irrigate the grassy plains and rice grounds. The climate of the Indus delta in the winter season is cool, dry, and bracing, the thermometer ranging from 45° to 76°; the heat in the summer is excessive, and during the inundation the climate is decidedly unhealthy. The prevailing winds on the river Indus are mostly from the north and south; from April to September a southerly breeze prevails, and for the remainder of the year it is from the north; gales of wind are

**Islamkot**, a Government village in the Mitti talūka of the Thar and Pārkar Political Superintendency situate about 60 miles south-east from Umarmkot, with which town, as also with Dipla, Chachra, Borli, Nagar Pārkar, Jangro and Vakrio Tar Akhrāj, it has road communication. It is the head-quarter station of a Tapadār and has police lines with 7 men. It has also a dharamsāla and a cattle pound, and possesses besides a municipality, the receipts of which in 1873-74 were 487 rupees, and the expenditure 193 rupees. The population, numbering in all 862, comprises 116 Musalmāns, mostly of the Kalar tribe, and 746 Hindūs, chiefly Brahmans and Lohanos. Their occupations are agriculture and trade. Both the trade and manufactures are but of little account. Here are the remains of a fort said to have been constructed by Mir Ghulam Ali Talpur.

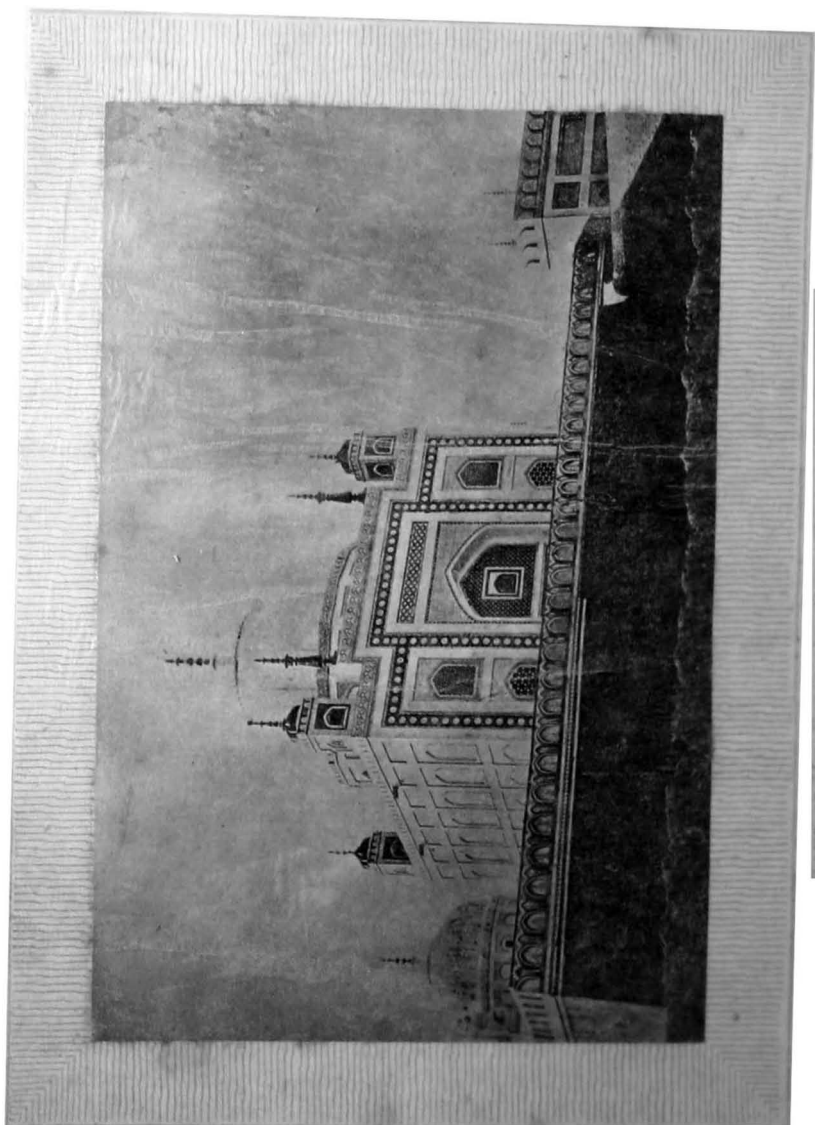
**Jacobabad**, a talūka (or sub-division) of the Frontier district of Upper Sind, 475 square miles in area, and having 4 tapas and 28 villages, with a population of 35,545 souls. The revenue, imperial and local, of this sub-division during the past four years, ending 1873-74, is as follows:—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees	rupees.
Imperial . . .	1,40,271	1,06,536	1,10,745	96,709
Local . . . .	2,731	4,974	4,008	4,595
Total rupees .	1,43,002	1,11,510	1,14,753	1,01,304

**Jacobabad** (formerly known as **Khāngarh**), the chief town and head-quarters of the large military force of the Upper Sind Frontier district. It is situate in latitude 28° 16' N., and longitude 68° 30' E., and is about 180 feet above sea-level. This place owes its existence to the late General John Jacob, for many years commandant of the Sind Horse, who in 1847, at a spot then called Khāngarh, containing a small mud fort, three Banya's shops and a well, planned the station which was subsequently called after him, Jacobabad. By his indomitable energy roads were made and trees planted, and soon the previous desolate aspect of the place became entirely changed. The town of Jacobabad is of an oblong shape, about two miles in length by one in breadth. Two irrigational canals, the Rājwāh and Būdhwāh, flow through and drain both the station and town; and another, the Makhimwāh, navigable for boats, which bring grain from the Indus, runs from the

Nürwah into the heart of the cantonments, where it terminates in a small dock. Among the principal buildings in the civil quarter of Jacobabad is the "Residency" house (General Jacob's), with its library and workshops, an immense pile, containing three very large public rooms and eight suites of apartments. In one of these, are the two clocks wholly made by General Jacob himself. The other buildings in this quarter are the kutcherry and the Assistant Political Superintendent's bangalow, as also a medical dispensary, civil court, and a subordinate jail, of which the Mükhtyārkar of the talūka is the *ex-officio* superintendent, and the second Mūnshi in his office the *ex-officio* jailer. The town and Sadar Bazār consist of five long parallel streets, crossed by smaller ones, and the houses are built of sun-dried brick and earth, a composition best suited to the climate. Here are to be found the civil and judicial court-houses, and the offices of the Mükhtyārkar, Registrar, and Kotwāl. The Anglo-vernacular school—a very good one—is also in this quarter; there are also two vernacular schools. For the accommodation of the officers attached to the large military force located at Jacobabad, there are twenty-two bangalows, surrounded by large gardens, as well as two mess-houses, and an English school which is supported chiefly by the military. The lines of the Sind Horse and Rifle regiment extend along the edge of the parade-ground for about two miles, while on the plain beyond are the long and extensive ranges of rifle butts. Not far from these is the massive tomb of the founder of the place, who died here on the 5th of December, 1858, after a residence of eighteen years in the hot and trying climate of Sind, and perhaps no juster record of his memory can be mentioned than the following:— Good roads have been made all over the country; means of irrigation have been multiplied fourfold, and everywhere on the border, life and activity, with perfect safety, exist. Where formerly all was desert solitude or murderous violence, not an armed man is now ever seen, except the soldiers and police, and person and property are everywhere perfectly protected.

The population of Jacobabad, including the military camp, according to the census of 1872, amounted to 10,954 souls, of whom 5355 belonged to the town, and the remaining 5599 comprised the cantonment population. The following table will show the various religious classes included in this population:—



white marble, and in beauty exceeds all others on this hill. The building itself has, unfortunately, not been repaired during the past forty years, nor have any measures been adopted for its preservation. Over one of the archways are inscribed certain verses in what may properly be called Sindi-Persian, composed, it is presumed, by his eldest son, Sarafrāz Khān, in 1771. The following is a translation of these verses, but the beauty of the original consists in not only giving the year of the demise of Ghulām Shāh in verse, but also in preserving the sense in connection with the context :—

1. Ah ! the unkindness of the ignoble heavens.  
Ah ! the freaks of the azure firmament.
2. The valiant cavalier of the race-course of fame ;  
The monarch of the capital of the empire.
3. The light of the Sun of the Zodiac of honour,  
Both the worlds paid allegiance to him.
4. By Divine grace his mandates  
Went forth in Heaven and on earth.
5. Kings entreated at his doors,  
Crowned heads prostrated themselves before him.
6. The emperor of the world, " Ghulām Shāh,"  
The sky kissed the earth before him.
7. He passed away from the world into paradise.  
He received what he deserved at the door of God.
8. A dome over the tomb of that monarch  
Was erected like the vault of the starry skies.
9. The dome was as bright as the palace of paradise ;  
♦ It was as delightful as the magnificent paradise.
10. For the date of his demise, the imagination of Sarafrāz.  
Was in great search with a great deal of pains.
11. Whilst in these thoughts an exclamation was made,  
By the Divine messenger : " For ever in Heaven."

The adjoining building, which is to the memory of Sarafrāz Kalhora, was erected about A.D. 1785. It is painted inside, and, being in good repair, is still used for religious purposes. The remaining four tombs belong to the Talput family, that of Mir Karam Ali being a handsome quadrangular building, surmounted by a dome, and having a turret on each corner. It was built about A.D. 1812, is decorated with marble fretwork and covered with coloured tiles. Another of these is devoted to the memory of Mirs Murād Ali, Nur Muhammad, Nasir Khān and Shāhdād Khān. It was erected about A.D. 1847, is constructed of burnt bricks and gypsum cement, has coloured tiles on the outside, while inside are tombs of white marble, painted and gilt. Of the remaining two tombs, one, built about 1855, contains the remains of Mirs Ghulām Shāh and Fazul Ali ; the other, erected in 1857, those of

Mir Muhammad. All the Talpur tombs, with the exception of that of Mir Karam Ali, are kept in good order, and are in charge of the Talpur family. Seated as they are, in a line on the northern spur of the Gānja hills, though not so elevated as the round tower of the Hyderabad fort, they are nevertheless conspicuous objects a long distance off.

Close to the banks of the Indus, and about three miles from the city of Hyderabad, with which it is connected by a good road lined with handsome trees, is what was previously known as the entrenched camp or Residency, a spot rendered memorable by the brave stand made there by the Resident, Major (afterwards Sir James) Outram, with the small force under his command, against a fierce attack of the Balochis on the 15th of February, 1843. At present it is known by the name of Mir-jo-Tando, from the circumstance of its being the residence of some of the ex-Mirs of Sind.

Upon the site of the present citadel of Hyderabad is supposed to have stood the ancient town of Nerankot, mention of which is found in the early history of the province, when the country was invaded in A.D. 711-12 by Muhammad Kāsim Sakifi, and Nerankot, after the capture of the seaport of Debal, quietly submitted to Muslim domination. At that time the main stream of the Indus is supposed to have flowed to the eastward of the town, most probably through the present bed of the Fulēli river. There would appear to be no mention of Nerankot after this; but in A.D. 1708, the present town of Hyderabad was founded by Ghulām Shāh Kalhora, whose tomb still exists, though in a state of considerable dilapidation, at the northern end of the same plateau on which the town stands. Here also resided his three successors, Sarafrāz Khān, Ghulām Nabi Khān, and Abdul Nabi Khān. On the accession to power of the Talpurs, Hyderabad still continued to be the capital of that branch of the family (the Shāhdādpur) ruling in Central Sind, the fort being built by the first Mir, Fateh Ali Khān. It so remained till the conquest of the province by Sir Charles Napier in 1843, when the town and fort were unconditionally surrendered to the British after the battle of Meeanee, fought on the 17th of February in that year. It was soon after constituted the chief town and head-quarter station of the Collectorate of Hyderabad, and has so continued down to the present time.

**Imāmghar**, formerly a strong fortress in the desert portion of the territory of His Highness Mir Ali Murād Khān Talpur, in latitude  $26^{\circ} 31' N.$ , and longitude  $69^{\circ} 31' E.$  It is situated to the east of the Eastern Nārā, and is distant about 75 miles south-east from Khairpur. Owing to the perfect isolation of this fort, and



its desert situation, it was deemed by the Mirs of Sind to be an excellent place of refuge, and thither, during his dispute with the British Government, fled Mir Rustam Khān Talpur in 1843. Sir Charles Napier, who had determined to capture this place, set out after him with 50 cavalry, two 24-pound howitzers drawn by camels, and 350 European troops, mounted on these animals, two on each. This force reached the fort on the 13th of January, 1843, after a trying march of three days, and the place was at once surrendered. It is said to have been a square with eight round towers, surrounded by an outer wall 15 feet high. The inner walls were 40 feet high; one tower was 50 feet in height, and were all built of burnt brick. It contains also several bomb-proof chambers. Twenty thousand pounds of powder were found concealed in this fortress, and this quantity was used in springing thirty-four mines, which reduced the place to a mass of shapeless runs, and made it perfectly incapable of defence in the future. The British force returned from this expedition without any loss.

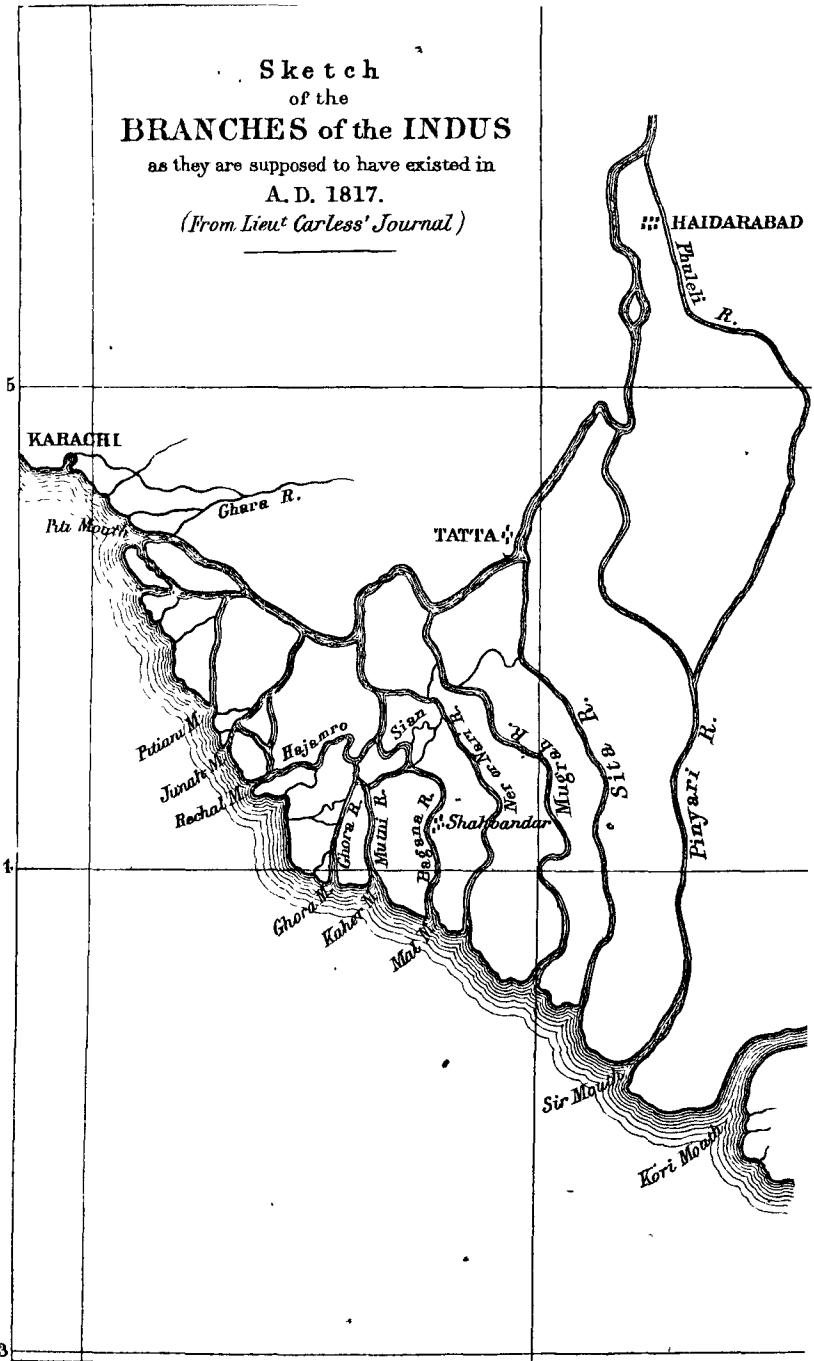
**Indus** (known also under its ancient name of **Sindhu**) is a large river having its source in Thibet: flowing through the provinces of the Panjāb and Sind, it empties itself, after a long course of nearly 1700 miles, by several mouths into the Arabian Sea. In the "SIND GAZETTEER," that portion only of the Indus, which, as familiarly known to the Sindis by the name of the "Daryah," flows through the province from its most northern town, Kashmor, to the sea, will here be described. The length of this portion of the river may, including its windings, be calculated at about 580 miles. From Bukkur to the sea it is known as the "Lower Sind," while from Atok to the sea it is generally called the "Sindhu." Within the limits above mentioned, the Indus ranges in width from 480 to 1600 yards; it is usually about 680 yards wide during the low season, but in many parts, during the inundation, above a mile. Its depth during the freshes is about 24 feet, but at other times it is not more than from 9 to 15 feet, and in some places only 4 to 5 feet deep. The water which is derived from the melted snows of the Himālayan chain of mountains, whence this river takes its rise, as well as from the heavy rains falling on that and other ranges of hills, is, in that part of it flowing through Sind, of a dirty chocolate colour, and possesses neither the lightness nor the delicious qualities ascribed to the African Nile water. Independently of the mud suspended in the Indus water, it holds in solution a small proportion of saline ingredients, principally common carbonate of soda and nitrate of potash. The amount of mud in the water is, however, much

less than might be expected; near Hyderabad it amounted some years since to 4·21 per cent., but in the Hajāmro branch, near the sea, to only 0·06 per cent. The velocity of the current, as ascertained by the late Captain John Wood (previously referred to as a good authority in all matters connected with the Indus), was 7 knots per hour in the freshes, and 3 knots when the river was low, while he found in August, when the inundation was at its height, that the discharge per second was about 446,086 cubic feet, and in December (the low season) only 40,857 cubic feet. The fall from Mittankot to the sea is generally estimated to be six inches in the mile. The following table will show the temperature of the water of this river, as compared with that of the air, during eight months of the year:—

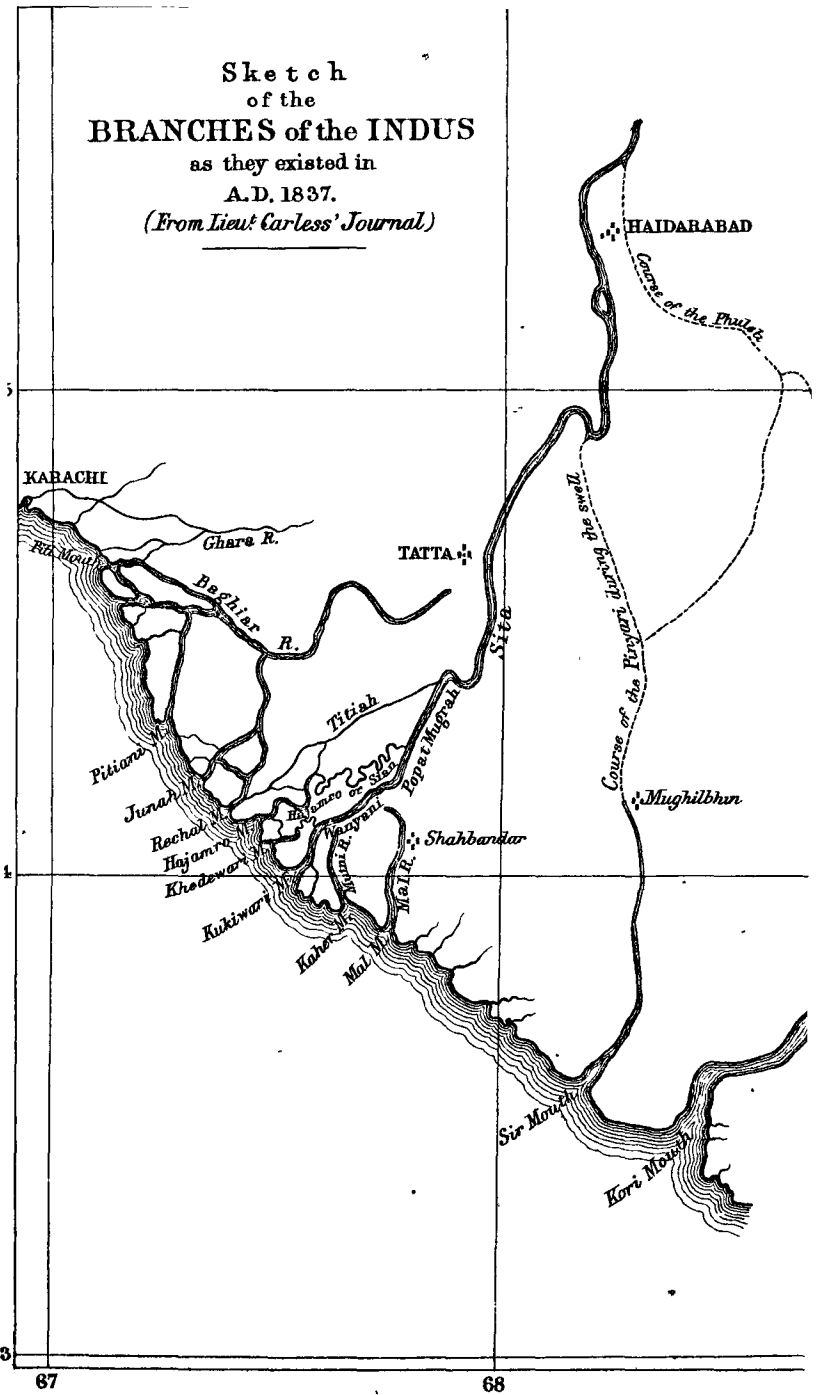
	Air	River.		Air.	River
	0	0		0	0
February . . . .	69	64	June . . . . .	101	87
March . . . . .	90	78	July . . . . .	95	88
April . . . . .	97	81	August . . . . .	95	88
May . . . . .	100	84	September . . . .	94	86

**DELTA.**—The delta of the Indus, through which its mouths reach the sea, covers, as might be expected from so large a river, an immense area, estimated by different authorities at from 2000 to 3000 square miles, and extends on the coast-line for quite 125 miles; much of it was surveyed by Lieutenant Carless, of the Indian navy, in 1836-37. The delta may be said to commence from the efflux of the Fulēli (a natural branch of the Indus), but the submerged portion of it is a belt fringing the sea, with an average width from the coast of 20 miles. Unlike the densely-wooded delta of the Ganges, this is nearly destitute of timber, resembling in this respect that of the Nile. It is almost level, and is of alluvial soil, apparently brought down by the Indus, consisting of vegetable mould, clay and sand, which becomes hard soon after being deposited even in the channels of the river. The Indus is believed formerly to have reached the sea through eleven large mouths, but this much is known, that a little more than eighty years ago the river was divided into two great arms, the Baghār and Sita, both of which were then open and navigable for vessels of a large size; but in 1837, when the Indus was surveyed, the former was found to be quite deserted by the river. The other mouths, known to the English from a date shortly preceding the conquest of the province, were the Piti, Juna, Kukaiwāri, Khēde-

Sketch  
of the  
**BRANCHES of the INDUS**  
as they are supposed to have existed in  
A. D. 1817.  
(From *Lieu' Carless' Journal*)



Sketch  
of the  
**BRANCHES of the INDUS**  
as they existed in  
A. D. 1837.  
*(From Lieut Carless' Journal)*



experienced throughout the whole line of the Indus, but they are more frequent close to the mountains than near the sea. The Sind coast is navigated by native craft from the beginning of October to the end of March, but in February the weather is occasionally tempestuous, with strong westerly winds. The Indus begins to rise in March, attains its greatest size in August, and falls in September. The maximum height of water reached fluctuates in different seasons. At Gidu Bandar, three miles from Hyderabad, it is a little over fifteen feet; at present there are gauges at both Kotri and Bukkur for noting the rise and fall of the Indus; and it is at these two places, as well as at Jerruck, that the river banks can alone be said to be permanent. The best portion of the river for navigational purposes is considered to be that from the delta to Sehwan, but from this latter place to Rohri the depth of water is irregular and uncertain. The capricious nature of the current in other parts is remarkable, and this shows itself in the frequent alterations of its navigable channels. A total change occurs at times in the direction of its entire body of water, as well as in its great partial velocity of current. Thus the town of Ghorabāri in 1845 was seated on the Hajāmro, and was the only place of commerce at that time in the delta. In 1848—only three years afterwards—the river capriciously left it, and another spot, Kēti, had to be selected; this too was overflowed some time afterwards, rendering it necessary to build a second Kēti, a short distance from the first. *At present* the chief obstructions to navigation in the Indus, between Kashmor and the sea, are—1st, three detached rocks in the bed of the river between Tatta and Bhiman-jo-pura, which in 1846 were eight miles inland on the left bank; 2nd, a reef of rocks stretching right across the present river channel, at a spot about four miles above the town of Jerruck, making the navigation there at the low season very difficult—it was here that the steamer “Meteor” was wrecked in January 1854; 3rd, some rocks in the river on the right bank at Pīr Petāro, ten or twelve miles north of Kotri; 4th, a ledge of rocks nearly opposite Sehwan, which partially obstructed the channel in 1860, but this difficulty was removed by the river taking its course in the following year towards the left bank; 5th, the narrow channel between the island of Bukkur and the town of Rohri, where in flood the great rush of water through such a contracted pass (400 yards wide) is highly dangerous to both sailing-craft and steamers. This has to some extent been remedied by enlarging the channel between Bukkur and Sukkur, and thus lessening the velocity of the current on the Rohri side. Snags, or portions of

trees washed away from the forests bordering on the river, and firmly imbedded in the sand, are serious impediments to navigation. Sometimes a large part of a forest is washed away, as was the case in 1862 with that of Kāro-bēlo, situate on the left bank, about twenty-four miles above Kotri, and with the forests of Dhārējā, Sunda-bēlo, and Sāmtia in 1863-64-65. No less than one thousand acres of the Dhārējā forest were swept into the stream in the former year.

FISH.—On the sea-coast of the delta, sharks, saw-fish, rays and skate abound; the ringan and siri (varieties of the cod) are common, so also are the sir, cavalho, the red-snapper, gassar, begti, dangāra and būrū. Oil is obtained from several of these fish, and this is used in Karāchi by the poorer people for burning, as also for protecting the wood of their boats from the injurious effects of sea-water. A kind of sardine, the *clupea neohowii*, frequents the coast in great shoals about the month of February, and is largely consumed as an article of food. In the Indus there are numerous varieties of fish, but the finest-flavoured and the most plentiful is the "pala," one of the *Cyprinidæ*, according to Dr. Winchester, but of the *Clupeidæ*, according to Dr. F. Day. It is believed to be identical with the *hilsa* fish of the Ganges, and is much esteemed among the Sindis as an article of diet. It begins to ascend the Indus from the sea about February, and continues to do so till September. The method adopted by the Muhānos, or fishermen of Sind, in catching the "pala" is novel and peculiar. Provided with a large earthen vessel having a wide aperture, known as a *māti*, together with a kind of dagger knife, and a forked pole, 15 feet or so in length, with a net attached to it, and a checkstring from the net to his girdle, the fisherman places his stomach on the aperture of the *māti*, in such a way as to prevent any water getting inside, and paddles out into the stream. Here he thrusts his net into the water, and by means of the checkstring is at once made aware of the capture of a fish, which always swims against the current. The net is then drawn up, the "pala" killed with the knife and consigned to the *māti*, and so he continues to float down the stream for a certain distance, when he lands and walks on the river bank, with all his fishing apparatus, to the spot where he first began, and again launching out into the water, proceeds with his fishing till he has secured sufficient for the day's sale or consumption.

Pala is not only largely eaten by the inhabitants living on the banks of the Indus, but is extensively dried for exportation elsewhere, thus forming an article in the trade of Sind. Dambhro

(*Labeo rohita*) and mullet of a large size are caught in the Indus; other fish are the morāko (*Cirrhitina mrigala*), the gandan (*Notopterus kapirat*), khago, or catfish (*Rita Buchanani*), popri (*Barbus sarana*), shakūr, jerkho, and the singhāri (*Macrones aor*). Otter and turtle are numerous everywhere, and the porpoise, or "bulani," is frequently seen in different parts of the river. Alligators of the *ghariāl*, or long-snouted kind, abound, and water-snakes of different varieties and size are found in great numbers.

BOATS.—Of the various descriptions of boats which ply on the river, the "dūndhi," or cargo boat of Sind, is that most commonly used on what may be termed the Lower Indus, and answers to the "zaurak" as employed on the upper Indus. The dūndhi is a flat-bottomed boat, and is easily constructed; it is peculiar in form, and well suited, both as regards stowage of cargo and for the navigation of such a river as the Indus. Some of them are 80 feet long, and of 60 tons burthen. The bow is a broad inclined plane, at an angle of about 20° with the surface of the water; its shape is useful, as, when forced end-on against the river bank, it parries in a manner the violence of the shock. The stem is similar in form to the bow, but at double the angle with the water. The sail is large and of lateen shape, and is hoisted behind, not before, the mast. The dūndhi is steered, though badly, with either a long curved oar, or a clumsily-arranged rudder and double tiller; when laden these vessels draw but four feet of water. The boats in Lower Sind are generally constructed from spars obtained from the Malabar coast, and the coir and cordage come from the same quarter. The Muhāno, or Sind boatman, builds his vessel with the wood of the country, such as bē, bābul, kaṭil, &c.; these boats last, on an average, from seven to ten years. The "kauntal," or ferry-boat of Sind, is constructed for carrying horses, and is of great beam; it is a faster sailer than the dūndhi. The pala jar (or *māti*) and the masak (inflated hide) are frequently used by the natives in Lower and Upper Sind when they have occasion to cross the river.

The "jhamptis" were the state barges of the Mirs of Sind, and were large and commodious. Some of them were 120 feet in length, with a beam of 18½ feet; they had four masts, two large open cabins, and drew but two and a half feet of water; they pulled six oars, and had a crew of thirty men. These vessels were built of teak, mostly at Mugalbhin and Karāchi. The dūndo, though the smallest description of boat used on the Indus, is a very useful one of its class. Two men generally constitute the crew. These boats are used in the fisheries both on the Indus and its "dhandhs."

INDUS FLOTILLA.—The first steamer which appeared on the Sind river was the "Indus," in 1835; it was an object of curiosity to the Hyderabad Mirs, who took the opportunity of visiting it. Two steamers, the "Assyria" and "Conqueror," were employed on the Indus in 1839, the year in which Lord Keane's army landed in Sind for the purpose of proceeding to Afghānistān, *viâ* the Bolān pass, and two others, the "Planet" and "Satellite," took in 1843 an important part in the conquest of the province. In 1847 the Indus navy flotilla numbered ten steam-vessels (all constructed of iron), with a few flats, and these were chiefly engaged in the transport of troops, Government stores, and treasure between Karāchi and Multān, and at such intermediate places on the river as were found necessary. These vessels came to Gisri Bandar from up river by one of the Delta channels; the passage they used was only discovered in 1846. The yearly expenses attendant on this navy of Sind, from 1843 to 1847, ranged from 2½ to 5 lakhs of rupees, but several of the steamers composing it were considered to be but imperfectly adapted for the navigation of so difficult a river as the Indus. The head-quarters of the Indus flotilla were at Kotri, where the head of the department, an officer of the Indian navy, resided with his staff. There was also a small factory at that station for effecting repairs, besides quarters and a hospital for the use of the officers and others belonging to the fleet. In 1852 a portion of the flotilla was made available for passenger and goods traffic between Karāchi and Multān, but down to 1860 the exigencies of the Government service interfered greatly with any regular maintenance of a bi-monthly communication between these two places. After that year two steamers were specially set apart for this work, but these being found insufficient a third was soon after added. The time had, however, now come when the Indian Government found it unnecessary to keep up a special naval flotilla on the Indus, and it was in consequence broken up, five of its steamers, with a number of flats or barges, being made over to another Indus flotilla, established in 1859, in conjunction with the Sind railway then in process of construction between Karāchi and Kotri. The capital of this new company was fixed at 250,000*l.*, and the Indian Government took shares, as it were, in this scheme to the extent of the value of the vessels, and the stores and buildings it had transferred to the new flotilla. Another company, the "Oriental Inland Steam," had also commenced operations on the Indus, but the history of this company will be referred to farther on. The boats of the new Indus flotilla did not fairly begin to run in the river before the month of February 1862, at which time its fleet numbered



about nine steamers and tugs, and twenty-three barges. The following three tables will show its strength, revenue, and other particulars connected with it, during the past thirteen years—that is to say, from 1862 to 1874, inclusive :—

## I.

Year.	Number of		Aggregate Tonnage.	Receipts.	Expenditure.	Length of Voyage.		Remarks.
	Steamers and Tugs	Barges				Up	Down.	
1862	9	23	3,946	rupees. 3,02,926	rupees. 2,63,928	18	7	Two Tugs sold during the year.
1863	11	34	5,140	7,05,899	4,45,722	20½	9½	
1864	12	35	5,418	10,06,536	6,31,698	22	9	One Steamer and one Flat added.
1865	11	34	5,340	8,25,716	6,60,474	22	9	One Tug and one Bargesold.
1866	11	34	5,340	7,21,725	6,22,167	18½	10	Three Steamers and eight Barges added to the fleet. One Steamer condemned.
1867	13	42	8,448	8,59,446	6,57,566	21	10½	
1868	15	46	10,060	13,17,074	7,83,058	19½	8½	Two Steamers and four Barges added to the fleet.
1869	16	45	11,617	9,62,183	7,38,262	16	8	One Steamer and two Flats added and three Barges sold.
1870	15	45	11,099	11,18,752	6,93,216	24	10	
1871	15	45	11,099	6,65,304	5,94,928	21½	10½	
1872	15	45	11,099	7,76,787	5,78,556	20½	12	
1873	14	43	10,461	7,78,844	7,26,143	20½	12½	One Steamer and two Bargesold.
1874	14	43	10,461	8,39,732	8,03,410	20	9½	

## II.

## PASSENGER TRAFFIC.

Year.	1st Class.	2nd Class	3rd Class	Total Passengers.	Total Amount.
1862 ( $\frac{1}{2}$ year)	88	56	1,258	1,402	rupees 20,314
1863 . . . . .	294	2,227	3,461	5,982	64,459
1864 . . . . .	324	2,434	4,987	7,745	83,896
1865 . . . . .	334	3,304	5,261	8,899	94,493
1866 . . . . .	362	3,045	6,026	9,424	1,03,834
1867 . . . . .	442	6,040	10,146	16,628	2,09,799
1868 . . . . .	431	6,234	19,229	25,894	3,95,812
1869 . . . . .	281	2,097	6,724	9,102	1,15,488
1870 . . . . .	197	232	6,257	6,686	52,975
1871 . . . . .	159	163	5,802	6,124	41,203
1872 . . . . .	169	150	6,908	7,227	46,965
1873 . . . . .	254	199	7,823	8,276	56,687
1874 . . . . .	249	182	8,252	8,683	57,377

## III.

## GOODS TRAFFIC.

Year.	Up-river.			Down-river.		
	Weight.	Amount.	Rate per ton.	Weight	Amount.	Rate per ton
1862 ( $\frac{1}{2}$ year)	tons. 2,621	rupees. ...	rupees ...	tons 4,139	rupees. 2,00,505	rupees ...
1863 . . . . .	6,313	...	...	67,42	4,56,709	...
1864 . . . . .	9,256	4,69,664	50.7	10,592	4,23,293	39.6
1865 . . . . .	10,114	4,16,605	41.2	11,313	2,97,038	24.7
1866 . . . . .	5,893	2,33,305	40.0	13,227	3,63,987	26.2
1867 . . . . .	10,246	4,54,247	43.0	9,402	1,73,519	18.5
1868 . . . . .	12,447	6,66,833	53.4	8,247	2,07,323	25.7
1869 . . . . .	12,973	6,38,867	49.2	9,699	1,82,916	19.0
1870 . . . . .	15,715	7,49,379	47.7	14,507	2,85,631	19.0
1871 . . . . .	8,455	3,74,628	44.5	13,397	2,39,402	18.5
1872 . . . . .	8,704	4,49,383	51.2	9,081	2,56,969	30.9
1873 . . . . .	12,683	4,63,555	37.0	17,358	2,47,956	14.2
1874 . . . . .	16,779	5,39,550	32.5	16,829	2,36,779	14.0

Formerly the steamers of the Indus flotilla, when needing extensive repairs, had to proceed for that purpose to Karachi. In 1868 the materials for a large floating dock were received from England, and these were so speedily put together in the river at Kotri, that the dock was ready for use by August 1869. Its dimensions are—length, 300 feet, width, 80 feet, and depth, 12½ feet, and it has two centrifugal pumps, worked by two high-pressure engines: its cost was 2,63,654 rupees.

The Indus flotilla establishment formerly comprised, in addition to the commanders and engineers of steamers, an agent and superintendent, with an assistant, an accountant, and foreman engineer, all of them located at Kotri, besides traffic agents at Mūltān and Sukkur ; but since the amalgamation of the flotilla in 1870 with the Sind railway, this separate establishment has been abolished, and the work of the flotilla and railway is now conducted by one staff, with its head-quarters at Lahor in the Panjāb.

ORIENTAL INLAND STEAM COMPANY.—In 1856 a company called "The Oriental Inland Steam Company," with a capital of 250,000*l.*, was formed in England for the purpose of navigating the principal rivers in India by means of powerful steamers and barges upon a peculiar plan. So far as its connection with the Indus is concerned, the company obtained from the Indian Government the concession of a yearly subsidy of 5000*l.*, provided it put on that river, for a period of ten years, two steam-trains which were to ply annually over a distance of 20,000 miles. In 1858 two steam-trains, with all the necessary apparatus and stores, were despatched from England to Karāchi, where, as also at Kotri, land was given to the company by the Indian Government for building workshops, offices, &c. During the years 1859 and 1860, one of the company's steamers was lost while proceeding over the Karāchi bar, and three others on their way out from England ; and in consequence of a trial trip made on the Indus in May of the former year, it was found that the river current was too strong for the steam-train. In 1861 two other steamers belonging to the company arrived at Karāchi, and in the following year it had three steamers, with nine barges, on the river. From that time down to the year 1867, when the company hopelessly collapsed, its affairs assumed a very unfavourable appearance, and as it was unable to keep faith with the Indian Government, the yearly subsidy previously agreed to be paid to the company was in 1862 withdrawn. Much money was needlessly wasted, owing to the fruitless attempts made by the consulting engineer and managing director of the company to navigate the Satlĕj river with steamers not adapted for such work. In consequence of the heavy pecuniary losses sustained by the company, its steamers in June 1867 ceased running on the Indus, and as it was unable to pay off the liabilities it had incurred, the concern was thrown into the Court of Chancery, which ended in the extinction of the company, and in the sale by auction in 1869 of its steamers and barges, together with all other movable and immovable property it then possessed. It is thought that, had proper tact and discretion been observed

in carrying out the operations of the company—which it is as well to mention was inaugurated under the fairest auspices—its fleet might long since have navigated the Indus at a fair remunerative profit.

**NATIVE CRAFT.**—No. returns appear to have been kept of the number and tonnage of native craft proceeding up and down the Indus till the year 1855-56, when they were first taken at Sukkur. The direct trade up the river, from the sea to Bahāwalpur and the Panjāb, in 1846-47 would seem to have been very small in value, amounting to but 5049 rupees, and consisting of grain (of sorts), skins, hides, and salt fish. The down trade in that year was larger, and is given in value at 1,60,300 rupees, the articles brought being chiefly grain, ghi, sugar, cotton, indigo, oil, and piece goods. The time occupied by native sailing craft in their downward and upward voyages is very much dependent on the state of the river. In the former it took 12½ days to reach the sea from Sukkur in the dry season, and but eight days during the freshes. In the upward voyage, the same distance occupies in the dry season about 37 days, and in the freshes 18 days; it is mainly performed by the aid of the wind and the track-rope. The following table exhibits the traffic and native boat tonnage on the Indus from 1855-56 to 1861-62, a period of seven years:—

## UP-RIVER TRAFFIC.

Year.	Laden Boats, through Traffic.		Discharging Cargoes at Sukkur.		Laden Boats from Sukkur.	
	Number of Boats.	Burthen in tons.	Number of Boats.	Burthen in tons.	Number of Boats.	Burthen in tons.
1855-56	740	13,162	600	7,750	629	8,000
1856-57	649	11,043	851	12,136	899	13,116
1857-58	87	3,800	571	8,931	630	10,070
1858-59	345	6,600	1,138	17,543	1,039	19,000
1859-60	104	2,307	1,946	35,777	1,733	24,630
1860-61	85	1,953	1,716	26,507	1,699	37,000
1861-62	...	...	1,232	20,232	1,714	16,317

## DOWN-RIVER TRAFFIC.

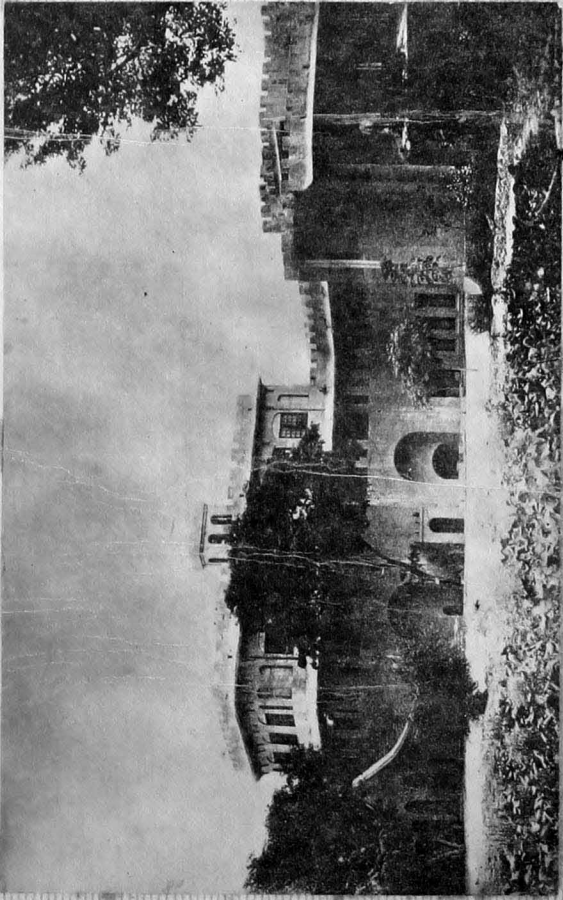
Year.	Laden Boats, through Traffic.		Discharging Cargoes at Sukkur.		Laden Boats from Sukkur.	
	Number of Boats.	Burthen in tons.	Number of Boats.	Burthen in tons.	Number of Boats.	Burthen in tons.
1855-56	1,188	18,786	2,210	33,125	2,288	29,214
1856-57	1,164	20,410	2,077	35,800	3,097	32,634
1857-58	60	1,307	2,440	41,583	2,189	28,404
1858-59	37	823	2,014	34,868	2,430	25,146
1859-60	348	9,282	918	16,127	978	15,546
1860-61	402	14,140	940	18,178	929	17,085
1861-62	181	10,096	479	7,694	646	11,456

RIVER CONSERVANCY.—The navigation of the Indus, by both steam and sailing vessels, is attended with no small difficulty and risk, not only from the continual shifting of the navigable channels, and their occasional extreme shallowness at certain seasons of the year, but by the vessels themselves coming into contact at times with "snags," which are the trunks and arms of large trees once growing on the river banks, but which have been swept away by the stream and have become embedded more or less in the practicable channels, where they offer very serious obstacles to navigation. Owing to these combined obstructions, apprehensions began to be entertained, about the year 1860, that the communication would in some places be altogether stopped, unless prompt measures were taken to remove them; and it was proposed that, instead of leaving, as was the custom, the conservancy of the river and its banks to the Collectors of the districts through which it flowed, there should be an establishment specially organized to attend to this important duty, and that fees should be levied from all vessels plying on the river according to a certain fixed scale. The scheme ultimately resolved itself into a legislative enactment (Bombay, Act I. of 1863) which provided for the registration of vessels and the levy of pilotage fees by an officer called the Conservator and Registrar of the River Indus, the sums so realized to be expended in removing obstructions from the river and in improving its navigation. Previously (December 1861) there had been a general pilotage establishment, consisting of two boats with six pilots and crew, stationed at the Khēdewāri and Hajāmro mouths of the Indus during the open season—that is to say, from

the middle of September to the end of April. Of the pilots, two remained at Kēti, and two in each of the stationary boats, a pilotage fee of 9 pies *per ton* being levied on all vessels entering or leaving these two mouths of the Indus. During the monsoon months a similar fee was levied for the pilotage of all vessels proceeding to or from the Indus by the Gisri passage, where the services of these pilots were *then* made available. The annual registration fee on steamers and sailing craft, from 1863 up to 1867, was fixed at the rate of 4 pies per maund in burthen, but from the 1st of January, 1868, this was increased to 10 pies per maund on steamers, their barges alone being exempted. The Conservancy Department possesses two steamers and two weigh-boats on the Indus, besides a small pilotage establishment on the Hajāmro mouth of the river, and its *average* yearly cost, from 1867 down to 1874, has been about 60,000 rupees. The following table will show the receipts and disbursements of this department during the past eight years, ending 1874 :—

Year.	Receipts.	Disbursements.	Receipt of Fees (Act I. of 1863)	Registered burthen of boats.
	rupees	rupees.	rupees.	tons
1867 . .	56,086	61,654	37,718	63,993
1868 . .	60,824	60,346	41,610	70,643
1869 . .	49,211	70,847	33,925	57,544
1870 . .	56,175	56,764	35,902	61,547
1871 . .	52,671	64,892	32,790	56,210
1872 . .	51,856	56,056	31,219	53,518
1873 . .	49,210	56,984	29,995	51,421
1874 . .	52,260	58,638	29,493	50,559

One of the steamers is used as a daily ferry in conveying passengers and goods from Kotri to Gidu-Bandar and back, from sunrise to sunset, at stated fares. The other vessels are employed in removing obstructions in the river bed; this work extends from the sea to Multān, a distance of 700 miles, and is attended with much trouble and difficulty, owing to the rapid changes which are continually taking place in the navigable channels. The obstructions at present to navigation on the Indus have already been stated, but it is by no means uncommon for the obstacle of one year to be altogether removed in the following one by a new caprice of the stream, though showing perhaps a fresh impediment somewhere else. The work of the Conservancy Department, which is of an arduous character, begins about the middle of October, and finishes by the end of the following April, or the beginning of May.



PRESIDENTIAL HOUSE, OSHANA.

Class.	Town.	Cantonment.
Christians . . . . .	9	75
Muhammadans . . . . .	2,915	4,143
Hindūs . . . . .	2,416	1,377
Others . . . . .	15	4
Total . . . . .	5,355	5,599

There is a municipality here, the receipts of which in 1873-74 were 21,941 rupees, and the disbursements 21,110 rupees. The municipal boundary is as follows:—On the north by Tate's bund (*bandli*); on the east by the Nurwah bund; on the south by the Jamāliwah bund; and on the west by the Western bund. There is also a post-office, subordinate to that at Shikārpur, as well as an electric telegraph office and dispensary; this last is under the charge of the Civil Surgeon of Jacobabad. The following table will show the admissions into this dispensary during the years 1873 and 1874, and it may also be mentioned that no outbreak of cholera has occurred here since 1867, when of 48 cases admitted, no less than 36 died:—

	Total Admissions in		Casualties in		Average Daily Attendance.	
	1873.	1874.	1873.	1874.	1873.	1874.
In-patients . .	161	157	24	34	8·7	7·5
Out-patients .	6,390	3,035	...	...	45·1	22·5

Jacobabad has direct communication with Shikārpur (distant 24½ miles), Lārkāna, Dodapur, Khera-Garhi, Shāhpur, Bakhshāpur, Kashmor, Thul and Mubārakpur. There is a dharamsāla for the accommodation of travellers, and lines for the Kāfilas arriving from Central Asia, and supplies generally of all kinds are abundant. The trade is in grain, *ghi*, and leather.

Jagan, a large Government village in the Shikārpur talūka of the Sukkur and Shikārpur Division, 12 miles north-west from Shikārpur. It has communication by road with Garhi-Yāsin, Humaiyun, and Wakro. It has police lines for 10 men. The population, numbering 2556 souls, consists of 2167 Musalmāns of



the Bhāya tribe and 389 Hindūs. Their chief occupations are trade and agriculture.

**Jām-jo-Tando**, an alienated village in the Hyderabad talūka of the Hyderabad Collectorate, situate on the main road leading from Hyderabad, *viā* Alahyar-jo-Taḥdō, to Mirpur Khās, distant south-west from the former town about ten miles. It has road communication also with Hūsri, Tājpur, and Kaisar-jo-Tando. No Government officers reside here, but there is a vernacular school fairly attended. The population numbers in all 1897 persons, of whom 937 are Muhammadans, principally of the Nizamāni, Saiyad and Khāskēli tribes, while 960 are Hindūs, mostly Lohānos. Agriculture is the chief employment among the inhabitants. The members of the Khanāni branch of the Talpur Mirs reside here; of these the chief are Mirs Muhammad Khān and Ahmad Khān. There are no manufactures in this town of any note, nor is the trade of any special importance. This place is said to have been founded by one Mir Jām Khān (the father of Mir Muhammad Khān) some time during the period of the Talpur dynasty.

**Jāti**, an extensive talūka (or sub-division) of the Shāhbandar Deputy Collectorate, having an area of 2053 square miles, much of which is barren and unproductive, with 4 tapas, 80 *dahs*, and a population of but 22,725 souls. The revenue, imperial and local, of this sub-division during the past five years, ending with 1873-74, is as follows:—

	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . .	rupees. 46,996	rupees. 50,867	rupees. 65,917	rupees. 64,399	rupees. 63,552
Local . . .	6,048	5,737	6,258	6,682	5,653
Total Rs. . .	53,044	56,604	72,175	71,081	69,205

**Jatoi**, an alienated village situate on the right bank of the Dādwah in the jāgir of Mir Ghulam Hasan Talpur, in the Moro talūka of the Naushahro Division. It is 11 miles south-east from Moro, but there are no roads leading to or from this place, neither does it possess any Government buildings. The population is 892, consisting of Musalmāns and Hindūs, but the number of each is not known; their occupation is mostly agricultural. There are no manufactures of any kind here, but there is an export trade in grain of the annual value of 6000 rupees. This town is said to have been founded about 90 years ago by one Neyāji Khān

Jatoi, the grandfather of Imām Bakhsh, the present head-man of the village.

**Jhāngār**, a village in the Sehwan talūka of the Sehwan Deputy Collectorate, situate to the south of the Manchhar lake, and distant 12 miles south-west of Sehwan, with which town, as also with Shāh Hasan, and Chorlo, it has road communication. It is the head-quarter station of a Tapadār, and besides a police post of three men, has a school, dharamsāla and cattle pound. The inhabitants, numbering 1643, consist of 1101 Musalmāns, mostly Saiyads and Rind Balochis, and 542 Hindūs of the Banya caste. Their principal occupation is agriculture and trade. The chief residents of note are Bhāi Khān Rind and Saiyad Ghulām Rasūl Shāh. This village does not appear to possess either trade or manufactures of any consequence.

**Jerruck** (or **Jhirak**), a large division and Deputy Collectorate of the Karāchi district. It is bounded on the north by the Kotri talūka of the Sehwan Deputy Collectorate, and a portion of Kohistān, the Bāran river forming a natural line of demarcation; on the east and south, by the river Indus and its tributaries; and on the west by the sea, and a part of the Karāchi talūka.

The area of this district, according to the Deputy Collector's estimate is 2271 square miles, but by the Revenue Survey Department it is entered as 3010 square miles; it is divided into three talūkas and 20 tapas, with a population which, by the census of 1872, was found to be 92,902 souls, or 30 to the square mile. The following is a tabulated statement of the several talūkas in this division, with their tapas, area, population, chief towns, &c. (*see next page*).

The area in English acres of each talūka, showing the quantity cultivated, cultivable, and un-arable, is also tabulated as under:—

Talūka.	Total Area in English Acres.	Cultivated.	Cultivable	Un-arable.
1. Tatta . . .	397,909	61,776	34,735	301,398
2. Mirpur Sakro .	711,603	9,503	56,021	646,079
3. Ghorabāri . .	343,630	25,568	31,094	286,968

TABLE OF THE TALUKAS, WITH THEIR TAPAS, AREA, POPULATION, CHIEF TOWNS, ETC.

Talūka.	Area in Square Miles.	Tapas.	Number of Villages	Population	Towns having 800 Inhabitants and upwards.
1. Tatta . . .	622	{ 1. Bijoro . . . . . 2. Gārko . . . . . 3. Gujo . . . . . 4. Chūliā . . . . . 5. Sonda . . . . . 6. Shāl . . . . . }	29	37,926	1. Tatta. 2. Jerruck.
2. Mirpur Sakro . .	1112	{ 1. Mirpur . . . . . 2. Buhārā . . . . . 3. Bābro . . . . . 4. Ghulāmūlah . . . . . }	16	22,614	Ghāro.
3. Ghorabāri . . . .	537	{ 1. Ghorabāri . . . . . 2. Mahr . . . . . 3. Daulatpur . . . . . 4. Ketibandar . . . . . 5. Munāro . . . . . 6. Beli . . . . . 7. Bhuman . . . . . 8. Khatho . . . . . 9. Garha . . . . . 10. Keti Hashim . . . . . }	97	32,362	1. Keti-bandar.
	2271		142	92,902	

GENERAL ASPECT.—The aspect of this division towards the north is hilly, with little or no cultivation, and this may also be said of a portion on its eastern side, bordering directly on the river Indus, where are the Makli hills, near which Tatta is situated, and also another range on which the town of Jerruck is built. The former are about 11 miles in direct length, with an average height of from 80 to 150 feet above the level of the surrounding country, their summits being invariably a table-land, having a breadth from half a mile to a mile and three-quarters. The Jerruck hills, which run nearly due north and south, are on an average, about 150 feet above the level of the Indus, but there are loftier isolated spots which are not less than 400 feet in elevation. These hills, which possess numerous caverns, were known under the name of “Chhapar,” a word signifying a *thief*, for there was a tradition that a notorious band of robbers once used these caverns as a retreat. Close to this range are some fine lakes (or dhandhs), of which the largest are the Kinjhar, near Heläia, and the Sonahri, not far distant from it; the former was once 18 miles and the latter 24 miles in circumference, taken at the highest point to which the water rises. Both these dhandhs are said at one time to have formed a single sheet of water. In the talukas of Tatta and Sakro are numerous plains, which are used mostly as grazing grounds for cattle, though their value in this respect greatly depends on the rainfall. The right of grazing cattle on these plains is usually sold every year by auction to the highest bidder. In the southern portion of this division the country is one low, flat, alluvial plain, broken only by canals, branches of the Indus, and channel creeks. The late Dr. Heddle, of the Bombay Medical Establishment, many years ago thus described a portion of the Indus delta in this district, one that may be said to hold good at this present time:—“But the most striking peculiarity of this section is the occurrence of an annual inundation, which extends over a strip (probably along the whole coast of Sind wherever the fresh and salt waters meet) to the breadth of five or six miles in direct distance from the line of coast. The water, which in the higher parts of the river merely elevates its level for a few feet, but never surmounts the bank or floods the country, is here elevated above the low banks of this limited strip, and produces a most important effect, not only on the vegetation of the country, but influences materially the whole economy of the inhabitants of the region, contrasted with those who occupy the more elevated parts. The phenomenon of general inundation, which is confined to this latitude, produces the extensive pasturage which clothes

the belt bordering on the sea, and feeds the large herds of cattle, principally buffaloes, which disappear as soon as you reach the country where the height of the banks prevents the occurrence of a general overflow. The only canals seen in this region are natural creek-channels, which keep up communication with the different branches near the sea, and preserve the same level as the ocean. It is deprived of the vegetable feature which characterises the rest of Sind, for the tamarisk does not grow here, or is very scarce, and where the southern limit of this plant commences, the general inundation ceases to prevail."

HYDROGRAPHY.—Much of the southern or delta portion of this district is intersected by numerous creeks or branches of the Indus, six of the old mouths of this river, viz., the Piti, Juna, Richhal, Hajāmro, Kūkaiwāri, and Khēdewāri, besides the Ghāro creek, being in this division. This last, which is so called from the town of that name near which it flows, falls into a long creek opening into the sea about ten miles east of Karāchi. It is navigable for native boats of about 10 *kharārs* (or between 7 and 8 tons) burthen, at high tides, but not beyond the town of Ghāro. These boats mostly come from Karāchi. The mouth of this creek is in latitude  $24^{\circ} 45'$  N., and longitude  $67^{\circ} 10'$  E. The number of canals in the Jerruck Deputy Collectorate, large and small, is 49, and of these 18 are main-feeders. The largest of these canals are the Baghār, or Bhaghiār, Kalri, Ūchto and Siān, but the first and the two latter may be considered rather as natural branches of the Indus than as canals.

The Baghār or Bhaghiār (meaning the *destroyer*) is the western branch of the Indus, diverging a little to the south of the town of Tatta, and having numerous branches or offshoots from it. It is said to have been in A.D. 1699 a very great stream, navigable as far as Lahori-bandar (then the principal port of Sind, and at the close of the last century the seat of an English factory), 20 miles from the mouth, for vessels of 200 tons; afterwards it resolved itself into four branches, entering the sea by the Piti, Pitiāni, Juna, and Richhal mouths. In 1840, owing to the existence of a sand-bank across the channel at the place of divergence, it had scarcely, except during the inundation season, any water in it.

The Ūchto (or Hajāmro), another branch of the Indus, had of late become greatly enlarged in volume, and it seemed not improbable that it would soon become the main stream, as the old bed was nearly dry, and fordable in many places; but in the inundation season of 1871 a breach occurred in the Uchto, by which it became connected with the old river through a channel

now known as the Kalandri. The two rivers are, in fact, at present less than a quarter of a mile distant from each other, and the consequence of this breach has been an increased flow of water in the bed of the old stream. To keep up this new flow and prevent any undue flooding from the Ūchto, a channel connecting this stream with the old river has been excavated near the village of Daulatpur at an expense of about 11,000 rupees. This channel is 200 feet wide, and 50 feet deep, and is now known as the "Kukaiwāri new mouth." The Siān river, or branch of the Indus, is simply the upper half of the Hajāmro from its point of junction to Ghorabāri, a distance of over twenty miles, and derives its name, which is merely a local one, from the district through which it flows. The Hajāmro branch of the river, the sea-mouth of which is in latitude  $24^{\circ} 10' N.$ , and longitude  $67^{\circ} 28' E.$ , is an offshoot of the Sitā, or great eastern channel of the Indus. In 1831 it was navigable for boats from the sea to its entrance into the Sitā, and it was up this branch that Captain (afterwards Sir Alexander) Burnes and his party in that year passed on their way to the Panjāb. In 1839 the British troops, marching from Bombay to Afghānistān, ascended the Hajāmro branch and landed at Vikar (another name for Ghorabāri), but in that same year it was closed by a change in its channel caused by the violence of the current. Again, in 1845, the Hajāmro was so small as to preclude even small boats from passing up, except during the season of inundation; but from that time it began to increase in volume, and at present it is perhaps the largest *embouchure* of the Indus. The entrance from seaward is very wide, but it narrows quickly as it recedes from the sea. There is a beacon, 95 feet high, at the eastern side of the entrance, which can be seen from a distance of 25 miles; and two Government pilot-boats, well manned, are also stationed there inside the bar. Other branches of the Indus, which formerly led its waters into the sea through the delta of this district, were the Piti, Juna, Kukaiwāri, and Khēdewāri, now all unnavigable for large boats, but a description of these will be found in a notice of the river. (*See INDUS.*) The following is a list of the canals of this division, with their length, cost of clearance, revenue, &c. (*see next page*):—

LIST OF THE CANALS OF THE JERRUCK DIVISION, WITH THEIR LENGTH, COST OF CLEARANCE, REVENUE, ETC.

Name of Canal.	Length in miles.	Width at Mouth.	Average Annual Cost of Clearance for five years ending 1873-74.	Average Annual Revenue for five years ending 1873-74.	Remarks.
1. Sāpāh . . . . .	2	feet. 11	rupees. 265	rupees 308	Is a main-feeder; taps the Indus in the Shāl tapa, through which it flows.
2. Khairwāh . . . . .	1	6	36	344	A branch of the Sāpāh.
3. Chhandan . . . . .	2	...	...	121	Main-feeder; taps the Indus in the Shāl tapa, through which it flows.
4. Jām wāh . . . . .	4	10	214	780	Main-feeder; taps the Indus in the Sonda tapa, through which it also flows.
5. Hājiwāh . . . . .	6	11	339	988	Ditto.
6. Sultānwāh . . . . .	2	7.	47	128	Ditto.
7. Ali-bahar . . . . .	6	13	405	1,645	Ditto.
8. Ghāri . . . . .	3	6	50	167	A branch of the Ali-bahar.
9. Gidarwāh . . . . .	4	12	357	1,438	Main-feeder; taps the Indus in the Sonda tapa, which it waters.
10. Khatiān . . . . .	4	9	25	1,302	Main-feeder; taps the Indus in the Chiliā tapa, which it irrigates.
11. Kalri . . . . .	50	40	2,519	8,609	Main-feeder; taps the Indus in the Chiliā tapa, flows through Gūjo and Chiliā tapas, tailing off in the former.
12. Nāri Chhachh . . . . .	2	30	228	349	Branch of the Kalri.
13. Sadā Bahār . . . . .	3	7	101	508	Ditto.
14. Alakhkhu (old) . . . . .	12	18	410	1,458	Ditto.
15. Jām wāh . . . . .	4	9	85	2,765	Ditto.
16. Ghar Kalān . . . . .	3	25	87	416	Ditto.
17. Alakhkhu (new) . . . . .	3	...	...	545	Ditto.
18. Ghar Sonaki . . . . .	2	...	...	249	Ditto.
19. Ghār Masān . . . . .	5	10	38	1,373	Ditto.
20. Ghar Mācha . . . . .	5	10	26	1,701	Ditto.
21. Londi . . . . .	2	...	...	116	Ditto.
22. Khānih . . . . .	9	20	319	2,872	Ditto.
23. Jām wāh . . . . .	7	9	336	2,876	Ditto.

24. Bhaghār (or Baghār) . . . . .	56	...	1,756	23,824	Main-feeder and branch of the Indus, which it taps in the Garko tapa, watering that and the Bijoro tapa, and tailing off in the Sākro talūka.
25. Sonaki . . . . .	5	10	271	582	Branch of the Bhaghār.
26. Jām wāh . . . . .	5	9	136	306	Ditto.
27. Nasir . . . . .	9	13	736	1,055	Ditto.
28. Khatiwāh . . . . .	7	8	509	765	Ditto.
29. Rājwāh (1) . . . . .	5	...	..	..	Ditto.
30. Ghār Jhagi . . . . .	3	10	297	617	Ditto.
31. Rājwāh (2) . . . . .	2	15	311	196	Ditto.
32. Malka . . . . .	4	9	266	1,598	Ditto.
33. Dorwāh } . . . . .	5	8	412	682	Ditto.
34. Daro } . . . . .					
35. Ladia . . . . .	5	8	387	1,151	Ditto.
36. Jhor . . . . .	7	12	587	1,084	Ditto.
37. Ghār-bahārki . . . . .	3	12	577	1,050	Ditto.
38. Mirwāh Kalān . . . . .	9	14	1,393	3,161	Main-feeder; taps the Indus in Garko tapa, which it irrigates.
39. Nāri Chhachh . . . . .	2	11	205	353	Main-feeder; taps the Indus in Bhiman tapa, which it irrigates.
40. Ghār-marāh . . . . .	6	16	113	1,384	Branch of the Nāri Chhachh.
41. Nāri Gulēl . . . . .	1	10	107	1,028	Main-feeder; taps Indus in Bhiman tapa, which it waters.
42. Siāthri (or Badalshāh) . . . . .	2	9	150	256	Ditto.
43. Nasirwāh . . . . .	8	18	800	2,557	Main-feeder; taps the Indus in the Bhiman tapa, and waters that and the Mahr tapas.
44. Ūchto . . . . .	34			40,491	A natural branch of the Indus, and another name for the Hajāmro. Floods from the canal occur in the Ghorabāri talūka; it waters the Daulatpur, Mahr, Garha, Khatho, Ghorabāri, Munaro, and Kētubandar tapas.
45. Mākri . . . . .	4	...	354	3,259	Branch of the Uchto.
46. Khanāni . . . . .	3	...	..	1,228	Ditto.
47. Khatho . . . . .	3	13	231	1,909	Ditto.
48. Siān . . . . .	27	..	494	3,748	Natural branch of the Indus; waters the Daulatpur tapa, and tails off there.
49. Ghero . . . . .	4	...	..	..	Main-feeder; taps the Indus near the village of Pir Kanjrio in Ghorabāri tapa, which it waters.



There are thus about 360 miles of canals in this division, natural and artificial, the aggregate average annual cost of clearance of which is about 16,000 rupees, and the aggregate average revenue 122,360 rupees. These canals are cleared at the expense of the Government, the work being given out on contract in the cold season at so many hundred cubic feet the rupee. This work is now carried out by the Public Works Department. The Zamin-dāri canals in the three talūkas are very numerous (1321), but at the same time very small. There are upwards of 600 alone in the Ghorabāri talūka.

**TORRENTS AND FLOODS.**—Torrents (or *nais*, as they are locally called), from the hilly part of this division and of Kohistān, are frequent after heavy showers of rain. They are at times very destructive, the water often rising suddenly and carrying away with it any sheep or cattle that may be feeding near the course it takes. The railway running from Karāchi to Kotri, which passes across the line of these torrents, has at times and in various places suffered very heavy damage from the effects of the great body of water brought down so suddenly from the hill country. The following is a list of the chief torrents (or *nais*) which visit this division :—

- |               |   |                                     |
|---------------|---|-------------------------------------|
| 1. Dābeji.    | } all these fall into the Kinjhar dhandh. | 7. Dhoro Lorio } fall into the So-  |
| 2. Khārisir.  |   | 8. Sūrji } nahri dhandh.            |
| 3. Jungshāhi. |   | 9. Chbatāji, falls into the Hālaaji |
| 4. Dhāng      |   | dhandh.                             |
| 5. Udh        |   | 10. Bāran, falls into the Indus.    |
| 6. Roriāri    |   | 11. Māhēti.                         |

The floods resulting in the low lands from these hill torrents are often productive of much damage. In the Tatta talūka, in 1869, the two large dhandhs—the Kinjhar and Sonahri—were filled to overflowing, by which the entire rice cultivation in the vicinity was destroyed. The Tankan tract in this talūka is also occasionally flooded by the Indus. Certain tracts of land in the Ghorabāri talūka are in a similar manner affected by the sudden rising of this river and its branches. The localities most usually flooded from this cause are the following :—

- |   |          |                                |
|---|----------|--------------------------------|
| 1. Matā, flooded by the Nasirwāh canal. | } Indus. | 5. Nena, flooded by the Ūchto. |
| 2. Būkarāni, ,,                         |          | 6. Juho, ,, "                  |
| 3. Babralo, ,,                          |          | 7. Ūchto, ,, "                 |
| 4. Mahri, ,,                            |          | 8. Siān, ,, Sian.              |

In the Mirpur Sākro talūka, a tract known as Dumāni is frequently flooded by the Kalri canal.

**DHANDHS.**—The largest dhandhs (or lakes) in this division are the Kinjhar and Sonahri, both in the Tatta talūka, situate among the Jerruck hills. The former is close to Helāia, and is fed, as previously mentioned, mostly from three *nais*—or hill torrents; the latter is not far distant from the Kinjhar, and is also fed by two other torrents. The Sonahri dhandh is spoken of as having a beautiful appearance, the water being clear and deep, with a hard and gravelly bed, and but few reeds or bushes seen in it. Both these dhandhs, which are said to have been formerly one large sheet of water, abound in fish and water-fowl of various kinds. The Hālahi dhandh, near the village of that name in the Tatta talūka, and between Jungshāhi and Tatta, is another fine sheet of water, also fed by hill torrents, but its size is chiefly regulated by the amount of rainfall. There are numerous smaller dhandhs, as well as marshes, in the Ghorabāri and Mirpur Sākro talūkas, the latter being numerous in the delta-portion of these two districts, so much of it being included in them.

**CLIMATE.**—The climate of this division, owing to its great area and local peculiarities, varies to some extent in different places. Thus the climate of that part of the Jerruck district lying in the Indus delta is, in the winter season, said to be cool, dry, and bracing, the temperature ranging from 45° to 76° F.; but during the summer, though within the influence of the south-west monsoon winds, which blow very strong for several months together, the heat is excessive, and less rain falls than might be expected. During the inundation season the climate is unhealthy, agues, fevers, and dysentery being then very prevalent; and it has been noticed that those of the inhabitants who reside constantly in the delta have an appearance of premature old age, which may, without doubt, be attributed mainly to the effect of these diseases. Again, at Jerruck and in its vicinity the climate is considered to be more favourable to health than it is in other parts of the district near the river in Lower Sind, and when fever does prevail, it does not appear to be attended with dropsy or spleen, which is so common in other parts of Sind. Sir Charles Napier, when Governor of Sind, was so pleased with the healthy situation of the town of Jerruck, that he is reported to have regretted not having chosen it as a site for barracks for European troops, instead of Hyderabad. But it is very different in the town of Tatta and its neighbourhood, which is notoriously unhealthy at the time when the inundation waters begin to subside. These, after swamping the country all round Tatta and the Makli range of hills, and extending as far westward as Ghāro, produce those terrible aguish fevers

from which but few of the inhabitants escape from the month of October to about the middle of December. It will be interesting here to note the observations taken of the climate of this part of the district in 1839 by Dr. Winchester, of the Bombay army, at a time when a British force was encamped, in the first instance on the alluvial plain, but afterwards on the table-land of the Makli range near the town of Tatta. These observations extend, unfortunately, over but three months—March, April and May—but they are nevertheless valuable as a careful record of the climate thirty-six years ago.

Months.	Mean Temp.	Mean Maximum.	Mean Minimum.	Remarks.
March .	81 31	96 8	67 7	Prevailing winds, south and west ; 4.50 inches of rain fell during the month ; nights always cool.
April .	85 9	91 11	79 6	Prevailing winds, west and south-west ; no hot wind experienced, and nights almost always cool. Only a few drops of rain fell this month.
May .	88 68	90 7	86 6	Wind westerly ; rain trifling in quantity : excepting four days, the nights were almost uniformly cool.

It is necessary to mention, that in these observations the thermometer was for the first two and a half months hung up in a single-poled tent ; but during the last half of the month, in the open verandah of a house, and further, that the camp was pitched in the plain till about the 20th of March, when cholera breaking out after a heavy fall of rain, it was moved to the rocky ridge, when the disease almost instantaneously ceased. Later meteorological observations taken at the dispensary at Tatta for some years, ending 1874, are herewith appended :—

Months.	Mean Daily Minimum.	Mean Daily Maximum.	Remarks.
January . . .	50	73	There are but two seasons, the cold and hot; the former extending from the middle of October to the end of February, and the latter from March to the end of September. The hot months can again be sub-divided into the hot and dry and hot and moist seasons; the former from March to the end of May, and the hot and moist from June to September. The prevailing winds are north and north-west from November to March, and south and west during the remainder of the year.
February . . .	54	80	
March . . .	66	89	
April . . .	71	95	
May . . .	78	98	
June . . .	76	98	
July . . .	81	94	
August . . .	79	93	
September . . .	76	94	
October . . .	69	93	
November . . .	58	88	
December . . .	51	80	

The following table will show the temperature of the station of Jerruck, as observed at the dispensary at that town for a period of eight years:—

Months	Minimum.	Maximum.	Remarks.
January . . .	56	73	South-west winds prevail from April to the end of September; during the remainder of the year they blow mostly from north and north-west. Dust-storms are frequent in May and June.
February . . .	63	78	
March . . .	71	86	
April . . .	76	94	
May . . .	83	95	
June . . .	85	96	
July . . .	84	94	
August . . .	82	92	
September . . .	81	89	
October . . .	75	88	
November . . .	68	81	
December . . .	63	78	

The temperature of Kēti does not appear to have been recorded for any consecutive number of years, but the following table, taken from observations made during the three years ending 1874, will give an approximate idea of the maximum and minimum range of the thermometer at that town during the year:—

Months.	Minimum	Maximum.	Months.	Minimum	Maximum.
January . . .	54	73	July . . . . .	81	86
February . . .	55	78	August . . . . .	80	85
March . . . . .	70	87	September . . . . .	70	86
April . . . . .	76	86	October . . . . .	75	89
May . . . . .	79	89	November . . . . .	65	87
June . . . . .	76	91	December . . . . .	58	75

The prevailing winds at Kēti are westerly from March to October, and easterly during the remainder of the year.

RAINFALL.—The yearly rainfall in this district would appear to average between 7 and 8 inches. The following table will show the monthly fall for the three years ending 1874, at the towns of Jerruck, Tatta, and Kēti-bandar :—

Months.	1872.			1873.			1874		
	Jerruck.	Tatta.	Kēti-bandar.	Jerruck.	Tatta.	Kēti-bandar.	Jerruck.	Tatta.	Kēti-bandar.
January . .	..	..	..	..	.15	..	.43	.90	.58
February . .	..	..	..	..	..	..	.15	.34	.10
March . . .	..	..	..	..	..	..	..	..	..
April . . .	..	..	..	..	..	..	..	..	..
May . . . .	..	..	..	..	..	..	..	..	..
June . . . .	.28	1.01	.04	..	..	..	.19	.44	.10
July . . . .	6.80	4.35	12.67	.10	.02	.35	2.97	5.91	8.69
August . . .	.32	..	.13	1.46	.73	1.67	7.70	4.34	2.12
September .	.44	.82	..	..	..	..	..	..	..
October . . .	..	..	..	..	..	..	..	..	..
November . .	..	..	..	..	..	..	..	..	..
December . .	..	..	..	.90	.48	.48	..	..	..
Total . . .	7.84	6.18	12.84	2.46	1.38	2.50	11.44	11.93	11.59

It is necessary to mention that, with the exception of the country about Jerruck, and a portion of the Mirpur Sikro taluka, sea-fogs prevail to a great extent throughout this division during the months of December, January, and February; so much so as to make the cultivation of wheat, which might otherwise be carried on to a considerable extent, almost an impossibility. All cereal crops suffer from these fogs during the cold season. The fall of dew is also very heavy throughout this district in the months of January, February, November and December.

PREVAILING DISEASES.—Like other parts of Sind, the prevailing diseases in this division are fevers, which are common after the inundation season, diarrhœa, rheumatism, and venereal diseases generally. Cholera at times visits this district with great severity. Its last appearance was in 1869. Small pox, which was formerly a disease endemic to Sind, is much dreaded by the natives, but its ravages have of late years been somewhat checked by vaccination. The fevers which prevail in and around Tatta are thus described by Dr. Winchester :—"Quotidian, tertian, and quartan intermittents all occur; and though the last is dreaded as

the most difficult to cure, yet the first is the most fatal type the fever assumes. It generally commences about the period of new or full moon, with a cold fit of some hours' duration, followed by heat of skin, which in many cases continues for several days, accompanied with thirst and headache. Recoveries from a first attack of fever commonly relapse at the following spring, and continue to do so for one, two, or three months, depending on the severity of the first attack and the general constitution of the individual. Invariably, when these relapses continue for some months, enlargement of the spleen follows—an affection seldom fatal, but which causes both men and women to become thin and look prematurely old. Besides affections of the spleen and liver, these fevers have often a fatal termination by dysentery, which is otherwise a rare disorder, and by dropsy, for which the operation of tapping is sometimes successfully performed. Independently of the fevers arising from the effects of the inundation, a remittent form of this disease occasionally attacks those of the inhabitants who are much exposed to the sun in the hot weather, preparing the ground for the crops. From description this, however, is more like a *coup de soleil* than violent remittent fever; sometimes the person is struck instantly dead; if not, unless copious epistaxis ensues, the recovery is protracted for many days."

GEOLOGY.—In a geological point of view, this division may be considered as being for the most part an alluvial deposit, except in the north-western portion, which is hilly, and where the soil is in places necessarily hard and rocky. Exception must also be taken to the Jerruck and Makli ranges of hills in the eastern part of this division, which are both distinct, and rise up abruptly from the alluvial plain around them. It is on these hills that are found those nummulitic shells of a bead shape, which are pierced there and shaped in strings of 500 at Tatta, and then sent to Hinglāj in Balochistān. The geological features of the Makli hills have been thus described by Dr. Winchester, who had an excellent opportunity of examining them closely. An extract from his interesting report on this subject is herewith supplied:—"This ridge is upwards of ten miles in length, with an average height of from eighty to one hundred and fifty feet above the level of the surrounding country, having its summit invariably a table-land, varying in breadth from half a mile to a mile and three-quarters. The geological structure of this ridge is peculiar, and as such deserves to be described. Rising abruptly, and without any indication of the stone below, it forms a singular feature. It is composed of conglomerated and brecciated masses of limestone,

resting on a calcareous base, forming a broad line or belt across the plain. Its ascent is easy and shelving, and is composed of a friable calcareous sandstone, much mixed with fossil shells. Nearing the summit, this stone disappears, and is lost in the general base or ground on which is superimposed the main structure of the rock—an aggregate of angular and rounded masses, varying in size from one or two inches to a foot or two, depending on the exposure of the situation. Nearer again to the top, the whole formation is of compact cream-coloured limestone, and beneath it a softer and more recent limestone. In studying a large and compact body of this accumulation, we find all the different smaller masses are agglutinated to each other by a thin intermediate base, presenting the appearance of numerous stones closely and firmly piled together. The whole structure, the thickness of which varies from thirty to a hundred feet, in some parts appears as if at different periods one horizontal layer had been placed above another. Ravines seldom intersect the ridge, but when they do, the structure in them corresponds to what is exhibited on the sides of the ridge, except that the softer limestone becomes gradually lost in the harder, while both rest on a general base, almost uniformly of a yellow colour, with an occasional tinge of brick-red and green, an adventitious and variable feature arising from the presence of iron in different conditions. The base contains a very large proportion of lime, by which it is easily distinguished from the plastic clay of the neighbouring alluvial soil. The latter possesses nothing like a stratified structure, and though in many places it has some degree of hardness, yet it is most generally so very frangible as to crumble into coarse powder on being handled. The first or most recent limestone, superincumbent on this base, is composed entirely of rounded masses of a dull white cretaceous limestone, the newest formation of the whole of that series. Throughout it are no fossils, nor is it mixed with any foreign matters, being a very pure carbonate of lime, in thickness varying from ten to forty feet, and invariably underneath the harder and older limestone breccia, which is a compact cream-coloured limestone, mixed with occasional rounded and angular masses of a calcareo-silicious sandstone, which latter, when tested by acids, effervesces with difficulty and does not burn into friable lime. The above-named cream-coloured limestone breccia is very hard, yielding with difficulty to the knife. Its structure is crystalline, with a conchoidal fracture and flinty lustre. In some masses, in consequence of a common polarity of the crystals, it assumes an imperfect and schistose structure, and at first, on super-

ficial inspection, appears to contain mica, which it does not. Sulphuric acid rapidly disengages its carbonic acid gas, and a considerable quantity of magnesia is one of its component parts. Every mass of this limestone has numerous rounded, and often concretionary, grains of quartz and limestone disseminated throughout its structure; spherical and spheroidal nodules, composed of concentric coats, harder than the rock that includes them, in many portions so numerous as to give a highly oolitic appearance to the stone, also exist.

“Seldom irregular, and by an easy descent in some parts, this ridge slopes down to the plain beneath. The surface of the ridge is very flat and even, having a loamy soil, in most places thin, but in others of considerable depth, so as to be capable of cultivation. It is covered with small pieces of stone, and grains of limestone and quartz, resembling a common pea-seed in colour and size, similar to those found imbedded in the formation as before stated; others, rolled up into rounded and oval shapes, unite with the loam, and give a firmness to the ground, rendering many portions of it like a hard gravel bed. This necessarily prevents all accumulation of water on its surface; heavy rain must rapidly run off into the plain below, or into small hollows which occasionally occur, deepened purposely to retain the rain-water. Milk-bush, a few stunted bābul-trees and thorny shrubs are the only vegetation the soil permits; and as these are being rapidly removed, will soon present a barren aspect in the immediate vicinity of the camp, which is so very desirable as regards the health of troops.”

Dr. Heddle also, in his excellent memoir on the river Indus, describes the soil of the delta as consisting in the upper part of that tract mostly of clay, whereby a stability is given to the river bank greater than that observed in the lower part near the sea, where it is composed of a very loose soil; to which latter circumstance he mainly attributes the sudden deviations of the course of the Indus, which take place in this region to so great and wonderful an extent. The same authority thus writes of the Jerruck range of hills in this division:—“We then reach the point near Helāia where the subjacent formation outcrops, or appears on the surface, and not only forms the bed, and partly the bank of the river, but is elevated into a chain of low sandstone hills, which runs between Helāia and Rāja-jo-got, performing the useful office of putting a stop to the frequent changes in the direction of the channel which is observed in the district immediately below that in which this kind of formation is met with. The rock underlying the alluvial soil, which is first seen near the river at Helāia,



consists of a clayey sandstone, being very deeply coloured with iron, and presenting those varied hues of red, yellow and white which mark the description called the variegated, or new red sandstone. In the inferior part of the mass, the rock is deficient in hardness, and almost assumes the consistence of clay, but towards the summit it passes into a hard sandstone, which takes a horizontal position, and gives the hills which it forms a tabular shape. This form is altered into the rounded by the action of weathering, by which, the inferior softer parts being first removed, the tabular stratum forming the summit loses support and fractures, slipping down the sides of the hills in large flat masses or slabs, which are sometimes even pushed into the river. These hills, which by this action are deprived of the harder tabular summit, always present the rounded or conical top. The most elevated do not exceed two or three hundred feet. These hills are of great importance, for besides furnishing stones in a country where such materials are rare, the rock contains, imbedded or loose, an abundance of iron ore in the form of brown hematite, from which that useful metal is obtained." There are some valuable quarries of stone close to Jungshāhi, which are worked by the Sind railway authorities, who have a station at that village. Excellent stone is also found on the Jerruck range of hills previously referred to, and stone rollers are manufactured at the town of that name for the Government. The local names of some of the soils in this district are:—1, Wāriāsi, or a sandy soil; 2, Kalrāthi, or salt soil; and 3, Chhabrāti, or a soil in which the *chhabar*, a kind of grass, the *cynodon dactylon*, is found.

ANIMALS.—The wild animals found in this district are the hyena, lynx, leopard, and tiger-cat, but these are not numerous. The wolf, jackal, fox, and wild-hog are more common, and the hog-deer (or *pharho*) and hares are abundant. The jackal is very ravenous, and, in company with others, has been known to attack man. In the hilly portion of this division are found ibex, *gad* (the wild sheep of Sind), and the *chinkara*, or ravine antelope. Among birds, are water-fowl of various kinds, which frequent the rivers and swamps near the sea-coast, as well as the large *dhandhs*, or lakes, in immense flocks. They comprise many varieties of the wild-duck, geese (among these the *kulam*), pelicans, flamingos, spoonbills, storks, cranes, royal and grey curlew, herons, snipes, &c., all of which are found in the delta. The Egyptian "ibis," too, is common. The *kulam* appears in the winter months, both in wet and dry places. In the more northern and drier portions of this district are to be seen the *ubāra* (or *tilūr*), a kind of bustard,

partridge, quail, and plover. Varieties of the *Saxicola*, or stone-chat warblers, are numerous, and of these the *Saxicola aurita* is perhaps the most beautiful bird, as regards plumage, to be seen in Sind. The falcon, owl, crow, parrot and dove are also met with. Of reptiles, there is the alligator—the “*ghariāl*,” or long-snouted species, frequenting the river Indus and the creeks generally in the delta. Snakes, scorpions, and centipedes are numerous; of the former some are venomous, and most of the deaths from snake-bite in this division are attributed to the cobra, or *nāng*. Water-snakes of a large size, as also otters, and turtle abound in the delta streams. It is, at the same time, satisfactory to know that the mungū, the inveterate enemy of the snake, is to be found nearly all over this district. A field rat, in size much smaller than the house rat, and having a bushy tail, unfortunately abounds, and at times does incredible mischief to the crops. They construct regular granaries under ground, and the cultivator, when grain is scarce, often digs down to possess himself of the hidden store secreted by the field rat. Among insects, the mosquito and sand-fly (genus *Anthrax*) are numerous and very troublesome when the weather is moist. Apts of different kinds are met with, but are said to be less numerous in Sind than in other parts of India. Of domestic animals, the camel (*Camelus dromedarius*, or one-humped variety) takes the first rank as a beast of burden. Close to the sea-coast they are scarce, but in the upper part of the delta droves of forty or fifty are frequently seen. The delta-bred camel is smaller and lighter in limb than his Arabian congener, and, being better fed, is a much finer-looking animal. The Karmāti tribe breed a valuable description of camel in this division—one which in pace and hardiness is said to vie with that bred in the Thar and Pārkar district. Horses of a diminutive size, but hardy in constitution, are met with, but no attention seems to be given to their breeding. The ass, though smaller than that generally seen in India, carries a much greater load than the latter; the ox, buffalo, sheep (of which there is the thick-tailed variety called *dumba*) and goat are equal in size to those in the countries beyond the Indus. The dogs in the delta are large, and so ferocious that it is dangerous for a stranger to approach them. The domestic fowl is common all over this district, the variety having black bones and skin being that most frequently found in the delta. The Karāchi markets are largely supplied with beef and poultry from the Sākro and Ghorabāri talūkas of the Jerruck division.

VEGETABLE PRODUCTIONS.—Of the vegetable productions of this district rice is the chief, and it may safely be said to form

five-sixths of the entire produce of the Sākro and Ghorabāri talūkas. In the Tatta talūka, besides rice, bājri, juār, nāngli (or nāchni, *Eleusine coracana*), mung (*Phaseolus mungo*), oil-seeds, tobacco, wheat, cotton, jambho (*Eruca sativa*), matar (*Lathyrus sativus*), gram, urad (*Phaseolus radiatus*), and other dry grains are grown, some of them extensively. Sugar-cane is cultivated mostly along the banks of the Indus, the Baghār and Siān, and also in the vicinity of those *dhandhs* which retain water during the greater part of the year. Wheat and barley are not largely raised in any of the talūkas of this division, owing to the prevalence of sea-fogs, which exercise a very deleterious effect on these crops. The fruits are few, and their cultivation is confined mostly to the gardens in and around the large towns of the division, such as Jerruck and Tatta. They consist of the mango, ber, apple, date, fig, plantain, pomegranate, tamarind, and a few others. Among the different woods growing in the delta portion of this district is the tewar (*Sonneratia acida*), which Dr. Heddle found to answer very well as a fuel for steamers: it grows near salt creeks. Other maritime plants, such as the chawara (*Ogoceras majus*), and two species of *kāudel* (rhizophora), are also common to this locality, and it is said that enormous supplies have been drawn from the coasts of Sind for perhaps centuries, without causing any sensible diminution. It is worthy of note that the honey, which is one of the natural productions of the neighbourhood of the Hajāmro river, is made by bees which feed upon and attach their combs to the maritime plants just mentioned, particularly to the *ogoceras*. This honey is superior to any procurable in the west of India, being solid, perfectly crystallized, white, and well-flavoured. No particular care is taken in rearing the bees. Among the grasses is the *pana*, or *pan* (*Typha elephantina*), a most important production of the delta. Dr. Heddle thus speaks of it in his interesting memoir on the Indus:—"After passing the northern limit of this river section (Bana and Siān), scarcely a single individual of this interesting species is to be found; the same remark may be made of the southern, or lower limit, for till you enter the most southerly of the above sections the plant is also scarce. On the banks of the Bana and Siān it overgrows the whole surface for a considerable distance from the margin, until its extension inland from the river is purposely checked by the cultivator, over whose fields it would otherwise spread and become a weed. Confined, however, to a belt of a certain breadth along the bank, the *pana*, by means of its long, tortuous and strong roots, sinking to the depth of nine feet from the surface into the soil, which it thus

holds together, endows the bank with a degree of firmness that prevents that perpetual falling in which forms so inconvenient a feature of the banks on the northern sections of the Indus immediately adjoining these. In appearance the pana, with its long sword-like leaf, has some resemblance to the flag. The roots—or rather the underground stems—in penetrating into the soil, take a very crooked course, and at short intervals throw off lateral branches, which extend to a great distance horizontally, and push up fresh shoots which appear on the surface springing up like independent plants. In this way one individual may occupy an area of several roods. The natives of the district where this plant grows are well aware of the services rendered by it, for, in collecting the leaves, which they manufacture into matting, they cut the plant close to the soil, but do not attempt to disturb the roots, the uses of which they know how to appreciate. The dried leaves, from their cellular structure, contain much air, and this property is taken advantage of by the native, who ties them into bundles which serve as bladders, to support him when swimming across the river. The leaves are likewise used as floats by the fishermen for their nets." It may also be noticed that from the pollen of the pana is made the Būr (or Būri, or Burāni), which is much eaten by the natives. The Government forests in this division are six in number, one of them, the Virān, being of great size. The principal tree in them is the bābul (*Acacia Arabica*). The following is a list of these forests, with their area and the revenue for the year 1873-74 :—

Forest.	Area	Revenue. for 1873-74.	Remarks.
	E. acres.	rupees.	
1. Virān . .	9,142	1,609	Planted about A.D. 1800, by H.H. Muhammad Khān Talpur.
2. Sonda . .	2,114	1,279	Planted about A.D. 1795, by H.H. Muhammad Khān Talpur.
3. Helāia . .	2,898	1,510	Planted about A.D. 1828, by H.H. Nur Muhammad Khān.
4. Lalang . .	5,151	909	Planted about A.D. 1802, by H.H. Karam Ali Khān.
5. Shahlanka .	1,690	342	Planted about A.D. 1805, by H.H. Murād Ali Khān.
6. Garko . .	4,079	8,601	Planted about A.D. 1802, by H.H. Murād Ali Khān.
Totals . .	25,074	14,250	

The revenue from these forests is made up mostly from grazing fees, sale of firewood, bābul pods, charcoal, and cultivation of

land within forest limits. These forests comprise the *tapa* of Virān, which is in the charge of a *Tapadār* of the Forest Department, who, with a subordinate establishment of *rakhas*, or foresters, looks after these forests, and is himself controlled by an Inspector, whose duty it is to supervise a certain number of such *tapas*.

FISHERIES.—The fisheries in this division extend not only to the Indus, but to the *dhandhs* as well. The fish principally caught are *pala* (the *hilsa* of the Ganges), *dhambro*, *khago*, *gandan*, *jerkho*, *gangat* (prawns), *goj* (eels), *popri*, and *singar*. The *bulani*, a kind of porpoise, is also caught in the Indus. The right of fishing is sold yearly by auction to the highest bidder, the revenue so derived by the Government being considerable, and ranging at times from 5000 to 7000 rupees annually. This amount is included in the local revenue. The following is a list of the fisheries in this district, with the annual average revenue paid on them to Government during the past three years ending 1873-74:—

Talūka.	Name of Fishery.	Revenue derived by Government.	Total Revenue
		rupees	rupees
1. Tatta . . . . .	Dhandh Kinjhar . . . . .	469	2,030
	„ Sonahri . . . . .	469	
	„ Chhachh Darya . . . . .	217	
	„ Kalān Kot . . . . .	217	
	„ Hadēri . . . . .	183	
	Kohiri Darya, Duba and Dabiya Jhol . . . . .	138	
	Miscellaneous . . . . .	216	
		121	
2. Mirpur Sākro . . . . .	Khān Molēno Shāh . . . . .	485	636
	Chach Mirānkhān . . . . .	15	
	Dhandh Ghāro . . . . .	75	
	Chhachh Saherko and Lākho . . . . .	37	
	Daria Naro . . . . .	7	
	Miscellaneous . . . . .	17	
3. Ghorabāri . . . . .	Dhandh Sūmra and Ghagh . . . . .	150	393
	„ Pāchak . . . . .	10	
	Daria Ūchto . . . . .	100	
	Kohiri Ghāwāri . . . . .	3	
	Kūn Titiaro . . . . .	5	
	Dhandh Makān Takro . . . . .	10	
	Daria Khēdewāri . . . . .	10	
	Several Dhoras . . . . .	50	
	Miscellaneous . . . . .	55	
			393
		Total . . . . .	3,059

POPULATION.—The total population of the Jerruck division, which consists almost entirely of Musalmāns and Hindūs, was found by the census of 1872 to be 92,902 souls, of whom 80,130 are of the former, and 12,586 of the latter class. There are thus about 30 souls to the square mile, but this paucity of population is partly accounted for owing to the large and, in a great measure, uninhabitable area of that portion of the Indus delta included in this division, and also to the fact that but *one-twentieth* part of the entire area of the Jerruck Deputy Collectorate is under cultivation. The Muhammadan inhabitants, who are partly of the Suni and Shia sects, may be classed as follows :—

MUHAMMADANS.

Tribes	Number	Principal Sub-divisions.	Remarks
1. Balochis .	6,152	Karmāti, Laghāri, Lashari, Rind, Choung, Khoso, Chandia, Nizamāni, Gūrgāni, Sholāni, Jalbāni, Jatoi, Bira-māni, Magsi, Sehur, Khaskh, Jamāli, &c.	There are numerous sub-divisions of the Karmatis, nearly 40 in all.
2. Shēkhs .	1,363		
3. Memons and Borahs }	2,306		
4. Khwājas .	983		
5. Mogals .	157		
6. Pathāns .	212		
7. Sindis .	26,257	Otha, Jokia, Shoro, Mahar, Nūmria, Sūmra, Rājpoto, Koraja, Amra, Rahawa, Buti, Katiar, Larik, Lukha, Junāja, Hālā, Guba, Hingoja, Samma, Lakba, Abra, Nara, Unar, Babna, Udhar, Shekari, Koria, Gaboi, Turio, Notiar, Rathore, Khāskēli, Sutia, Samaja.	These are mostly Sammas and Sūmras; the former descendants of Sam, the son of Nuh, and the latter descendants of Samra, Kamirpota, Mitopota, Budipota, and Norangpota. Sūmra is a corruption of Samra.
8. Saiyads .	1,406	Shirāzi, Shakrūr-alahi, Bokhāri, Mashēdi, Amurkhāni.	These tribes came to Sind from various places in Asia.
9. All others	40,371	... ..	In this large number are no doubt included many Sikhs as well as Sindis, but the census papers of 1872 do not give any details.
Total .	80,130		

## HINDŪS.

Castes.	Number.	Principal Sub-divisions.	Remarks.
1. Brahmans .	946	Sarsūdh, Pokarna.	The Amils are a sub-division of the Lohāno.
2. Kshatrias .	12	Sahto, Panjābi.	
3. Waishia. .	8,934	Lohāno, Bhatia. . .	
4. Sudras and others . . . }	2,694	Khati, Sonaro, Sochi, &c.	
Total .	12,586		

The chief Musalmān tribes inhabiting this division are the Karmātis, Jokias, and Nūmriās. The Karmāti tribe of Balochis came originally, it is said, from Halab, on the frontiers of Persia. On their march towards Sind they took possession of Karmat, in Makrān, where they remained for a considerable time, and from which place they derive their name. From Karmat they gradually extended themselves towards Sind, until finding themselves strong enough to cope with the Burē tribe, which then occupied the districts lying between Karāchi and the Habb river, they crossed that stream and dispossessed the Burēs of their lands. After this conquest the Karmātis settled on the banks of the Malir river, whence they extended themselves into Sakro, where their chief resided in 1847, and where he obtained a Jāgir on condition that when his services might be required he should muster his tribe for the defence of Tatta. In 1847 the Karmat tribe could muster about 400 men. The Jokia tribe is of Rājput origin, and formerly occupied a mountainous district named Kangara, north of Shāh Bilāwal, in Balochistān, whence, about one hundred and fifty years ago, they descended into the valley of the Habb river, and, as their numbers increased, gradually spread themselves over the lands lying between the Habb and the Malir rivers. Their first chiefs were of no celebrity; but in the reign of Ghulām Shāh Kalhora, Bijār Jokia, who was a Sepoy in the service of that prince, obtained the chieftainship and title of Jām for the following services:—The district of Sakro, including Dhārājā and Sauri Bandi, was at that time governed by a Hindū Rānā, or chief, named Arjūn, a man of great bodily strength, and possessing great influence in the delta. Ghulām Shāh was anxious to dispossess him of his territories, but having no just pretence for attacking him, he sought to have him assassinated. This, however, was no easy matter to accomplish, as the Rānā 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. Bijār Jokia, 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 Rānā reposed, and before the latter could recover from his surprise, made a sudden onslaught, sword in hand, and killed him and all his followers. Ghulām Shāh, hearing of this success, seized upon the Rānā's lands, appointing Bijār as Jām of the Jokia tribe, and the latter, having gained great renown by this exploit, easily obtained an acknowledgment of his supremacy from the whole tribe. Being of a restless and intriguing disposition, Jām Bijār soon contrived to involve himself in quarrels with his neighbours. The Karmātis he dispossessed of the valley of the Malir river, and, gaining a victory over the Nūmriās near the Habb river, he compelled them to move farther north, while he and his followers occupied the whole of the lands lying between the Habb and the Ghāro creek. Jām Bijār was succeeded by his son, Murād Ali, whose son, Mir Ali, was Jām in 1847. In 1843, the Hyderabad Mīrs directed the Jām to muster his tribe, and, in conjunction with the Karmātis and Nūmriās, to occupy the town of Karāchi, and, if possible, 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 Karāchi. After the victory at Hyderabad, the Jām came in and made his *salaam*, upon which the Jāgirs he had held under the Mīrs were restored to him. The tribe of Nūmriās appear to have been of Rājput origin, as the first of the family, whose name is recorded as Esub Khān, together with his eight brothers, set forth from Rājputāna, and after many adventures, arrived at Kedje, in Makrān, where they were well received by the chief of that place. After sojourning for some time at Kedje, the Nūmriā (or *Nūmardī*, 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 compelled to leave Makrān, proceeding 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 Malir and Bāran rivers on the north and south. For many years fierce contests were maintained between them and the Khoso tribe, but the latter were



eventually driven beyond the Bāran river. This happened nearly ninety-five years ago, since which time the Nūmrias have held undisturbed possession. At the conquest of the province in 1843, Ahmad Khān was the chief of this tribe, and, in consideration of his relinquishing his claim to all the hill lands occupied by the Nūmrias, Sir Charles Napier granted him in jāgir the whole of the land which he and his people had cultivated on the hills, amounting to 2500 *bigās*. He formerly enjoyed the privilege of collecting customs and tolls on the river at Kotri, and when these were abolished he received as compensation 600 *bigās* of land near the village of Budhāpur. When the village of Kotri and the gardens near it were required for Government purposes, this chief readily relinquished them, receiving in exchange other gardens both above and below that town. Formerly four chiefs of the Nūmria tribe used to levy a kind of black-mail called "*mith*" on all merchandise passing between Sehwan and Karāchi, and between Karāchi and Kotri by the hill routes. The rates paid to these chiefs were three annas per camel-load between Sehwan and Karāchi, and one and a half annas between Karāchi and Kotri. In consideration of this payment, the Nūmria chiefs guaranteed the safety of the whole of the merchandise, camels and attendants, and should anything be lost, they were bound to make it good. They used to detach two or more of their followers as guides with each *kāfila*, who received each two rupees for the trip between Karāchi and Kotri, and four rupees each between Karāchi and Sehwan. These guides were expected to supply the travellers with all the wood and water they needed on the march.

While treating of the inhabitants of this division, it will be necessary also here to refer to the Saiyads and other people of the town of Tatta, who in 1857, at the instigation of Mr. Gibbs, B. C.S., formerly Judicial Assistant Commissioner in Sind, took certain measures among themselves towards reducing the very heavy expenses which long-established usage had compelled them to incur on the ceremonies observed at births, marriages and deaths. The great falling off in the population of Tatta, during the past fifty or one hundred years, had, with much truth, been attributed to the frequent intermarriage of first and second cousins, the object being to avoid the heavy expense which, under other circumstances, would fall upon the parties interested, whereas immediate relations, by exchanging a son for a daughter, could celebrate these unions at a comparatively small cost. In 1857 the Saiyads, at several meetings held in Tatta, agreed to

conform to certain rules put forward by influential members of their body for reducing these expenses; by these rules the community was divided into three classes, and to each was appointed the expenses to be henceforth incurred at every birth, marriage, or death. Some idea may be formed of the great benefit derived by the Musalmān population from this step, when it is mentioned that the cost *formerly* incurred by a member of the first class at every birth, marriage and death amounted to not less than 4900 rupees, 6950 rupees, and 3550 rupees respectively. The result of this very heavy outlay was to place the great majority of the Muhammadan population of the town in inextricable debt, and reduce them, in fact, to a state of hopeless destitution. By the rules, a member of the first class has *now* to pay but 550 rupees at a birth, 1185 at a marriage, and 320 at a funeral, the reduction for the two other classes being in a proportionate ratio. In carrying out this very beneficial measure, two Muhammadan gentlemen—one Saiyad Airūdin, a Mūnsif of Karāchi, and the other, Saiyad Sabar Ali Shāh, of Tatta—exerted themselves in so praiseworthy a manner as to obtain from the Bombay Government the following rewards: To the former, a present of law books to the value of 200 rupees; and to the latter, Persian and Arabic works to the value of 150 rupees.

CRIME.—Unlike other Sind districts, cattle-stealing does not seem to be the most prevalent crime in that of Jerruck. Murders appear to be rare; but the comparatively small amount of crime shown in the following statistical table, extending over four years ending with 1874, may be attributed in a great measure to the sparse population in this large district, there being, as has already been stated, but 30 souls to the square mile:—

## CRIMINAL.

Year.	Murders.	Hurts, Assaults, and use of Criminal Force.	Thefts.		Receiving Stolen Property.	House-breaking.	Highway Robbery	Other Offences
			Cattle.	Others.				
1871		135	44	138	24	45	1	166
1872	1	125	134	80	62	22	2	100
1873	1	113	128	100	53	47	1	150
1874	...	91	131	90	25	55	2	77

## CIVIL.

Year.	Suits for Land.		Suits for Money.		Other Suits.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1871	2	rupees. 522	206	rupees. 14,764	96	rupees. 3,732	304	rupees. 19,018
1872	3	3,700	148	17,011	90	2,751	241	23,462
1873	3	662	186	21,199	101	7,240	290	29,101
1874	3	425	264	31,977	92	4,582	359	36,984

ADMINISTRATION.—The chief revenue and magisterial authority in the Jerruck Division is the Deputy Collector, who is also a full-power magistrate and vice-president of the various municipalities in his district; he ordinarily resides at the town of Jerruck. Under him are three Mükhtyārkaras and two Kotwals; the former, in addition to being revenue officers, have the powers of a first-class subordinate magistrate, and their head Mūnshis those of a second-class subordinate magistrate. The duties of the Kotwals—one of whom is stationed at Jerruck, and the other at Kēti—are almost entirely of a magisterial nature; they also superintend the subordinate jails at their respective stations. Under the Mükhtyārkaras, as in other Sind districts, are a number of Tapadārs who assist in the collection of the revenue; among their other duties is that of counting the wheels used for irrigation in their respective tapas.

CIVIL COURTS.—In civil matters, the original jurisdiction of the Subordinate Court at Kotri extends over the Tatta and Mirpur Sakro talūkas, while that of the Subordinate Court at Mirpur Batoro, in the Shahbandar Division, extends over the Ghorabāri talūka in the Jerruck Division.

CATTLE POUNDS.—There are ten cattle pounds in the Jerruck district, under the charge of Mūnshis, with peons to assist them, and the proceeds are included in municipal revenue, where the town having a cattle pound has also a municipality, otherwise it is credited to local revenue: the sums annually realised from this source range from 1300 to 2300 rupees.

POLICE.—The total number of police of all descriptions employed in the Jerruck Division is 196, or one policeman to every 469 of the population. Forty-three of these are mounted, and the rest are foot and municipal police. The number of police posts is 27; and the force—which is a portion of that under the direct.

control of the District Superintendent of Police for the Karāchi Collectorate—is distributed as follows :—

Talūka.	Mounted Police.	Foot Police.	Remarks.
1. Tatta . .	25	54	The mounted police comprise both horse and camel levies. There are also 28 Municipal police.
2. Mirpur Sakra	9	29	
3. Ghorabari .	9	42	
Total . .	43	125	

REVENUE.—The revenue of the Jerruck District, which is divided into imperial and local, is shown in the accompanying tables, under its separate heads, for the past five years, ending with 1873-74 :—

I. IMPERIAL REVENUE.

Items.	Realisations in				
	1869-70	1870-71.	1871-72	1872-73.	1873-74
	rupees.	rupees	rupees	rupees	rupees
Land Tax . . . .	1,70,630	1,64,967	1,55,800	1,64,852	1,48,145
Abkārī . . . . .	12,570	7,150	6,985	7,557	7,799
Drugs and Opium .	3,865	7,457	7,302	6,908	5,742
Stamps . . . . .	7,174	7,418	5,885	6,660	7,338
Salt . . . . .	6,325	500	13	230	250
Postal Department .	2,291	2,509	753	867	913
Income (Certificate and Licence) Tax	6,495	12,702	3,107	2,190	..
Law and Justice . .	5,307	4,357	1,837	1,924	3,024
Miscellaneous . . .	4,360	3,505	1,424	8,285	11,682
Total rupees . . .	2,19,017	2,10,575	1,83,106	1,99,473	1,84,893

II. LOCAL REVENUE.

Items	Realisations in				
	1869-70	1870-71.	1871-72.	1872-73.	1873-74
	rupees.	rupees	rupees.	rupees.	rupees
Cesses on Land and Sayer Revenue . . . . .	11,269	10,411	10,813	10,362	9,669
Percentage on alienated Lands . . . . .	185	59	574	446	481
Cattle Pound . . . . .	1,748	2,331	7,430	8,688	9,165
Ferry Fund . . . . .	3,756	3,119			
Fisheries . . . . .	6,120	7,188	6,960	7,174	6,570
Total rupees . . .	23,078	23,108	25,777	26,670	25,885

As regards Abkāri revenue, the contract for the manufacture of country liquor is sold by auction yearly at the head-quarter station of each talūka. Manufactured country liquor is sold at the rate of from 12 annas to 2 rupees *per ser*.

**SURVEY SETTLEMENT.**—In common with the rest of Sind, the topographical survey of this division has been completed—a portion in 1863–64, and the remainder in 1869–70. As yet no settlement has been introduced, but it is expected to be so shortly. At present lands are given out on provisional or temporary leases, under a kind of “*kachha*” settlement, introduced in 1865 by Mr. S. Mansfield, the then Commissioner of Sind. These leases are intended to lapse on the introduction of the new survey settlement. Four rupees per acre may be considered as the maximum rate paid under the present system now obtaining in this district, but on small cultivation not on lease, the maximum rate may be estimated at 2 rupees *per jirēb*, or 3 rupees 3 annas 11 pies per acre; and the minimum, 8 annas *per jirēb*, or 15 annas and 6 pies per acre. The following may be taken as the rates ordinarily in force in this Deputy Collectorate on different kinds of cultivation :—

Mahkuli . . . . .	4	rupees per acre.
Charkhi . . . . .	2	“ “
Sailābi (or Mok Rabi) . . . . .	1·8	“ “
Ditto (Kharif) . . . . .	3	“ “
Barāni . . . . .	1	“ “

The *hakāba* (or water-rate) is 6 pies per acre.

The tenures of this district, which are Zamindāri in principle, do not appear to differ in any marked respect from those prevailing in other parts of the province.

**JĀGIRDĀRS.**—The following is a list of the Jāgirdārs in this division, with the areas of their several holdings. The entire area held in Jāgir is about 96,000 acres; of this the cultivated land is barely 21,000 acres in extent, the largest portion being in the Tatta talūka. The area of culturable and unarable land is very nearly 75,000 acres :—

Jāgirdārs	Class.	Talūka and Village where situate.	Cultivated Land.	Cultivable and Unarable.	Yearly Amount of Government Revenue Represented.	
			acres. gūntas	acres. gūntas.	r.	a.
TAL. TATTA.						
1. Malk Sirdar Khān . . . . .	1	Jerruck and Sūf Shoro . . . . .	4,300 3	3,700 15	1,275	0
2. Ditto . . . . .	1	Rājo Nizamāni . . . . .	29 39	240 7	100	0
3. Malk Jiand Khān . . . . .	1	Khūdāi and Jerruck . . . . .		622 17	19	0
4. Jām Bakodar Jokio . . . . .	1	Dumāni . . . . .	253 24	1,812 20	932	0
5. Sher Muhammad Nizamāni . . . . .	1	Gūja . . . . .	35 26	1,471 23	260	2
6. Ghulām Haidar Khatiān . . . . .	1	Chhato Chand . . . . .	175 25	974 7	134	0
7. Mir Allah Bakhsh . . . . .	1	Jerruck . . . . .	513 17	3,989 5	365	0
8. Mir Būdho Khān . . . . .	1	Manda Hālā . . . . .	108 19	3,646 27	414	0
9. Ditto . . . . .	1	Tanka . . . . .	8 26	443 33	65	0
10. Mir Sher Muhammad Khān . . . . .	1	Sūf Shoro . . . . .	10,184 37	10,819 26	2,880	0
11. Saleh Muhammad Jokio . . . . .	2	Chhato Chand . . . . .	126 35	766 29	125	0
12. Bahādūr Khān Laghāri . . . . .	2	Tanka . . . . .	51 34	579 22	156	0
13. Gul Muhammad Khān Laghāri . . . . .	2	Ditto . . . . .	57 24	576 38	78	0
14. Ahmad Khān Nizamāni . . . . .	2	Gūjo . . . . .	77 34	1,001 22	186	6
15. Ghulām Muhammad Khān Nizamāni . . . . .	2	Ditto . . . . .	21 31	266 0	51	7
16. Muhammad Khān Nizamāni . . . . .	{ 3 (for life)	Rājo Nizamāni . . . . .	43 35	86 31	50	0
17. Alahdād Khān Nizamāni . . . . .	3	Ditto . . . . .	230 0	292 14	273	0
18. Daria Khān . . . . .	3	Ditto . . . . .	95 10	153 16	55	0

Jāgirdārs.	Class.	Talūka and Village where situate	Cultivated Land.	Cultivable and Unarable.	Yearly Amount of Government Revenue Represented.
			acres. gūntas.	acres gūntas.	r. a.
TAL. GHORABARI.					
1. Malk Sirdar Khān . . . . .	1	Bakhraro . . . . .	925 0	1,766 25	2,464 0
2. Jām Bakodar . . . . .	1	Larik, Marhi, and Sunaki . . . . .	363 22	1,823 37	1,933 0
3. Mīr Jān Muhammad . . . . .	2	Kotri . . . . .	188 10	1,953 33	405 0
4. Mahmūd Khān Nizamāni . . . . .	2	Marho Argor . . . . .	272 20	231 26	224 0
5. Alahdād Khān Nizamāni . . . . .	2	Ditto . . . . .	116 0	386 29	256 0
6. Ali Muhammad Nizamāni . . . . .	2	Ditto . . . . .	178 20	323 32	430 0
7. Gūl Muhammad Nizamāni . . . . .	2	Ditto . . . . .	139 0	363 29	65 0
8. Mīr Ahmad Khān Talpur . . . . .	3	Kotri . . . . .	369 35	892 5	162 0
9. Cazi Khān Choung . . . . .	3	Marhi . . . . .	...	839 39	35 0
10. Ahmad Khān Nizamāni . . . . .	3	Marhi Argor . . . . .	274 20	228 9	149 0
11. Sher Muhammad Laghāri . . . . .					
12. Gūl Muhammad Laghāri . . . . .	3	Khān . . . . .	5 0	417 39	76 0
13. Alahdād Khān Laghāri . . . . .					
14. Chapar Khān Marhi . . . . .	3	Ardh and Haiyāt Gāho . . . . .	294 0	1,237 6	586 0
15. Walio Chāudio . . . . .	3	Karolo . . . . .	115 0	...	190 0
16. Lukman Khān Talpur . . . . .	3	Hamir Lakho . . . . .	202 0	444 3	76 0
17. Alabakhsh Laghāri . . . . .	3	Bhman . . . . .	41 0	435 29	65 0
18. Fazūl Khān . . . . .					
19. Sahēb Khān . . . . .	4	Pir Amir . . . . .	22 0	57 1	278 0
20. Muzar Khān Choung . . . . .					
21. Ghulam Hasan Choung . . . . .	4	Marhi . . . . .	123 0	1,069 27	78 0
22. Sūltān Khān Laghāri . . . . .	4	Khān . . . . .	13 20	29 13	5 0

23. Muhammad Husain Talpur . . . . .	4	Gamboli . . . . .	1 28	109 9	12 0
24. Hamzo Khān Talpur . . . . .	4	Ardh . . . . .	24 16	170 9	109 0
25. Murzo Khān Laghāri . . . . .	4	Gulel . . . . .	38 10	290 32	132 0
26. Shāh Bēg Marhi . . . . .	4	Kolachi . . . . .	19 18	...	32 0
27. Dilo Khān . . . . .	4				
TAL. MIRPUR SAKRO.					
—					
1. Alahbundo . . . . .	1	Sūkhpur . . . . .	129 0	12,404 19	258 0
2. Malk Murid Khān . . . . .	}	{Sūkhpur, Rāj Malk, Bahra, and Sonaki . . . . .}	284 2	4,375 33	411 10
3. Khūdabakhsh . . . . .					
4. Alibakhsh . . . . .					
5. Alī Muhammad . . . . .					
6. Ghulām Shāh . . . . .					
7. Ditto . . . . .	1	Rāj Malk . . . . .	202 25	4,203 34	360 0
8. Ghanwar Khān . . . . .	}	Bahra and Sonaki . . . . .	210 25	5,096 27	554 0
9. Rahimdād Khān . . . . .					
10. Ghulām Shāh . . . . .	3 (for life only)	Bahra . . . . .	72 0	109 5	258 12
11. Khān Muhammad . . . . .					
12. Dalel . . . . .					
13. Aladino . . . . .	4	Dharoj . . . . .	7 34	36 13	27 0
14. Khairo Khān . . . . .	4	Raj Malik and Sukhpur . . . . .	81 20	4,265 0	106 6



The Sēri grants in this division are few, and are confined to thirteen individuals only, viz. : Three in the Tatta talūka, and six and four in the Mirpur Sakro and Ghorabāri talūkas respectively. The aggregate acreage included in these grants is only 250 acres and 21 gūntas. The Māfidars are seventeen in number; of these thirteen are in the Tatta Taluka; two in the Mirpur Sakro, and two in the Ghorabāri talūkas. Their grants range from eight gūntas to twenty-three acres.

MUNICIPALITIES.—There are municipal institutions in three of the towns in this division, viz. : Tatta, Jerruck, and Kēti. The receipts and disbursements of these several municipalities for three years, ending with 1873-74, are shown in the following table :—

Where situate.	Date of Establishment.	Receipts in			Disbursements in		
		1871-72	1872-73	1873-74	1871-72.	1872-73	1873-74
1. Tatta	17th Jan., 1854	rupees. 8,045	rupees. 6,363	rupees. 9,514	rupees 6,952	rupees 4,995	rupees. 9,422
2. Jerruck	13th Sept., 1855	1,909	1,046	1,437	2,043	1,267	1,544
3. Kēti .	1st Feb., 1854 .	10,390	12,205	16,855	5,420	8,330	5,192

The income of these municipalities is made up principally from town duties, market fees, proceeds under the Cattle Pound Act, house tax, produce of municipal gardens, &c. The disbursements are more particularly on account of police, conservancy, municipal establishments, lighting, money grants to dispensaries, and repairs to roads, buildings, &c.

MEDICAL ESTABLISHMENTS.—There are no hospitals in this division, but three medical dispensaries, situate at Jerruck, Tatta, and Kēti. The Jerruck dispensary was established in 1855, and is under the charge of a hospital assistant with a small subordinate establishment. The Jerruck municipality applies a portion of its funds towards the support of this institution. The following table will give further information on this head :—

	Total Admissions.		Casualties in		Average Daily Attendance.		Remarks.
	1873.	1874.	1873.	1874.	1873.	1874.	
In-door patients .	16	7	..	..	1'1	0'16	
Out-door patients .	1,401	1,280	...	...	19'3	14'7	

The charitable dispensary at Tatta was established in November 1866, and is under the charge of a sub-assistant surgeon, with a native medical pupil and other subordinate establishments. It is supported entirely by the Tatta municipality. The following table will give additional information respecting this dispensary :—

	Total Admissions.		Casualties in		Average Daily Attendance.	
	1873.	1874	1873.	1874	1873.	1874
In-door patients	33	37	6	3	1·4	1·8
Out-door patients	5,658	6,104	13	9	76·1	88·6

The dispensary at Kēti, established about 1867, is now located in a new building, erected in 1874. It is under the charge of a hospital assistant, with a small subordinate establishment under him. The Kēti municipality contributes about 400 rupees annually towards the support of this institution. The following table will show the total number of admissions, &c., into this dispensary during the years 1873 and 1874 :—

	Total Admissions.		Casualties in		Average Daily Attendance.	
	1873.	1874.	1873.	1874	1873.	1874.
In-door patients	9	9	1	2	·8	·6
Out-door patients	3,058	3,436	1	1	33·4	38·7

PRISONS.—There are no large jails in the Jerruck Division, but the subordinate jails, five in number, are situate at the towns of Jerruck, Tatta, Kēti, Sakro, and Kotri Allahrakhyo. The jails at Jerruck and Kēti are superintended respectively by the Kotwals of those towns.

EDUCATION.—Education in this division would appear to be at a very low ebb, as there are in all but seven Government schools, with an attendance of 402 pupils. There is a Government Anglo-vernacular school at Tatta. The number of schools, &c., in each talūka is as follows (*see next page*) :—

Talūka.	Government Schools.		Remarks.
	No.	Pupils.	
1. Tatta . .	4	325	Includes girls.
2. Ghorabāri .	1	37	
3. Mirpur Sakro	2	40	
Total .	7	402	

AGRICULTURE.—There would seem, as elsewhere in Sind, to be two principal seasons for carrying on agricultural operations in this division, viz., Kharif and Rabi; these, with the chief crops produced in each, will be found given in the following tabulated statement :—

Season.	Time when		Principal Crops produced.
	Sown.	Reaped.	
1. Kharif	{ April, May, and June	Oct., Nov., and Dec.	Rice, juār, bājri, sugar-cane, cotton, oil-seeds, mung, melons, &c.
2. Rabi	{ Oct., Nov., and Dec.	March, April, and May	Tobacco, wheat (very little), grain, matar, urad, small quantity of barley, onions, and garden vegetables generally.

The area of land in this division covered with the various Kharif and Rabi crops, during 1873-74, will afford some idea of the extent to which each is cultivated :—

Season.	Crop.	English Acres.
Kharif . .	Juār . . . . .	563
	Bājri . . . . .	4,230
	Rice . . . . .	35,214
	Sugar-cane . . . . .	662
	Cotton . . . . .	38
	Other produce . . . . .	33,36
Rabi . . .	Tobacco . . . . .	97
	Wheat . . . . .	270
	Other produce . . . . .	4,745
	Total . . . . .	49,161

From this it will at once be seen that rice is the staple grain of

this division ; in the delta portion of this district it may be considered as forming quite five-sixths of the entire produce of the Ghorabāri and Mirpur talūkas. Bājri and juār are grown mostly in the Tatta talūka : garden cultivation is successfully carried on in the immediate neighbourhood of the town of Tatta, where this kind of produce meets with a ready sale. Rabi crops to some extent are raised in the various *dhandhs* of this division as they dry up, and during the Kharif season rice seedlings are also prepared in them. Taken as a whole, the rabi crops throughout the district may be considered as very poor, owing, as previously mentioned, to the prevalence of sea-fogs during the cold season, more especially in the Mirpur and Ghorabāri talūkas. From this cause all cereals but barley suffer, and, except in the vicinity of Jerruck, they cannot be cultivated at all. In the Ghorabāri talūka, a small quantity of sinni (*Crotularia juncea*), a cordage plant, is cultivated, and from the fibre ropes and fishing gear are made. The implements of husbandry in use in this district are those generally found in other districts of this province.

COMMERCE.—The trade carried on in the Jerruck district is mostly in grain, especially rice, and in agricultural products generally, all of which are exported in large quantities to Karāchi, Hyderabad, and to other places out of Sind. The town of Kēti may at present be considered as the only important place of trade in this division. Formerly Ghorabāri (also called Vikar, though the latter was quite a distinct village), a town seated on the old Ghora river, a branch of the Hajāmro, was once the most flourishing seat of commerce in the delta. Heddle, in 1837, mentions it as being visited yearly by 180 vessels of different sizes, from Karāchi, Gwādar, Sonmiāni, Anjar, Kachh-Māndavi, Jāmnagar, Porbandar, and other ports. It then exported large quantities of rice, ghi, and red sugar, and imported woods of different kinds, cocoa-nuts, dates, dried figs, cotton, pepper, wheat, iron, manufactured articles, &c. Carless, writing also in 1837, states that 400 boats, on an average, annually sailed from this port to Bombay, Maskat, Kachh, and Gujrāt. The *value* of the exports, which were chiefly rice, ghi and gūr (molasses), he estimated at 2,65,500 rupees ; and the imports, which comprised cloths, sugar, iron, copper and lead from Bombay, pepper, coir and timber from the Malabar coast, dates, dried fruit, and slaves from Maskat, and cotton and coarse cloths from Kachh, at about 1,00,500 rupees. These imports were, it was believed, consumed mostly by the inhabitants of the Sind delta. In 1848 the river capriciously left Ghorabāri, and the trade of the place was speedily transplanted to Kēti, a

town which was itself afterwards overflowed by the river; and another town of the same name, and now only twenty-two years old, was built not far from it. Here the trade is large and brisk, but not during the monsoon period of the year, which, coupled with the then unhealthy state of the place, stops for a time all commercial transactions. The real value of the imports into Kēti from all ports within and beyond the province of Sind, in 1873-74, was 5,70,536 rupees, and the exports from Kēti in that same year were computed at 28,03,240 rupees. The imports from seaward comprised principally cocoa-nuts, cotton goods and wrought metals, and in a lesser degree, spices, dyes, drugs and medicines, fruit and vegetables. The exports seaward to foreign and Indian ports consisted mostly of grain and pulse, oil-seeds, raw cotton, wool, drugs and medicines, firewood and dyes. The value of the import and export trade of Kēti, both sea and river-borne, together with other information on this head, will be found entered into in the description of that town. (See KĒTI.) The following tables will show, *approximately*, the quantity and value of the imports and exports of the two talūkas of Tatta and Mirpur Sakro in this division; those for the Ghorabāri talūka being almost entirely centered at the town of Kēti, will be given in the account of that port.

Articles imported.	Tatta Talūka.		Mirpur Sakro Talūka.	
	Amount.	Value.	Amount.	Value.
Ghi . . . . .	maunds. 600	rupees 18,000	maunds. 50	rupees. 1,600
Grain of sorts . . . . .	96,000	1,20,000	200	600
Cloths . . . . .	pieces 3,000	12,000	pieces 2,000	8,000
Cotton twist . . . . .	maunds. 40	1,200	maunds 5	150
Sugar and sugar-candy . . . . .	360	5,700	100	1,700
Copper . . . . .	6	240	6	240
Iron, brass and steel . . . . .	125	750	100	600
Spices . . . . .	100	1,000	40	400
Kopra (dried cocoa-nut) . . . . .	25	250	10	100
Molasses (or jāgri) . . . . .	1,500	6,000	..	..
Oil . . . . .	150	2,250	150	2,250
Drugs and dyes . . . . .	165	9,300	52	3,500
Betel-nuts . . . . .	30	300	25	300
Cotton . . . . .	40	800	20	400
Dates . . . . .	300	1,200	150	600
Silk . . . . .	60	30,000	1	500
Tobacco . . . . .	520	2,700	500	2,500
Other articles . . . . .	500	500	250	250

Articles exported.	Tatta Talūka.		Mirpur Sakro Talūka.	
	Amount.	Value.	Amount.	Value.
Grain of sorts . . . . .	maunds. 35,200	rupees. 55,000	maunds. 25,600	rupees. 40,000
Molasses . . . . .	1,000	5,000	6,000	42,000
Wool . . . . .	1,200	4,800	300	1,500
Cloth . . . . .	4,000thāns.	24,000	...	...
Skins . . . . .	2,000	1,000	1,500	3,000
Plantains . . . . .	...	...	3 lākhs.	900

MANUFACTURES.—The manufactures carried on in the Jerruck district are at the present time few, and but of little consequence. Salt is made to some extent in the Mirpur and Tatta talūkas. At the town of Tatta, once renowned for its manufacturing skill in many articles, there is now but little made, in comparison with former times. Lūngis, sūsis, and cottons of different kinds are still manufactured, the first-named to some extent. The *lūngi*, which is a kind of shawl or scarf, is a thick, rich, and variegated fabric, having a warp of silk and a woof of cotton, and in the more costly descriptions has much gold thread interwoven with it. Dr. Winchester, in 1839, speaks of these articles being then made of exquisite beauty and workmanship; that they were greatly prized by the Talpur Mīrs, and were included by them in all presents made to foreign powers. At that time the Tatta chintzes were considered to be far superior to those of India, both in texture and pattern, and the fine cloths almost equal to those of Surat, but the "*dangari*" cloth was of an inferior quality. In addition to these, glazed tiles, brickwork and pottery are still made, but the first have not the excellence of those manufactured between three and four centuries ago. The art by which the exquisite glaze of former days was produced would seem, indeed, to have been lost. Excellent sūsis (or striped cloths) and camel saddles are made in the town of Jerruck.

FAIRS.—There would appear to be a great number of fairs held in this division; but out of more than forty, only nineteen are of any consequence, the others being each attended by but from 50 to 300 people. The following is a list of the principal fairs, with other information connected with them (*see next page*):—

LIST OF THE PRINCIPAL FAIRS, ETC.

Where held.	Talūka.	When held, and for what period.	Average Attendance.	Remarks
1. Makli (near Tatta) . . .	Tatta . . .	In July, and for 1 day . .	600	In honour of one Shēkh Jio.
2. Khudāi . . . . .	Tatta . . .	November, for 15 days. .	600	„ Amir Pir.
3. Tatta . . . . .	Tatta . . .	November, for 10 days. .	500	„ Khūdi Udēralāl.
4. Makli (near Tatta) . . .	Tatta . . .	May, for 1 day . . . . .	400	„ Imām.
5. Tatta . . . . .	Tatta . . .	November, for 5 days . .	400	„ Shāh Kamāl.
6. Dubiar . . . . .	Tatta . . .	October, for 1 day . . . .	400	„ Lakho Latifula.
7. Chiliā . . . . .	Tatta . . .	April, for 1 day . . . . .	400	„ Shēkh Radam.
8. Got Bāwā Purando-jo . .	Tatta . . .	March, for 2 days . . . .	400	„
9. Miā Patoi . . . . .	Mirpur Sakro .	December, for 2 days . .	2,000	„ Miā Patoi.
10. Kazi Ismāil . . . . .	Mirpur Sakro .	August, for 1 day . . . .	800	„ Kazi Ismāil.
11. Saiyad Muhammad Shirāzi .	Mirpur Sakro .	November, for 1 day . .	800	„ Saiyad Muhammad Shirāzi.
12. Pir Lāl Mūsa . . . . .	Mirpur Sakro .	August, for 1 day . . . .	500	„ Pir Lāl Mūsa.
13. Saiyad Mahmūd Shirāzi . .	Mirpur Sakro .	February, for 1 day. . . .	400	„ Saiyad Mahmūd Shirāzi.
14. Pir Patho . . . . .	Ghorabāri . .	January, for 1 day . . . .	2,000	„ Pir Husain Shāh.
15. Pir Patho . . . . .	Ghorabāri . .	April, for 1 day. . . . .	2,000	„ Pir Husain Shāh.
16. Pir Patho . . . . .	Ghorabāri . .	July, for 1 day . . . . .	4,000	„ Pir Husain Shāh.
17. Kambur Ali Shāh . . . . .	Ghorabāri . .	April, for 1 day. . . . .	1,000	„ Kambur Ali Shāh Bhodāi.
18. Udēra Lāl . . . . .	Ghorabāri . .	March, for 2 days . . . .	1,000	„ Udēra Lāl.
19. Saiyad Mahmūd . . . . .	Ghorabāri . .	November, for 1 day . .	500	„ Saiyad Mahmūd.

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JERRUCK.

There is also a shrine of very considerable sanctity at the village of Jhampir, in the Tatta talūka, close to the Sind railway; here a spring of fresh water gushes out of a hill on which the tomb of the Musalmān saint, Shēkh Amin, is built; he is venerated alike by Musalmans and Hindūs, who come in crowds to visit the tomb.

COMMUNICATIONS.—There are in the Jerruck Division about 360 miles of roads, of which 190 are trunk lines, and 80 postal. The subjoined tabular statement will contain all information relative to these communications; it may here be mentioned that one only of these roads, connecting the town of Tatta with the Sind railway at Jungshāhi, is metalled.

From	To	Length in Miles	Description of Road.	Remarks.
1. Nai Bāran . . .	Gharo . . .	70	Trunk	This is the great military road running from Karāchi to Kotri, and passing through Gūjo, Tatta, Helāia, Sonda, Jerruck, and Aungar; it is bridged almost throughout its entire distance, and has milestones. There is a fine bridge over the creek at Ghāro, and a staging bungalow and dharamsāla at that village; also dharamsālas at Sonda, Helāia, Chulia, and Aungar.
2. Tatta . . .	Kēti . . .	60	do.	There is a travellers' bungalow on the Makli hills, close to Tatta, and a dharamsāla in Tatta itself. This road passes through Kotri Alahrakhyo, and Ghorabāri.
3. Tatta . . .	Bijoro . . .	5	Branch	A ferry road.
4. Tatta . . .	Bhiman . . .	24	do.	
5. Makli . . .	Mirpur Sakro . . .	25	Trunk	There is a dharamsāla at Mirpur Sakro.
6. Mūchara . . .	Pir Patho . . .	7	Branch	A dharamsāla at Pir Patho.
7. Jerruck . . .	Meting . . .	13	Postal	There are three dharamsālas at Jerruck; one in the town, and the other two on the banks of the Indus; also one at Meting.
8. Jerruck . . .	Rajo Nizamāni . . .	4	Branch	
9. Jerruck . . .	Khameio . . .	7	do.	
10. Tatta . . .	Bāwā Purando- ja-got.	3	do.	
11. Mirpur Sakro . . .	Dābeji . . .	21	do.	
12. Mirpur Sakro . . .	Mahr . . .	16	do.	
13. Kotri Alahrakhyo	Khatho . . .	24	do.	A dharamsāla at Kotri Alahrakhyo.



From.	To	Length in Miles	Description of Road.	Remarks.
14. Mirpur Sakro . . .	Ghāro . . .	20	Main	A dharamsāla at Ghulām ulah.
15. Ghulām-ulah . . .	Ghāro . . .	17	Branch	
16. Bābro . . .	Ghulām Nabi Shāh-jo-got.	5	do.	
17. Mirpur Sakro . . .	Ghulām-ulah . . .	16	do.	A ferry road.
18. Tatta . . .	Tanka . . .	8	do.	
19. Tatta . . .	Bao Purandās . . .	5	do.	do.
20. Tanka . . .	Pir Patho . . .	..	..	A dharamsāla at Gūjo.
21. Ghulām-ulah . . .	Pir Patho . . .	5	Branch.	
22. Bābro . . .	Gūjo . . .	3	do.	
23. Makli . . .	Jungsbāhi . . .	13	Trunk and postal.	Is metalled, and has mile- stones.
24. Pir Patho . . .	Ferry at Haiyāt Gāho.	10	Branch.	
25. Lakho Latifula . . .	Tatta . . .	2	do.	
26. Mirpur Sakro . . .	Kiri . . .	8	do.	

FERRIES.—There are in all thirty-six ferries in this division ; of these fifteen are on the Indus, eight on the Ūchto, and ten on the Baghiār branches of the Indus. These are as follows:—

Name of Ferry.	Where situate.	Number of Boats
1. Saiyadpur . . .	On Indus, near Saiyadpur . . .	2
2. Raj Ghāt . . .	„ Bijoro . . .	4
3. Lalang . . .	„ Lalang . . .	1
4. Helāia . . .	„ Helāia . . .	1
5. Sonda . . .	„ Sonda . . .	1
6. Lakho Latifula . . .	„ Lakho Latifula . . .	1
7. Soung . . .	„ Soung . . .	1
8. Juna . . .	„ Juna . . .	1
9. Jerruck . . .	„ Jerruck . . .	1
10. Haiyāt Gāho . . .	„ Haiyāt Gāho . . .	1
11. Bhuman Puro . . .	„ Bhuman Puro . . .	1
12. Kotri . . .	„ Kotri Alahrakhyo . . .	1
13. Khalifa . . .	„ Khalifa . . .	1
14. Daulatpur . . .	„ Daulatpur . . .	1
15. Lakhi . . .	„ Lakhi . . .	1
16. Parlo Khati . . .	On Ūchto, near Babrāla-jo-got . . .	1
17. Kalandri . . .	„ Vathion . . .	1
18. Garho . . .	„ Nibōi . . .	1
19. Khatho . . .	„ Mahmūda . . .	1
20. Bampto . . .	„ Bampto . . .	1
21. Munāro . . .	„ Munāro . . .	1
22. Ani Bandi . . .	„ Ani Banda . . .	1
23. Richhal . . .	„ Bela Bāi Sahēb . . .	1
24. Kukai . . .	„ Daulatpur . . .	1

Name of Ferry	Where situate.	Number of Boats
25. Baghān . . .	On Ūchto, near Baghan . . .	1
26. Ando . . .	„ „ Got Vatural . . .	1
27. Mouth of the Bhaghvar.	On Bhaghvar near Sikhanjo-got . .	2
28. Purochāni . . .	„ „ Purochāni . . .	1
29. Mirpur Sakro . . .	„ „ Mirpur Sakro . . .	1
30. Sūkhpur . . .	„ „ Sūkhpur . . .	1
31. Nahiyon . . .	„ „ Nahiyon . . .	1
32. Buhāra . . .	„ „ Buhāra . . .	1
33. Kiri . . .	„ „ Kiri . . .	1
34. Ghulām-ulah . . .	„ „ Ghulām-ulah . . .	1
35. Timūkho . . .	„ „ Timūkho . . .	1
36. Pir Patho . . .	„ „ Pir Patho . . .	1

The proceeds of these ferries are included under the head of local revenue, and realise annually, on an average, from 3000 to 5000 rupees.

RAILWAY.—The Sind railway passes through the Mirpur and Tatta talūkas of this division for about 50 miles, and has stations at the following places :—Dābēji, Jungshāhi, Jhmpir and Meting. The telegraph lines, both Governmental and that belonging to the railway company, follow this route.

POSTAL LINES.—The postal lines of communication in this division are three in number : one running from Dābēji, on the Sind railway, to Ghāro and Kēti, 54 miles in distance ; another from Jungshāhi to Tatta, 13 miles long ; and the third from Meting to Jerruck, also 13 miles in length. These are all foot lines. The non-disbursing post-offices are situate at Jerruck, Tatta, Ghorabāri, Mirpur Sākro, and Kēti, and the branch post-offices at Meting, Jungshāhi and Dābēji.

ANTIQUITIES.—There are in this district many ruinous forts, temples, mazjids, tombs, &c., which on the score of age are deserving of careful notice. Near the town of Ghāro, in the Mirpur Sakro talūka, are the ruins of a very ancient city called Bambura, which would seem to have been in existence before the first Muhammadan invasion of Sind, in A.D. 711-12. It is supposed that Bambura may very possibly have been the ancient Dewal (or Debal), the first city captured by the Musalmān forces under Muhammad Kāsīm Sakifi, and that it was so called from a temple renowned for its sanctity situate in the fort. Others, again, have presumed that Tatta was the ancient Debal, or that even Manora was the place stormed by the Musalmān invader ; but be

this as it may, Bamburga is unquestionably a place of great antiquity, displaying as it does the remains of ramparts, bastions, towers, &c., and bearing evidence of former population and trade in the number of coins which have at different times been found there. Bamburga is in latitude  $24^{\circ} 40' N.$ , and longitude  $67^{\circ} 41' E.$  Another ancient building in ruins is the *Mūri*, or house of Jām Tumāchi, the fourth sovereign of the Samma dynasty in Sind, who flourished about A.D. 1380. These ruins are situate on a hill at the northern end of the Sonahri *dhandh* (or lake) near Helāia, in the Tatta talūka, and command a fine view. The Kalān Kot (or great fort) is another interesting ruin, situate near the right bank of the Bhaghiār, or western branch of the Indus, and three miles south of the town of Tatta. It is seated on a limestone hill, which abounds in marine shells, and is everywhere honeycombed with natural cavities. The fort is about a mile and a quarter in circumference, and the outer wall of it is still perfect. In 1840 it was described as having numerous massy round towers, connected by curtains, and that it appeared to have been constructed with much care and skill. In a large building was found a great quantity of grain burned to charcoal, and this, together with the vitrified state of the brickwork in many places, seemed to show that the place must have been destroyed by fire. This fort, which is said to have been built about A.D. 1421, during the Samma dynasty, is supposed to stand upon the site of a still more ancient stronghold—one that was very possibly in existence before the Muhammadan invasion of Sind. But by far the most interesting remains of old buildings in this division, though in no way so ancient as those just described, are the many tombs, now fast hastening to decay, which are still to be seen on the plateau of the Makli range of hills near the town of Tatta. These extensive ruins reach from Pir Patho, the southernmost limit of the Makli range, to Sammanāgar (or Samui), the site of the ancient capital of the Samma rulers of Sind, about three miles north-west of Tatta. Kennedy, who wrote of these ruins, calls them a vast cemetery of six square miles, which contained, at a rude guess, not less than a million of tombs; and when speaking of the bricks of which many of the large tombs are built, he says, the finest chiselled stone could not surpass the sharpness of their edge and angle, or their accuracy of form. The table-land of these hills is, indeed, covered with sepulchres of all kinds and sizes, and this area is believed to have been a sacred burial-ground for nearly twelve centuries. The tombs which are most worthy of mention are seven in number, and are as follows:—

1, the tomb of Jām Nindo (or Nizām-u-din), the fourteenth prince of the Samina dynasty; it is supposed to have been erected about A.D. 1498. 2, the tomb of Sāla Bēg, built about A.D. 1557. 3 and 4, the tombs of Mirza Jāni Bēg, and Ghāzi Bēg Tūrkhān, two princes, father and son, of that dynasty, which succeeded the Arghūns, but did not last longer than A.D. 1591-92, the country being afterwards conquered by the Mogal emperor Akbar, and incorporated by him into the Sūbah of Multān. 5, the tomb of Mir Khalīb Khān, built during his lifetime, between A.D. 1572 and 1585. Though called his tomb, he was, at his own request, never laid in it, from a peculiar notion that some injustice might possibly have been done to some one in connection with it during its erection. He was therefore interred in the enclosure, seven devotees occupying the tomb itself. 6, the tomb of Mirza Isa Khān, erected between the years 1620 and 1637. There is another tomb of a person of the same name (a former ruler of Lower Sind) in the town of Tatta. The 7th is the tomb of Dewan Sharifa Khān, built about A.D. 1639. He was the grandson of Mīr Ulik Arghūn, and was *Devan* (or minister) under the Government of Nawāb Mīr Khān, holding this office up to A.D. 1644. These are the principal edifices of interest in that vast space which is so thickly overspread with tombs; they are now falling hopelessly to decay, not alone from the effects of time, but from a ruthless spoliation as well at the hands of individuals who, eager to possess encaustic tiles or bricks, greatly deface these beautiful monuments of a past age. So well have these bricks been laid, and so firm have they since become, that it is exceedingly difficult to remove them whole with the chisel and hammer. The bricks, with their encaustic covering, still in places shine out brilliantly from many of these old tombs, and afford some idea of their former splendid appearance, before time had marked them with decay. On several of the encaustic tiles are still to be seen inscriptions in the Arabic character of extracts from the Kurān, which neither age nor the hand of the spoiler has yet been able to destroy. At a spot a short distance eastward of the large buildings just described, stands the modest tomb of an Englishman, by name Edward Cooke, who died at Tatta in the year 1743. It is not known for a certainty with what business he was connected there, but from the circumstance of the East India Company's factory not having been established at Tatta till 1758, during the reign of Ghulām Shāh Kalhora, Mr. Cooke is supposed to have been a private individual, and most probably engaged in the silk trade, for which Tatta was at that time specially noted. The following is the inscription on

his tomb, which, it is as well to remark, is in a very creditable state of preservation :—

“ Here lyes the manes of Edward Cooke, who was taken out of the world in the Flower of his Age, a person of great merit, and much lamented by all his friends, learned in many languages, of great humanity, a sound judgment and a generous disposition, who departed this life on the 8th of May, 1743. *Ætatis suæ* 21.

As blooming lilies grace the field,  
So for a day they shine,  
Like him to God, so they yield  
Themselves, but not their name resign.

To whose memory his servants erected this tomb.”

The fort and Jama mazjid of Tatta, which are both ancient buildings, will be found described in the account of that town.

**Jerruck**, or (**Jhirak**), a town in the Tatta talūka of the Jerruck Deputy Collectorate, in latitude  $25^{\circ} 3' N.$ , and longitude  $68^{\circ} 15' E.$  The town is situate close to the Indus, on an eminence of slight elevation, about 150 feet above the river-level, and may be said to command the navigation of the river in both a military and commercial point of view. Its advantageous position and salubrious climate caused it to be recommended by Burnes as the best location for a British settlement in this part of Sind, and Sir Charles Napier is said to have regretted not having chosen it for the European barracks, instead of Hyderabad. Jerruck has road communication with Kotri, from which it is distant south 24 miles; with Tatta, distant north-east 32 miles, and with Meting, a station on the Sind railway, from which it is distant 13 miles.

Jerruck is the residence of a Deputy Collector whose bangalow stands upon the summit of a hill nearly 350 feet above the level of the Indus. It quite overlooks the town, and commands as well a fine view of the river and of the surrounding country. The gardens at Jerruck are very good, one especially, known as the Deputy Collector's, which is fairly filled with fruit-trees of different kinds. In the plains around the town, rice, bājri, hemp, tobacco and sugarcane are extensively cultivated. A Kōtwal, whose duties are principally magisterial, resides here, and it is the head-quarter station of a Tapadār. Jerruck is also a sub-thāna, having a police force of twenty men, four of whom are mounted, the whole being in charge of two chief constables. There are three dharamsālas, one in the town, and two on the bank of the river; a Government school, subordinate jail (in charge of the Kōtwal), a market and a dispensary, the two latter supported by the municipality. This list

institution was established in September 1855, and has an annual income ranging from 1100 rupees to 1900 rupees. The trade of the town is trifling in value and amount, and is mostly in grain and other agricultural produce. It has greatly fallen off since the opening of the Sind railway, which has had the effect of diverting a good deal of the traffic from this part of the river. Excellent camel saddles, as also strong and durable *sūsis* (or striped cloths), are made here; but beyond this, there is nothing worthy of mention in the way of manufactures.

The population of Jerruck was found by the census of 1872 to be 1666 in number, of whom 1137 are Muhammadans, and 529 Hindūs. The Musalmān portion of the inhabitants are chiefly Saiyads, Balochis, Khwājas and Muhānas. The Hindūs are mostly of the Lohāno caste. The principal employment of the inhabitants is agriculture and trade.

The town of Jerruck, before the conquest of Sind by the British, belonged to Mir Muhammad Khān Talpur, who derived from it an annual revenue of 1500 rupees. The population of the town was then estimated at 1300 souls, the houses numbering about 250. There was then commercial intercourse between it and Karāchi by two routes—one direct, and the other passing through Tatta. There existed also an active trade between the tribes inhabiting the mountains to the westward, who brought sheep from their pastures to exchange for the grain, especially rice, grown in the plains bordering on the river. On a hill to the north of the Kotri road, and close to the town, is the grave of an assistant-surgeon, Robert Hussey, who died here in 1850, and in another spot lie the remains of the Rev. C. Huntingdon, chaplain of Hyderabad, who also died here on his way to Karāchi, on the 27th May, 1856.

**Johi**, a town in the Dādu talūka of the Sehwan Deputy Collectorate, distant 12 miles west of Dādu, with which and the villages of Bhān, Phulji, Chini, Hairo Khān, and Hāji Khān it has road communication. It was formerly the head-quarter station of a Mūkhtyārkar, but at present there is a Tapadār and a Kotwāl, the latter of whom is also a subordinate magistrate, deciding all cases within his jurisdiction, and assisting the Mūkhtyārkar in his revenue duties. This place possesses a subordinate jail, staging bangalow, dharamsāla, post-office, and a cattle pound. It is also a sub-thāna, with 16 policemen, of whom 3 are mounted. The inhabitants, numbering 4419, consist of 2637 Muhammadans of the Saiyad, Kori, Khāskēli, and Sūmra tribes, and 1782 Hindūs of the Lohāno, Sonāro, and Sikh castes. Their principal employment is agricul-

ture and trade. This town does not possess any trade or manufactures of importance.

**Juneja**, a Government village in the Kambar talūka of the Larkāna Division, 18 miles north-west of the town of Larkāna, and having no communication with any village by road. The inhabitants, numbering 1416 in all, comprise 1299 Musalmāns of the Saiyad and Juneja tribes, and 117 Hindūs, chiefly Lohānas. Their chief occupations are trade and agriculture.

**Kaisar-jo-Tando**, a Government village in the Hyderabad talūka of the Hyderabad Collectorate, 9 miles south-west from Hyderabad, with which town and the villages of Khokhar, Hūsrī, Tando Haidar, and Jām-jo-Tando it has road communication. It is the head-quarter station of a Tapadār, and has a cattle pound. The population, numbering in all 1815, consists of 1431 Muhammadans, principally of the Talpur, Nizamāni, Saiyad, and Khāskēli tribes, the remaining 384 being Hindūs, mostly Lohānos. Their employment is chiefly agricultural. The head of the Nizamāni tribe in this village is one Ahmad Khān, who holds a jāgir. There appears to be no trade or manufacture of any importance here. The town is said to have been founded by one Kaisar Khān Nizamāni during the rule of Mir Fateh Ali Talpur.

**Kakar**, a talūka (or sub-division) of the Mehar Deputy Collectorate, containing an area of 602 square miles, with 11 tūpas, 124 villages, and a population of 46,443 souls. The revenue, imperial and local, of this sub-division, during the past four years, ending 1873-74, is as follows :—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees	rupees.
Imperial . . . .	1,25,397	1,32,291	1,54,283	1,39,163
Local . . . . .	15,318	14,171	13,363	13,239
Total rupees .	1,40,715	1,46,462	1,67,646	1,52,402

**Kakar**, a town in the talūka of the same name, of the Mehar Deputy Collectorate, situate on the right bank of the Western Nārā, in latitude 26° 56' N. and longitude 67° 46' E. It is distant about 28 miles S.S.W. from Mehar, 10 miles S.W. from Rukan, with both which towns it has road communication, as also with the villages of Khairpūr Natheshāh and Tigar. Kakar is at present the head-quarter station of the Mukhtyārkar of the talūka, and of a Tapadār, and possesses, besides police lines

for seventeen men, a musāfirkhāna, post-office, and a Government vernacular school. The Mūkhtyārkar's kutcherry is, however, about to be transferred from this place to Khairpūr Nathe-slāh, sanction for this step having been obtained, and on this taking place, it is expected the police force will in consequence be reduced. The population consists of 403 Muhammadans of the Baloch, Saiyad, and Sindi tribes, and 299 Hindūs, mostly Brahmans and Lohānos. There do not appear to be any manufactures of consequence in this place. The trade, both local and transit, is in grain of different kinds, and cloth, but nothing seems to be known concerning either its extent or value.

**Kambar**, a talūka (or sub-division) of the Lārkāna Deputy Collectorate, containing an area of 943 square miles, with 8 tapas, 144 villages, and a population of 73,329 souls. The revenue (imperial and local) of this sub-division during the past four years, ending 1873-74, is as follows :—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Imperial . . .	2,42,707	2,46,786	2,33,330	2,24,388
Local . . . .	19,049	22,998	21,084	18,357
Total rupees .	2,61,756	2,69,784	2,54,414	2,42,745

**Kambar**, the chief town in the Kambar talūka of the Lārkāna Deputy Collectorate, in lat. 27° 33' N. and long. 68° 2' E., distant about 12 miles west by north from Lārkāna. It has road communication with Lārkāna, Ghaibi Dēro, Sijāwal, Rato Dēro, Nasirābād, Dost Ali, and Shāhdādpur. It is the head-quarter station of a Mūkhtyārkar and a Tapadār, and, in addition to their "*dēras*," possesses a Government school, municipal hall, district bungalow, musāfirkhāna, branch post-office, and police lines for 29 men. The population numbers in all 3518, of whom 1913 are Muhammadans and 1550 Hindūs. The former comprise the Saiyad, Gopang, Gadra, Junēja, and Chandia tribes; the latter are principally Brahmans and Lohānos.

The Kambar municipality, established 1st May, 1862, had an income in 1873-74 of 4757 rupees, derived mostly from town dues, cattle-pound fees, and fisheries. The expenditure in the same year was 2503 rupees. The manufactures of the town are not of any importance, and consist only of those articles ordinarily in use among the inhabitants; of the local trade, all that is known is that it consists in grain of different kinds, but no record appears



to be kept of either its quantity or value. This town has no transit trade.

The best known facts in connection with the history of Kambar are its being plundered by the Balochis in 1844, and the occurrence of a great fire in the town in the following year.

Kandiāro, a talūka (or sub-division) of the Naushahro Deputy Collectorate, having an area of 315 square miles, with 7 tapas, 71 villages, and a population of 47,768 souls. The revenue, imperial and local, of this sub-division during the past four years, ending 1873-74, is as follows:—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Imperial . . .	1,11,913	1,07,044	1,01,592	1,01,816
Local . . .	8,761	9,757	9,706	8,426
Total rupees .	1,20,674	1,16,801	1,11,298	1,10,242

Kandiāro, a large Government village in the Kandiāro talūka of the Naushahro Division, situate on the Nasrat canal. It is distant 10 miles north-east from Thāru Shah, from Kamāl Dēro 6 miles, Darbēlo 6 miles, Bhiria 10 miles, Mohbat Dēro Jatōi 7 miles, Mohbat Dēro Siāl 10 miles, Lākha 6 miles, and Jamāli ferry, with all which places it has road communication. The line of telegraph passes close to this town. Kandiāro is the head-quarter station of a Mūkhtyārkar and Tapadār, with their establishments, and has police lines for 11 men. There is, besides, a subordinate judge's court, post-office, market, school-house, district bangalow, and dharamsāla. It also possesses a municipality, established in February 1861, the income of which in 1873-74 amounted to 2598 rupees, and the disbursements to 1767 rupees. The population, numbering in all 2558 souls, consists of 1074 Muhammadans, the Mēmōns being the most numerous, and 750 Hindūs, chiefly Lohānos; the remainder (734) are most probably Sikhs. Lieutenant Jameson mentions that this town had in 1852 a population of 2624, of whom 1607 were Hindūs and 1017 Musalmāns; the number of houses were 571, and the shops 231. It then ranked in size and importance next to Naushahro and Bhiria. The principal occupation of the people is agriculture, but the Hindū portion of the inhabitants are engaged in trade, which is mainly in grain and cloth, but to what extent in quantity and value there does not appear to be any record. There are manufactures of

coarse paper and country cloth in this town, but neither the quantity or value seems to be known.

The town of Kandiāro is said to have been built during the reign of the Delhi Emperor Jehāngir Shāh, which would make the place about 250 years old. Before it was built there was another in existence close to it, called Patoipur, which was abandoned owing to an unusual rise of the inundation waters. The site of the present town of Kandiāro was then chosen as being somewhat more elevated; and having at the time a large number of *kandi* trees growing upon it, the place took, it is supposed, from this circumstance, the name of Kandiāro.

**Karāchi Collectorate**, a large district of the province of Sind, lying between the 23rd and 27th parallels of north latitude, and the 67th and 69th meridians of east longitude. It is bounded on the north by the Mehar Division of the Shikārpur Collectorate, on the east by the river Indus and a portion of the Hyderabad Collectorate, on the south by the sea and the Kori river, and on the west by the sea and the territory of H.H. the Khān of Kelāt, the river Habb forming, for a considerable distance, a good line of demarcation. The greatest length of this district from north to south may be computed at 200 miles, and its greatest breadth at 110 miles, its entire area, according to the Revenue Survey Department, being 16,109 square miles. It is divided into three deputy collectorates, one district, that of Kohistān, and one district talūka (that of Karāchi), as shown in the following table:—

Divisions .	Area in Square Miles.	Number of Villages.	Population
1. Sehwan . . . .	3,646	203	162,836
2. Jeuruck . . . .	3,070	142	91,934
3. Shāhbandar . . . .	4,142	363	103,887
4. Kohistān . . . .	4,058	6	5,681
5. Karāchi talūka . . .	1,253	3	62,384
Total . . . . .	16,109	717	426,722

**GENERAL ASPECT.**—The general appearance of this immense tract differs in a great measure from other collectorates in Sind, by its possessing a hilly country to the westward, situate in the Kohistān district and in the Karāchi talūka. This portion of the collectorate is crossed by numerous ranges of hills of no

inconsiderable altitude, and they may, in fact, to a great extent, be regarded as spurs or offshoots of the great Khirthar mountains. Some of these hills, as for instance the Lakki range, run for some distance into the Schwan Division, where also is found the only lake of any size in Sind, that of the Manchhar. The Jerruck Deputy Collectorate is also, on its northern and western sides, diversified to some extent by elevated land; but the southernmost division of the Karāchi Collectorate, that of Shāhbandar, forming a large portion of the Indus delta, is altogether low, flat, and unpicturesque to a degree, and appears an endless plain intersected by numerous creeks and channels. That portion of the collectorate adjoining the Indus is in places fairly fringed with large forests, mostly of bābul, and these tend to give a fresh and pleasant aspect to what would otherwise be a dull and dreary landscape. Taken as a whole, however, the Karāchi district, owing to its possessing the hilly country in the west, affords a greater variety of scenery than can be found in any other collectorate in Sind. Excepting that portion of the Indus which forms its eastern boundary for so many miles, and the Habb river, which, for a considerable distance, is a well-defined western boundary between Sind and Balochistān, there are no other streams of any consequence. The Bāran, Malir, and a few other so-called rivers in the western part of this district, are simply mountain torrents, having flowing water to a greater or less extent in them but once or twice in the year, when heavy rain falls in the hills whence they have their source.

The principal revenue and magisterial authority over this extensive district is vested in a collector and magistrate, who, as in other collectorates, is assisted in his duties by the several deputy collectors and magistrates of divisions of this district, as also by the Huzūr Deputy Collector, who is permanently stationed at the head-quarter station Karāchi. There is also a district and sessions judge, with his head-quarters at Karāchi, who holds sessions at the towns of Kotri and Tatta several times during the year. The canals of this collectorate form a distinct division or charge, and are attended to by specially appointed officers of the Public Works Department. The police force employed in this district, numbering in all about 1349 men, is under the immediate charge of a district superintendent with an assistant, this latter officer being stationed at Karāchi, where he supervises the municipal and city police. The following table will show the composition of this force:—

	Inspectors	Chief Constables	Head Constable	Constables.	Horse Police.	Camel Police	European Constables.	Total.
District Police . . .	3	23	90	550	131	49	...	846
Town Police . . .	1	2	33	250	...	...	8	294
Municipal Police . . .	..	..	3	97	..	..	..	100
Railway Police . . .		1	13	95	...		..	109
Total . . .	4	26	139	992	131	49	8	1,349

The town police are employed in the town and suburbs of Karāchi; and among the constables in this branch eight are Europeans, doing duty in Karāchi. The proportion of policemen to area and population may be set down at one policeman to every 13 square miles, and to every 316 of the inhabitants.

REVENUE.—The revenue, imperial and local, of the Karāchi Collectorate, is mostly made up from the cess on land, but this is small in amount when compared with the more favoured districts of Shikārpur and Hyderabad. This will be evident from the subjoined statement, which shows the average *net land* revenue for three successive periods, of six years each, ending 1873-74.

For Six Years, from 1856-57 to 1861-62.	For Six Years, from 1862-63 to 1867-68.	For Six Years, from 1868-69 to 1873-74.
rupees. 5,51,352	rupees. 6,39,733	rupees. 6,34,371

The imperial and local revenues of the Karāchi Collectorate for the past ten years, ending with 1873-74, are given below. Customs' receipts are included in the imperial revenue.

	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.
Imperial . . .	rupees. 17,71,945	rupees. 15,34,174	rupees. 16,68,620	rupees. 17,89,650	rupees. 18,06,993
Local . . .	..	..	82,976	1,07,980	1,10,522
	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . .	rupees. 17,49,830	rupees. 16,69,514	rupees. 17,00,370	rupees. 15,72,714	rupees. 13,90,799
Local . . .	1,04,587	1,08,225	1,09,885	1,12,400	1,21,692

As regards Abkārī revenue, it may be mentioned that the present system in the Karāchi district is to farm the monopoly of the manufacture and retail of liquor. Formerly there were Government distilleries at Karāchi, Tatta, Mirpur-Batoro, and Kotri, but these were suppressed in 1862. The subjoined table will show the extent of the Abkārī revenue in its various details from 1856-57 down to 1873-74, a period of 18 years.

Year.	Net Land Revenue.	Liquor-shops farmed.			European Liquor Licenses.		Drug Revenue.	
		Farmers' Stills	Farmers' Licenses.	Receipts from Farms.	Number of Licenses	Receipts	Licenses.	Receipts
	rupees.			rupees.		rupees.		rupees.
1856-57	3,01,759	10	30	10,426	...	...	101	2,720
1857-58	3,38,159	9	30	8,682	...	..	110	2,320
1858-59	3,14,480	8	30	9,062	...	...	103	2,130
1859-60	2,91,958	8	43	14,105	...	...	122	2,098
1860-61	2,91,774	10	73	23,090	3	58	153	7,616
1861-62	2,06,250	8	78	30,290	11	248	144	10,648
1862-63	3,54,234	8	90	23,418	35	875	146	11,939
1863-64	4,60,600	10	69	23,985	78	1,950	164	13,336
1864-65	6,72,064	11	90	1,04,156	50	1,250	254	39,813
1865-66	6,44,614	10	90	98,734	57	1,405	248	36,643
1866-67	6,97,654	11	86	97,772	44	5,835	248	43,797
1867-68	6,70,824	5	86	1,00,115	39	7,946	248	47,650
1868-69	6,73,418	8	86	1,06,105	33	6,662	154	29,546
1869-70	6,92,454	7	87	1,10,746	30	7,050	154	27,580
1870-71	6,96,234	11	87	97,955	25	5,408	154	24,490
1871-72	6,30,936	10	90	78,510	20	3,843	154	19,062
1872-73	6,41,173	7	91	86,860	19	4,025	154	21,823
1873-74	4,72,019	4	92	95,620	16	3,586	157	22,513

The revenue derived from the canals in the Karāchi Collectorate (which will be found fully treated upon in the description of the several deputy collectorates through which they flow), as also their cost of clearance, are shown in the subjoined statement, for a period of 10 years, ending 1873-74.

	1864-65.	1865-66.	1866-67.	1867-68	1868-69
Revenue . . .	5,12,155	5,56,660	5,64,013	5,73,559	5,75,401
Cost of clearance . . .	63,327	73,770	79,887	87,911	1,18,730

	1869-70	1870-71.	1871-72.	1872-73.	1873-74
Revenue . . .	rupees. 5,77,207	rupees. 5,66,825	rupees. 5,65,632	rupees. 5,51,041	rupees 5,22,222
Cost of clearance . . .	1,02,529	96,919	1,16,887	1,24,419	1,17,034

FORESTS.—The forests in this collectorate are twenty-six in number, and have an aggregate area of about 137 square miles. They are situate on the banks of the Indus, and, like other forests in Sind, owe their existence to the Talpur Mirs, who planted them for purpose of *shikār*, between the years 1783 and 1836. A few of these forests have an area of between seven thousand and ten thousand acres; the greatest number are found in the Shāhbandar Deputy Collectorate. The tabulated statement given below will show the names of these forests with their area and revenue in each deputy collectorate :—

Division.	Name of Forest.	Area.	Revenue in 1873-74.
		acres.	rupees.
Sehwan.	1. Karampur . . . . .	} 24,474	} 31,857
	2. Ketī Khanot . . . . .		
	3. Unarpur . . . . .		
	4. Mānjhand . . . . .		
	5. Buto . . . . .		
	6. Ghag . . . . .		
	7. Kāro-Khahu . . . . .		
	8. Lāikpur . . . . .		
	9. Khadr . . . . .		
	10. Mūlchand . . . . .		
Shāhbandar.	11. Būd-jo-Takar . . . . .	} 38,287	} 16,992
	12. Fatah . . . . .		
	13. Penah . . . . .		
	14. Susāti . . . . .		
	15. Khirsar . . . . .		
	16. Hūderāni . . . . .		
	17. Sūrjāni . . . . .		
	18. Ganj . . . . .		
	19. Hazāri . . . . .		
	20. Makbolo . . . . .		
Jerruck.	21. Virān . . . . .	} 25,074	} 14,250
	22. Sonda . . . . .		
	23. Hēlāia . . . . .		
	24. Lalang . . . . .		
	25. Shāhlanka . . . . .		
	26. Garko . . . . .		

EDUCATION.—Education has made considerable advances in the Karāchi Collectorate, but this is more observable in the town of

Karāchi itself than in the towns and villages in the interior. As in other parts of the province, the Hindu-Sindi character has been introduced into those schools where the "banya" population is large, but the success that has attended this scheme has been by no means so great in this district as in those of Hyderabad and Shikārpur. The number of private educational institutions in Karāchi is, however, large compared with those in other populous towns in Sind; but this may, to some extent, be accounted for by the superiority of climate which induces European and Indo-European parents of a certain class, located in the interior, to send, where possible, their children to be educated at one or other of the private English schools at Karāchi. The subjoined statement, extending over a period of five years, ending with 1873-74, will show, to some extent, the progress education has made in the Karāchi Collectorate. The table includes private-aided schools, but all the others are Government institutions:—

Description of School.	1869-70.		1870-71.		1871-72.		1872-73.		1873-74.	
	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.	Schools.	Pupils.
High Schools . . . . .	1	91	1	83	1	79	1	78	1	77
Anglo-Vernacular Schools—1st Grade . .	1	102	1	142	1	97	1	114	1	124
Ditto ditto 2nd Grade. .	3	291	4	373	3	291	3	336	3	462
Vernacular Schools . . . . .	20	1,098	21	1,227	25	1,266	31	1,479	30	1,381
Indigenous Schools receiving grants-in-aid	3	216	5	362	5	515	6	675	7	789
<b>Total Boys' Schools . .</b>	<b>28</b>	<b>1,798</b>	<b>32</b>	<b>2,187</b>	<b>35</b>	<b>2,248</b>	<b>42</b>	<b>2,682</b>	<b>42</b>	<b>2,833</b>
Girls' Schools (Government) . . . . .	5	177	5	189	5	159	5	282	6	296
Private . . . . .	...	..	...	...	..	..	1	33	1	38
<b>Total Girls' Schools . .</b>	<b>5</b>	<b>177</b>	<b>5</b>	<b>189</b>	<b>5</b>	<b>159</b>	<b>6</b>	<b>315</b>	<b>7</b>	<b>334</b>
<b>Grand Total . .</b>	<b>33</b>	<b>1,975</b>	<b>37</b>	<b>2,376</b>	<b>40</b>	<b>2,407</b>	<b>48</b>	<b>2,997</b>	<b>49</b>	<b>3,167</b>

2



Among the private girls' schools may be mentioned the female branches of the European and Indo-European, St. Patrick's, the Church Missionary Society's Marathi school, and the Virbāiji Parsi schools at Karāchi.

The Karāchi Collectorate, though unable to stand out so prominently in a historical point of view as the Hyderabad district, has still much that is interesting within its immense area. It possesses the ancient town of Sehwan, where are the remains of a fort said to be of great antiquity, and to have had an existence at the time when Alexander the Great invaded India. Again, close under the Makli hills stood Samui, the capital city of the Samma dynasty of princes, and in after years not far from it sprang up the populous town of Tatta, long famous for its wealth and manufactures. (The town of Karāchi appears to have been of comparative insignificance under the different native dynasties which ruled Sind, but its importance as a harbour was seemingly recognised by the Talpūr Mirs, who did something towards encouraging and increasing the trade of the place. It was one of the first acquisitions secured to the British by the capture of Manora fort in 1839, and its conquerors saw at once the importance of its position. Before 1861 the area of the Karāchi Collectorate was much smaller than at present; but in that year a part of the Indus delta, now forming the Shāhbandar Deputy Collectorate, was taken from Hyderabad and incorporated in the Karāchi district. )

**Karāchi Talūka**, a district of considerable extent occupying the south-western portion of the Collectorate of the same name. It is bounded on the north by the Kohistān district and the Halbb river, on the west by the same river and the sea, on the south by the sea, and on the east by the Mirpur Sakro talūka of the Jerruck Deputy Collectorate. The area of this talūka, according to the Survey Department, is 1253 square miles, and it has two tapas with three "dehs," as shown in the subjoined statement:—

Talūka.	Area in Sq Miles	Tapas.	Dehs	Population	Chief Towns.
Karāchi	1,253	1. Malir. 2. Habb.	2 1	62,384	Karāchi is the only town having 800 inhabitants and upwards.

The total area in English acres of this talūka is 801,920, of which 27,288 are cultivated, 870 are culturable, and 773,762 are unarable.

ASPECT.—The aspect of this district, excepting that portion directly bordering on the sea, is hilly, especially towards the north and west, where ranges of hills, lofty and barren, are found running from north to south with proportionately deep and wide valleys between them. A small chain of hills in the extreme western part of this talūka runs for some miles parallel to the Habb river, and terminates in the headland known as Ras Muāri, or Cape Monze, an excellent landmark for mariners when making the port of Karāchi. After heavy falls of rain these hills afford abundant pasturage for vast herds of cattle, which are annually sent there from the plains for that purpose.

HYDROGRAPHY.—There are no canals in this district, owing to its hilly nature, but it is drained by several rivers, or rather mountain-torrents, such as the Malir, Layāri, and a few others. The Malir takes its rise in the Kohistān district, and is known under different names in its course towards the sea. It is dry during the greater part of the year, and contains no considerable body of water, except after heavy rain in the hills; but water can at all times be obtained by digging in the bed of the stream. It falls into the sea by way of Gisri creek, a short distance west of the town of Karāchi. The Layāri is another hill-torrent, having its rise among some hills a few miles north of Karāchi. It divides into two branches not far from its mouth, one of which falls into the harbour close to the town. During the greater part of the year the Layāri is merely a bed of sand, but after a heavy rainfall it holds for a day or two a considerable body of water, which is dangerous to ford, the current being then very rapid. The Habb river, which forms the western boundary of this district, will be found described in full in another part of this work (*see* HABB). There are in this talūka no floods of the same destructive nature as are met with in North Sind, but a plain known as the Latowāri, between Rāna Pitiāni and Ghaghar, is occasionally flooded to a considerable extent after a continued rainfall. The water is, however, soon drained off by numerous intersecting channels. Salt marshes are met with to a slight extent along the sea-coast of this district, owing to the flow of the tides over low and sandy flats; these generally abound with mangrove bushes and other saline wood growths. Of springs there are several in this district, those of Mugger Peer, or, as they ought more properly to be called, Pir Mangho, being the most important; others are to be found in the Gadap valley, and between that place and Wagodar Bandar, this latter distant about 16 miles from Karāchi, and situate on the Ghāro creek. The hot springs

of Pir Mangho are situate at a spot about 6 or 7 miles north of Karāchi, among some very barren and rocky hills. Carless thus describes an interesting visit he made many years ago to these springs, and his account, with but few exceptions, may be said to apply to their appearance at the present time : " The only part of the country in the neighbourhood of Karāchi worth visiting is the valley of Pir Mangho, situate among the hills, about 8 miles from the town, where there are several hot springs. My curiosity being excited by the strange tales related by the inhabitants concerning a temple that stood there, which was said to be very ancient, I determined to examine it, and on expressing a wish to that effect to the Governor, one of the chiefs was ordered to accompany me to the spot. After we had got clear of the groves and gardens outside the town, and crossed the dry bed of the Layāri, our road led to the northward towards a range of low broken hills about 5 miles distant. Beyond the bed of the Layāri the country is a level plain completely overrun with large prickly-pear bushes or mimosa-trees, and the soil is composed of a light loose clay, with here and there a mixture of fine sand. An hour's ride brought us to the foot of the hills, which are about 800 feet high, and of coarse sandstone formation ; we crossed them through an irregular rocky ravine, having every appearance of being the bed of a large torrent during the rains, and then pursued our way along several small valleys, bounded by long narrow ridges or detached hills. The valley of Pir Mangho is surrounded by hills 700 or 800 feet high, between which glimpses are occasionally obtained of the level plains beyond, but at the upper extremity it stretches away in high undulating ground far to the northward. An extensive grove of date and other trees occupies the centre of the plain, and on the western side there is another, above which is seen the cupola of a small white mosque, erected on a rocky eminence. Passing through several patches of cultivation, irrigated by the waters of the different springs, we dismounted in the largest grove, where we found carpets spread under the shade of the trees and a repast prepared. The spring gushes out in a small stream from among the roots of a picturesque clump of date trees, covering the extremity of a rocky knoll of limestone about 30 feet high, and falls into a small natural basin, from whence it escapes in numerous rills to the adjacent gardens. The name of this spring is Kisti, but it was formerly called Kirkund, or the milk-tank, from the water being milk-white, which was no doubt owing to its flowing at that time over a bed of chalk. It is now colourless and perfectly pure to the taste, having no perceptible

flavour of any kind, but, from the stones in some of the rivulets being encrusted with a soft substance of a dark reddish-brown colour, probably contains a small portion of iron. The water is so warm that at first you can scarcely bear your hand in it, and its temperature was afterwards found to be  $133^{\circ}$ . The natives say it cures every disease, and they not only bathe in it whenever they have an opportunity, but drink it in large quantities. They believe that all the springs in the valley owe their existence to Lal Shāhbāz, the celebrated saint of Sehwan, who, in order to make the spot holy, commanded them to burst forth from the rocks. In the centre of a small piece of grass land near the spring, I observed what at first I took for a shapeless mass of mud, but on walking towards it was warned by the Balochis not to go near it, as it was an alligator. The monster, which was about 12 feet long, was lying asleep on the grass, and when one of the Baloch soldiers roused him by heaving a piece of rock at his head, sprang up in a rage, opened wide his huge jaws, and then sank down again to sleep. I could not but be surprised at seeing women and children passing and repassing within a few yards of this disgusting-looking brute, and that, too, without appearing to think they had the slightest danger to apprehend. The grove in which we had taken up our temporary quarters is nearly a mile long, and composed chiefly of date-trees; there are also tamarind, mango, and nebecky trees in abundance, and altogether it is a pretty spot. From a small hill near it my companions pointed out a high, long mountain, about 20 miles to the northward, called Jabal Pabb, which is celebrated all over the country on account of the many wonderful stories related of it. After everything worthy of notice about the Kisti spring had been examined, we mounted our horses and proceeded to the temple on the western side of the valley. It is surrounded by a thick grove, and on emerging from the narrow path that leads through it, we came suddenly upon one of the most singular scenes I ever witnessed. The accounts of my companions had prepared me for something extraordinary, but the reality far surpassed their description. Before us lay a small swamp inclosed in a belt of lofty trees, which had evidently been formed by the superfluous waters of the spring close by flowing into a low hollow in the ground. It was not a single sheet of water, but was full of small islets, so much so that it appeared as if an immense number of narrow channels had been cut, so as to cross each other in every direction. These channels were literally swarming with large alligators, and the islets and banks were thickly covered with them also. The swamp is not more than

150 yards long, by about 80 yards broad, and in this confined space I counted above 200 large ones, from 8 to 15 feet long, while those of a smaller size were innumerable; our horses were standing within 4 or 5 yards of several reclining on the bank, but they took no notice of them, and would not move until roused by a stick. In a small pool, apart from the swamp, there was a very large one, which the people designate the "chief," because he lives by himself in a kind of alligatoric state, and will not allow any of the common herd to intrude upon his favourite haunt. It is worthy of remark that there were several buffaloes standing in the water in the centre of the swamp, and that though the large alligators frequently came in contact with them in swimming past, they never offered them the least molestation. The natives say they never touch a buffalo, but will instantly attack any other animal, however large. The appearance of the place altogether, with its green, slimy, stagnant waters, and so many of these huge, uncouth monsters moving sluggishly about, is disgusting in the extreme, and it will long be remembered by me as the most loathsome spot I ever beheld. After gazing upon the scene some time, we proceeded round the swamp to the temple, where the priests had spread carpets for the party under the shade of some trees. They told me it was a curious sight to see the alligators fed, and that people of rank always gave them a goat for that purpose. Taking the hint, I immediately ordered one to be killed for their entertainment. The animal was slaughtered on the edge of the swamp, and the instant the blood began to flow, the water became perfectly alive with the brutes, all hastening from different parts towards the spot. In the course of a few minutes, and long before the goat was cut up, upwards of 150 had collected in a mass on the dry bank, waiting with distended jaws until their anticipated feast was ready. We stood within 3 yards of them, and if one more daring than the rest showed any desire to approach nearer, he was beat back by the children with sticks. Indeed they were so sluggish, and, if I may use the expression, tame, that I laid hold of one, about 12 feet long, by his tail, which I took care, however, protruded to a safe distance beyond the mass. When the meat was thrown among them it proved the signal for a general battle; several seized hold of a piece at the same time, and bit and struggled and rolled over each other until almost exhausted with the desperate efforts they made to carry it off. At last all was devoured, and they retired slowly to the water. It was curious to stand by and see such a mass of these unwieldy monsters almost at your feet, fighting and tearing each other for their food, and there are

few things I shall remember so long as this alligators' feast. The mosque is a neat white building, of a square form, surrounded by a broad terrace, with a cupola and slender minarets at the corners, erected on the summit of a rocky crag of limestone, and said to be 2000 years old. It is dedicated to Pir Haji Mangho, who is esteemed a saint by both Hindūs and Muhammadans, and is held in such high veneration throughout Sind, that numbers of bodies are yearly brought from a great distance to be interred near his shrine. The valley is, in consequence, covered with burying-grounds, which are full of tombs, elaborately carved and ornamented. The interior of the mosque contains a tomb surmounted by a canopy of carved woodwork supported on slender pillars, the whole prettily and neatly ornamented, and kept in excellent order, as are the building and terrace, which are built of stone. On the side of the rock looking towards the alligators' pool, the perpendicular face of the cliff is covered with a coating of smooth chunam, and from the lower part the principal spring gushes forth through a small fissure. The water is received into two stone reservoirs, and then escapes through several outlets to the swamp below. In one of them was a large alligator, with about a dozen young ones, which the inhabitants have named the "Peacock" (or Mōr), and they consider him to be the progenitor of the whole race. The water of this spring is perfectly fresh and slightly warm, but at another a few yards from it, it is quite cold. On leaving the temple we crossed the valley towards the salt spring, which is situate on the eastern side at the base of a narrow ridge of sandstone about 600 feet high. The water is extremely salt, and, after forming two or three small pools, escapes in several streams, swarming with small alligators, through an opening in the ridge, and is absorbed in the sandy plain on the other side. The natives say the water in the pools sometimes rises and falls, and they attribute this to the influence of the ocean tides upon it; but this cannot be the true cause, as the rise only takes place at long intervals, and the plains, besides, ascend gradually from the sea up to the spot, which I estimated to be about 150 feet above its level. That there is a considerable rise in the water at times is evident from the extent of ground about the spring that has been overflowed, and which is covered with a saline incrustation to the depth of 2 or 3 inches, and it is probably produced merely by a sudden increase in the body of water issuing from it, caused by a heavy fall of rain among the mountains in the vicinity."

At the present time a fairly-constructed road runs from Karāchī to Mugger Peer, and thence a rough track leads westerly to the Habb river, and another north to Shāh Bilāwal, in the province of

Las. There is a Government dharamsāla at Mugger Peer, as also a small bangalow erected by a Parsi, where visitors can put up during their stay here. It is worthy of remark, that the alligators at this place, which are now confined within a small inclosure fed by the thermal springs, are altogether different from the "*ghariāl*," or long-snouted kind, which abound in the Indus.

CLIMATE.—The climate of this talūka, which is in every direction open to the sea-breeze, is, as a whole, superior to that of other parts of Sind. Tables of temperature and rainfall at Karāchi, the only large town in this district, will be found given in the description of that town.

The wild animals found in the hilly portion of this talūka are the "*chitah*," or leopard, the hyena, wolf, jackal, fox, a kind of bear, but smaller in size than that met with in India, antelope, and "*gad*," or wild sheep. Alligators abound, as has been already mentioned, at Mugger Peer, and they are numerous also in the pools of the Habb river and of mountain torrents. The wild birds are the same as those usually met with in other parts of Sind. There are no forests in this talūka, a small one once existed in the Gadap valley, but has long since been used up in providing fuel for the town of Karāchi.

SEA-FISHERIES.—The sea-fishery of Sind is carried on mostly by the Muhāna tribe of Musalmāns, who reside principally at Karāchi. The fish caught on the sea-coast of Sind are sharks, saw-fish, rays, skates, and many others. The species must be numerous, as Dr. F. Day computes their number at upwards of 160, sea-perches and soles abounding. Not only are the fins of sharks and saw-fish exported to China, *vid* Bombay, but a large quantity of oil is also obtained from them. From other fish, known as the gassir, begti, dangara, and būrū, are obtained fish-maws, the rough isinglass of commerce, which is simply the air-vessel of the fish dried. The sardines frequenting Karāchi are of the kind known as the *clupea neohorvii*, and these are used as an article of food. Gobies, or mud-fish, abound in the muddy estuaries within tidal influence.

During the rule of the Talpur Mirs, the sea-fisheries were farmed out, the contracts yielding annually between 4000 and 7000 rupees. The cesses on the fishermen were heavy and complicated, a distinction being made in the percentages levied on fish caught inside Manora Point and those caught outside. Thus one-sixth was generally levied on the catch in the former case, and one-fourth in the latter, besides a selection made by the farmer of *five* fish from each boat-load, under the head of *Amlāna*. On fish exported from Karāchi to other places, either in Sind or else-

where, a duty varying from  $6\frac{1}{2}$  to  $7\frac{1}{2}$  pice in the rupee was levied. This system remained in force till the close of 1845, when it was abolished, and in lieu fishing-vessels were classed and licensed on payment of a fee proportionate to their size. This plan lasted till 1851, the fees annually collected ranging from 673 rupees to 3473 rupees, when a suggestion made by Mr. McLeod, then Deputy Collector of Customs, to sell the fisheries yearly to a contractor, was approved of, the sum realised for 1852 being 5250 rupees. This system was carried out till 1857, when the plan of licensing each fishing-boat was adopted according to a scale (shown below), and this has continued in force down to the present time.

Canoe (or Tonio) . . . . .	3 rupees per annum.
Batēlo of $1\frac{1}{2}$ tons and under . . . . .	5 " "
" $1\frac{1}{2}$ " to $1\frac{3}{4}$ tons . . . . .	$7\frac{1}{2}$ " "
" 2 " to $2\frac{1}{4}$ " . . . . .	10 " "
" $2\frac{1}{2}$ " to $2\frac{3}{4}$ " . . . . .	$12\frac{1}{2}$ " "
" 3 " to 4 " . . . . .	15 " "
" $4\frac{1}{2}$ " to 5 " . . . . .	20 " "
" $5\frac{1}{2}$ " and upwards. . . . .	5 " per ton.

The number of tonios employed in fishing is 67, and of batēlos 184.

During the Talpur dynasty the existence of the pearl oyster in Sind was known, and several places, but more especially the Kēnjar bank, near the entrance of the Ghāro creek, were fished in 1836 with some success. The Mīrs afterwards conducted the fishery on their own account, but soon found the undertaking was an unprofitable one. On Sind becoming a British possession the fishery was let out by the Government during the years 1843 and 1844, and brought in yearly something under 2000 rupees, after which it ceased, as the fishermen refused to work. Dr. F. Day remarks that, in 1849, 6265 rupees, and in 1850, 5275 rupees, were realised from the fishery. In 1855 it sold for 4900 rupees, but in 1856 for only 1500 rupees. No further fishing was carried on till 1862, when it sold for 5000 rupees, and afterwards for 10,000 rupees during a period of four years. Lately the fishing was sold for a period of three years, commencing from 1st April, 1874, for 2950 rupees. The oyster found in Sind is said to belong to the genus *Placuna* and not to the true pearl oyster. Dr. Day observes, that the weight of the pearls from 200 shells was less than *four annas*. They are, in fact, very inferior seed pearls, none being larger than a No. 4 shot, and they are, in consequence, of but little value. The same authority also believes that sharks, rays, and skate assist in destroying the oysters



the banks, and that changes of currents in the harbour have, doubtless, injured the beds already existing.

AGRICULTURE.—Agricultural operations in the fertile parts of this talūka, which are but few in comparison with its large area, are mostly dependent upon wells and springs and the yearly rainfall. The chief vegetable productions are jūar, bājri, barley, and sugar-cane, grown, for the most part, at the Malir, where, as also in the extensive garden lands bordering on the Layāri, near Karāchi, excellent potatoes and a variety of European and native vegetables and fruit are raised to supply the Karāchi markets. The fruits are principally plaintains, custard apples, mangoes, guavas, grapes, oranges, limes, figs, roselle, melons, and a few others. Some parts of the Malir plain, distant about 12 miles from Karāchi, and readily accessible by railway from that town, are very fertile, and have produced, besides excellent vegetables of various kinds, cotton of such exceptionally good quality as to equal, in this respect, any grown in other portions of the Bombay Presidency. In 1861 a Mr. Jacob Bethcome, who owned a small farm of 22 acres at the Malir, raised a fine description of cotton there, which competed successfully with the best qualities of both the American and Egyptian varieties, and for this he received a prize of 500 rupees from the Government of Bombay. Again, in 1868, some good qualities of cotton were also produced in the same locality, and these obtained several prizes at the Karāchi Industrial Exhibition of 1869. The soil at the Malir is, on the whole, good, and, what is of inestimable advantage in Sind, water is readily obtainable by means of wells at a comparatively small depth below the surface, in some places not exceeding 13 feet. Before the year 1866 some enterprise was shown by several mercantile firms in Karāchi in taking up land at the Malir, principally for the culture of cotton; but in that year there occurred several disastrous floods from the Malir river, which destroyed the greater part of the crops, and this tended to discourage any further efforts in that direction. Since that year the Malir has been comparatively neglected as a field for agricultural speculation, and at present, with the exception of a few banyas, who grow vegetables and fruit expressly for the Karāchi markets, a Parsi gentleman, Mr. Manakji Framji, is the only cultivator on a large scale. He has given his attention mainly to the growth of market produce, and has been successful also in producing some very good cotton from exotic seed. In addition to growing fruit and vegetables of excellent quality, he has sought to introduce other growths not indigenous to the province. The seasons during which agricultural operations are carried on in this district are

three in number, Kharif, Rabi, and Adhāwa; the crops produced in these several seasons, and the time for sowing and reaping them, are shown in the following table :—

Season.	Time when		Principal Crops produced.
	Sown.	Reaped.	
1. Kharif .	{ In May and June.	In September, October, and November.	Bājri, juār, Indian corn, nāngli, kiring, tobacco, mūng, and a number of vegetables.
2. Rabi .	{ November and December.	March and April.	Wheat, barley, jambho, mūng, potatoes, and other vegetables.
3. Adhāwa,	January . .	March . .	Juār, onions, and vegetables.

POPULATION.—The population of this talūka (including the town of Karāchi) was found by the census of 1872 to number 62,384 souls. This number is inclusive of the troops quartered at Karāchi, which, with their families and camp-followers, are estimated at 3227. Of the two great classes of the native population, Muhammadans and Hindūs, the number of the former is 34,240, while the latter amounts to 23,948, the remaining 4196 comprising Christians, Parsis, and other races. The chief Muhammadan tribes are the Saiyads, Balochis, Karmātis, Sammas, Mogals, Pathāns, Brahuis, with miscellaneous tribes, such as Mēmōns, Muhānas, Shidis, Gados, Māchis, and Makrānis. The Hindū castes comprise Brahmans (such as the Pokarno, Sarsudh, and Nāgar), Kshatrias, Waishiās (among whom is the great family of the Lohāno), and a large number of Panjābis, Marathas, Gujrathis, Kachhis, and others.

ESTABLISHMENTS.—The Karāchi talūka is under the immediate charge of the Collector of the Karāchi district, the collection of the revenue being entrusted to a Mūkhtyārkar, with an establishment, and two Tapadārs under him. The Mūkhtyārkar and his two head Munshis have also magisterial power vested in them to a certain extent, enabling them to try petty criminal cases, and in this way to assist the city magistrate of Karāchi, who takes cognizance of offences committed in the city, and those also occurring in the talūka, which the Mūkhtyārkar and his Munshis are unable to take up. For the trial of offences taking place in the cantonments and places adjacent, a special military officer is appointed, who is known as the cantonment magistrate. The Huzūr Deputy Collector and Magistrate, who is permanently located at Karāchi, takes up magisterial cases when his other duties permit of his

doing so. For the adjudication of civil suits there is the court of the district judge, and the small cause court, both situate at Karāchi. The police force employed in the Karāchi talūka, irrespective of the town of Karāchi, consists only of 25 armed and unarmed foot police, and 16 mounted police.

REVENUE.—The revenue, imperial and local, of this talūka, inclusive of the town of Karāchi, for the four years ending 1873-74, is given below:—

## IMPERIAL.

Items.	Realisations in			
	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Land Tax . . . . .	29,509	17,542	26,336	18,952
Abkārī . . . . .	66,379	52,833	58,175	61,361
Drugs and Opium . . . . .	23,436	17,470	21,225	21,964
Stamps . . . . .	84,142	58,433	70,202	73,594
Salt . . . . .	158	1,584	13,909	11,528
Registration Department	2,894	1,630	1,478	1,607
Postal do. . . . .	39,493	29,386	28,952	30,075
Telegraph do. . . . .	23,067	24,251	20,458	19,417
Income (and Certificate) Tax . . . . .	73,636	15,772	13,905	789
Fines, Fees, and Miscel- laneous . . . . .	...	897	566	532
Total rupees . . . . .	3,42,714	2,19,799	2,55,206	2,29,819

## LOCAL.

Items.	Realisations in			
	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Cesses on Land and Sayer Revenue	7,662	5,458	7,255	905
Cattle Pound and Ferry Funds . .	309	300	702	391
Fisheries . . . . .	5,084	3,166	2,961	2,890
Fees and Licences . . . . .	1,020	570	480	480
Total rupees . . . . .	14,075	9,554	10,398	4,666

SURVEY AND SETTLEMENT.—The topographical survey of this talūka, as included under the term Hill Districts, seems to have been carried out between the years 1858-59 and 1863-64, but up to the present time no settlement has been introduced. According to the system now in force, and in the absence of all canal irrigation, there are but two rates of land tax levied in this district, that is to say, garden and dry crop rates, the former at 1 rupee, and the latter at 8 annas per acre.

JĀGIR AND OTHER LANDS.—The land held in Jāgīr in the Karāchi talūka amounts in the aggregate to 33,719 acres, of which 28,038 acres are either uncultivated or uncultivable. The whole of this was held by the late Khān Bahādūr Murād Khān, at the Habb, near which river this land lies adjacent (*see* HABB). There are no Seri grantees in this district. The following table will show the number of Māfidars, with other information in connection with the lands held by them :—

Name of Māfidars.	Town or Village.	Cultivable.		Unarable.	Yearly amount of Government Revenue represented.		
		acres.	g.		acres.	rup.	a.
1. Thawardass Khēmchand	Karāchi .	12	18	...	22	4	0
2. Tulsidass Phūlūmal .	Ditto . .	1	18	...	2	12	0
3. Ratanmal Khusaldass .	Ditto . .	11	31	...	24	6	0
4. H.H. Aḡa Khān Shah } walad Kalal Shah . . }	Ditto . .	3	33	...	8	7	0
5. Matanamal Atmaram .	Ditto . . .	5	5	...	10	4	0
6. Jetanand Dūrganamal .	Ditto . . .	13	3	...	24	6	0
7. Reverend James Sheldon	Ditto . . .	3	24	...	6	15	0
8. Mia Saleh Muhammad } walad Ghulam Ali } Khān Jokia . . . . }	Malir . . .	0	4	...	0	6	0
9. Nāla Chungo walad } Sidik Muhammad . . }	Ditto . . .	0	24	...	46	0	0
10. Jam Bakadar walad } Mehtar Ali . . . . }	Ditto . . .	30	13	...	21	7	8
11. Sett Atmaram Fritam- dass . . . . .	Ditto . . .	20	0	...	8	13	4
12. Bhawaldin Umēdali .	Mugger Peer	23	14	...	50	4	0
13. Kambar Ali Fakir . .	Ditto . . .	5	7	...	2	8	0
14. Chotir Atmaram . . .	Ditto . . .	1	34	...	4	3	0
15. Saman Ramu . . . . .	Ditto . . .	2	9	...	4	0	0
16. Halima, wife of Morial.	Ditto . . .	1	34	...	3	12	0
17. Bacha, wife of Rahimana	Ditto . . .	1	34	...	3	12	0
18. Murād Ismāil . . . . .	Ditto . . .	1	34	...	3	12	0
19. Fateh Muhammad walad } Gul Muhammad . . }	Pakka Kas.	46	20	...	45	0	0
20. Hāsham walad Gul Mu- hammad . . . . .	Pakka Kas.	46	20	...	45	0	0
21. Murād walad Ismāil .	Mugger Peer	2	15	...	4	13	0
22. Kambar Ali walad Bu- kari . . . . .	Mugger Peer	2	15	...	4	13	0
23. Kambar Ali walad Bu- kari . . . . .	Mugger Peer	2	15	...	4	13	0
24. Murād walad Ismāil .	Mugger Peer	2	15	...	4	13	0
25. Muhammad walad Mu- rād . . . . .	Ditto . . .	3	2	...	6	2	0
26. Ismāil walad Murād .	Ditto . . .	3	2	...	6	2	0
27. Ahmad walad Murād .	Ditto . . .	3	2	...	6	2	0
28. Issak walad Ismāil . .	Ditto . . .	3	2	...	6	2	0
Total . . . . .	...	188	28	...	296	11	5

The only municipality in this talūka is that at Karāchi, which will be found fully treated of in the account of that town, and the same remark will apply to medical and educational institutions, as also to jails.

FAIRS.—The fairs of any importance held in the Karāchi talūka are nine in number, two of them Muhammadan and the remainder Hindū. The subjoined table (*see page 351*) will show all that is necessary on this head.

ROADS.—Independently of the railway connecting Karāchi with Kotri, which runs through thjs talūka for several miles, there are a few roads, main and branch, which lead from the town of Karāchi as a centre to other parts of Sind. The chief of these is the road to Tatta, now hardly used, owing to the more expeditious route by railway *viâ* Jungshāhi. This road is only partially bridged; the others are mere branch lines, and not bridged at all. The following table will show the few district roads in this talūka, their length, &c. :—

From	To	Length in Miles.	Description of Road.	Remarks.
1. Karāchi	Habb river . .	14	Branch	{Unbridged. Dharamsālas at Moach and Sevlāni.
2. Karāchi	{Ditto <i>viâ</i> Pir Mangho or Muggar Peer}	22	Ditto .	{Unbridged. Dharamsāla at Muggar Peer.
3. Karāchi	{Landi Kadēji on road to Sehwan}	30	Ditto .	{Unbridged. Dharamsālas at Saphura and Dumb.
4. Karāchi	{Kokri (on high road to Tatta)}	32	Main .	{Small " <i>dhoras</i> " bridged, large ones unbridged. Dharamsālas at Drig, Landi, and Wataji; and staging bangalow at Landi.

The manufactures of this talūka, which exist only at Karāchi, are not of much account, and consist, 1, of cotton fabrics of the coarse kind, such as sārīs, lungīs, sūsis, khēsis, and other articles of native clothing; and 2, of various utensils in metal, such as are in common use among the inhabitants. Gold and silversmiths' work is carried on to a small extent, but by Kachhis. Household furniture, as chairs, tables, &c., are made up in Karāchi, but these can in no way compare with similar articles manufactured at Bombay. Masonry and carpentry work is mainly in the hands of the Kachhi portion of the population, many of whom are skilful workmen.

LIST OF FAIRS HELD IN THE KARĀCHI TALŪKA.

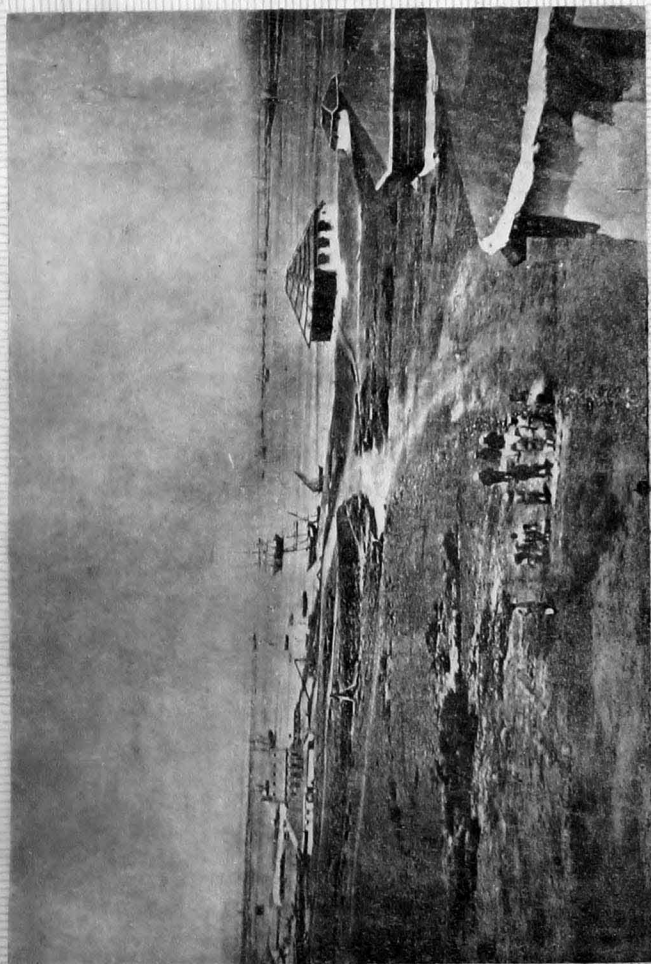
Where held.	When held.	For what Time.	In whose honour.	Average Attendance, and by what Class.	Remarks.
1. Mangho Pir or Muggar Peer .	On the 21st of the Muhammadan month Rabiulsāni.	1 day.	Pir Mangho . .	1,000 Muhammadans	The original name of this saint was Kamaldin, but after death he was called Mangho Pir, from the range of low hills on which his tomb is situate.
2. Miran Pir . .	On the 11th and 12th of the Muhammadan month of Rabiulsāni.	2 days.	Miran Pir . . .	1,000 Muhammadans	Miran Pir is on the bank of the Layāri river, near Karāchi.
3. Manora . . .	On the 1st of Chaitra Shūdh paksh.	3 days.	Of a Hindū saint.	About 16,000, both Muhammadans and Hindūs.	This fair is a mixed one, and is resorted to by all classes of the native community.
4. Kalān Kot . .	13th of Jait Shūdh .	1 day.	The Hindū goddess Kāli.	4,000 Hindūs . .	Kalān Kot is on the banks of the Layāri, near Karāchi.
5. Rāmbāgh . . .	5th and 6th of Bhadra, 27th of Magh, and 10th of Ashvin Shūdh.	4 days.	Of Māhādev, and on account of the Dasira.	2,000 Hindūs . .	Rāmbāgh is a municipal quarter of Karāchi.
6. Clifton, near Karāchi.	27th of Magh, and 5th and 6th of Bhadra.	3 days.	Of Māhādev . .	5,500 Hindūs . .	The name of this fair is Jūdo.
7. Nāngo-bagh, in town of Karāchi.	27th of Magh . .	1 day.	Ditto . . . .	1,000 Hindūs . .	This place is close to the Layāri, and is the great resort of pilgrims going to and returning from Hinglāj in Balochistān.
8. Khudi, in the Machi Miāni quarter of Karāchi.	10th of Nāri . . .	1 day.	In honour of the sea.	1,500 Hindūs.	
9. Kiamāri . . .	15th of Shrāwan . .	1 day.	Is known as Coconut day.	5,000 Hindūs . .	This fair is known in other parts of India as Naral Pūrnima.

Numerous useful articles of different kinds are also manufactured by prisoners in the jail at Karāchi. The trade, both local and transit, being centred in Karāchi, will be found fully treated of in the description of that town.

**Karāchi.**—A seaport and the chief town of the province of Sind, situate in latitude  $24^{\circ} 51'$  north and longitude  $67^{\circ} 2'$  east, and lying at the extreme northern end of the delta of the Indus and near the southern base of the Pabb mountains of Balochistān. The bay of Karāchi is formed by Manora point, in latitude  $24^{\circ} 47'$  north, and longitude  $66^{\circ} 58'$  east, a hill not more than 40 feet in elevation at its western end, but 100 feet at its eastern extremity, and consisting of soft sandstone capped with conglomerate. This hill, which protects the harbour from the sea and bad weather, is in fact the southern termination of a reef about 10 miles in length, by which it is united to the mainland. The opening of the bay between Manora and Clifton (a sanitarium to the east of the mainland) is about  $3\frac{1}{2}$  miles wide, but the entrance is blocked in the centre by several rocky islets known as the Oyster Rocks, as well as by the island of Kiamāri, which lies some distance in the rear. The harbour may be considered as possessing a large water area, extending five miles northward from Manora head to that part where the Layāri river enters it by two mouths, and about the same distance from the old town of Karāchi on the eastern shore to the extreme western point, but a small portion only of this wide expanse is capable of admitting large vessels.

#### MANORA.

The first object which arrests the attention of the traveller approaching Karāchi from the sea is Manora head with its lighthouse (having a fixed light 120 feet above sea-level), visible on a clear day upwards of 17 miles, but only from 7 to 9 miles in the thick and hazy weather of the south-west monsoon. Manora, which is one of the quarters of the Karāchi municipality, is the residence of the master attendant, who lives in the fort (said to have been erected in 1797). The port and pilot establishment, the Superintendent of the Harbour Improvement Works, and his large establishment, as also a portion of the Indo-European Electric Telegraph Department, reside here. It possesses, in addition to a library, billiard-room, and European and Eurasian school, a small church (Protestant) intended for the crews of vessels frequenting the harbour as well as for the residents at Manora. An annual fair, lasting three days, is held at Manora.





in the month of March, in honour of a venerable "Pir" (saint) said to be buried here under very miraculous circumstances. It is largely attended by people from different parts of the province. The place, owing to its healthy situation, is an occasional resort for invalids from Karāchi; but the limited area available, coupled with the scarcity of fresh water, which has to be brought all the way from Karāchi, prevent persons from visiting it frequently for change of air. The population of this suburb of Karāchi by the census of 1872, was found to be 824.

## KIAMĀRI.

On the opposite side of the harbour is the island of Kiamāri, another municipal quarter, and connected with the town of Karāchi by a road called the "Napier Mole" road, three miles long, and constructed in 1854. Kiamāri is the landing-place for all passengers and goods intended for Karāchi, and with this object there have been provided three piers, the commissariat, passenger, and customs; hack carriages and carts are here at all times procurable. The Sind railway extends to Kiamāri; the line does not, however, follow the Napier mole as formerly, but takes a circuitous route by the Chini creek to the Frere Street station in the Karāchi cantonments. Kiamāri has a naval building-yard—at present in the occupation of a private firm—large Government commissariat store-yards, a post-office, customs and railway offices, a tavern, and a building erected in 1861 intended for a Roman Catholic chapel, but not used as such. The bazar at Kiamāri is small and the supplies limited, the shipping in the harbour being generally provided by Dubashes, who forward all articles of consumption by coolies direct from the cantonment market and the Sadar bazar. The mole leading from Kiamāri to the Custom House and old town of Karāchi consisted the whole way of a long, raised embankment; but to allow of the waters of the Chini creek flowing uninterruptedly into the head of the harbour and acting as a kind of scour, a fine screw-pile bridge, about 1200 feet long, was in 1865, at a cost of 4,75,000 rupees, constructed at a point near the old Bandar cotton presses belonging to the Karāchi Press Company, but not now used, and the Napier obelisk (erected in 1853 to the memory of the late Sir Charles Napier, Governor of Sind). At the northern extremity of this bridge, and running in a westerly direction into the harbour, is the native jetty, built of stone at an expense of 4,33,000 rupees, for the use of cargo and other boats; this was formally

made over in charge to the Collector of Customs on 1st July, 1866. At the end of the Mole road stands the Custom House, extending across the road on five arches, through which the traffic passes. The eastern wing of this building was added as late as 1869. A short distance to the westward is the Sind and Panjāb cotton press-house, capable of turning out daily about 300 pressed bales. The principal thoroughfares leading from the Custom House to the Karāchī cantonments are two in number: 1st, the Bandar road, nearly  $2\frac{1}{2}$  miles in length, and ending in the depôt lines; and 2nd, the McLeod road, with its branches, the Ingle and Kutcherri roads, both leading to what is generally termed the "Camp." As the greater number of the municipal quarters into which the town and suburbs of Karāchī are divided lie on either side of these main lines of communication, a description of them in consecutive order will greatly facilitate a description of Karāchī itself. Thus, on leaving the Custom House and proceeding on the Bandar road towards the Camp, we find, on the left hand, the old Machī Miāni, Old Town, Bandar, Market and Napier quarters, comprising the oldest part of Karāchī. This portion, which has the Layāri river on its western side, is situate in part on a gentle eminence, has narrow streets and lanes, and is thickly studded with houses. In the Bandar quarter, and lying along that part of the Bandar road opposite to the Agra Bank, is the old Muhammadan burying-ground, now disused. It was walled round in 1860. The municipality has, however, effected great improvements in these quarters, wide streets being made wherever practicable. An excellent system of stone street paving has for some years past been introduced, which must greatly conduce to both the health and convenience of the residents, who are mostly Hindū and Muhammadan merchants of the Lohāna, Dhātia, Kachī, Mēmon, Khwāja, and Borah classes. These quarters are by far the most densely populated of any in Karāchī, but, according to the recent census taken in 1872, contain at the present time not much more than 4500 houses with about 18,514 inhabitants.

In these quarters are the old fish-market, erected in 1855-56, at a cost of 1464 rupees, and the market near the Bandar road, built in 1853-54 at an expense of 3860 rupees. Opposite to these quarters, on the other side of the Layāri (a river only in name, having water in it but once or twice during the year), is the "Layāri quarter," comprising the Bāgdādi lines, New Machī Miāni, oil mills and tanneries, the Mirānka village, Ingle-Wārā, Khumba-Wārā and the Dhobi Ghāt. The population of the Layāri quarter is fluctuating, and was some time ago estimated

in round numbers at quite 12,000, but the recent census of 1872 shows but 1749 houses with 7032 inhabitants.

The new Machi Miāni is now occupied by the inhabitants (mostly fishermen) of the old Machi Miāni quarter, who in 1870 were bought out by the municipality, the intention being to improve the latter locality, which had been long noted for its low and unhealthy situation. A good and substantial market with sixty stalls has been erected in this place at a cost of 5990 rupees. Returning to the Bandar road, we have on the right the Serai and Railway quarters, through which runs the second important thoroughfare—the McLeod road—branching-off to the right from the Bandar road at about 400 yards from the Custom House.

In these quarters are situate the Court House (the old Bombay bank, built in 1866 at a cost of about 1,20,000 rupees), containing the Judicial Commissioner's, District Judge's, and Town Magistrate's offices; this building was purchased by Government in 1868; the new Bank of Bombay, built in 1865; the Agra Bank, in 1866, at a cost of 78,000 rupees; the Chamber of Commerce (built in 1864, cost 13,000 rupees); the extensive buildings of the Indo-European and Government Telegraph Departments, Messrs. McKenzie and Cosser's ironworks—the new post-office and the three cotton press-houses, that is to say: 1st, the McLeod road presses, erected in 1860, and owned by the Sind Press Company; they are provided with two of Brunton's patent presses, and can turn out daily 350 pressed bales: 2, the Tyabji presses, erected in 1865, at a cost of 2,20,000 rupees; they have two of Bellhouse and Dorning's patent presses, and can turn out daily 250 pressed bales; a third press, one of Nasmyth's, has lately been put up: 3, the Albert presses with three of Hodgart's presses, at present leased to the Sind Press Company; they were erected in 1866 at a cost of about 2,25,000 rupees, and can turn out daily 390 pressed bales. There are also the charitable dispensary, the Kardar's (Mükhtyārkar's) and Phaujdar's offices; the Arabic-Sindi and Hindu-Sindi school; the Sind railway station; the old Panjāb and Delhi Bank building; a newly-erected Hindū temple near the Bandar road, and the greater number of the offices of the European merchants. The new Afghān *serai* intended for the use of the Kāfilas from Kandahar is situate in this quarter; it was rebuilt in 1873-74 by the municipality at a cost of 19,546 rupees, and covers in superficial area about three acres of ground. Proceeding still farther up the Bandar road, we have on the left, adjoining the Napier road, the Jail and Garden quarters intersected by the Lawrence, Napier, and Frere roads. The principal buildings in

these quarters are the jail, the Government Marathi school, the mission church (Christ's), at present in an unfinished state, so far as the tower and steeple are concerned, and the mission-house and school. Here also is the Nanakwādi tank (walled round and deepened in 1856-57 at a cost of 5500 rupees), and the city police lines. To the northward and eastward of these quarters, and on the same side of the Bandar road, are the Ranchor lines—at one time thickly populated, and with a tank of the same name, excavated in 1858, and otherwise improved, at a cost of 1668 rupees; the Ramswāmi Ghāri Khāta, and the Bēgāri Khāta quarters. The chief buildings of note in this part of Karāchi are the civil hospital, the Government high and Anglo-vernacular schools, the native general library (established in June 1856), the Small Cause Court, and the travellers' bangalow. The Preedy tank, walled in and improved in 1858-59, at a cost of 3000 rupees, and an old European burial-ground on the Bandar road, also walled in at the same time by the municipality, are situate in this quarter. Proceeding still farther towards Camp, the Preedy quarter, lying on either side of the Bandar road, is reached; it adjoins cantonment limits, is intersected by the Preedy and Government Garden roads, and contains, in addition to a number of bangalows, the Government powder magazine and the Scotch church (St. Andrew's). Three other municipal quarters, the Soldiers' bazar, Commissariat lines and the Bhisti-Wārā, lying to the north of the depôt lines, and near the gardens on the banks of the Layāri, here require to be mentioned; but, with the exception of a market, erected in the former in 1868, at a cost of 2837 rupees, and a good road leading to it from the cantonments, there is nothing else worthy of note.

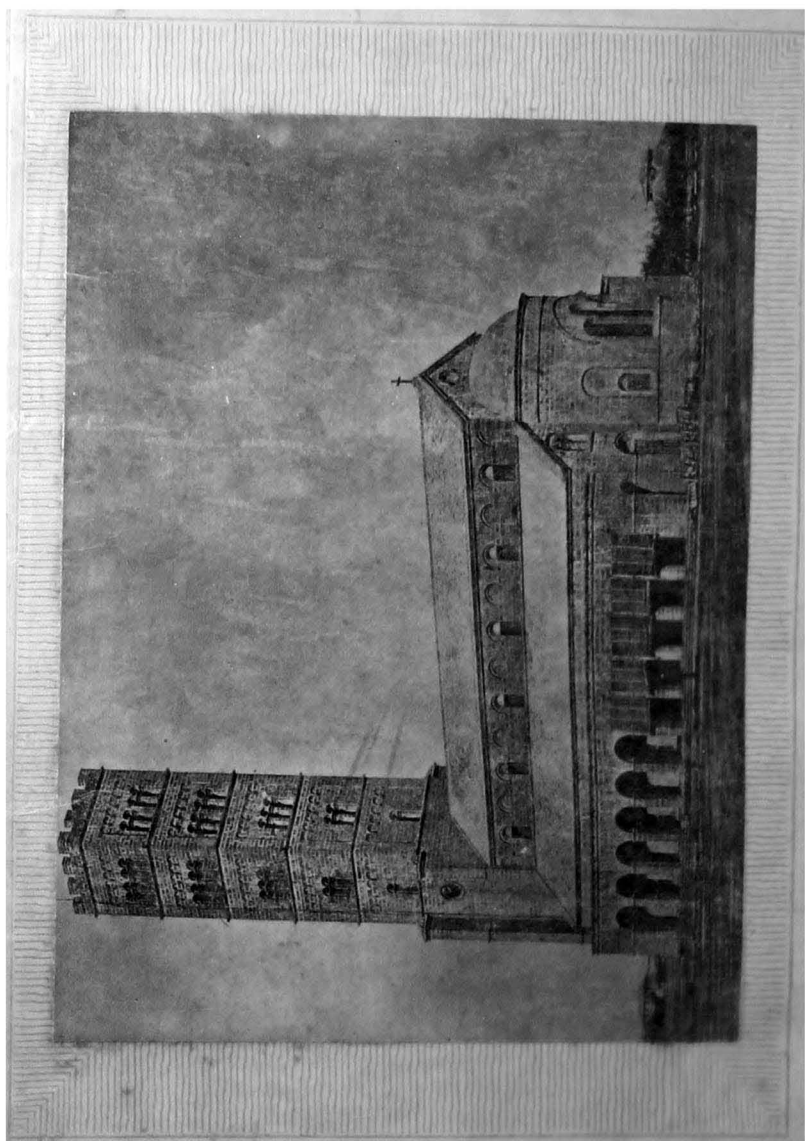
Returning to that part of the Bandar road near the jail, we have on the right hand the Rāmbāgh quarter, intersected by the Kutcherry, Elphinstone, and Frere roads. It has a large tank, walled in during 1858-59 at a cost of 5000 rupees, known as the Rāmbāgh, near which on the Bandar road is a dharamsāla, conspicuous by its two domes, erected in 1859-60, at a cost of 4000 rupees, of which 1006 rupees were raised by voluntary subscription. There is a considerable extent of ground between the Kutcherry and Elphinstone roads originally intended to be laid out as a public garden, to be called either the Victoria or Burns' garden, but a small portion only of this scheme has as yet been carried out, both water and soil being too poor to admit of much successful gardening. To the south-east of the Rāmbāgh quarter, and skirting the military cantonments on the eastward, is the

Civil Lines quarter, in which are situate the Collector's Kutcherry, Government House (the residence of the Commissioner in Sind), the ice manufactory, as also the private houses of Government officials and of the leading mercantile men of Karāchi, and others. In a portion of the grounds of Government House is a small monument erected by Sir Charles Napier in 1849 to the memory of the officers and men of Her Majesty's 22nd Regiment who fell in the Sind campaign. The Kutcherry road and Victoria Street intersect this quarter, meeting at its southern extremity near the Clifton crossing of the Sind railway, after passing which they branch off, one road leading to the military sanitarium of Gisri (distant  $2\frac{1}{2}$  miles), and the other to the civil one of Clifton (distant 2 miles). To the left of Gisri road, near the railway, is the Frere Town quarter, containing several private residences, as well as the workshops of the Sind Railway Company. Here, too, is the new racecourse. Gisri and Clifton form also a municipal quarter, and being both situate on rising ground near the sea, and more readily accessible to residents in Camp than Manora, are in consequence much frequented by invalids, and some persons have even become permanent residents at the latter place. One other municipal quarter, the Sadar bazar, still remains to be mentioned; it adjoins the Preeedy quarter, and is situate between the depôt and European infantry lines, and, like the latter, is regularly laid out, having fine broad streets and stone-flagged pavements, with good houses and shops on either side. It has a well-stocked and commodious market, called the "Cunynghame Market," built in 1861, at a cost of 17,500 rupees. The two wings were added in 1868, at an expense of 2074 rupees. Here supplies are readily obtainable from an early hour in the morning up to nine or ten o'clock. Great improvements have been carried out in this part of Karāchi during the past few years. In this quarter is situate the Parsi infant school, the gift, in 1870, of a resident, Mr. Sapurji Hormazji Sopariwālā. To the east of the Sadar bazar is the general hospital, and near the road running from Karāchi to Tatta stand the Roman Catholic church and St. Patrick's school.

#### MILITARY CANTONMENTS.

The Karāchi military cantonments, which lie to the north and east of the greater number of the municipal quarters already described, cover an extensive area, and may be divided into three large and distinct portions. 1st, the depôt lines, having the Preeedy municipal quarter on its western, and the Sadar bazar on its southern side. 2nd, the artillery lines, which, with

an extensive open space of ground to the westward reserved for fortifications, has the Sadar bazar, from which it is separated by Victoria Street on its eastern side, and the Karāchi military arsenal, immediately adjoining it, to the north; and, 3rd, the European infantry lines, which are exactly due east of the civil lines municipal quarter. The depôt lines, the oldest military portion of Karāchi, possess extensive accommodation for such English troops as are either going to up-country stations from seaward, or are coming down to Karāchi for embarkation, and include as well the native infantry and commissariat lines, a new Government steam bakery, and numerous bangalows for officers. In March 1871 the depôt was abolished, all invalid soldiers from the Panjāb being now sent to Bombay by railway, *via* Jabalpur. The depôt lines have since furnished accommodation to the native infantry regiment stationed at Karāchi. Here also is the new Karāchi European and Indo-European school erected in 1874-75 at a cost of about 40,000 rupees, an American Methodist Episcopal chapel, and branch post-office. A good road runs through the depôt lines to what is called the "Government Garden," distant about half a mile, and not far from the Layari river. This garden is about 40 acres in extent, neatly laid out with trees and shrubs, and cultivated, so far as the poor soil and water of the place will allow. Beyond this, and lining the river bank for some distance, are other gardens, some with houses in them; one of these residences, with a nicely laid-out garden, is the property of Government, and is used by such natives of rank as may visit Karāchi on political or other purposes. Most of the gardens here are owned by the native community, and supply, conjointly with the Malir, all the fruits and vegetables needed by the residents of Karāchi. The artillery lines possess three fine upper-storied barracks as well as a suite of comfortable family quarters; these are built of stone, and have every necessary accommodation. There is a hospital, gunsheds, stables, workshops, racket-court, bowl-alley and plunge-bath. The Ratan tank, improved by the Government and by the municipality in 1858-59, is also within the limits of these lines. In the immediate vicinity of these barracks to the eastward is a small mess-house and bangalows for the officers, and to the northward the military arsenal of Karāchi, small in area and of no considerable importance, its establishment consisting of about 50 natives, the latter mostly store and tent lascars. This arsenal, which is subordinate to that at Hyderabad, was, in October 1858, partly blown up by the explosion of a quantity of fireworks which were



being prepared there to celebrate the transfer of India to the British crown. The European infantry lines consist of rows of barracks with family quarters, fully able to house with comfort an entire European regiment. Of the ten separate barracks which these include, five have been converted at great cost into large and solid upper-storied buildings, affording greatly-increased accommodation to the troops. To the westward of these barracks are the officers' lines, well and regularly laid out, with broad roads intersecting each other at right angles. The bangalows are very numerous, the front line, facing the west, being almost exclusively occupied by the officer commanding the troops and his staff. In this part of the cantonments stand the Protestant church dedicated to the Holy Trinity, the "Frere Hall," and the Masonic Lodge. The regimental (or Napier) hospital is situated on a slight eminence to the eastward of the lines, and farther on in the same direction is the burial-ground (or cemetery) for both Protestants and Roman Catholics, a spot still poor and unattractive in appearance, though much improved in this respect during the past few years. Many of the monuments formerly stood greatly in need of repair, but the rules issued by Government in 1870 for the regulation of cemeteries generally have done much to prevent this decay by providing permanent funds for annual repairs.

#### TRINITY CHURCH.

The largest and, excepting the Roman Catholic chapel, the oldest church in Karāchi is the Protestant one of the Holy Trinity, situated in military cantonments. It stands in the centre of a large space of open ground, nearly 15 acres in area, which was not walled round till 1868; the basement is low in elevation, being but 27.55 feet above mean sea-level. The church, which is in the Italian style, was designed and built by Captain John Hill, of the Bombay Engineers, at a cost of 56,612 rupees. The first stone was laid in September 1852, but the building was not consecrated till 1855. It consists of a nave with two side aisles, apsidal chancel, and square tower 150 feet high; this last is an excellent landmark for vessels approaching the coast. The nave is 115 feet long with an outside breadth of 58½ feet, and is lighted by clerestory windows, of which there are six on each side, and the height of nave up to tie-beam is 44½ feet. There is an organ-loft, not used as such, but a recent proposition to remove it would, it is believed, add greatly to the inner appearance of the church. The apse window is filled with stained glass, as also are the two aisle windows, one



of them being in honour of Sir Charles Napier and the victors of Meeanee. The tower was originally intended to bear a steeple, but this was omitted as not being in harmony with the rest of the building. The two bells were put up in 1856, the clock in 1864, and the organ placed in the south aisle was supplied to the church by subscription in 1866. The altar cloth, linen, chairs, litany-stool, plate, font, &c., were all the gifts of private individuals. The old font was destroyed by the fall of the clock-weights in 1867, and was replaced by the present one of red Portland stone and marble in May 1870. The church is able to seat 800 people. Divine service in this church is conducted by two chaplains of the Bombay Ecclesiastical Establishment; and in accordance with a Government notification (26th July, 1870), a church committee, appointed annually in Easter week, comprising three lay members, one of whom is nominated by the senior chaplain, and the other two by a committee of selection, consisting of the chief civil and military authorities of this station, assist the chaplains in the discharge of such duties as are not necessary parts of their spiritual office.

#### ROMAN CATHOLIC CHURCH.

The Roman Catholic church, known as "St. Patrick's," is situate in military cantonments to the east of the Sadar bazar, and stands in a walled inclosure of a little over two acres in area, a portion of which was formerly used as a graveyard. The church, which was erected by subscription in 1845, at a cost of about 6000 rupees, cannot be said to belong to any particular style of architecture. It consists of a nave 81 feet long and 30 feet wide, with a height to the tie-beam of 20 feet, as well as two transepts and a chancel. It will seat between 600 and 700 persons, but as the present congregation numbers over 2000, it is in contemplation to build a larger and more commodious edifice, and to commence this work so soon as the necessary funds are collected.

#### ST. PATRICK'S SCHOOL.

The present fine stone building called St. Patrick's School occupies the site of a mud bangalow erected in 1859, and afterwards (in 1862) turned into a day school for girls. The new building, not originally intended to be upper-storied, was commenced in October 1863 and finished in the following year; but at the suggestion of Dr. Meurin, the Roman Catholic bishop of Bombay, who visited Sind in 1868, an upper storey and central

tower were commenced in 1869 and finished in 1870. The building now consists of a central tower with two wings, having on the ground floor an entrance hall, spacious class-rooms, a refectory, drawing-room, vestry, and chapel, this last being 41 feet long by 28 wide. There is also a good verandah on the east and west sides. At the north and south extremities are curved covered passages running out to some distance, and these give a finished appearance to the building when viewed as a whole. On the upper storey are two dormitories, one of them 81 feet long by 27 wide, a music-room and infirmary, besides other rooms for the use of the nuns. On the west side is a fine verandah supported by semicircular arches on light pillars. The two end gables are ornamented with corbie steps. The central tower, which is 50 feet in height, contains several small rooms, and has its parapet surmounted with a row of iron palisading let into the cut stone; this part of the building has lately been extended to the eastward, thus affording additional class-rooms. The entire structure has a fine appearance, and, viewed as an educational institution, is unsurpassed by any other in Karāchi. It cost but 40,000 rupees, and of this sum 4000 rupees were contributed by Government. There are at present 28 boarders and 191 day scholars in this school, but the building is capable of accommodating fully 40 boarders and 200 day scholars. The institution is under the supervision of a lady superior, who is assisted by four nuns and one lay sister of the order of the Cross. The school receives a monthly grant-in-aid from the Karāchi municipality of 60 rupees.

#### EUROPEAN AND INDO-EUROPEAN SCHOOL.

The Karāchi European and Indo-European School is situate in the depôt lines, and formerly occupied two separate buildings, one for the boys, being that used in past years as a Protestant place of worship, before the erection of Trinity Church; the other, for the girls and infants, was held in what was formerly a mess-house. The school was founded in 1854 under the auspices of Sir H. B. E. Frere, when Commissioner in Sind, and is supported by school fees, subscriptions, donations, and by grants-in-aid made by the Government and the municipality. A sound and liberal education is afforded to the children of Europeans and Indo-Europeans residing in Sind, to the children of European soldiers, where there are no regimental schools, and in special cases, to those of native Christians. A managing committee of nine persons, appointed yearly at the annual meeting of members, exercise a

general supervision over the school, and settle all matters in connection with it. In 1854 the Government gave a donation to the building of 1500 rupees, as also a monthly allowance of 100 rupees, which was subsequently reduced to 80 rupees. In 1858-59 the municipality contributed 50 rupees per mensem, besides establishing a scholarship of 10 rupees a month, to be given in alternate years to the best pupil in this institution and the Government English school. In 1859-60 two scholarships, known as the "Inverarity Scholarships," each of 10 rupees monthly, were provided by J. D. Inverarity, Esq., a former Commissioner in Sind; and the Karāchi General Library and Museum Committee also granted the privileges of a subscriber for one year to the best boy and girl, in honour of Sir H. B. E. Frere. There is as well a pupil teacher's scholarship for girls; and an annual prize to the best boy or girl of the year was in 1869 provided by the present Commissioner in Sind, Sir W. L. Merewether. These are all awarded annually at the examination held about the end of October in each year. The education afforded comprises reading, writing, arithmetic, and other branches of mathematics; geography, history, religious instruction, and singing, with sewing, knitting, fancy needlework, &c., for the girls. Music and drawing are considered as extras. The teaching staff consists of a head master and assistant master, a head mistress, an assistant teacher, and a matron. The monthly fees payable for each child for education in this institution are now regulated as follows:—

Incomes.	Standards.								Infant Class.
	viii.	vii.	vi.	v.	iv.	iii.	ii.	i.	
	rupees.	rup.	rup.	rup.	rup.	rup.	rup.	rup.	rupees.
Net exceeding Rs. 49	1	1	1	½	½	½	½	½	½
50 to 99	4	3	2	2	1½	1½	1	1	1
100 to 149	5	4	3	2½	2	1½	1½	1	1
150 to 199	6	5	4	4	3½	3	2½	2	1½
200 to 249	7	6	5	4½	4	3½	3	2½	2
250 to 299	8	7	6	5	4½	4	3½	3	2½
300 to 399	9	8	7	6	5	4½	4	3½	3
400 and over . .	12	11	10	9	8	7	6	5	3½

Persons without fixed incomes pay such fees as may be decided upon by the committee.

The new stone building, erected in 1874-75 at a cost of about 40,000 rupees, was designed by Captain T. Dowden, R.E., and is upper-storied with two wings. It is capable when fully com-

pleted of accommodating 180 pupils of both sexes, 44 of these being boarders. Quarters for the head master, mistress and the boarders are provided in the upper storey, while the lower storey is used for class and dining rooms. The wings of the lower part of the building remain at present as a kind of arcaded play-ground, but these can easily be converted into class-rooms when funds for doing so become available. The structure is in every respect well suited for purposes of education, and is an ornament to the neighbourhood in which it stands.

#### ST. ANDREW'S CHURCH.

The Scotch Presbyterian church, known as St. Andrew's, stands in a walled inclosure of its own of about 2 acres, and is situate to the west of the post-office square. It was designed by T. G. Newnham, Esq., of the Sind railway, and in style is Gothic of the 14th century. The work was commenced in 1867-68, and the church was opened for divine service on the last day of the latter year. It consists of a nave 100 feet long and 56 feet wide, the height to ridge of roof being 56 feet; there are two side aisles with an octagonal porch at the southern corner, and a tower with steeple 135 feet high. The nave is divided from the aisles by arcades, above which are clerestory windows, ten in number, on either side. There is a fine rose window, 18 feet in diameter, at the south end, and a five-light window with head of geometrical tracery on the northern side. The entire cost of the building was 56,000 rupees, of which 25,000 rupees were contributed by Government; it is sufficiently large to seat 400 persons.

#### CHRIST'S CHURCH AND MISSION SCHOOLS.

The Mission church (Christ's), situate at the junction of the Lawrence and Mission roads in a walled inclosure of  $3\frac{1}{2}$  acres, is a small but neat structure in the early English style, and consists of a nave 93 feet long and 20 feet broad, including the chancel and entrance porch. It has lancet windows on the north and south sides; at the eastern or chancel end, a window with three lights, and at the western end, a rose window; the two latter are filled with stained glass, the gift of friends in England to this mission. The first stone of this building, which will seat about 200 persons, was laid by the Bishop of Bombay in January 1865, and it was opened for divine service in January 1866. It has cost hitherto in all 22,000 rupees, but a sum of about 4000 rupees is still required to complete the tower and steeple. This church is used for both

English and native services, the former being held every Sunday evening. It will be necessary, in connection with this church, to state that the Church Missionary Society began its work here in 1850, and that it at present employs four ordained European missionaries, two at Karāchi and two at Hyderabad, besides several native agents. Close to the church is the mission-house (formerly the kutcherry of the collector of Karāchi) in a walled inclosure of from 6 to 8 acres, with several semi-detached out-buildings. The school-house, which is in the same inclosure, has a central hall, and two large side rooms with spacious verandahs, the whole affording accommodation for about 200 pupils. The school works up to Bombay University entrance examination standard, and receives a monthly grant-in-aid from the Karāchi municipality of 50 rupees. This mission has also a large Gujarathi boys' school with 150 pupils, and a native girls' school (Marathi) in the town of Karāchi, with an attendance of 32 scholars.

#### ST. PAUL'S CHURCH.

The small church at Manora, called St. Paul's, attended mostly by the residents of that suburb and by the crews of vessels in the harbour, was erected as a memorial of Sir Charles Napier, the conqueror of Sind. It is constructed of Manora conglomerate and stone from the Hands' Hill quarries, is early English in style, and consists of a nave without aisles, and a vestry. The nave is 43 feet in length and 20 feet wide, with a height up to the tie-beam of 20 feet. It has four lancet windows on either side, with a three-light stained-glass window at its eastern end. This building was commenced and finished in 1864, and consecrated in 1865. It cost 15,000 rupees in all, of which 4000 rupees were contributed by Government, and it will seat 50 persons. Divine service at this church is conducted by one of the Government chaplains of the Karāchi station every Sunday.

#### NAPIER BARRACKS.

The Napier Barracks, intended for the accommodation of European troops at this station, comprise ten blocks in two rows, six in front and four in the rear; they were built in the time of Sir Charles Napier, are situate in a healthy position, having rising ground to the eastward, and had originally no upper storey to them. They are capable of housing with comfort an entire regiment of infantry. The work of converting these blocks into large upper-storied buildings of stone, plain in style but very substantial

in appearance, commenced in October 1868, and at the present time five have been completed, at an expense exceeding five lakhs of rupees. The upper rooms, which are used as dormitories, are 279 feet long, with a width of 24 feet 9 inches, and 20 feet up to tie-beam; they have also 12 feet verandahs on both sides. The serjeants' quarters are at either end of each block. The lower rooms are used as day rooms for the men, quarters for staff serjeants, workshops, recreation rooms, and regimental offices. Each block is estimated to cost 120,000 rupees, and is designed to accommodate 72 men, besides the serjeants and their families.

#### GISRI SANITARIUM.

In connection with the Napier Barracks and European troops, it will be necessary to refer to the Sanitarium at Gisri (within Karāchī municipal limits) established in 1854 for the reception of sick officers and soldiers from the European portion of the military force stationed at Karāchī and Hyderabad. For the accommodation of the officers there are three stone-built bangalows capable of housing two officers in each, and for the rank and file two barracks, which in the aggregate can hold 103 men. There is besides a detached residence for the apothecary, and numerous outhouses for various purposes in the rear of the barracks. It is stated that the Government intend erecting new buildings for sick soldiers, sufficiently large to accommodate 400 invalids at one and the same time. This sanitarium possesses a library of about 700 volumes, obtained for it by a late Commander-in-Chief in India, Lord Napier of Magdala, and to this nearly all the men located there subscribe. In a sanitary point of view, Gisri is considered to be admirably suited for its present purposes, being seated at some elevation on the sea-coast, with a strong sea-breeze blowing during the hottest weather, having a rocky soil and good natural drainage, and a neighbourhood free from all sources of malaria. During a period of fifteen months, ending with March 1871, the number of sick men sent to this sanitarium was 241, of whom 35 were invalided, 6 died, 159, or 66 per cent., returned to their duty, and 41 remained under treatment. Again during 1874 the sick men sent to Gisri numbered 53, of whom 9 were invalided, none died, 37, or 70 per cent., returned to duty, and 7 remained under treatment.

#### INDO-EUROPEAN TELEGRAPH OFFICES.

The Indo-European telegraphic buildings, situate in the Serai

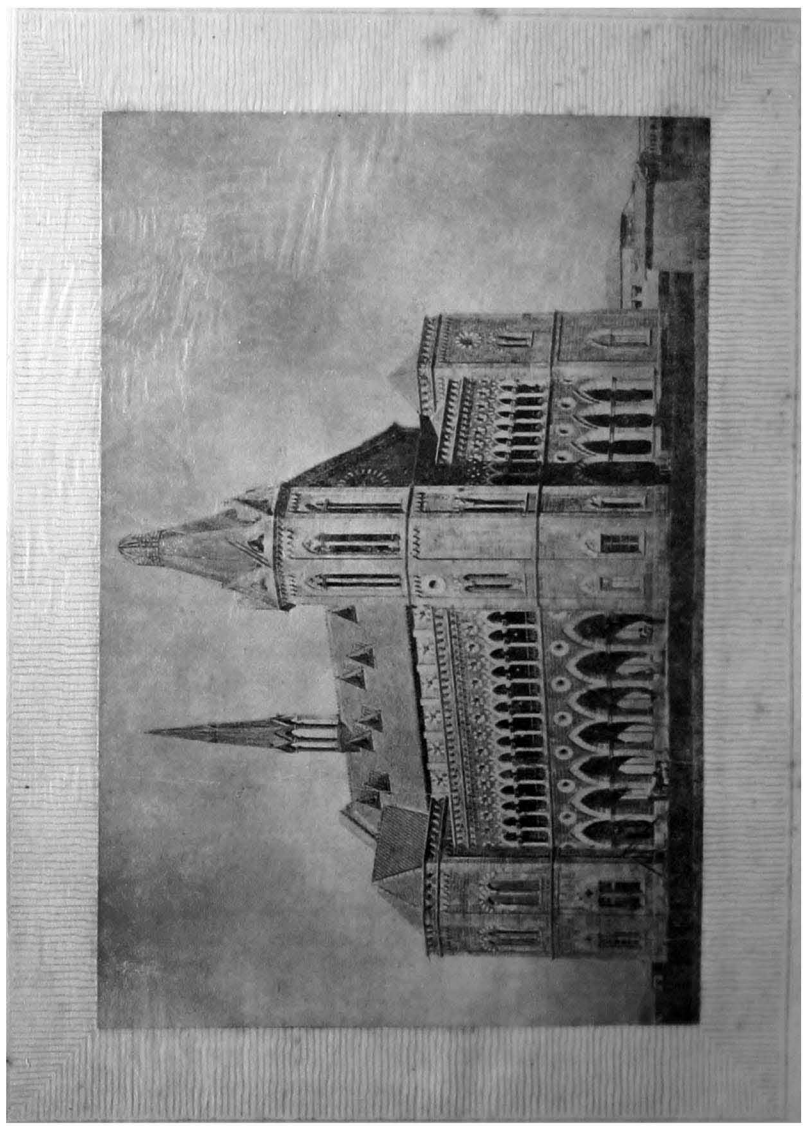
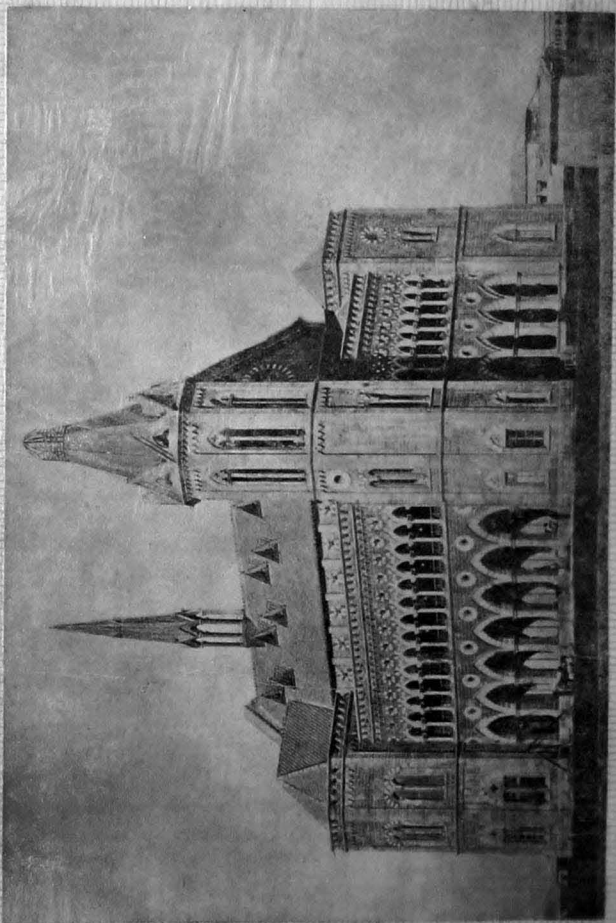
quarter on the McLeod road, in a large walled inclosure, consist of a central edifice with two wings, two separate buildings, a store-room, and workshops, a library and billiard-room all of stone, and with their fronts facing the west, together with numerous outhouses and stables. The ground floor of the main building contains the receiving and signalling offices, each 23 feet by 20 feet, the director's office, the superintendent's office, the account branch and traffic manager's offices, each of these latter being 24 feet by 20 feet; there are also two record rooms. On the upper floor are quarters for the superintendent and assistant superintendent. The wings are connected with the main building by means of vaulted passages, and here are the quarters provided for the signallers, mechanics, &c. The two separate buildings, one on either side of the main building, with which they harmonize in style, afford quarters for the electricians, traffic manager, &c. They each contain four rooms on the ground floor and the same number on the upper floor, and have besides wide verandahs front and back. The store-room and workshops occupy a long building with three rooms, two of these being 61 feet by 24 feet. The library and billiard-room is situate in the north-west corner of the walled inclosure, and was erected in 1867, at a cost of 5000 rupees. In the library-room is a window of stained glass, raised by subscription to the memory of Colonel Patrick Stewart, the first director of the department; it contains his portrait, with views of different places on the Arabian and Persian coasts, as well as a large female figure symbolical of electricity. The style of these telegraphic buildings is Italian; they were commenced in 1864 and finished in 1866, at a cost, not including the library and billiard-room, of 2,05,040 rupees. There are pakka-built wells in the inclosure, all belonging to the department, but the water in them is brackish, and in consequence unfit for drinking purposes.

#### POST OFFICE.

This building, which lies to the west of the Indo-European telegraph offices, stands in a walled inclosure of between three and four acres on the McLeod road, is in the Italian style, and consists of a lower floor and upper storey. The postmaster resides in the former, in which there is every accommodation, while the upper floor, which is approached from the outside by a fine flight of stone steps, is reserved for the business of the post-office. The sorting apartment is 55 feet by 26 feet; and there are also bhany and accountant's rooms. The outhouse accom-

1872

1872





modation is extensive, and there are quarters for 12 peons, 6 horses and 6 mail-carts. There is a well in the compound, but the water is brackish. The cost of the building, outhouses, &c., was 44,000 rupees; the work was commenced in 1867 and completed in the same year.

#### "FRERE HALL."

The fine municipal building called the "Frere Hall," erected in honour of Sir H. Bartle E. Frere, a popular Commissioner of the Province of Sind from 1851 to 1859, stands on a very slight elevation about 650 yards in a south-easterly direction from Trinity Church. The building was commenced in 1863, and was opened, though in a somewhat unfinished state, by the then Commissioner in Sind, Mr. S. Mansfield, in October 1865, up to which date the sum of 1,73,912 rupees had been expended on it. The hall, which was designed by Captain St. Clair Wilkins, R.E., is in the Venetian-Gothic style, and consists on the principal storey, which is approached by a double staircase, of four rooms. One of these, the "great hall," a fine room, 70 feet long, 35 feet wide, and 38 feet high, with an orchestral gallery, is mostly used for municipal and public meetings, concerts, balls, &c.; the plaster roof of this apartment was replaced in 1869 by one of "deodar" wood, at a cost of 2000 rupees. Another large room adjoining it is 63 feet long, 25 feet wide, by 38 feet in height. The room in the octagonal tower is small but lofty; above it, on an upper storey, the floor is laid with Minton's encaustic tiles. On two sides of the "great hall" are wide verandahs (70 by 13 feet and 35 by 13 feet) supported by light and handsome pillars of Porbandar stone. On the ground floor are four rooms, including that in the octagonal tower. The two largest of these are occupied by the Karāchi General Library and Museum, removed hither in 1870 from its former quarters in the staff lines. This library and museum was established in 1851, and the former contains at the present time between 6000 and 7000 books. The joint institution is liberally supported from the local funds of the three Sind collectorates and by a yearly grant from the Karāchi municipality; these sums are further increased by monthly payments from the subscribers to the library for the use of the books and magazines. The aggregate amount received from these sources was in 1873-74 about 5904 rupees, while the total expenses during the same year were 4973 rupees. The management of the library and museum is entrusted to a joint committee of six persons, one-half selected by the subscribers

and the remainder by the Municipal Commission. The permanent establishment consists of an unsalaried honorary secretary, a paid librarian, curator, and peons, the entire cost of which from the year 1871 is now defrayed by the Karāchī municipality. On the eastern side of the "Frere Hall" is a porch, heavy in its proportions when compared with the other parts of the structure, from which a covered flight of stone steps leads to the upper storey. A wooden spirelet, coated with Muntz's metal, springs from the high roof, and reaches to an elevation of 144 feet from the ground. The brass chandeliers hung throughout the rooms of the "Frere Hall" were the work of the Harbour Improvement Works Department, and are similar in design to those used in Trinity Church. The grounds in which the hall stands are now enclosed by a stone wall with neatly-designed iron railings, but no outhouses have yet been erected in connection with the building. A band-stand was built in 1866 in an open space a little to the west of the hall.

#### GOVERNMENT HOUSE.

Government House, the residence of the Commissioner in Sind, is situate in the Civil Lines quarter, and stands in a large walled inclosure with its front facing the west. It consists of a central building with two wings, approached by a carriage-drive from five different directions, and was originally built by Sir Charles Napier, when Governor of this Province, and from him purchased by Government in 1847 for the then Commissioner in Sind, Mr. Pringle. The entire cost to Government of this edifice, with houses, stables, &c., was 48,273 rupees. The interior arrangements are well adapted for comfort and convenience, but the exterior cannot be said to have any pretension whatever to architectural taste. The upper storey of the central building was added by the late General John Jacob, when Acting Commissioner in Sind in 1856. The present Commissioner's office was formerly a private residence, but was purchased by Government in 1855. Great additions have of late been made to it. That portion now used as a printing establishment had previously been the office of the Assistant Commissioner for Sind jāgirs; it was turned to its present use in 1864, and considerably enlarged in the years 1872 and 1874.

#### COLLECTOR'S OFFICE.

The office and treasury of the Collector of Karāchī, a large

barrack-like looking building, stands in an open space of ground of some extent (only partially inclosed) in the Civil Lines quarter. It was designed and built by Captain John Hill, of the Bombay Engineers, in 1842, at a cost of about 50,000 rupees, and is upper-storied, having an open verandah on both the east and west sides. The treasury-room is vaulted, and, in other respects, is well adapted for the purposes intended. The entire building, which is well ventilated, is not, however, considered to be large enough for present requirements. There is a guard-house and a large go-down at a short distance from the office, with which they are both connected. The establishments permanently provided with office quarters in this building are those of the Treasury, Stamp, Paper Currency, and Registration departments, which are superintended by the Huzūr Deputy Collector of Karāchi, who remains at head-quarters all the year round, while the Collector's and Magistrate's English and Vernacular establishments are accommodated there during the hot season and when not on tour in the districts.

#### SMALL CAUSE COURT.

The building at present used as the Small Cause Court of Karāchi is situate within a large and as yet unwall'd inclosure in the Ranchor Municipal quarter adjoining the Bandar road. It was erected about the year 1855-56 by the Public Works Department, at a cost of 7422 rupees, and was originally intended to accommodate an engineering school. The building itself is of a peculiar style of architecture, but contains a large court-room, with two side rooms for clerks and other purposes. At a short distance from the court-house is a well-built brick go-down, intended for the reception of attached goods previous to sale. The Karāchi Small Cause Court was established in August 1861, for the adjudication of suits of the value of 500 rupees and under. Formerly the Judicial Deputy Magistrate of Karāchi presided as first judge for the hearing of suits in which Europeans were concerned, while a Munsif, as second judge, decided native suits. By Bombay Act VIII. of 1863 the jurisdiction of this court was enlarged, and it now extends over the Karāchi talūka.

In the following year an Imperial Act (IV. of 1864) was passed, giving validity to certain proceedings previously carried out in this court.

The staff of the Karāchi Small Cause Court consists, besides the judge, of a clerk, mūnshi, and accountant, five bailiffs, and a

small establishment of peons. The number of suits filed in this court during the four years ending with 1874 was as follows:—

Year.	Number of Suits.	Value.
		rupees.
1871	3,042	1,55,470
1872	3,238	1,46,418
1873	3,676	1,87,163
1874	3,570	1,55,907

#### GOVERNMENT HIGH SCHOOL.

A Government English school was established at Karāchi as early as 1853, at the instance of Sir H. Bartle E. Frere, when Commissioner in Sind, but it was not till the following year that it was accommodated in the old building (once used as an Anglo-Vernacular school) situate at the corner of the Bandar and Mission roads in the Ranchor Lines municipal quarter, which was erected by Government in 1854 at a cost of 6203 rupees. The building, which is of a very peculiar style of architecture, is 87 feet long and 41 feet broad, contains one large and two small rooms, and has a tower attached to it in which a clock was put up at the expense of the Karāchi municipality. In 1864-65, when the grant-in-aid rules came into force, this school resolved itself into two distinct institutions—the High and Anglo-Vernacular schools—all the pupils able to pass the required examination under the new rules forming the High School. This latter professes to educate students up to the matriculation standard of the Bombay University, and since its establishment several young men have successfully matriculated from it. In 1874-75 two blocks of buildings were erected close to the old school, at an expense of 23,400 rupees, contributed partly by Government, the Karāchi municipality, and private subscriptions. Each block contains five class-rooms and one record-room, the dimensions of the former being 24 feet by 16, and of the latter 16 feet by 15. The block adjoining the Bandar road is called the "Narayan Jaganath" Anglo-Vernacular School, after a popular officer of the Sind Educational Department, who died in 1873. The High School is accommodated in the other block. The number of pupils in this latter institution at the beginning of 1875 was 77. The High School possesses one scholarship and

one prize, called respectively the McLeod Scholarship and Frere Native Prize. The former, in value about 200 rupees per annum, was established in 1854, in honour of Mr. John McLeod, a former Deputy Collector of Customs, who died at Karāchi in December 1853. He did much towards fostering the trade of Sind, and was greatly beloved for his sterling worth by all classes of the community. The proceeds of this scholarship have now been transferred to the Sind Scholarship Fund, instituted to support natives of the province while studying at one or other of the colleges in Bombay. The Frere Native Prize, of the annual value of 20 rupees, was founded in 1859, in honour of Sir Bartle Frere, when leaving Karāchi, and this sum is expended in providing a book or books to be awarded annually to the best student in the Government English school. The teaching staff of the High School consists, at present, of one European head master with four assistants, together with a Persian and Sindi tutor. The average monthly expenditure on this account is about 816 rupees, which is met by monthly contributions from the imperial and local funds, from the Karāchi municipality (45 rupees), and from school fees.

#### ANGLO-VERNACULAR SCHOOL.

The Anglo-Vernacular School, which, as previously mentioned, once occupied the large building formerly used by the Government English school, is now located in one of the new blocks of buildings recently erected in 1874-75, and may be regarded as a feeder to the High School. The number of pupils in this institution at the beginning of 1875 was 130, comprising not only Sindis, but a number of Marathis and Parsis. The teaching staff comprises one head master and four assistants, involving a monthly expenditure of about 250 rupees, which sum is met from imperial and local funds and fees. This school teaches up to the second English standard, and no boy is admitted into it as a student unless he has passed the third vernacular standard.

#### VERNACULAR SCHOOLS.

There are four Government Vernacular schools in Karāchi—1, the Arabic-Sindi; 2, the Marathi; 3, the Gujrathi; and 4, the Hindu-Sindi. The Arabic-Sindi school occupied up to 1869 a small but conspicuous stone building of one room only, situate on the Bandar road, near the Kārdār's office. It was erected at the expense of the municipality, at a cost of about 1000 rupees. As it was found in 1869 to be too small for the requirements of this

school, a private house was hired in the native town, but in 1873 another and larger school-house was erected in the same inclosure as the Kārdār's office, and in this the pupils are now accommodated. The attendance in the month of January 1875 was 170, two-thirds of these being Muhammadan boys of the lower classes. They are taught up to the fifth vernacular standard by a head master and four assistants, at a monthly cost of 115-12 rupees, this amount being met by grants from the imperial and local funds, the Karāchi municipality (15 rupees), and fees. The Persian language is largely taught in this school.

The Marathi school is situate on the Mission road, and is nearly opposite to the civil hospital. The building, standing in a walled inclosure of its own, is of stone, and contains two large and one small room. It was erected at a cost of about 2000 rupees, at the joint expense of Government and the Marathi community. The Karāchi municipality grants 15 rupees a month to this school, which enables it to provide an assistant master. It became a Government institution in 1869, when it had 66 boys, but at the end of 1874 this number had increased to 166. The teaching staff comprises a head master and four assistants, costing monthly about 90 rupees, which sum is derived from imperial and municipal grants, and from fees. The school teaches up to the fifth standard, and it is the great source whence the Anglo-Vernacular school is supplied with students.

The Gujrathi school, which owes its rise mainly to the exertions of the late Mr. Rāmdas Bhānji, an inhabitant of Karāchi, was established in December 1868, and is intended for the education of the children of a large class of Gujrathi-speaking people, chiefly merchants, traders, and shopkeepers. These are mostly Hindūs of Gujrat, Bhātias, Kachis, Mēmōns, Khwājas, and Parsis. The school is accommodated in a portion of the house recently rented for the Sindi-Arabic school, but will, it is expected, be moved into the new building formerly occupied by the Educational Press; it has an average attendance of 160 boys, who are taught up to the third vernacular standard by a staff of instructors consisting of a head master and four assistant teachers. The ordinary monthly expenditure at this school is 114-8 rupees, which is met by grants from the imperial and local funds, and from school fees. The Hindū-Sindi school was established in July 1869, and is accommodated in the building on the Bandar road previously mentioned as having been occupied by the Arabic-Sindi institution up to that year. In this school the Hindū-Sindi character, called "Shikārpuri" in northern, and "Khudabādi" in central and lower

Sind, is taught with the view of attracting the children of the trading classes, among whom this character, and not the "Arabic-Sindi" (which was made the medium of official correspondence during Sir Bartle Frere's administration), is in use. But as there were many defects in the writing of the Banya character, among others an entire omission of all vowel marks, which allowed a single word to bear various interpretations, an improved form of alphabet was drawn up by the Deputy Educational Inspector in Sind (the late Mr. Narayan Jaganath), and this being approved of by a committee specially appointed to consider the subject, was introduced for general use by a notification issued by the Commissioner in Sind in February 1869, and a Hindū-Sindi school was established at Karāchi in the same year. At first the attendance of pupils was large, but this after a time diminished to 50; and at the end of 1874, this number had only increased to 59. The teaching staff comprises one head master and an assistant, who are paid by a monthly grant of 24-8 rupees from local funds.

#### FEMALE SCHOOLS.

It was not before July 1869 that any Government female schools existed in Karāchi. There were two of them in 1871, but at present one only for Hindū girls is in existence. The school is situate in the heart of the native town, and has an attendance of 133 pupils, who receive instruction up to the fourth vernacular standard from a mistress and two pupil teachers.

The monthly expenditure on account of this school is 35-8 rupees, which is met by imperial and local grants-in-aid.

#### CENTRAL BOOK DEPÔT.

In connection with Government educational institutions generally at Karāchi, it will be necessary here to speak of the Government Central Book Depôt, which at one time (from 1866) occupied a bangalow (formerly the freight agent's office) on the Bandar road, near the Anglo-Vernacular school, but more recently the new building near the Native Library, erected in 1873, at a cost of 5045 rupees, for the Educational Printing Press. Here, besides the publication of all vernacular school books, was printed a small bi-weekly paper, or educational record, called the "Sind Sudhar." At present the Printing Press is amalgamated with that of the Commissioner in Sind, and this building is, it is expected, to be converted into a Gujrathi Vernacular School. There are 17 district depôts (in charge of head masters of schools) subordinate

to this central depôt, and it may be mentioned that during the year 1874-75, English, Persian, Arabic, Sindî, Hindûstāni, Marathi, Gujrathi, and other books to the number of 23,176 and of the value of 6183 rupees, were disposed of, leaving at the end of that year a balance of 93,035 books, valued at 30,080 rupees. Monthly, half-yearly, and yearly accounts of this depôt are furnished to the Central Book Depôt at Bombay.

#### PARSI SCHOOLS.

Among the various educational institutions in Karāchi, not Governmental, which have not yet been brought to notice may be mentioned two Parsi schools. One of them, the "Virbāiji" is situate in Frere Street, Sadar Bazar, and is accommodated in a large house liberally given for this purpose in 1870 by Mr. Sapurji Hormazji Sopariwāla, a resident at Karāchi. The school itself was established in 1859, and at the beginning of 1875 had an average attendance of 121 pupils (67 boys and 54 girls). It is supported by the Parsi community, managed by a committee, and is periodically visited by the Government Educational Inspector in Sind. It teaches in Gujrathi the usual subjects learnt in Government vernacular schools, and the girls, in addition to the usual elementary course, are instructed in needlework. The Karāchi municipality gives a monthly sum of 50 rupees as a grant-in-aid to this institution, and it was in 1870 registered for examination under the revised rules for grants-in-aid. There is another Parsi school, though a very small one, situate in the Rāmbāgh quarter, which is wholly supported by the Parsi residents of that part of Karāchi. The attendance is small, there not being, on an average, more than eight pupils, who receive a rudimentary education in the Gujrathi language.

#### CHARITABLE DISPENSARY.

This building, which is situate on the Dandar road, near the Kārdār's office, was erected in 1862, at a cost of 6962 rupees, and is in charge of a sub-assistant surgeon, assisted by two medical pupils. It possesses accommodation for ten in-door patients. The total admissions during 1874 were 10,657, of whom 10,584 were treated as out-door, and 73 as in-door patients. The average daily attendance in that same year was 100. The total expenses of this establishment in 1874 amounted to 5302 rupees. Of this sum the pay of the medical staff and the fixed allowances of the servants, as well as a few minor expenses



amounting in the whole to 4219 rupees, were defrayed by the Government. The municipality furnished all the medicines, petty supplies, bedding, clothing, dead stock, &c. Previous to the erection of the present building, the business of the dispensary was carried on from 1847 in an upper-storied house in the middle of the town. The present dispensary is examined every week or fortnight by the Deputy Surgeon-General of Hospitals, Sind Division.

## CIVIL HOSPITAL.

The Civil Hospital is situate in the Ranchor Lines municipal quarter, and stands at some little distance, facing the west, from the Mission road. It is a large upper-storey building with two wings, its entire length being  $340\frac{1}{2}$  feet. There are six lower wards and one upper-storey ward, and the hospital is capable of making up 75 beds. The central portion, which is the original building, was erected in 1854 by Government at a cost of 6878 rupees; the additions were made by the Sind Railway Company in 1859.

The following statement will show the total number of persons treated for various diseases in this hospital during the years 1872, 1873, and 1874, together with other information in connection with them:—

	Admissions.			Casualties.			Average Daily Sick.		
	1872.	1873.	1874.	1872.	1873.	1874.	1872.	1873.	1874.
In-door patients . .	1,184	897	830	84	42	34	50.5	41.0	25.5
Out-door patients . .	7,173	9,957	9,397	..	1	..	79.8	81.0	84.3

The hospital is directly under the control of the Civil Surgeon of Karāchi, who has a resident staff, consisting of one apothecary, one hospital assistant, and a native medical pupil. An inspection of this hospital takes place during the cold season. The most prevalent diseases in the town of Karāchi are found to be intermittent fevers, chronic rheumatism, and bowel complaints, arising, it is believed, mainly from imperfect drainage, variable climate, and unwholesome drinking water. Cholera visited the place in an epidemic form in the years 1865, 1867, and 1869, and small-pox in 1866, 1868, and 1870. During 1869 Karāchi was troubled with a bad type of fever epidemic, from which the European troops

stationed here suffered severely. The very heavy rainfall during that year, which in quantity was more than double that of any previous year, is supposed to have been the exciting cause.

#### LOCK HOSPITAL.

The Lock Hospital at Karāchi was established in August 1869, in accordance with the requirements of Imperial Act XXII. of 1864, which provides for the proper administration of military cantonments. The building at present used for this purpose, which is upper-storied, is situate in a high walled inclosure in the Ranchor lines, and contains accommodation for ten patients, who are dieted by the Government at a cost of three annas *per diem*. The establishment consists of a medical officer, who is also the staff surgeon of Karāchi, a hospital assistant, matron and assistant, overseer, and several menial servants. During the year 1870 one hundred and eighteen females were under treatment in this hospital, of whom  $8\frac{1}{2}$  per cent. were found to be diseased to a frightful extent—nearly one-half of the admissions showed the disease as appearing in either the secondary or tertiary form. In 1874 the number of females under treatment was 165, but five only of these remained in hospital at the end of the year. The monthly average of registered women was 186, and 13·4 per cent. of those examined were found to be diseased.

#### CLIMATE.

The climate of Karāchi, taken as a whole, may be considered as the most salubrious throughout Sind, the town being well open to the sea-breeze, which blows here almost continuously during eight months of the year. The westerly wind is that most prevalent in the hot season, blowing, on an average, 162 days out of 365, the least frequent being a due south wind. The results of five years' observation (1860 to 1864) showed the west wind to be most prevalent during the months of March, April, May, June, July, August, September, and October. The climate must, from this circumstance, as well as from the low situation of the town and the near neighbourhood of marsh-land, be regarded as moist and humid; but the heat during the hottest months bears no comparison with that experienced at those places in the interior which are shut out from the influence of the sea-breeze. From careful observations, taken during the past nineteen years, the mean temperature of Karāchi during the year may be safely stated

to be 77°. The hottest months at Karāchi are April, May, and June, though September and October, owing to the diminished strength of the westerly wind, are at times close and sultry. The maximum heat in the sun's rays at Karāchi during May has been recorded as high as 168° F., and in June at 162° F., while the minimum temperature in air in the month of January has been found as low as 38° F. The cold weather at Karāchi is not ushered in much before the beginning or middle of November, when a sudden change from the moist sea-breeze to the dry and cold north-east wind brings about, as a natural consequence, an immediate change in temperature.

#### RAINFALL.

The rainfall at Karāchi is slight and fluctuating, but the average amount gauged during the year cannot be set down at more than 5 inches, though, if the heavy falls which occur in some years be taken into consideration, this average will then be raised to 7 inches. Sometimes one or two years elapse with scarcely any rain at all, but this is generally made up afterwards by a more than ordinary fall. This was the case in 1851, when nearly 26 inches were gauged, and again in 1869, when 28·45 inches are said to have fallen. The rainfall at Karāchi is not confined to the ordinary monsoon months of Western India, but often occurs during December and January, and less frequently in February and March. The following two tables of temperature and rainfall are made up from observations recorded at the Meteorological Observatory at Karāchi, the first extending over a period of nineteen years from 1856 to 1874, and the second showing the monthly temperature and rainfall for the past three years ending with 1874 (*see pages 378, 379*):—

TABLE I.

Year.	Maximum in Air.	Minimum in Air.	Approximate Mean in Air.	Rainfall.	
				Inches.	Cents.
1856	108	47	79	2	14
1857	102	41	76	5	70
1858	108	39	75	5	90
1859	106	40	76	6	20
1860	107	40	76	2	80
1861	108	42	74	5	71
1862	109	41	76	4	86
1863	109	39	76	14	50
1864	105	43	75	6	28
1865	117	44	77	7	06
1866	109	38	75	13	73
1867	96	42	76	2	41
1868	117	45	85	2	86
1869	111	45	82	28	45
1870	110	41	79	4	65
1871	101	44	78	...	12
1872	107	40	74	7	60
1873	112	42	77	2	50
1874	101	42	71	8	29

## KARĀCHI WATER-SUPPLY.

In close connection with the health statistics of Karāchi may be included its present water-supply. The great evil of a scarcity of good water had early engaged attention, and in 1859 the water from many of the wells and tanks in and about Karāchi was submitted to analysis, when it was found that though all the samples (nineteen in number) showed a remarkable freedom from organic matter, only six of this number were equal in purity to the ordinary river waters of Europe, the remainder being too saline for any useful purpose. The water most favourably reported upon was from wells dug on the banks of the Layāri river, from two wells in the Commissariat lines, and from a well in the Rāmbāgh tank, which had no connection with the tank water, but tapped, it was supposed, an old underlying bed of the Layāri. From this last pipes were in 1859 laid down to cisterns with fountains placed at intervals on the Bandar road, and having stone troughs, supplied water not only to the people, but to their cattle as well. The inhabitants of Kiamāri and the shipping in the harbour obtain their supplies of water from the large barrel carts which bring it from Camp. The European troops in the Napier barracks are supplied with water from the Commissariat well by

TABLE II.

Months.	1872.						1873.						1874.					
	Baro- meter.	Thermometer.				Rain- fall.	Baro- meter.	Thermometer.				Rain- fall.	Baro- meter.	Thermometer.				Rain- fall.
		Inches.	Maximum in Sun's rays.	Maximum in air.	Minimum in air.			Mean in air.	In. C.	Inches.	Maximum in Sun's rays.			Maximum in air.	Minimum in air.	Mean in air.	In. C.	
January . .	30°227	139°36	75°56	49°22	62°49	.. 09	30°160	121°96	75°21	52°50	63°84	1 38	30°212	112°16	72°22	50°53	61°30	.. 53
February . .	30°184	144°69	79°53	52°93	66°05	.. ..	30°143	136°75	84°17	55°30	69°72	.. ..	30°154	121°24	79°07	55°42	67°22	.. 20
March . . .	30°089	149°71	87°34	64°48	75°97	.. ..	29°901	136°08	87°59	64°59	75°07	.. 01	30°027	123°76	84°44	66°00	75°80	.. ..
April . . .	29°966	155°26	92°05	72°50	82°30	.. ..	29°928	149°02	91°27	69°14	80°19	.. ..	30°009	134°21	89°57	69°42	79°46	.. ..
May . . . .	29°844	157°31	93°48	78°17	85°85	.. ..	29°841	150°35	94°26	76°21	85°51	.. 03	29°833	136°72	92°36	77°56	84°93	.. ..
June . . . .	29°730	154°27	95°46	82°86	85°83	.. 06	29°653	149°22	94°22	82°69	88°73	.. ..	29°722	136°96	94°76	82°70	88°70	.. 85
July . . . .	29°705	149°22	90°54	79°73	85°16	6 42	29°612	148°46	93°80	82°78	88°72	.. ..	29°687	127°90	91°23	80°20	85°64	5 22
August . . .	29°754	150°44	88°49	78°93	83°90	.. 02	29°757	144°80	90°23	79°42	84°75	.. 64	29°779	123°70	88°23	78°28	83°18	.. 97
September .	29°901	151°73	89°79	76°43	83°05	1 01	29°812	144°55	89°73	77°80	83°74	.. ..	29°862	132°17	89°13	76°51	82°80	.. ..
October . . .	30°039	152°06	91°17	70°23	80°57	.. ..	29°981	137°25	92°73	69°07	80°87	.. ..	30°021	136°02	94°70	68°06	81°32	.. ..
November . .	30°009	150°00	88°72	64°71	76°91	.. ..	30°160	128°58	88°57	60°50	74°52	.. ..	30°156	122°87	87°82	59°68	73°73	.. ..
December . .	30°092	134°71	82°08	53°66	68°84	.. ..	30°187	111°90	80°03	54°57	67°28	.. 44	30°210	122°16	81°63	53°50	67°54	.. ..
						7 60						2 50						8 29

an underground aqueduct, and the workmen in the Sind railway workshops and others in the Frere Town quarter from what is known as the railway well near the Government gardens, by means of underground iron pipes. A fine *pakka*-built well of good water, near the Ratan tank, was presented to the Karāchi municipality for public use, by Mr. Sapurji Hormazji Sopariwāla, in 1869, and the water of this is much used by people residing in the neighbourhood. That the necessity for a good water-supply for Karāchi had early attracted attention, will be evidenced by the following list of projected schemes to obtain it from various sources, not one of which, however, has yet been carried out:—

No.	Year.	Designer.	Source of Supply.	Distance in Miles.	Estimated Cost.	Quantity of Water per Diem.	Quantity of Water per Head of 80,000 People.
1	1845	Captain Baker . . .	Malir.	13	rupees. 1,86,760	gallons. 32,170	gallons. 0'4
2	1847	Captain J. Hill . . .	Ditto	13	1,10,803	400,000	5
3	..	{ Cantonment Water Company . . . . .	{ Layari and Wells }	..	No details.	..	..
4	1853	Lieutenant Chapman .	Indus.	93	48,50,773	..	..
5	1857	Captain De Lisle . . .	Malir.	16	3,27,000	1,215,000	15'18
..	..	Ditto . . . . .	Ditto	..	{ 10,00,000 iron piping }	..	..
6	1861	Mr. J. Brunton . . .	Ditto	23	20,00,000	2,030,000	25'62
7	1865	Mr. T. G. Newnham .	Indus.	100	90,00,000	12,000,000	150
8	..	Colonel Fife . . . . .	Malir.	104	3,24,000	600,000	7'5
9	1867	{ Khān Bahadur Murād Khān . . . . .	{ Habb }	19	10,31,000	2,300,390	28'73
10	1868	Colonel Merriman . .	Malir.	18	{ 6,30,000 stone piping 12,20,000 iron piping }	1,728,000	21'6

Scheme No. 4 was intended not only to supply drinking water to the whole of Karāchi, but to furnish a navigable canal as well. The same may be said of No. 7, Mr. Newnham's project, which provided, in addition to good drinking water, the means of irrigating a portion of the Indus delta, of draining Karāchi, and for irrigating the Moach plain with sewage matter. The tenth plan was one for bringing in water from the Malir river, at a spot about 18 miles distant from Karāchi. Five other schemes for supplying water from this river, one of which, No. 6, was the Damlot

scheme of Mr. John Brunton, had previously been projected, but none carried out. The latest project for supplying water to Karāchi is one by Mr. James Strachan, C.E., of the Karāchi municipality, and is now under the consideration of Government. This scheme, which may be said to be a modification of No. 10 (Colonel Merriman's), is intended to bring in water from the Malir river, at a distance of about 18 miles, by means of an underground aqueduct. The total fall throughout this length is 70 feet, or say 3·91 feet per mile, which will allow of a supply of 100 gallons daily per head for a population of 60,000 souls, or of 75 gallons for one of 80,000. The reservoir at Karāchi is to be constructed in two compartments, each large enough to hold three million gallons of water. The estimated cost of this scheme, including distributing pipes, &c., for the service of the town and cantonments and of Kiamāri, and the charge of establishment as well, is computed at a little over 14 lakhs of rupees, and it is expected that the entire work could be completed in about two and a half years. Government have consented to lend the municipality about 12 lakhs of rupees, charging interest at 4½ per cent. per annum; this sum to be repaid within *thirty* years. The only obstruction to the scheme being at once commenced was the necessity for increasing the municipal income to a certain extent so as to meet the regular repayment of the principal and interest of the loan, and this, it has lately been decided, is to be met by a proportionate but small increase to the present town duties tariff.

#### KARĀCHI JAIL.

The Karāchi jail is a large building situate in the Jail quarter of the municipality; it lies between the town and camp at a distance of about a mile from the latter, and one of its sides abuts directly on the Bandar road. It was originally built in 1847 by the Public Works Department, but numerous additions were made to it in 1854 and 1858, and the present building, valued by the department at 94,194 rupees, was not fully completed till 1868. The inner area of this jail covers 52,425 square yards, and it is capable of accommodating nearly 800 prisoners. The workshops are large and convenient, and, together with the prisoners' quarters, are well-ventilated. Owing, however, to the very slight elevation of this jail above sea-level, no proper system of drainage can be carried out, and dry conservancy is in consequence resorted to. The average annual mortality among the convicts during the past 10 years was 3 per cent., the chief prevailing disease being fever.

A severe type of this malady prevailed here in 1864, and was very fatal in its effects. Of the two great classes of prisoners, that is to say, Hindūs and Muhammadans, received in this jail, 12 per cent. only on an average belong to the former. The convicts are, to a great extent, occupied in manufacturing numerous articles for sale, such as cloths of different kinds, cotton and hemp rope, tapes, chairs, mats, carpets, baskets, &c., and in 1857 several workmen were brought down from Jabalpur, at Government expense, to introduce the manufacture of tents. In the Exhibition held at Karāchi in December 1869, several prizes were awarded for the excellent sheeting, towelling, and carpets made in this jail. During 1874 there were 266 prisoners engaged in this work, the gross receipts from this source during that year being 14,400 rupees, and the net profits 6579 rupees. There is no vegetable garden attached to the jail, the convicts being furnished with what they require from the bazar; the supply of water is bad and quite unfit for drinking purposes, that used is brought by the prisoners themselves from a well near the Rāmbāgh tank. There is at present no reformatory in this jail for juvenile offenders; they are, however, kept apart from the adult prisoners. The following table will afford some statistical information in connection with the prisoners of this jail for the eight years ending 1873-74:—

Years.	Average Strength.		Gross Cost of each Prisoner per Annum.	Net Cost, deducting Value of Labour.	Average Mortality per Centum.	Remarks.
	Males.	Females.				
1866-67	587	5	rup. s. p. 74 14 0	rup. s. p. 63 4 9	2	These charges include the cost of guards, clothing, salaries of officials, repairs and contingencies.
1867-68	465	6	89 13 7	57 8 8	1	
1868-69	364	6	110 5 7	88 15 8	1'3	
1869-70	319	5	122 6 5	106 12 10	3'8	
1870-71	333	4	86 7 10	57 6 0	2'6	
1871-72	350	3	85 6 0	67 2 6	6'7	
1872-73	425	3	91 14 1	52 15 2	4'4	
1873-74	430	2	88 10 10	51 15 2	2'3	

#### TOWN POLICE.

The police employed in the town and suburbs of Karāchi, though under the orders of the superintendent of police for the Karāchi district, are more especially supervised by the assistant superintendent, who is permanently stationed at Karāchi, and in



this duty is assisted by the town inspector. The police number in all 298 persons, who are distributed as follows:—

	Inspector, 1st Grade.	European Constables.	Chief Constables.	Head Constables.				Constables.		Manshis.	Ehisits.	Total.
				1st Grade.	2nd Grade.	3rd Grade.	4th Grade.	1st Grade.	2nd Grade.			
On duty in the Town and that part of the Camp out of Military limits . . . . .	1	8	2	3	6	11	10	94	142	..	2	979
Guard at Kiamāri . . . . .	..	..	..	..	..	..	1	2	5	..	..	8
Town Inspector's Office. . . . .	1	..	..	..	..	1	1	4	3	2	..	11
Total . . . . .	1	8	2	3	6	12	12	100	150	2	..	298

The town police, on an average, used to cost the Karāchi municipality, with contingencies, about 3000 rupees *per mensem*, but at present *one-fifth* of the municipal income is devoted to the payment of the municipal police, and is made over to the Government for that purpose. The police stations within municipal limits are now eleven in number, and are situate at the following places: 1, Old Town; 2, Old Machi Miāni; 3, Bagdadi Lines; 4, Ramswāmi Lines; 5, Dhobi Ghāt; 6, Kiamāri; 7, Layāri; 8, Sadar Bazar; 9, Rāmbāgh; 10, Soldiers' Bazar; and 11, Ranchor Lines. Taking the population of Karāchi (exclusive of the military force), according to the late census, at 53,526 souls, there will thus be 1 policeman to every 182 of the inhabitants.

POPULATION.

The population of the town of Karāchi within municipal limits, inclusive of the military force and camp followers, which was confidently believed to be not less than 75,000 or 80,000 souls, would appear by the late census, taken in 1872, to amount to not more than 56,753. This would show about the same number of inhabitants as in the year 1856, when, according to the census then taken, the population of the town and camp was found to be 56,879. By the census of 1872, the military force, with camp followers, was returned at 3227 souls, comprising a battery of Royal Artillery, 2 infantry regiments (1 European and 1 native), besides the men and families of the ordnance and barrack departments. Of the entire population of Karāchi the total number of Muhammadans was found to be, by this latest census, 29,156, and of Hindūs 23,404, while the Christian population numbered

in all 3397, the remainder (796) being made up of Parsis, Sikhs, Budhists and others. The two following tables will show the number of houses and of inhabitants in each of the 23 municipal quarters of Karāchi, exclusive of Manora, the harbour, police and military population, with camp followers, numbering in all 10,530 souls :—

## I.

Municipal Quarter.	Number of Houses.	Number of Inhabitants.
1. Old Town Quarter. . . . .	1,529	6,619
2. Napier Quarter . . . . .	2,223	6,703
3. Rāmbāgh Quarter . . . . .	167	1,574
4. Serai Quarter . . . . .	250	1,596
5. Sadar Bazar Quarter . . . . .	897	3,649
6. Civil Lines . . . . .	44	456
7. Clifton . . . . .	28	116
8. Frere Town. . . . .	207	451
9. Railway Quarter . . . . .	50	523
10. Machi Miāni Quarter . . . . .	280	2,183
11. Market Quarter . . . . .	242	1,816
12. Bandar Quarter . . . . .	229	1,193
13. Ranchor Lines . . . . .	895	2,518
14. Jail Quarter. . . . .	262	1,648
15. Soldiers' Bazar . . . . .	375	986
16. Commissariat Lines . . . . .	118	799
17. Bhisti-wārā . . . . .	149	858
18. Ramswāmi Ghari Kātha . . . . .	235	790
19. Bēgāri Kātha . . . . .	181	314
20. Kiamāri Quarter . . . . .	144	602
21. Preedy Quarter. . . . .	119	776
22. Layāri Quarter . . . . .	1,749	7,032
23. Garden Quarter . . . . .	421	3,021
Total . . . . .	10,794	46,223

## II.

Corps or Department.	Number of Officers and Families.	Number of Soldiers and Families.	Number of Native Followers and Families.	Total.
Royal Artillery . . . . .	12	220	301	533
One of Her Majesty's Foot Regiments . . . . .	32	870	341	1,223
A Baloch Regiment . . . . .	14	1,005	204	1,223
Ordnance Department . . . . .	3	103	35	141
Barrack Department . . . . .	...	9	17	26
General Hospital . . . . .	...	3	37	40
Staff . . . . .	8	...	60	68
Total . . . . .	69	2,210	975	3,254

## FREEMASONRY IN KARĀCHI.

There are at present 4 masonic lodges and chapters in Karāchi, one only of these working under the United Grand Lodge of England, the remaining 3 being connected with the Grand Lodge of Scotland. The following is a list of these lodges:—

1. Lodge "HOPE," No. 350, S.C. Founded in 1843, but warrant not obtained till some years afterwards. Meetings held once a month in the Masonic Hall lying between Trinity Church and Frere Hall.
2. Lodge "UNION," No. 767, E.C. Founded in 1859, but placed in abeyance in 1862; resuscitated in 1864. Meetings held monthly.
3. Lodge "HARMONY," No. 485, S.C. Founded in 1869 by the Parsi Community, and is in a very flourishing condition. Meetings held monthly.
4. Chapter "FAITH AND CHARITY," No. 72, S.C. Founded in 1852, but placed in abeyance in 1858; resuscitated in 1862. Meetings held quarterly.

The building, known as the Masonic Hall, in which lodge meetings are held, was erected by subscription, the foundation stone being laid in 1845 by Sir Charles J. Napier, Governor of Sind. It was almost totally destroyed during the monsoon of 1851, but through the exertions of Sind masons was rebuilt in the following year. In 1845, Lodge "Hope" obtained a grant of the premises from the Collector of Karāchi, and has ever since retained possession, permitting other lodges to hold their meetings there on payment of rent.

In connection with Freemasonry in Sind, it may be added that an association for the relief of distressed widows and orphans in Sind was established in 1873. The capital raised by local subscription and donations now amounts to nearly 6000 rupees, and is vested in trustees. It is managed by a committee composed of Life Governors, who meet when necessary at the Masonic Hall. The office bearers are elected half-yearly.

## KARĀCHI MUNICIPALITY.

The Karāchi Municipal Commission was established, according to Imperial Act XXVI. of 1850, in September 1852, before which year the sanitary condition of the town had been attended to by a

Board of Conservancy, appointed in the first instance in 1846 by Sir Charles Napier, when Governor of Sind. The municipal establishment in 1853-54 consisted only of a secretary, on a salary of 50 rupees per mensem, a few mūnshis, a shroff, and some peons and sweepers, the whole costing about 160 rupees monthly. The municipal income was derived from town duties, wheel-tax, market and registration fees, municipal fines, as well as fees for cutting grass in the Moach plain, surrendered by Government to the municipality in 1853. The "Chungi," or weighing fees, were abolished in favour of town duties in December 1856. From this date up to 1859, when the constitution of the Karāchi municipality was reorganized, the commission consisted of the Commissioner in Sind, as President, a number of Government servants as *ex-officio* members, with several European and native merchants and others to represent the mercantile interests of the place. A number of new roads, bridges, &c., were during this period constructed, the lighting of the town partially carried out, and a dispensary, markets, tanks, wells, and other useful works either built or improved. The interests also of education were at the same time met by money grants-in-aid for either building new schools, enlarging those already in existence, or in supporting educational institutions generally by small monthly allowances. A survey of the whole of Karāchi and its environs was also made by Lieutenant Melliss in 1854 at the expense of the municipality. The receipts and disbursements of the Karāchi municipality from 1854-55 to 1859-60 were as follows:—

Year.	Receipts.	Expenditure.
	<i>rupees.</i>	<i>rupees.</i>
1854-55	25,297	22,157
1855-56	34,387	33,936
1856-57	38,729	34,352
1857-58	49,311	34,611
1858-59	68,838	52,053
1859-60	79,662	73,437

In 1859-60 a reorganization of the Karāchi Municipal Commission took place, by which the commissioners were drawn from four classes, with the magistrate of Karāchi as president. The 1st class comprised those appointed by virtue of their offices; the 2nd, those elected by the ratepayers of various divisions of the

community; the 3rd, those appointed by the Commissioner in Sind to represent certain interests; and the 4th, those nominated by him on the recommendation of the commission at a general meeting. From the 1st, 2nd, and 3rd classes a managing committee of eight persons was selected by the general body of commissioners at the annual meeting, the magistrate of Karāchi being the *ex-officio* chairman of such committee. In August 1863 the municipal rules and town duties were revised, though the constitution of the commission remained, to all intents and purposes, as it was before. The number of articles subjected to taxation under the head of town duties was increased, fees on slaughtered cattle, as also a house tax of 2 per cent. were levied, and the Municipal Act declared to be in force in the Sadar bazar from 1st August, 1863. The limits of the Karāchi cantonment were also revised and published in the 'Bombay Gazette' of 17th July of that year. These rules have again been subjected to revision, and a new schedule of taxation came into operation in the year 1870-71. Two bills were brought forward during the past two or three years, having for their object the more efficient working of the Karāchi municipality, but nothing definitive regarding them has yet been arrived at. Meanwhile the income of the municipality has gone on increasing, though in a fluctuating manner, as the following table will show:—

Year.	Receipts.	Expenditure.
	rupees.	rupees.
1860-61	75,782	95,148
1861-62	83,399	99,993
1862-63	1,36,544	96,322
1863-64	4,03,020	2,02,171
1864-65	2,90,441	3,10,333
1865-66	2,45,761	2,78,977
1866-67	2,36,300	2,48,262
1867-68	2,30,840	2,62,019
1868-69	2,59,703	2,80,351
1869-70	2,06,562	1,93,210
1870-71	2,31,004	2,17,050
1871-72	2,62,657	2,19,829
1873	2,23,822	1,92,274
1874	2,25,963	2,01,422

The following detailed statements of income and expenditure during the year 1874 will show the principal heads of both receipts and disbursements, as also the percentage under each separate head (*see opposite page*).

The sums paid monthly by the municipality as grants-in-aid to the different educational and other institutions in Karāchi are as follows:—

	rupees.	rupees.
1. European and Indo-European School . . . . .	50	
Municipal Scholarship . . . . .	10	
	—	60
2. St. Patrick's School . . . . .		60
3. Mission School . . . . .		50
4. High School . . . . .	35	
Municipal Scholarship . . . . .	10	
	—	45
5. Vernacular School . . . . .		30
6. Marathi and Gujrathi School . . . . .		15
7. Municipal Scholarship . . . . .		50
8. Parsi Virbāiji School . . . . .		50
9. Government Garden . . . . .		250
10. Burns' Garden . . . . .		50

Making in all the sum of 660 rupees per mensem.

Formerly 30 rupees a month were granted to the General Library and Museum, but on the transfer of this institution to the municipality in 1870, the entire cost of the establishment was, from 1st January, 1871, paid from municipal funds.

For the more speedy and efficient repair of the roads within municipal limits, the Karāchi municipality procured from England in 1869 a steam roller of 15 tons, as well as a stone-crusher, the aggregate expense of these two machines being 10,509 rupees; but the excellent work they have turned out, as well as the saving effected in time and money, have more than realised the expectations formed of them. The lighting of the town and cantonments of Karāchi has of late been greatly extended by the municipality. Cocoa-nut oil has been discontinued as a lighting agent, and Kerosine oil is now used instead, with the advantage of having a stronger and better light. During the past five years great improvements have been carried out by the municipal commission, more especially on the roads in and about the town and camp of Karāchi. Iron girder-bridges have been substituted where necessary in place of the old unsightly steep bridge, and many of the ill-paved dip watercourses intersecting the roads have had the

Heads of Receipts.	1874		Heads of Expenditure.	1874.		
	Income.	Percentage of Total Income.		Expenditure.	Percentage of Total Expenditure.	
	rupees.	rupees.		rupees.	rupees.	
1. Town Duties {	Sea dues . . . . .	91,708	40'585	1. Establishment . . . . .	28,378	14'089
	Railway dues . . . . .	76,522	33'865		2. Contingent Charges . . . . .	4,301
	Inland charge dues . . . . .	15,681	6'939			
2. House Tax . . . . .	14,425	6'383	<i>Public Works.</i>			
3. Wheel Tax . . . . .	4,076	1'804	3. Maintenance and Repairs of Works . . . . .	2,797	1'389	
4. Moach Grazing Fees . . . . .	2,160	0'956	4. Roads with Steam Roller . . . . .	11,350	5'635	
5. Market Rent and Fees . . . . .	4,324	1'914	5. New Works . . . . .	29,689	14'739	
6. Fees for use of Slaughter-yard . . . . .	657	0'291	6. New Roads . . . . .	22,363	11'102	
7. Fees on Poisonous Drugs . . . . .	35	0'015	<i>Lighting and Conservancy.</i>			
8. Cattle-pound Fees . . . . .	164	0'072	7. Lighting . . . . .	10,071	4'999	
9. Liquor Fees . . . . .	...	...	8. Scavenging, watering, and empty- ing Cesspools . . . . .	32,725	16'247	
10. Serai Fees . . . . .	206	0'091	<i>Municipal Police.</i>			
11. Title-deed Fees . . . . .	...	...	9. Police . . . . .	39,070	19'397	
12. Sale of Manure . . . . .	1,092	0'483	<i>Schools.</i>			
13. Fines for breach of Municipal Rules . . . . .	748	0'331	10. Grants-in-aid . . . . .	4,320	2'145	
14. Land Rent . . . . .	1,551	0'689	<i>Dispensaries.</i>			
15. Interest on floating Deposit Account . . . . .	366	0'161	11. Charitable Dispensaries . . . . .	5,400	2'681	
16. Interest on Government Promissory Notes . . . . .	7,115	3'148	12. Other Expenditure, including gene- ral Miscellaneous . . . . .	10,936	5'429	
17. Removing and burying dead animals . . . . .	249	0'110	13. Extraordinary Expenditure . . . . .	22	0'010	
18. Emptying Cesspools . . . . .	3,263	1'444				
19. License Fees on Carriages and Carts . . . . .	469	0'207				
20. Government Contribution to Dis- pensaries . . . . .	661	0'292				
21. Miscellaneous . . . . .	491	0'217				
Total rupees . . . . .	2,25,963	100'000	Total rupees . . . . .	2,01,422	100'000	

same description of bridge thrown over them, a want which had long since been felt by the carriage-owning community of the place.

The boundaries of the Karāchi municipality have been defined to be as follows:—The landward boundary runs from pillar marked I. to a *ḡakka* well with trees (pillar marked II.) on the lower Sonmiāni road, and thence along the road for  $5\frac{1}{2}$  miles to the spur of a hill (pillar marked III.), whence it passes in a north-eastern direction to the one-tree tank crossing the Sonmiāni road at that place, and continues in the same direction along the ridge of the hill to a point (pillar marked IV.) on the hill road to Muggar Peer,  $5\frac{1}{2}$  miles from No. III. The boundary line then turns to the south-east, and runs for 5 miles in that direction, crossing the east road to Muggar Peer, and the Sehwan road, to the Matrāni station of the Great Trigonometrical Survey (pillar marked No. V.). It thence turns nearly south to the crossing (pillar marked VI.) of the railway and Tatta road, and from that crossing to pillar No. VII. on the nearest point of the Malir river, which it follows to pillar No. VIII. at a point in the head of the Gisri creek, situate about 10 miles north-east from the lighthouse at Manora, and from No. VIII. along the high-water mark on the sea-face to Manora lighthouse, and thence to pillar No. I.

Towards the close of the year 1873, the city survey of Karāchi was commenced under the provisions of Bom. Act IV. of 1868, and was completed about the end of 1875. It is believed to have cost the municipality 60,000 rupees, or thereabouts. In connection with this survey, a city lands inquiry was also set on foot under the supervision of a deputy collector, and for this purpose the sum of 20,000 rupees was granted by the municipality. Its labours were completed towards the latter end of 1875.

Before proceeding to treat of the trade of Karāchi, it may here be mentioned that the newspaper press in this town is represented by five publications, of which two are English, each issuing bi-weekly; the other three are vernacular papers—one, the 'Sind Sudhār,' being published in Sindi, another in Gujrathi, and the third in Persian. Among the English papers, the 'Sindian' is the oldest, having been in existence, it is believed, for now upwards of a quarter of a century. A Government gazette, known as the 'Sind Official Gazette' (established in 1868), is printed weekly at the Commissioner's Press, and a translation of it is also published at the same time for the use of the native Government servants throughout the province.



## TRADE OF KARĀCHI UNDER THE MIRS OF SIND.

The trade of Karāchi before the conquest of Sind by the British, though in some degree extensive, on account of the importance attached to the river Indus as a means of commercial transit through the province, never appears to have developed itself to anything like the extent it was capable of doing. This was mainly owing to the sparse population of the country, its few wants, and to the short-sighted and selfish policy of its native rulers. During the sovereignty of the Talpurs all imports into Karāchi were subjected to a duty of 4 per cent. on landing, and all exports to 2½ per cent. In 1809 the customs duties were said to have realised 99,000 rupees, but in 1838 they rose to 1,50,000 rupees. In this latter year the value of the trade of Karāchi was estimated at 21,47,000 rupees, or including opium, 37,47,000 rupees. The chief imports were raw silk (dyed), sugar, pepper, ivory, iron, copper, English cotton-yarn and piece-goods, English shawls (common), cocoa-nuts from Bombay, cotton from Gujrat, slaves, pearls and dates from the Persian Gulf. The exports were principally ghi, indigo, wheat, wool, salt fish, shark-fins, manjit (madder) and raisins. Of these indigo was in 1839 mainly the produce of the Khairpur territory, the quantity manufactured there in that year being about 2000 maunds, the duty and expense attending the transmission of this drug to Bombay being at the rate of 1-2 rupees per maund. In price the Khairpur indigo ranged from 55 rupees to 60 rupees per maund. The opium exported, to the extent of 500 camel-loads, was valued at 16 lakhs of rupees. This drug came from Marwar and was sent to the Portuguese town of Damaun, the duty levied on it at Karāchi being about 130 rupees per 400 lbs. weight. Nearly all the goods imported into Sind were consumed in the province, barely 1,50,000 rupees' worth being sent to the northern provinces. Of the articles so consumed in Sind, those intended for Ghāro, Tatta, Hyderabad, Sehwan, Khairpur, and Shikārpur were generally despatched by land route, the journey to Shikārpur occupying 25 days; this was done so as to avoid the long and tedious up-river voyage, which took a much longer time. The following table will show approximately (on the authority of Captain Carless, I.N.) the value of the principal imports and exports of Sind during the year 1837, when under the rule of the Mirs, that is to say, six years before the province became an integral portion of British India (*see next page*):—

## IMPORTS, 1837.

Articles.	Quantity or Number.	Value.	Remarks.	
English silk, velvets, broad-cloths, chintzes, &c. . . . .	maunds. . . . .	rupees. . . . .		
Raw silk (dyed) Bengal and China . . . . .	1,000	2,48,000	In addition to these articles, others, such as cocoa-nuts, drugs, various metals (lead, steel, iron), dyes, sugar-candy, saffron, &c., were imported from Bombay, but in smaller quantities.	
Ivory . . . . .	400	64,000		
Copper . . . . .	1,000	54,000		
Sugar . . . . .	9,000	85,000		
Spices (cardamoms, pepper)	3,325	58,500		
Kopra (dried cocoa-nut) . . . . .	5,000	25,000		
English cotton-yarn . . . . .	500	20,000		
Tin . . . . .	500	17,500		
Timber . . . . .	gaz. 500	10,000		
Cotton . . . . .	maunds. 2,500	37,500		Imported from Gujrat.
Slaves . . . . .	1,500	1,20,000		
Pearls . . . . .	maunds. . . . .	75,000		Besides these, which were all imported from the Persian Gulf, dried roses, cotton canvas, and dried fruits were received in small quantities.
Dates . . . . .	40,000	1,00,000		
Pomegranate skins . . . . .	1,000	3,000		
Coarse cotton cloth . . . . .	maunds. . . . .	3,000		Received from Upper Sind.
Tobacco . . . . .	200	1,600		
Oil-cake . . . . .	2,000	19,500		
			From Las in Baluchistān.	

## EXPORTS, 1837.

Opium . . . . .	4,000	16,00,000	Sent to Damaun.
Ghi . . . . .	10,000	1,70,000	To Bombay.
Wheat . . . . .	kharwārs. 1,500	67,500	To the Persian Gulf.
Indigo . . . . .	maunds. 1,600	1,20,000	To Bombay and Persian Gulf.
Manjit (madder) . . . . .	3,000	45,000	To Bombay.
Wool . . . . .	3,500	35,000	.....
Raisins . . . . .	4,000	32,000	.....
Salt fish, shark-fins, &c. . . . .	.....	30,000	To Bombay.
Gum (Gogar) . . . . .	5,000	14,500	Ditto.

In addition to the above, lūngis (native shawls), oil, oil-seeds and dyes were also exported, but in small quantities. The Mirs levied no harbour dues, but derived a revenue of about 12,000 rupees annually from the fishing-boats of the place, which were then upwards of one hundred in number. Upon all slaves, which

were imported into Karāchi mainly from Maskat, a tax of 5½ rupees per head was levied. There were two classes of slaves—the Sidis (or Africans) and the Habshis (or Abyssinians); of the former about 600 were annually imported, the price of each ranging from 60 rupees to 100 rupees; of the latter not more than thirty or forty were received, but their price was high, a Habshi realising from 170 rupees to 250 rupees. It is worthy of note that there was but *one* recognised gambling-house in Karāchi under the Mirs' rule, a tax of 3 dokras on each rupee *won* being paid to the Government for the privilege of playing there at games of chance. Among the additional sources from which the Mirs derived their revenue from the town and port of Karāchi, may be mentioned the following:—Taxes on articles weighed and measured at the *Chabūtro* (Custom House), and on those brought into and taken out of the town, collections from merchants on imports and exports, on cattle, amounting to one-eighth of the sum received by the owner from the daily labour of his beasts, and on brokers and handicraftsmen generally. The *Chaut Sharāfi* was a species of income tax, that levied on goldsmiths was one-fourth of their profits, and there was a tax on boats' crews on the departure of a vessel from the port. The total annual revenue drawn from the town and port of Karāchi by the Mirs of Sind is not known for any series of years, but in 1837 it was entered at 1,73,893 rupees, and in 1839 at 1,07,115 rupees, the charges of collection and expenses of the military force employed costing in the latter year but 6820 rupees. Before entering upon a description of the trade of Karāchi under British rule, it has been deemed desirable to add the following table of weights, measures, and currency in use at Karāchi in 1839, during the sovereignty of the Mirs:—

MEASURES.

4 Chauthais . . . . .	1 Pāti.
4 Pātis . . . . .	1 Toyo.
4 Toyos . . . . .	1 Kāsi.
5 Kāsis . . . . .	1 Mundia.
12 Mundias . . . . .	1 Kharwar or Kharār (= 90 Bombay Maunds).

CURRENCY.

4 Kasiras . . . . .	1 Dōkra.
2 Dokras . . . . .	1 Tanga.
26 Tangas . . . . .	1 Kashāni Rupee.
21 " . . . . .	1 Kora Rupee.
5·8 Kashāni Rupees . . . . .	1 Venetian (Putli).
2·5 " " . . . . .	1 Dollar.
1 Bombay Rupee . . . . .	11½ Masas.
1 Koshāni " . . . . .	11 " "

## KARĀCHI.

## WEIGHTS.

4 Kasiras . . . .	1 Dokra.
4½ Dokras . . . .	1 Ana.
16 Anas . . . . .	1 Ser (Pakka).
40 Pakka Sers . . . .	1 Maund.
3 Maunds . . . . .	1 Potia.
1 Bombay Maund (Man)	14 Karāchi Sers.
100 " " " " . . . .	35 " Maunds (Mans).
1 Surat " " " " . . . .	18 " Sers.
1 Bombay Kandi . . . .	7 " Maunds (Mans).
1 Poriti Maund (Man)	18 " Sers and 6 Anas.

## TRADE OF KARĀCHI UNDER BRITISH RULE.

From the assumption of British rule in Sind by conquest in 1843, the *value* of the imports and exports from that year up to 1873-74 from the port of Karāchi was as follows; but it will be necessary to mention that for the eighteen years preceding 1861-62, these values include the imports and exports of the minor ports of Keti-bandar and Sirganda, it being found impossible to show them separately for that period:—

Year.	Imports.	Exports.	Total Value.
	rupees.	rupees.	rupees.
1843-44	12,11,500	10,100	12,21,600
1844-45	21,77,000	93,000	22,70,000
1845-46	31,29,000	4,05,000	35,34,000
1846-47	29,34,000	4,93,000	34,27,000
1847-48	28,78,720	15,47,300	44,26,020
1848-49	34,47,160	10,71,330	45,18,490
1849-50	41,93,520	11,43,780	53,37,300
1850-51	42,83,100	19,64,610	62,47,710
1851-52	48,92,200	24,42,220	73,34,420
1852-53	53,56,900	27,63,100	81,20,270
1853-54	50,87,930	37,63,100	88,51,030
1854-55	57,51,960	34,68,930	92,20,890
1855-56	62,98,130	60,44,400	1,23,42,530
1856-57	68,56,657	73,45,222	1,42,01,879
1857-58	1,08,11,012	1,07,81,286	2,15,92,298
1858-59	1,54,06,058	1,04,42,726	2,58,48,784
1859-60	1,71,27,517	94,73,348	2,66,00,865
1860-61	1,65,66,581	1,02,69,918	2,68,36,499
1861-62	1,51,35,667	1,15,34,862	2,66,70,529
1862-63	2,18,89,437	3,12,74,812	5,31,64,249
1863-64	2,52,08,979	4,04,67,871	6,56,76,850
1864-65	2,27,11,986	2,78,76,037	5,05,88,023
1865-66	1,98,45,633	2,67,18,434	4,65,64,067
1866-67	2,38,09,474	2,07,25,178	4,45,34,652
1867-68	2,28,87,130	1,76,48,978	4,05,36,108
1868-69	2,18,41,075	1,79,23,746	3,97,64,821
1869-70	2,08,25,072	1,88,49,671	3,96,74,743
1870-71	1,80,42,121	1,88,08,398	3,68,50,519
1871-72	1,61,88,563	1,99,87,324	3,61,75,887
1872-73	1,60,46,529	1,74,54,654	3,35,01,183
1873-74	1,48,17,653	2,02,59,191	3,50,76,844

This great though fluctuating increase in imports and exports, during a period of 31 years, must be regarded as both important and instructive, and as affording a remarkable contrast to the value of the trade of Karāchi during the rule of the Talpur Mirs. The very large value of exports during 1862-63, 1863-64, and 1864-65 was mainly due to the extensive shipments of *raw* cotton made in those years, and to the very high prices of this staple then ruling in the English and European (continental) markets. The following is a comparative statement of the value of the principal articles *imported* into Karāchi during the 11 years ending 1873-74, as tending to show the great commercial progress made by the port during that period (*see pp.* 396, 397).

## IMPORTS.

Articles.	1861-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.
	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.
Apparel . . . . .	4,99,438	3,46,891	2,29,561	2,49,794	2,52,488	3,41,970
Arms and Ammunition . .	33,017	20,865	28,049	33,258	32,811	37,277
Books . . . . .	67,890	70,458	61,497	41,248	48,367	57,890
Cocoa-nuts . . . . .	1,47,816	2,22,758	1,28,685	1,45,341	3,46,482	3,49,174
Coffee . . . . .	49,079	50,346	28,338	50,593	33,241	25,235
Cotton-wool . . . . .	1,145	2,178	1,530	500	5,793	47,499
Cotton Piece-goods . . .	61,43,403	70,59,329	85,81,502	82,68,906	90,59,995	94,28,921
Cotton Twist and Thread .	2,95,145	4,87,310	4,85,119	4,72,985	6,04,924	3,59,122
Drugs and Medicines . .	96,136	1,08,149	1,33,039	1,21,451	1,33,125	1,24,472
Dyes . . . . .	2,17,689	1,69,739	1,84,629	2,15,167	1,61,454	1,55,085
Earthen and Porcelain ware	57,558	54,652	26,333	44,641	48,139	31,942
Fruits and Vegetables . .	2,72,923	3,74,310	4,10,411	2,82,372	5,10,288	2,97,412
Fuel (Coal and Coke) . .	3,02,181	1,58,647	3,33,686	3,91,113	4,27,828	3,51,228
Glass (manufactures of) . .	66,091	67,849	52,194	50,488	56,378	71,937
Grain (and Pulse) . . . .	3,40,927	8,78,424	2,08,432	89,266	1,02,827	1,77,221
Ivory . . . . .	87,287	58,287	54,837	50,844	97,511	1,13,147
Jewelry . . . . .	36,622	46,321	18,941	25,123	19,711	17,353
Jute (manufactures of) . .	1,58,032	5,23,040	4,31,420	4,56,012	2,15,621	2,09,133
Leather (manufactures of) .	30,682	34,089	36,450	45,787	57,070	41,309
Liquors (Malt) . . . . .	3,18,904	1,84,891	2,54,226	3,77,730	2,09,290	2,26,714
Wines and Liqueurs . . .	1,99,991	1,82,386	2,71,633	2,21,833	2,56,174	4,07,558
Spirits . . . . .	2,47,214	2,28,211	3,92,780	2,84,346	4,01,482	3,60,412
Lucifer Matches . . . . .	27,729	47,420	10,593	..	40,331	14,236
Machinery . . . . .	42,158	3,21,604	99,125	3,22,894	3,48,149	1,02,811
Metals (and manufactures of) . . . . .	14,46,658	21,92,943	13,62,602	14,26,048	17,46,895	15,97,634
Oils . . . . .	10,994	23,598	10,461	61,057	52,198	32,208
Paints (and Colours) . . .	39,627	27,350	25,350	33,715	57,533	70,563
Provisions (and Oilman Stores) . . . . .	2,41,023	2,30,675	1,66,899	2,10,237	2,21,373	2,44,640
Railway Materials . . . .	18,74,595	7,21,847	12,62,828	29,51,625	14,98,674	7,26,499
Seeds . . . . .	7,546	74,727	33,454	16,800	74,115	45,790
Shells . . . . .	83,170	4,043	24,441	15,557	12,558	7,513
Ships . . . . .	..	..	..	5,64,761	2,89,669	100
Silk (raw) . . . . .	4,20,374	4,44,460	5,84,469	9,01,549	5,27,516	6,98,130
Silk (manufactures of) . .	1,21,659	1,59,818	2,23,668	2,24,198	69,319	75,510
Spices . . . . .	3,05,882	6,15,292	2,90,672	3,57,529	4,85,933	4,28,128
Stationery . . . . .	1,21,803	1,54,032	89,761	44,280	57,580	44,477
Sugar (and other saccha- rine matter) . . . . .	6,88,940	6,09,666	5,50,327	6,43,413	8,41,614	11,50,576
Tea . . . . .	3,98,431	4,89,173	5,92,971	4,65,043	6,08,187	5,41,312
Tobacco . . . . .	1,10,205	78,012	76,939	75,557	1,00,559	81,827
Timber (and Wood) . . . .	2,30,327	4,05,041	89,271	3,14,070	1,26,595	2,69,214
Wool . . . . .	1,29,073	77,079	1,30,802	78,847	1,30,845	1,80,379
Woolen manufactures . . .	1,72,224	1,61,915	1,17,499	1,61,096	1,95,377	2,42,115
Treasure . . . . .	77,52,092	41,39,732	15,17,271	64,01,550	25,91,080	6,71,328
All other articles . . . . .	6,44,282	6,59,418	5,37,879	4,81,502	6,78,878	1,49,583

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IMPORTS.

Articles.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.
Apparel . . . . .	2,71,626	2,75,482	2,29,574	2,33,123	2,68,311
Arms and Ammunition . .	42,844	35,730	35,108	29,211	32,018
Books . . . . .	52,058	45,071	35,285	49,289	50,212
Cocoa-nuts . . . . .	3,45,636	1,45,604	4,19,203	3,19,609	2,12,158
Coffee . . . . .	37,792	23,173	11,930	25,320	15,571
Cotton-wool . . . . .	4,812	5,800	4,842	7,645	21,184
Cotton Piece-goods . . .	85,15,129	85,23,527	78,97,901	79,44,616	71,37,757
Cotton Twist and Thread .	4,92,597	4,12,964	3,65,268	4,71,603	4,90,692
Drugs and Medicines . . .	1,37,058	99,214	92,708	121,188	83,008
Dyes . . . . .	1,52,771	1,20,583	99,749	98,535	60,447
Earthen and Porcelain ware	33,705	36,623	43,499	33,912	34,947
Fruits and Vegetables . . .	5,53,846	5,42,232	3,88,273	3,95,334	4,26,530
Fuel (Coal and Coke) . . .	43,959	48,316	47,742	28,980	1,31,700
Glass (manufactures of) . .	45,192	37,047	38,258	31,940	45,183
Grain (and Pulse) . . . . .	10,84,340	13,96,890	3,22,571	1,59,367	1,64,077
Ivory . . . . .	49,877	67,007	1,10,365	1,10,611	1,20,872
Jewelry . . . . .	19,997	9,790	3,555	3,769	6,918
Jute (manufactures of) . . .	2,18,872	2,73,555	1,85,478	3,45,320	4,98,669
Leather (manufactures of) .	59,628	1,09,081	19,223	14,284	12,132
Liquors (Malt) . . . . .	1,81,456	1,48,491	1,71,018	1,42,444	2,08,186
Wines and Liqueurs . . . .	3,37,307	2,76,527	2,41,352	2,31,111	2,15,844
Spirits . . . . .	5,41,517	4,06,507	3,75,035	5,17,904	4,73,965
Lucifer Matches . . . . .	17,863	19,938	11,554	28,988	27,977
Machinery . . . . .	5,48,727	45,210	5,81,590	2,00,586	90,421
Metals (and manufactures of)	20,24,809	12,81,969	8,05,827	8,24,733	6,68,364
Oils . . . . .	27,361	39,986	79,167	82,408	56,538
Paints (and Colours) . . .	86,122	55,305	25,367	35,250	44,662
Provisions (and Oilman Stores)	2,19,654	1,19,457	1,70,246	2,25,182	1,86,568
Railway Materials . . . . .	1,11,219	2,62,547	52,923	37,376	1,79,563
Seeds . . . . .	17,395	1,00,998	1,70,843	32,236	21,054
Shells . . . . .	11,124	24,765	9,051	13,044	6,388
Ships . . . . .	440	77,384	..	..	650
Silk (raw) . . . . .	7,31,278	6,50,050	2,94,544	1,97,560	1,60,017
Silk (manufactures of) . . .	40,752	38,900	70,187	80,111	46,051
Spices . . . . .	5,24,651	3,89,675	4,47,026	4,71,395	3,33,888
Stationery . . . . .	17,574	86,436	47,550	49,164	56,883
Sugar (and other saccharine matter)	10,35,610	9,84,263	12,23,083	10,97,731	11,19,649
Tea . . . . .	8,20,609	1,02,193	1,86,792	1,12,808	64,960
Tobacco . . . . .	66,817	51,004	52,689	56,204	55,498
Timber (and Wood) . . . .	2,94,110	76,755	79,838	1,62,558	2,84,927
Wool . . . . .	1,18,710	1,10,199	88,607	80,861	85,411
Woolen manufactures . . . .	1,96,671	1,42,166	1,40,006	1,40,452	51,537
Treasure . . . . .	4,71,136	2,47,858	3,10,396	2,36,553	1,27,228
All other articles . . . . .	1,22,297	17,550	3,12,960	5,46,082	4,03,420

The great items of these imports by sea are English piece-goods and twist, metals, railway materials, liquors, coal and coke, machinery, timber, stores (provisions, &c.), drugs, fruit, treasure, raw silk, tea, sugar, spices, grain, books, stationery, *jute*, apparel, cocoa-nuts, wool and woollen manufactures. The countries from which these imports are received are principally the United Kingdom, Bombay and the Persian Gulf, and in a lesser degree Sweden, France, Aden, China, Makrān, Calcutta, British Barma, Kachh, Malabar, and the Portuguese ports of Goa, Diu and Damaun. The following table contains the value of the merchandise (excluding treasure) imported from the undermentioned countries and places during the eleven years ending with 1873-74 :—

	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.
United Kingdom	32,33,704	30,68,167	38,21,731	64,76,123	60,27,743	56,22,523	42,24,592	20,30,265	32,16,959	25,20,661	38,28,337
Bombay . . .	1,26,41,515	1,31,82,942	1,17,10,757	1,40,28,262	1,44,71,606	1,39,81,736	1,42,52,494	1,35,72,508	1,15,09,025	1,20,46,582	1,11,26,666
Persian Gulf .	4,63,467	5,31,596	5,80,383	3,00,065	5,42,127	5,51,031	14,70,517	10,77,166	4,42,995	5,15,395	4,55,645
France . . .	9,373	..	6,300	7,846	12,180	..	8,692	58,020	15,380	42,206	34,491
Sweden . . .	..	..	..	..	4,66,122	5,39,543	1,74,843	..	..	..	..
Aden . . .	..	..	..	..	..	2,372	..	..	..	812	..
Makrān . . .	1,28,048	44,178	53,751	59,614	1,01,452	1,35,169	1,25,671	1,64,542	2,13,759	71,824	59,895
Calcutta . . .	1,17,195	10,51,072	2,57,605	..	..	..	92,351	3,05,352	3,01,238	3,95,786	4,84,781
British Barma .	74,488	2,97,265	..	..	..	1,45,148	74,145	..	..	..	1,70,800
Kachh and Kachiar . . . }	68,040	1,06,065	77,313	..	..	57,007	53,779	39,541	26,671	30,583	65,872
Malabar . . .	89,398	1,11,979	47,367	74,246	84,223	1,06,915	66,209	52,477	67,972	1,13,666	82,882
Gujrat . . .	78,777	1,01,856	66,500	..	..	67,770	48,082	66,727	66,196	56,892	51,171



From the United Kingdom the principal articles received as imports are cotton manufactures, railway materials, liquors, fuel, machinery, metals, provisions, and oilman stores, apparel, drugs and medicines. From Bombay, cotton piece-goods and twist, treasure, metals, silk, sugar, tea, jute, spices, dyes, apparel, woollen manufactures, cocoa-nuts, manufactured silk, liquors, fruit, vegetables, provisions and oilman stores. From the Persian Gulf, dried fruits, treasure, wool, grain and horses. From the coast of Makrān, wool, provisions, grain and pulse. From Calcutta, *jute*, sugar, grain and pulse.

The following is a comparative statement of the value of the principal articles of export for the same period of eleven years, ending 1873-74 (*see next page*):—

EXPORTS.

Articles.	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.
Animals (living) . . . . .	3,51,118	4,41,333	4,61,542	2,22,160	4,23,435	6,41,609	5,97,136	3,66,399	1,84,488	3,81,191	3,72,639
Cotton-wool . . . . .	2,11,60,043	1,06,31,206	96,53,403	58,01,473	40,18,564	47,16,407	75,19,180	82,05,901	62,60,280	43,67,894	38,17,205
Cotton goods . . . . .	4,95,718	3,48,701	3,71,128	2,98,845	2,98,138	2,74,601	2,09,851	1,88,757	1,60,861	1,82,765	1,42,818
Drugs (and Medicines) . . . . .	1,05,523	1,67,904	2,72,457	2,11,206	1,69,940	3,07,529	1,80,710	43,665	92,263	93,080	1,62,866
Dyes . . . . .	5,94,044	13,72,543	14,17,002	11,76,651	12,61,550	16,71,537	27,90,253	15,65,741	14,18,441	9,95,810	9,85,110
Fruit and Vegetables . . . . .	1,72,709	1,62,026	2,45,695	1,61,172	2,55,960	1,88,867	2,41,387	3,07,701	1,98,181	1,77,871	2,40,933
Grain and Pulse . . . . .	49,35,833	42,74,862	32,84,735	44,10,000	39,88,560	21,48,092	12,90,921	3,22,293	22,02,894	24,11,948	45,15,389
Hides and Skins . . . . .	37,469	37,210	56,762	69,792	50,706	1,18,005	3,76,682	2,85,685	7,82,969	13,39,031	5,16,127
Oil . . . . .	1,03,115	79,657	1,04,143	5,23,511	6,77,960	2,40,678	1,84,383	2,38,514	1,94,701	1,46,567	1,16,175
Provisions (and Oilman Stores) . . . . .	15,71,213	20,67,070	19,68,436	10,51,795	12,14,095	13,67,470	9,71,547	15,74,605	3,45,103	3,20,641	3,93,035
Saltpetre . . . . .	1,47,704	2,13,723	97,548	49,765	46,496	8,517	23,318	24,836	49,850	79,360	37,528
Salt . . . . .	65,287	1,516	..	..	..	22,100	18,400	400	..	..	..
Seeds (Oil) . . . . .	21,85,709	18,17,813	15,89,816	28,35,980	24,11,675	23,29,971	11,32,286	15,27,732	13,45,872	3,36,665	20,17,783
Silk (raw) . . . . .	90,040	1,98,017	3,70,506	5,45,425	7,94,228	5,55,973	8,40,501	2,69,085	9,507	22,675	11,786
Silk (manufactures of) . . . . .	29,642	13,900	5,417	27,744	20,049	19,793	1,717	4,086	931	13,011	1,402
Sugar and Molasses . . . . .	11,884	34,742	3,72,612	2,90,573	61,440	5,693	18,593	15,808	7,918	8,711	2,119
Tea . . . . .	250	257	3,016	10,207	11,521	84,519	62,148	38,291	6,541	22,675	17,450
Tobacco . . . . .	140	1,628	34,530	6,942	4,888	8,278	3,562	2,776	5,407	3,161	945
Wood . . . . .	17,146	49,125	7,670	43,701	11,153	25,465	37,286	14,432	25,016	48,146	1,15,013
Wool . . . . .	66,11,326	58,82,952	64,18,801	18,13,554	35,26,033	46,49,899	39,99,747	34,15,542	62,10,408	60,67,985	60,95,185
Woolen manufactures . . . . .	12,14,896	5,67,410	6,87,203	5,20,498	3,54,863	2,63,213	3,54,696	62,700	11,956	4,087	12,214
Treasure . . . . .	55,970	1,14,290	1,11,322	60,798	15,260	75,700	1,19,096	87,340	91,998	67,946	2,27,278
All other articles . . . . .	7,01,750	8,02,255	3,74,092	2,93,352	3,21,833	1,86,146	1,11,586	3,16,138	3,59,777	3,53,910	3,70,674

The principal items of export from Karāchi are :—cotton-wool, cotton goods, hides and skins, seeds (rape and gingelli), wool, provisions, horses, grain, drugs, Kashmir shawls, raw silk, fruits, gunnies, molasses (*jāgrī*), dyes and ghi. The countries and places to which these articles are mainly sent are :—the United Kingdom, Bombay, France, Mauritius, the Persian Gulf, Kachh, Makrān, Malabar, Gujrat, and latterly, China. The following table will show the value of the merchandise (excluding treasure) so exported to the undermentioned countries and places during the eleven years ending with 1873-74 :—

	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.	rupees.
United Kingdom	58,98,918	94,42,281	1,09,78,575	78,36,381	65,21,512	62,58,887	51,71,009	41,10,135	44,94,311	42,65,088	85,98,038
Bombay . . .	2,91,43,025	1,28,97,670	1,39,76,620	1,24,70,483	1,17,52,549	85,64,864	82,20,265	79,64,090	105,20,720	93,59,247	69,78,880
France . . .	15,27,551	14,45,646	1,57,037	5,39,182	1,93,727	5,44,302	1,47,429	1,05,090	602,866	5,962	3,66,884
Holland . . .	..	..	..	..	..	1,50,000	8,80,150	..	..	..	..
Mauritius . . .	1,18,804	47,780	6,86,571	8,10,071	1,33,187	2,93,201	Nil.	32,518	202,579	51,824	2,69,395
Persian Gulf . . .	3,04,326	6,27,634	5,98,844	4,43,577	5,55,875	7,03,169	4,97,936	7,64,837	10,87,792	4,54,482	4,98,962
Kachh . . .	31,24,971	33,59,112	19,58,065	11,50,494	18,00,238	19,11,180	15,93,662	5,16,459	7,81,059	6,65,940	3,78,943
Makrān . . .	88,105	78,607	92,199	52,967	76,320	80,518	1,15,870	1,45,021	1,14,203	1,37,981	1,37,678
Malabar . . .	2,81,557	3,42,918	3,36,669	1,93,254	3,23,451	5,19,246	5,17,766	2,49,495	1,11,318	3,22,626	2,41,459
Gujrat . . .	11,37,295	10,31,653	2,95,877	5,45,134	10,06,022	6,53,184	4,94,855	4,36,302	4,14,763	4,77,413	2,72,110
Calcutta . . .	74,187	7,184	1,125	..	..	16,400	..	1,380	..	11,660	3,185
China . . .	..	..	..	..	2,02,000	6,16,405	25,22,197	43,28,241	11,85,810	12,22,205	14,97,620

To the United Kingdom, the principal articles exported are cotton, wool, indigo, seeds (rape and gingelli), hides, skins, tea and oils. To France, cotton, gingelli and rape-seed. To Bombay (including Kachh and Gujrat), cotton, grain, ghi, indigo, oils, seeds (gingelli and rape), rice, raw silk, shawls, wool and horses. To the Mauritius, grain, pulse and oils. To the Persian Gulf, indigo, oils, hides, skins and piece-goods. To the coast of Makrān, grain, indigo, oils and piece-goods. To the Madras Presidency (including Malabar), horses. To China, raw cotton.

## INLAND TRADE.

Independently of the ordinary goods brought into Karāchi by railway from Kotri (*see* KOTRI), a large quantity finds its way into the town by other routes. Thus merchandise, consisting mostly of wool, dry fruits and horses, comes into Karāchi from Kandahar and Kelāt *viâ* Kelāt and Bēla, while from Las Bēla and Kohistān, immense quantities of firewood and grass, and large supplies of ghi, date-leaves, hides and seeds are brought in on the backs of camels, bullocks and donkeys. There are three inland municipal *chaukis* situate on the outskirts of Karāchi—one at the Mirān village on the other side of the Layāri, another on the road leading to Sehwan, and the third on that leading to Tatta. Here certain fees are levied on all dutiable goods passing into Karāchi, but it is difficult to ascertain what sums are actually levied during the year, as these *chaukis* are farmed out by the municipality to private individuals. The following tables will show approximately the quantity of merchandise imported by these routes during the nine years ending with 1874 :—

## No. I.

*Imported into Karāchi from Kandahar and Kelāt viâ Kelāt and Bēla.*

Years.	Wool.	Cotton.	Dry Fruits of sorts.	Jira (Cummin).	Manji (Madder).	Amasferida (Hing).	Gul jull.	Gul pista.	Liquorice.	Tobacco.	Ghi.	Total.	Horses.
	mds.	mds.	mds.	mds.	mds.	mds.	mds.	mds.	mds.	mds.	mds.	mds.	No.
1865-66	59,247	2,178	13,986	558	450	270	..	27	..	..	270	76,986	768
1866-67	56,079	1,710	12,186	423	540	313	..	..	288	18	418	72,180	815
1867-68	48,699	2,700	17,305	360	810	909	270	..	..	..	369	71,512	1,018
1868-69	60,759	2,470	16,470	855	630	414	270	..	..	..	1,199	81,187	1,180
1869-70	51,345	1,215	16,056	450	459	963	..	..	..	..	1,926	71,414	950
1870-71	54,756	1,980	14,418	540	720	450	..	..	..	..	..	71,864	714
1872 (8 months).	36,117	5	2,832	..	..	..	..	..	..	109	620	37,669	..
1873	59,243	..	4,459	..	..	..	..	..	..	51	6,747	70,501	855
1874	61,414	4	3,952	..	..	..	..	..	..	128	6,120	71,628	326

No. II.

Imported into Karachi from Las Bela and Kohistan; and comprising Wool, Rape-seed, Mung, Ghi, Oils, Hides, Date-leaves, Grass, Firewood, &c.

Years.	No. of Persons.	No. of Horses.	Camel-loads, each equal to 6 maunds.		Donkey-loads, each equal to 2 Maunds.		Bullock-loads, each equal to 4 Maunds.		Total Maunds.
			No.	Maunds.	No.	Maunds.	No.	Maunds.	
1865-66	14,722	477	64,395	3,86,370	21,036	42,072	1,218	4,874	4,33,314
1866-67	18,473	86	70,716	4,24,206	12,937	25,874	1,481	5,924	4,56,094
1867-68	2,936	144	74,238	4,45,428	10,933	21,866	814	3,336	4,70,630
1868-69	28,155	39	58,536	3,51,216	12,116	24,232	817	3,268	3,78,716
1869-70	31,680	FRN	74,462	4,46,772	13,369	26,738	2,125	8,500	4,82,010
1870-71	34,361	195	83,002	4,98,012	15,322	30,644	3,541	14,164	5,42,840
1871-72	15,471	27							..
1872-73	6,867	212							..
1873-74	748	2							..

No record now obtainable.

The total realisations on account of Sea Customs revenue of Karachi from every source, from 1846-47 to 1873-74, are entered below, but it must be stated that down to 1860-61, they include the revenue collected at the minor ports of Keti-bandar and Sirganda, it being found impossible to show them separately for that period:—

Years.	Import Duty.	Export Duty.	Miscellaneous.	Total realisations.
	rupees.	rupees.	rupees.	rupees.
1846-47	56,126	14,975	357	71,458
1847-48	30,809	11,045	538	42,392
1848-49	31,800	5,957	1,253	39,010
1849-50	24,033	7,234	813	32,080
1850-51	16,438	14,482	1,684	32,604
1851-52	14,749	19,201	651	34,601
1852-53	16,705	14,534	872	32,111
1853-54	18,916	7,228	655	26,799
1854-55	17,564	16,314	901	34,779
1855-56	17,850	11,500	42,568	71,918
1856-57	59,901	21,650	1,017	82,568
1857-58	60,183	29,015	6,111	95,309
1858-59	1,18,199	51,577	† 42,755	2,12,531
1859-60	3,84,314	57,286	‡ 22,400	4,64,000
1860-61	3,44,423	1,71,430	§ 52,229	5,68,082
1861-62	4,01,457	94,552	1,20,872	6,16,881
1862-63	2,36,649	1,40,489	¶ 1,05,155	4,82,293
1863-64	1,97,664	2,08,158	10,554	4,16,376
1864-65	1,87,812	1,35,732	* 19,282	3,42,826
1865-66	2,15,699	1,19,730	†† 4,105	3,39,534
1866-67	2,31,107	1,24,074	††† 3,902	3,59,083
1867-68	3,01,604	1,04,020	‡‡ 5,672	4,11,386
1868-69	3,26,178	1,12,604	‡‡‡ 4,629	4,43,411
1869-70	3,08,030	88,814	§§ 4,001	4,01,745
1870-71	2,46,000	72,078	¶¶ 3,873	3,21,951
1871-72	2,45,069	1,45,212	§§§ 5,008	3,95,289
1872-73	2,30,488	1,00,852	¶¶¶ 5,326	3,36,666
1873-74	2,33,899	1,00,221	§§§ 3,745	3,37,865

\* Includes 32,993 rupees as salt excise.

† 36,504 salt excise.

‡ 13,919 salt excise.

§ 42,988 salt excise.

|| 1,16,879 salt excise.

¶ 89,350 salt excise.

¶¶ 15,428 salt excise.

¶¶¶ 287 salt excise.

§§ 22 salt excise.

The entries under the head of miscellaneous comprise warehouse rent, wharfage, harbour-craft licenses, registry fees, unclaimed goods, customs fines, &c.

The harbour of Karāchi, both previous to and for some years subsequent to the conquest of Sind by the British, was considered to be barred against the entrance of English vessels, and it was supposed that native craft only of a comparatively small tonnage could go inside it. English steamers and troopships were accustomed to anchor some distance outside Manora point, whence the men and stores were conveyed in boats as far up the harbour as the tide permitted, and were then transferred into smaller boats or canoes, through what was comparatively liquid mud, to a spot not far from where the Custom House now stands. After a time it was found that the difficulties presented by the bar were not so great as were generally supposed, and that square-rigged vessels of a certain draught could manage to cross it with safety. As has previously been mentioned (under the head of Harbour Works Improvements, in Chapter V. of the Introduction, page 106), one English sailing ship only had entered the harbour up to 1851; but in October 1852 the 'Duke of Argyle,' a vessel of 800 tons, arrived at Karāchi direct from England with troops, coal and iron. After this the port became more frequently and regularly visited by British sailing vessels as it became better known. In 1854, during the commissioning of Sir Bartle Frere, the 'Napier Mole Road,' or causeway, about a mile long, connecting the town of Karāchi with the island of Kiamāri, was constructed, and this work, by making the two places more readily accessible to each other, offered a further inducement to sailing vessels to visit the port of Karāchi. The following table will show the number and description of vessels which entered the port from the year 1847-48 up to 1873-74, there being no record of the arrivals during the first four years after the conquest. In the column "Native Craft" is included the vessels which entered the small subordinate ports of Kēti and Sirganda from 1847-48 down to 1862-63.

Year.	Sailing Vessels (square-rigged).	Steamer.	Native Craft.	Total.		Remarks.
				Vessels.	Tonnage.	
1847-48	...	...	891	891	30,509	Up to 1853-54 no record of the arrival of a few English sailing vessels appears to have been kept.
1848-49	...	27	1,017	1,044	43,110	
1849-50	...	28	1,141	1,169	47,254	
1850-51	...	27	1,334	1,361	53,047	
1851-52	...	29	1,269	1,298	51,837	
1852-53	...	30	1,229	1,259	54,609	
1853-54	...	29	1,062	1,091	56,094	
1854-55	10	29	1,047	1,086	56,695	
1855-56	*49	...	1,208	1,257	75,921	
1856-57	*52	...	1,308	1,360	79,907	
1857-58	*87	...	1,429	1,516	124,827	
1858-59	*96	...	1,493	1,589	131,311	
1859-60	*101	...	1,555	1,656	148,097	
1860-61	*109	...	1,636	1,745	144,438	
1861-62	*110	...	1,012	1,122	112,401	
1862-63	72	56	1,397	1,525	160,601	
1863-64	94	61	1,801	1,956	188,783	
1864-65	71	50	1,800	1,921	156,917	
1865-66	69	49	1,100	1,218	129,718	
1866-67	81	39	1,031	1,151	142,977	
1867-68	94	76	936	1,106	168,963	
1868-69	78	84	887	1,049	135,752	
1869-70	39	93	969	1,101	127,569	
1870-71	42	93	840	975	121,774	
1871-72	29	100	892	1,021	129,507	
1872-73	18	97	923	1,038	133,066	
1873-74	30	152	731	913	161,284	

\* Includes steamers.

From 1856 to the present time the number of vessels wrecked at or near the harbour of Karachi is eight, of which six were sailing ships and two steamers. The following table will give their names, with other particulars connected with them:—

Name of Vessel.	When Wrecked.	Remarks.
Ship 'Julia' . . . . .	1856	Wrecked near the Oyster rocks when proceeding to Bombay with troops.
„ 'Admiral Boxer' . . . . .	1857	Wrecked on the Indus banks on her passage from Cardiff to Karachi.
„ 'Stamboul' . . . . .	1859	From London: wrecked two miles west of Manora.
Steamer 'Indus' . . . . .	1860	Sank in the harbour.
Ship 'Marina' . . . . .	1861	From Cardiff: wrecked about two miles west of Manora.
Steamer 'Talpur' . . . . .	1864	Sank near the Oyster rocks when proceeding from Karachi to the mouths of the Indus.
Ship 'Alicia' . . . . .	1863	Wrecked at the entrance of the harbour.
„ 'Bacchante' . . . . .	1870	Wrecked near the Oyster rocks while returning to Karachi in a leaky condition.

In connection with the trade of Karāchi, it will here be necessary to speak of the funds derived from the shipping frequenting it as the chief, and in fact the only port on the sea-coast of Sind. The limits of the port of Karāchi, according to the Indian Ports Act (XII. of 1875), are as follows:—

“From the extreme end of Manora point to the end of the Breakwater, and from it in a line due east to the shore at Gisri, and thence by high-water mark up the Chini creek and round the head of all the creeks on the eastern, northern and western parts of the harbour by Bābā point, and along the inner shore of Manora spit to Manora point.”

At the latter end of 1853 the employment of a couple of pilots at Manora was sanctioned by the Bombay Government, and up to 1862 there were three pilots and pilot-boats attached to the port, as well as a steam-tug, the ‘Hugh Lindsay,’ for towing vessels in and out of the harbour. For paying in part the establishment of the master attendant of Karāchi, who is the conservator of the harbour as well, certain fees and dues are levied on all vessels visiting the port on account of tonnage, moorings (fixed and swinging), pilotage, use of the steam-tug, and for other services rendered by the Port Department.

These, as at present in force, may be classified as under:—

#### PORT DUES AND FEES.

By Acts XXII. of 1855, and VIII. of 1858, port dues were levied on all classes of vessels at the rate of 4 annas per ton of burthen, while fees were levied at the following rates:—

	Rupees.
Removing from one part of the port to another . . . . .	25
Removing from one mooring to another at the request of the agent or master . . . . .	50
Attendance of a Pilot, ship being found on his going on board unprepared to proceed on the day named . . . . .	20
Hooking . . . . .	16
Measuring . . . . .	30

In May 1863 the following notification was issued on the subject of fees for measuring native craft:—

#### REVENUE DEPARTMENT.

With reference to Section 6 of Act VIII. of 1858, it is hereby notified that measuring fees on native craft of all denominations will be levied at the port of Karāchi at the following rates:—



	Rupees.
Native craft exceeding 4 Bombay candies, or 1 ton, and not exceeding 20 Bombay candies, or 5 tons . . . . .	3
Native craft exceeding 20 Bombay candies, or 5 tons, and not exceeding 40 Bombay candies, or 10 tons . . . . .	6
Native craft exceeding 40 Bombay candies, or 10 tons, and not exceeding 200 Bombay candies, or 50 tons . . . . .	10
Native craft exceeding 200 Bombay candies, or 50 tons, and not exceeding 400 Bombay candies, or 100 tons . . . . .	20
Native craft exceeding 400 Bombay candies, or 100 tons . . . . .	30

On the 1st October, 1873, the port dues on tonnage were altered as follows:—On all sea-going vessels of 100 tons and upwards, obliged to receive a pilot on board when moving within port limits, 2 annas for each ton of burthen, not chargeable oftener than once in a calendar month in respect of the same vessel. Coasting vessels of 100 tons burthen, which are not required by the Act to take a pilot when moving within port limits, 4 annas for each ton of burthen, not chargeable oftener than once in three calendar months in respect of the same vessel.

The charges for using fixed and swinging moorings are contained in the following rules issued in 1858 and 1874:—

PORT RULES.

The following Port Rules are made and published for general information and guidance:—

1. The master attendant shall be conservator of the harbour of Karāchi.
2. All sea-going vessels entering or leaving the port shall fly their national flag, and each ship shall show her number when entering port.
3. All vessels within the port shall take up such berth as may be appointed them by the conservator, and shall change their berth or remove when required by him.
4. All vessels within the port shall have their flying jib-booms rigged in, and shall, if ordered by the conservator, rig in their jib and driver-booms, top up or strike yards or masts.
5. Cargo boats, full or empty, shall not be allowed to swing astern of any vessel without permission, nor shall anchors be cock-billed or spars be allowed to hang alongside or astern.
6. Should any vessel lose an anchor or cable in the port, notice is to be given immediately to the conservator.

7. Free passage is to be kept at all piers, jetties, wharves, landing-places, docks and moorings, and all boats and vessels shall move when required to clear such passage.
8. All vessels within the port of Karāchi shall moor and unmoor according to the orders of the conservator, and shall keep clear hawse.
9. All vessels within the port of Karāchi shall be moved or warped from place to place as required by the conservator, and no vessel shall cast off a warp that has been made fast to her to assist a vessel in mooring or moving, until required to do so by the pilot or officer in charge of the vessel so moving.
10. The conservator will, if he sees no objection, grant permission for any vessel to be moved from one mooring or anchorage to another, on a written application being made to him to that effect.
11. No vessel shall use any of the Government moorings, fixed or swinging, without the permission of the conservator.
12. All vessels using Government mooring shall pay for the same at the following scale :—

*For Fixed Moorings.*

		Rupces.
Under 200 tons		1 per diem.
All vessels above 200 and under 500 tons		2 "
" " 500 " 800 "		3 "
" " 800 " 1,000 "		4 "
" " 1,000 " 1,200 "		5 "
" " 1,200 " 1,500 "		6 "
" " 1,500 tons		7 "

*For Swinging Moorings.*

For all vessels under 800 tons	3 "
Above 800 tons	4 "

13. No vessels, within the limits of the port of Karāchi, shall boil pitch or dammer on board, but must do so in a boat alongside or astern; nor shall any spirits be drawn off by candle or other artificial light on board.
14. No private vessels are to hoist signal lights at night, nor to fire great guns or small arms at the hours of sunset and sunrise, or at any time, without the permission of the conservator, or in cases when requiring assistance.

15. All applications for pilots are to be sent to the conservator at least 48 hours previous to leaving.
16. When a vessel has taken up anchorage, the anchor is not to be raised without the permission of the conservator.

PORT FUND, KARĀCHI.

The following charges are made for services rendered by the Port Department to vessels, &c., requiring them (November 1866):—

	Rupees.
Hire of the anchor and mooring vessel 'Khēdewāri' . . . . .	20 per diem.
Hire of warp boat (with or without warps and anchors) . . . . .	20 "
*Hire of Europe or coir hawser (with or without anchor) . . . . .	4 "
For assistance given in beaching ships to clean or repair —this includes the use of warp boats, hawsers, and anchors required in securing the vessel when on shore, also in beaching or heaving her afloat (provided the work does not extend beyond three days, in this case a separate charge will be made as above * for the loan of hawsers) . . . . .	50 "
Sweeping for and picking up anchors lost by vessels within the port. . . . .	50 "

For hauling up native sea-going vessels within port limits, whether for protection in bad weather, or for repairs, or for clearing (October 1871):—

(No charge for harbour boats under 20 tons.)

				Per diem. Rup. a. p.		
From 20 tons (or 80 candies) to 25 tons (or 100 candies)				0	8	0
" 25 " 100 " 40 " 160 "				1	8	0
" 40 " 160 " 50 " 200 "				2	0	0
" 50 " 200 " 60 " 240 "				2	8	0
" 60 " 240 " 70 " 280 "				3	0	0
Above 70 " . . . . .						

Anchors and buoys for moving the vessels in safety are laid by the master attendant at some of the appointed spots for beaching.

MARINE DEPARTMENT NOTICES.

Masters of ships are informed that the time will be given from the Master Attendant's office, Manora, by means of a time-ball on Tuesdays and Fridays at one o'clock P.M. precisely (Karāchi mean time.

At ten minutes before one the ball will be raised half-mast high ;

at five minutes to one it will be hoisted to the yard-arm, and at one o'clock mean time the ball will drop.

In the event of any accident or error, No. 1 Marryatt's Code will be hoisted at the mast-head, and will remain flying until the ball is again hoisted as before for giving out the time in a similar manner at two o'clock P.M. mean time.

#### MARINE DEPARTMENT.

It is hereby notified, for the information of commanders of ships lying at Karāchi, that pilotage and moving and mooring fees must be paid at the Master Attendant's office, Manora point.

It will save a second journey to Manora, if the sums payable on the above account are forwarded to the port office when application is made for the outward pilot and for the certificate of port charges required at the Custom House when clearing the vessel for sea.

The scale of charges for pilot services on different descriptions of vessels entering or leaving the port is given in two tables as follows:—

TABLE I.

Leviable on Mail and regular Coasting Steamers.		Fair Season.	Monsoon Season (June, August and September).
From and above	100 to	rupees.	rupees.
	300 tons . .	50	75
"	300 " 400 " . .	55	80
"	400 " 500 " . .	60	85
"	500 " 600 " . .	65	90
"	600 " 700 " . .	70	95
"	700 " 800 " . .	75	100
"	800 " 900 " . .	80	105
"	900 " 1,000 " . .	85	110
"	1,000 " 1,100 " . .	90	115
"	1,100 " 1,200 " . .	95	120
"	1,200 " 1,300 " . .	100	125
"	1,300 " 1,400 " . .	105	130
"	1,400 " 1,500 " . .	110	135
"	1,500 " 1,600 " . .	115	140
"	1,600 " 1,700 " . .	120	145
"	1,700 " 1,800 " . .	125	150
"	1,800 " 1,900 " . .	130	155
"	1,900 " 2,000 " . .	135	160
"	2,000 " 2,100 " . .	140	165
"	2,100 " 2,200 " . .	145	170
"	2,200 " 2,300 " . .	150	175
"	2,300 " 2,400 " . .	155	180
"	2,400 " 2,500 " . .	160	185

TABLE II,

Inward and Outward Pilotage leviable on all Ships and Steamers of Homeward Foreign Trade.		Fair Season.	Monsoon Season (June, July, August and September).
		rupees.	rupees.
From and above	100 to 300 tons . .	40	60
" "	300½ " 400 " . .	45	65
" "	400½ " 500 " . .	50	70
" "	500½ " 600 " . .	55	75
" "	600½ " 700 " . .	60	80
" "	700½ " 800 " . .	65	85
" "	800½ " 900 " . .	70	90
" "	900½ " 1,000 " . .	75	95
" "	1,000½ " 1,100 " . .	80	100
" "	1,100½ " 1,200 " . .	85	105
" "	1,200½ " 1,300 " . .	90	110
" "	1,300½ " 1,400 " . .	95	115
" "	1,400½ " 1,500 " . .	100	120
" "	1,500½ " 1,600 " . .	105	125
" "	1,600½ " 1,700 " . .	110	130
" "	1,700½ " 1,800 " . .	115	135
" "	1,800½ " 1,900 " . .	120	140
" "	1,900½ " 2,000 " . .	125	145
" "	2,000½ " 2,100 " . .	130	150
" "	2,100½ " 2,200 " . .	135	155
" "	2,200½ " 2,300 " . .	140	160
" "	2,300½ " 2,400 " . .	145	165
" "	2,400½ " 2,500 " . .	150	170

*Directions for the Use of Ships detained by any Cause off the Port of Karāchi during the South-west Monsoon Season.*

1. The pilot who boards a ship on arrival off the port will give her commander all possible information as to the probable time his vessel may be able to cross the bar; but unless this can be done on the day of arrival, he will not (being a harbour pilot only) assume charge of the ship.

2. As at this season it is not safe to anchor in the roads, ships unable to cross the bar on arrival must stand to sea, and await a favourable opportunity for doing so.

3. While in sight of the port, a ship is in perfect safety with the lighthouse on Manora point on any bearing from N. to E. The point itself is bold of approach: from 6 to 7 fathoms water will be found at a distance of 1 mile from it on the above point of bearing.

4. A ship waiting for orders off the port should work with the lighthouse bearing from E. to N.E., distance 1 to 2 miles.

5. In standing to the N. do not bring the lighthouse to the S. of E., as the coast between Manora point and Cape Monze is dangerous to a distance of from 2 to 3 miles off shore.

6. In standing to the southward, do not bring the lighthouse anything to the W. of N. or go under 7 fathoms, as a nasty sea will be experienced as the water shallows in shore, and a ship might find difficulty in tacking.

7. Ras Muāri (or Cape Monze), 18 miles W.  $\frac{1}{2}$  N. from Manora point, is a capital landmark for Karāchi. It is a high and bold bluff, and can be approached with safety on any bearing from E. to W. by N., to the distance of  $1\frac{1}{2}$  to 2 miles, with 15 fathoms water. The coast beyond Cape Monze runs nearly N. for 25 miles, and then nearly W. It is generally high and safe to approach within  $2\frac{1}{2}$  miles.

8. The neighbourhood of the headland is a good position for a ship detained as above to take up, lying as it does to windward of the port. Communication can be insured at any time, and much less current, sea and wind will be experienced than farther S.

9. In the near neighbourhood of Karāchi little current is found (beyond the harbour tides, ebb running S.W., flood N.E.); but there is a slight set throughout the season to the south-eastward, along the coast of Sind and Kachh; this increases considerably in strength below the mouths of the Indus river. Here, too, as before stated, a heavy swell and much wind will be found, and, on all accounts, this eastern shore should be avoided.

10. All attention should be paid to signals from the lighthouse station.

The following revised directions for approaching Karāchi harbour are published for general information (21st February, 1875):—

Latitude of the lighthouse on Manora point  $24^{\circ} 47' 21''$  N.  
 Longitude . . . . .  $66^{\circ} 58' 15''$  E.

The light is a fixed one, 120 feet above the sea-level, visible in clear weather 16 miles; in the hazy weather, prevalent during the south-west monsoon, about 7 miles only.

High water at full and change of the moon 10 30'; rise and fall on ordinary spring tides, 9 feet 6 inches; on neap tides, 3 to 4 feet.

#### DEPTH OF WATER IN ENTRANCE CHANNEL AT HIGH WATER.

Spring tides . . . . .	29 feet.
Neap tides . . . . .	24 to 26 feet.

## SHIPS ENTERING OR LEAVING PORT.

Vessels with a draught not exceeding  $21\frac{1}{2}$  feet can now enter and leave the port without difficulty or delay throughout the year.

During the fair season (from October to 15th May) vessels with a draught not exceeding 24 feet can now enter and leave the harbour. Fixed moorings are placed for such vessels.

## TIME OF TIDE FOR ENTERING PORT.

Sailing vessels should enter port on the ebb-tide. Steamers can enter either flood or ebb, and stand at oncé into port.

Masters of ships should not under any circumstances attempt to enter the harbour without a pilot.

## HARBOUR IMPROVEMENTS.

Among the extensive works executed a breakwater has been built running out from Manora point in a south-by-east direction to a distance of 1500 feet into 6 fathoms of water; this affords complete shelter to the entrance channel during the south-west monsoon. A channel has also been opened through the bar with a depth of 20 feet at low water spring tides. This channel, which is 500 feet in breadth, is marked by buoys, and these on entering should be kept on the port side about 150 feet.

*Note.*—A mail steamer arriving off the port at night and requiring a pilot should fire *two* guns.

## APPROACHING THE PORT.

## COAST OF SIND.—INDUS BANKS.

The coast of Sind below the parallel of  $24^{\circ}$  N. lat. should be approached with great caution; too much attention cannot be paid to the lead, more especially in passing the banks of the Indus, as these have extended considerably to the S.W. since they were last surveyed by Lieut. Stiffe in 1867.

No sailing vessel should come nearer this coast by night or in rough weather than 20 fathoms, or in fine weather by day under 12 fathoms.

The tides during the springs are strong; the flood sets south-east and the ebb to the north-west.

During the south-west monsoon, sailing vessels should make Ras Muāri (Cape Monze), which is 18 miles west-half-north from

Manora lighthouse, and keep to windward of the port if the weather is thick or the tide does not suit for entering the harbour.

Allowance must also be made for a strong set to the south-east, which prevails more or less during the south-west monsoon.

Do not bring Manora point to the southward of east or go under 15 fathoms near Cape Monze.

Masters of ships should endeavour to make the port at daylight, and can with safety approach into 8 fathoms to about 2 miles distance from the lighthouse, keeping it in any bearing from N.E. to N., and heave to for a pilot.

#### ANCHORAGE IN THE ROADS.

From June to the middle of September, ships should not on any account anchor, but stand off and on, keeping the lighthouse bearing from N. by E. to N.E., 1 to 2 miles distant, until boarded by a pilot or directed by signal.

*From September till the end of March.*

Anchorage, lighthouse N. by E. to N.N.E. : distance 1 mile in 7 fathoms.

*From April to May.*

Lighthouse N.N.E. to N.E. ; distance half a mile in 8 fathoms.

#### EARLY HISTORY.

There is not much to be said concerning the history of Karāchī before its cession to the British in 1842 by the Talpur Mirs of Sind. By some writers it is supposed to occupy the same position, or to be at least in the immediate neighbourhood of the site of the ancient sea-port of Dewal (or Debal), which was in existence so far back as A.D. 711, when a town of that name was reduced by the Arab general, Muhammad Kāsīm Sakifi, in his invasion of Sind. Before A.D. 1725 the present town of Karāchī had, according to an account drawn up from old family papers by a wealthy Hindū trader and resident of the place, Sett Naomal, C.S.I., no existence whatever; but it is there stated that there was a town called Kharak, situate on the other side of the Habb river at its confluence with the sea, and which then enjoyed a considerable commerce. Trade was carried on by this place with Shāhbandar and Lahori-bandar in Sind, Maskat, Surat, Porbandar, and Malabar. Owing, however, to the entrance of the harbour at Kharak becoming, in course of time, blocked up with sand,



vessels were unable to enter it, and the chief trading men of the community (among whom was one Bhojmal, an ancestor of Sett Naomal) then began to see the necessity of removing to some other place offering more mercantile advantages than Kharak. Eventually a spot near the present head of the harbour of Karāchi, originally known as Dirbo, and having a pool of water in the immediate neighbourhood, called "Kalāchi kūn," was selected, and thither, in A.D. 1729, the greater number of the inhabitants from Kharak-bandar removed with all their available property. This place then went by the name of Kalāchi-jo-got, and from this is said to be derived the word "Karāchi." The bar did not then exist, as a ridge of hills blocked up what is now known as the Manora entrance, but there was at that time another bar called the "Nawā Nār," or new bar, near Bābā island, which was used by trading vessels frequenting the port. In time the new settlement prospered, and a considerable trade sprang up under the protection of Jām Daria Khān Jokia. The place was fortified, and cannon were brought from Maskat and placed upon the ramparts. This fort had two main entrances, one called the "Khāra Darwāza," or gate looking seaward towards the west; the other, to the east, was known as the Mithā Darwāza, or that which led to sweet water. When the harbour of Shāhbandar (or King's port) became hopelessly blocked up, many of the inhabitants left it for Karāchi, which became, in consequence, a place of some note. During the reign of the Kalhora princes this town was ceded by them to the Khān of Kelāt, and was garrisoned by men from that territory; but about the year 1792, the place seems to have been threatened by a force under the Talpur chieftain, Mir Fateh Ali Khān, but nothing was effected. In the following year another Baloch force arrived with the object of taking the town, but as it was well defended by the inhabitants, who were assisted by the mariners of the vessels belonging to the port, the invading army, after a stay of three months, was compelled to return to Hyderabad. In 1795 a third Baloch army appeared before the place, and this time with greater success, as the garrison being then very weak, and the Khān of Kelāt quite unable to send troops for its defence, Karāchi was, under these circumstances, surrendered to Mir Karam Ali Talpur, who, after appointing a Nawāb to govern it, and leaving a guard of 100 Karmati Baloch sepoy as a garrison, returned to Hyderabad. In this cession Sett Dariānamal, one of the chief men of the town, and a relative of Sett Naomal, appears to have taken a leading part and to have procured favourable terms for the place. Carless states that,

about 100 years ago, or say A.D. 1770, the harbour of Karāchi was situate five or six miles farther to the westward than it is at present, and was separated from the sea by a bar of loose sand. The harbour then went by the name of Auranga bāndar; but by the Hindū inhabitants it was generally known as Rāmbāgh; this latter, from its similarity in name to the Rāmlacia mentioned by Arrian in his account of the expedition of Alexander, which Carless observes was situate somewhere on this part of the coast, he thought might probably be one and the same place. The Talpur chiefs, aware of the importance of Karāchi, built in 1797 a fort at Manora, at the mouth of the harbour, as a means of defence, and they also endeavoured to increase the trade of the port. In the time of the Talpur dynasty, the town of Karāchi occupied the same slightly elevated piece of ground, now known as the old town Municipal quarter, and was defended by a mud wall, with round towers at each angle and along the sides, and had guns of small calibre mounted on its various bastions. In 1838 the town and suburbs had a population of 14,000 souls, half of these being Hindūs, and the remainder Muhammadans of the Baloch, Jokia, Muhāna, and Jat tribes. The two latter were employed as fishermen and artisans, but the Balochis took service as military followers under the different chiefs of the country. The houses of the town, which were all flat-roofed and built of mud, were mostly of one storey, though a few were two and even three storeys high. All were provided with *badgirs* (wind-catchers) for purposes of ventilation. The Government of Karāchi was, during the rule of the Mirs, vested in a civil and military governor, styled the Nawāb, who exercised uncontrolled authority over the town and neighbourhood, subject, however, to appeal on the part of aggrieved parties to the court at Hyderabad. Owing to the poor pay allowed to the Mirs' servants, all classes took fees whenever an opportunity presented itself, so as to enable them to keep up a respectable appearance. The Baloch sepoy derived their chief sources of emolument by being allowed to act as escorts to the merchants' kafilas proceeding into the interior of the province. For this service they received from 2 rupees to 6 rupees each, according to the entire distance travelled. They were answerable for the safety of the persons and property entrusted to their care, and this confidence, it is said, they seldom abused. Next to the governor of the city, ranked the collectors, whose duty it was to collect the revenue and taxes. The principal merchants of the place were, as is the case now, Hindūs, many of them very wealthy, having agents at Maskat, Bahrein, Herat, Kābul, Kāh-

dahar, Slikārpur, Bahāwalpur, Mūltān, Mandavi, and Bombay. Education does not appear to have been altogether neglected at Karāchi under the Mirs' government. There were three or four schools conducted by Brāhmans of the Sarsūdh and Pokarna castes, who taught reading, writing, and book-keeping in Sindi, and for their labour received payment partly in kind and partly in money. The Persian language was taught mostly in the mosques by Mullās. In 1839 there were 21 mosques and 13 *pīrs'* places in the town of Karāchi, but none received any allowance from the State. There were also 34 Hindū temples of different descriptions, mainly supported by offerings from the inhabitants. Such was the condition of Karāchi a few years previous to the province of Sind being incorporated with British India. What it afterwards became under British rule as regards size and importance has already been detailed at some length in this notice.

✓ **Karampur**, a village in the Schwan talūka of the Schwan Deputy Collectorate, situate on the main road leading from Schwan to Lārkāna, and distant 2 miles north from the former town. There is a small police post in this village. The population, numbering about 1000 in all, consists of Muhammadans, mainly of the Uta tribe, and Hindūs of the Lohāno caste, but the number of each is not known. The occupation of the inhabitants is mostly agricultural. The local trade is in grain of various kinds, ghi, milk, and butter. The manufactures comprise coarse cloth and shoes. This village is said to have been founded by Mir Karam Ali Talpur.

✓ **Kashmor**, a talūka (or sub-division) of the frontier district of Upper Sind, with an area of 782 square miles, and having four tapas, 15 villages, and a population of 25,232 souls. The revenue, imperial and local, of this sub-division during the four years ending 1873-74, is as follows:—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Imperial . . . .	48,481	63,321	71,709	64,050
Local . . . .	2,163	2,003	2,344	2,508
Total rupees .	50,644	65,324	74,053	66,558

✓ **Kashmor**, the principal town of the talūka of that name, distant now but 2 miles from the river Indus and 86 E.N.E. from Jacobabad, in lat. 28° 26' N. and long. 69° 43' E. It is about

247 feet above mean sea-level and possesses road communication with Kumbri, Badānī, Toj, and old Kashmor, and a canal, 4 miles in length, connects it with the Indus. This has since, under the name of the Desert canal, been carried 32 miles into the desert, west of Kashmor, and is intended to have a total length of 90 miles. A telegraph line passes through the place, and there was formerly an office here; but this, together with a district bangalow and some extensive lines of the Sind Horse, were entirely swept away by the floods of 1862-63. It is the fifth time during the last eighty years that Kashmor has been so destroyed by floods. There is a Mūkhtyārkar here, and water and supplies are plentiful. The new bangalow, erected for the Mūkhtyārkar, is capable of affording some accommodation to a European traveller. There is also a Government vernacular school, a cattle pound, and a permanent subordinate jail at this place, of which the Mūkhtyārkar is the *ex officio* superintendent, and his second mūnshi *ex officio* jailer. The population is a mixed one, numbering 956 souls, of whom 387 are Hindūs, chiefly Lohānas, and 569 Musalmāns, mostly of the Kalwar tribe. The grain trade of the whole talūka passes through the bazar of this town. The manufactures of Kashmor are principally coarse cotton cloths, shoes, leathern work, such as oil and ghi *dabbas*, and its turned lacquer work, which is much admired.

✓ **Kātyār**, a Government village in the Gūni talūka of the Tanda district, distant 11 miles west of Tanda Muhammad Khān, and 20 from Hyderabad. It is the head-quarter station of a Tapadār, besides whose "dēra," it possesses police lines and a very good district bangalow. There is also a cattle pound (*dhak*). The inhabitants of this town number in all 1125, but the number of Muhammadans and Hindūs is not known. The Musalmān portion are mostly zamindārs, cultivators, Lahoris, weavers, dyers, washermen, and saddle-cloth makers. The Hindūs are traders, shop-keepers, Lahoris, goldsmiths, and cultivators. The trade and manufactures of this place are unimportant, and consist mainly of cloth, grain, ghi, mats, and saddle-cloths. The transit trade is in rice, cotton, and saddles. This village was built by one Chatū Dūrs, about 134 years since, in the time of the Kalhora dynasty.

**Kēti**, the chief port at present on the Indus for river and sea-going boats, is situate in the extreme southern portion of the Ghorabāri talūka of the Jerruck Deputy Collectorate, in lat. 24° 13' N., and long. 67° 25' E. It is seated close to the sea on the Hajāmro branch of the river Indus, and has taken the place of Ghorabāri, situate more inland on the same branch of the

river, which in 1845 was the chief, and indeed the only town of any commercial importance then in the delta. Before entering into any further description of the modern town of Kēti, it will be as well, perhaps, to refer to Ghorabāri as it existed about a quarter of a century ago. The town of Ghorabāri (also called Bandar Vikar) is in lat.  $24^{\circ} 18' N.$ , and long.  $67^{\circ} 14' E.$ , and dates its existence from about A.D. 1826. Ten years afterwards it contained, according to Heddle, 250 huts, and 1000 inhabitants, Musalmāns and Hindūs, the former consisting mostly of Muhānas (or boatmen), with a few Balochis and other tribes. The Hindūs were chiefly Lohānos, Bhātiās, and Sonars. This town was, in 1836, the property of Mir Nasir Khān, the brother of the then reigning Hyderabad Mir, and he is said to have drawn from it an annual revenue of rather more than a lākh of rupees, the customs of this port having been farmed out for a sum of 52,000 rupees. About one hundred and eighty vessels, each on an average of 20 tons burthen, frequented Ghorabāri every year, coming from Mandavi, Anjar, Jāmnaḡar, Porbandar, Karāchi, Sonmiāni, and Gwādar. The value of the exports of the place in 1837 was estimated at 2,65,000 rupees, and consisted mostly of rice, ghi, and grindstones. The imports, from Bombay, the Malabar coast, Kachh, and Maskat, were in that same year valued at 1,00,500 rupees, and comprised chiefly English cloths, raw cotton, coarse cloths, metals, dates, pepper, and slaves. This port, in fact, then ranked next in importance to Karāchi, and no route presented such facilities for the conveyance of merchandise to the upper portion of the delta as the Hajāmro branch of the river at that time; and so matters continued till 1848, when the river capriciously forsook the channel on which the town was so conveniently placed for trade, and Ghorabāri very soon after dwindled away into comparative insignificance. Its trade was then removed to another spot, the first Kēti nearer the sea, but this place being overflowed some time afterwards (about 1853), a more convenient site was chosen not far from the former town; the second Kēti, the present port, now in the twenty-second year of its existence, soon attracted the river trade, and it is at this moment the second sea-port in Sind. Kēti has road communication with Tatta, from which it is distant 60 miles south-west, with Mīrpūr Sakro, distant 32 miles south-south-west, and with Ghorabāri, distant 13 miles only. A kotwāl, who is in charge of the subsidiary jail, a tapadār, a customs officer, and a hospital assistant in medical charge of the dispensary, reside here, and are the principal Government officials of the place. There is a small police force of

five men, who are under the command of a chief constable. The Mükhtyārkar of the talūka does not reside in Kēti, though it is the largest town under his charge, but at Kotri-alahrakhyo, 36 miles distant. Kēti possesses a municipality, established in 1854, with an annual income ranging from 10,000 to 16,000 rupees, the greater part of which is raised from town duties. The population of Kēti, by the census of 1872, was found to be 2199 souls, of whom 1855 are Muhammadans, 1029 Hindūs, and the remainder Christians, and of other denominations.

Half of the population are said to leave the town during the inundation season, when it is unhealthy, and there is nothing doing in the way of trade; but they return again generally about the month of November, when the port is open for sea-going vessels. The trade of Kēti, which is mostly in grain of different sorts, wool, and firewood, is very fluctuating in character, and cannot be said to have increased of late years. The imports come from places in the Bombay and Madras Presidencies, the Persian Gulf, Sonmiāni, and Makrān, and consist principally of cocoa-nuts, cotton piece-goods, metals, sugar, spices, coir, and shells. The exports, which are chiefly to ports in the Bombay and Madras Presidencies, Sonmiāni, and Makrān, comprise grain, pulse, oil-seeds, wool, cotton, drugs and medicines, dyeing and colouring materials, saltpetre, and firewood; of these, grain and oil-seeds are by far the most important articles—the value exported in 1873-74 being a little over five lākhs of rupees. Wool, during that same year, was also sent to Bombay of the value of upwards of two and a half lākhs. The following table will show the real value of the import and export sea-borne trade of Kēti, from and to ports both beyond and within the province of Sind, for the ten years ending 1873-74 :—

Years.	From and to Ports within Sind.		From and to Ports beyond Sind.	
	Imports.	Exports.	Imports.	Exports.
	rupees.	rupees.	rupees.	rupees.
1864-65	1,47,583	4,37,446	3,30,626	13,39,530
1865-66	1,26,064	4,80,371	2,60,256	11,46,131
1866-67	4,62,468	22,08,583	5,26,331	18,80,314
1867-68	8,27,948	15,85,505	5,88,524	22,79,258
1868-69	5,98,675	16,94,027	5,73,869	21,39,681
1869-70	4,78,295	8,43,294	2,87,852	14,08,528
1870-71	3,73,879	9,39,947	4,10,974	13,95,231
1871-72	2,66,217	11,38,993	4,47,280	22,01,500
1872-73	2,14,292	9,06,934	5,16,031	23,30,395
1873-74	1,94,241	16,41,357	3,76,295	11,61,883

Both the import and export trade of Kēti is principally with Bombay, but the latter is shared to a considerable extent by Kachh and Katiawār. This will be apparent from the two following statements, showing the value of the trade to and from each port during the ten years ending 1873-74 :—

## IMPORTS.

Years.	Persian Gulf.	Somnāni and Makran.	Bombay.	Gujrāt.	Kachh and Katiawār.	Goa, Demāun, and Diu.	Malabar.	Other Ports.	Total Value.
	rup.	rup.	rupees.	rup.	rupees.	rup.	rupees.	rup.	rupees.
1864-65	..	618	3,15,455	483	8,151	496	5,443	..	3,30,626
1865-66	..	1,301	2,16,449	..	13,513	..	7,915	1,038	2,60,256
1866-67	..	459	4,96,027	7,215	11,196	1,103	10,272	..	5,26,332
1867-68	..	247	5,48,147	9,571	21,984	..	8,565	..	5,88,524
1868-69	..	..	5,16,386	7,973	13,504	255	15,751	..	5,73,869
1869-70	4,163	263	2,50,962	9,201	10,661	..	12,600	..	2,87,852
1870-71	3,826	249	3,91,076	1,341	10,929	..	3,553	..	4,10,974
1871-72	8,910	373	4,14,087	3,691	17,764	..	2,455	..	4,47,280
1872-73	4,675	5,061	4,66,681	4,010	19,170	..	16,434	..	5,16,031
1873-74	2,995	4,215	3,47,484	2,909	7,663	..	11,029	..	3,76,295

It may here also be mentioned that the total value of specie and bullion imported into Kēti from Kachh and Katiawār during the nine years ending 1873-74 was 3,85,248 rupees, but the quantity received yearly is very fluctuating.

## EXPORTS.

Years.	Aden.	Somnāni and Makran.	Bombay.	Gujrāt.	Kachh and Katiawār.	Malabar.	Other Ports.	Total Value.
	rup.	rup.	rupees.	rupees.	rupees.	rupees.	rup.	rupees.
1864-65	..	743	5,76,689	76,864	6,25,234	..	..	11,39,530
1865-66	..	3,515	5,90,785	8,280	5,43,541	..	..	11,46,131
1866-67	..	2,823	12,03,180	69,283	5,95,920	9,048	..	18,80,314
1867-68	9,749	6,186	10,59,997	2,48,566	9,54,560	..	..	22,79,258
1868-69	..	3,336	8,01,284	3,71,728	9,95,508	27,825	..	21,39,681
1869-70	..	2,771	5,28,377	1,80,921	6,90,317	6,180	..	14,08,523
1870-71	..	2,886	10,12,821	45,785	3,13,739	..	..	13,95,231
1871-72	..	1,985	6,81,523	3,90,429	11,05,402	13,921	9,331	22,01,500
1872-73	18,163	14,641	7,89,566	4,29,713	10,26,286	50,591	1,416	23,10,395
1873-74	..	84,455	6,33,660	1,58,854	3,05,291	57,400	2,323	11,61,883

The gross amount of customs duty which, as collected at the port of Kēti, is derived from certain articles imported from and exported to foreign ports, is shown in the following table, for the ten years ending 1873-74.—

Years	Import Duty	Export Duty	Total
	rupees	rupees	rupees
1864-65	511	15,457	15,968
1865-66	878	22,216	23,094
1866-67	623	29,861	30,484
1867-68	927	53,563	54,490
1868-69	353	69,207	69,560
1869-70	597	43,025	43,622
1870-71	550	23,958	24,508
1871-72	1,055	91,485	92,540
1872-73	784	90,750	91,534
1873-74	481	30,227	30,708

During the prevalence of the south-west monsoon, trade is at a standstill at Kēti, vessels being unable to enter the port from seaward. During the fair season from seventy to ninety boats of various sizes are frequently to be seen lying near the *bandar*. All sea-borne goods intended for transit up the Indus have to be transhipped for that purpose into river-boats. The number and tonnage of vessels that have entered and cleared at Kēti from and to ports both beyond and within the province of Sind, during the ten years ending 1873-74, are as follows —

Years	To and from Ports within the Province of Sind				To and from Ports beyond the Province of Sind			
	Entered		Cleared		Entered		Cleared	
	No	Tonnage	No	Tonnage	No	Tonnage	No	Tonnage
1864-65	326	6,111	340	6,343	436	12,964	410	12,314
1865-66	298	5,799	322	6,163	433	12,383	414	12,352
1866-67	811	22,899	852	23,391	757	25,589	705	26,508
1867-68	692	17,756	830	21,537	1,139	35,766	1,025	32,819
1868-69	709	20,795	679	18,277	836	26,507	898	29,620
1869-70	488	12,591	452	9,657	510	15,546	593	19,136
1870-71	412	11,737	407	10,081	376	12,741	391	14,270
1871-72	742	15,860	798	15,837	985	32,810	935	31,357
1872-73	681	18,227	672	14,793	999	34,936	1,082	39,881
1873-74	872	27,077	833	23,284	423	13,996	490	18,707

The river trade by way of Kēti, though considerable, is very fluctuating, and the boats employed in this trade are numerous,



but during the two years 1869-70 and 1870-71 there was a great falling off in number as compared with former years. Latterly there has been an improvement in this respect. The following table will not only show the *value* of the up and down river trade, but also the *number* of river-boats which have, during the ten years ending 1873-74, entered and cleared at Kēti :—

Years.	Value of Down-river Trade.	Value of Up-river Trade.	Entered, Down-river Boats.		Cleared, Up-river Boats.	
			No.	Burthen in maunds.	No.	Burthen in maunds.
	rupees.	rupees.				
1864-65	17,97,435	3,62,969	3,399	5,90,825	3,394	5,91,366
1865-66	15,66,114	2,76,909	3,289	6,73,376	3,232	6,43,290
1866-67	40,49,601	8,69,004	4,879	13,95,463	4,779	13,60,096
1867-68	37,44,433	11,94,045	4,793	14,65,681	4,700	14,58,549
1868-69	37,77,304	10,54,706	4,491	14,20,895	4,361	13,66,675
1869-70	21,31,619	6,92,345	2,732	8,66,756	2,630	8,49,466
1870-71	22,93,713	8,62,309	2,294	8,17,325	2,284	8,21,116
1871-72	34,01,432	5,80,085	3,872	16,00,309	3,620	14,97,422
1872-73	29,66,058	5,75,488	3,426	13,70,996	3,381	14,14,151
1873-74	27,42,682	4,66,929	2,915	12,41,155	2,862	12,04,336

A pilotage fee of one rupee is levied at Kēti on all vessels above ten tons in burthen, and eight annas on those less than ten tons, when leaving this port. It is collected by the customs officer, but is carried to the credit of the Indus Conservancy Department. This town has several times during its existence been in danger from the effects of over-flooding, but owing to its slightly elevated position, it has hitherto managed to escape the fate of its predecessor of the same name.

✓ **Khahi Rahu**, a Government village seated on the left bank of the Bāgwah, 3 miles N.E. of Naushahro, with which town as well as Bhiria (3 miles), it has road communication. It possesses a vernacular school, attended by 39 boys, but has no Government building. The population is 1158, consisting of Musalmāns and Hindūs, but the number of each is not known. Their employment is mostly agricultural. The trade of the place is in grain, but it is of no consequence. This village is said to have been founded about 150 years ago by one of the Rahu tribe during the Kalhora dynasty.

✓ **Khairō Dēro**, a Government village in the Rato Dēro talūka of the Lārkāna Deputy Collectorate, distant about 14 miles, N.N.E. of Lārkāna. There is no direct communication to this

town, but it is close to the Lārkāna and Rato Dēro road. There is a Government school here, as also lines for the accommodation of two policemen. The population, numbering 1252 souls, comprises 679 Musalmāns and 573 Hindūs, the former being principally of the Gachal, Kori, Chana, and Langah tribes; the latter of the Brahman and Makhija castes. The local trade is in grain. There is no transit trade or any manufactures in this village.

**Khairpur State**, an extensive tract of country in Upper Sind, better known as the territory of His Highness Mir Ali Murād Khān Talpur. It lies between the 26th and 28th parallels of N. lat., and the 68th and 71st meridians of E. long., and is bounded on the N. by the Rohri division of the Shikārpur Collectorate; on the W. by the river Indus; on the S. by the Naushahro division of the Hyderabad Collectorate, and a portion of the Thar and Pārkar Political Superintendency; and on the E. by the Jaisalmir State. The greatest length of this district from E. to W. may be calculated at 120 miles, and its extreme breadth from N. to S. at 70 miles, while its entire area, according to Survey measurement, has been found to be 6109 square miles. This extensive territory would appear to be divided into six districts or departments, viz.: 1, Mirwāh; 2, Wadi Goghri; 3, Nandhi Goghri; 4, Ladho Gāgan; 5, Nārā; and 6, Jabo. The area of each of these districts is not known, but the average area cultivated annually during the six years ending 1873-74 has been ascertained to be not more than 123,968 acres, that is to say, but one thirty-second part of the entire area of the State. Much of the land consists, however, with the exception of that portion bordering directly on the Indus and the Eastern Nārā, of one continuous series of sand-hill ridges covered with a stunted brushwood, where cultivation is altogether impossible. That part of the Mir's territory eastward of the Nārā is exceedingly arid, sterile, and desolate in aspect, but the same may be said also of the portion lying to the westward of the same stream. Like other districts in Sind, the Khairpur State consists of a great alluvial plain, that part bordering directly upon the Indus being very rich and fertile, though much of it is at the present time converted into "mohāris," or hunting-grounds. In the northern portion of this State is a small ridge of limestone hills, being a continuation of the low range, known as the Ghar, running southward from Rohri for a distance of about 40 miles. On the top of this range are found oyster, cockle, and numerous other kinds of marine shells. On a western outlying spur of this ridge is situate the fort of Diji. The

chief towns in this territory are Khairpur, the capital, with a population supposed not to exceed 7300; Rānipur (6310); Tando Masti Khān (4860); Gambat (4540); Khora (3680); Kot Diji (2570); and Tando Lukmān (1580).

The Khairpur State is fairly watered by five canals, having their rise from the Indus, as well as by the Eastern Nārā. The canals are the Mirwāh (60 miles in length and 90 feet broad at mouth); the Nawawāh (32 miles long and 60 feet broad); the Abūlwāh (28 miles long and 60 feet broad); the Mainwāh (16 miles long and 30 feet broad), and the Sanhrowāh. Of these the Mirwāh is the largest and most important, and it is upon the land watered by this stream and its branches that much of the indigo grown in this State is produced. There are several cuts from this canal which extend to the valleys near the sand-hills, or "*bhīts*," as they are called, where the soil is apparently good and largely cultivated with bājri and juār on the occurrence of a good rainfall. There is no separate canal department under the Mir's rule, but when clearances are necessary, they are generally carried out by the cultivators themselves, who receive for this work about half a seer of bājri or juār flour *per diem*. The Eastern Nārā, which irrigates a portion of this district, is of no size except during the inundation season, when it spreads out into wide sheets of water; in the dry season it is but a series of sluggish pools. The belt of land through which this stream flows is composed of a rich alluvial soil, almost wholly uncultivated, but which is capable of producing excellent crops. The new supply channel opened out in 1859, a little to the north of Rohri, in connection with the Eastern Nārā, has greatly benefited the lands in this State as well as those in the neighbouring district of the Thar and Pārkar.

The climate of the Khairpur State is represented to be agreeable during about four months of the year, but fiercely hot during the remaining eight. The fall of rain is slight, but dust-storms are frequent, and have the effect of cooling the atmosphere to some extent. No meteorological tables of either the temperature or rainfall can be given, as no observations seem ever to have been taken. The diseases common to the country are fevers, intermittent and remittent, ophthalmia, and several cutaneous affections—organic affections of the liver are said to be rare. The soil of the Khairpur State, especially where adjoining the Indus, is very productive. The tract lying between the Mirwāh canal and the Indus is the richest part of the district, but cultivation is even there by no means so extensive as it might be. In the desert portion of Khairpur are pits of natron—an impure sesquicarbonate of soda,

and always found containing sulphate of soda and chloride of sodium. It is generally obtained by means of evaporation. These natron pits are a source of income to the ruling Mir, as many as a thousand camel-loads of this substance being annually exported to Northern and Central India, as also to the sea-board, each camel-load being taxed at  $2\frac{1}{2}$  rupees.

The wild animals found in this State are much the same as those met with in the neighbouring district of Rohri, such as the tiger, lynx, hyæna fox, wild hog, deer, &c. The present Mir, who is excessively fond of field sports, has extensive hunting preserves scattered about the country; these are fenced round with brush-wood for the preservation of game, which is in consequence abundant, and it may also be said, destructive to any cultivation in the neighbourhood, since it is a criminal offence for a cultivator to kill any of these animals, no matter what damage they may do to his crops. Much of Mir Ali Murād's time is taken up with the chase, and to gratify this absorbing passion, the finest lands in his territory have been converted into "*shikārgahs*," or hunting-grounds.

The principal grains grown in the Khairpur State are juār, bājri, wheat, gram, various pulses, and cotton. Indigo is also largely cultivated at times. The trees and shrubs are identical with those found in the Rohri district, and good timber is to be met with in the different game preserves bordering on the Indus. The "kandi" tree grows luxuriantly in the valleys.

The population of the Khairpur State, according to the census of 1872, would appear to number 130,356 souls, or say 21 persons to the square mile. Of these the number of Musalmāns and Hindūs is not known. The Muhammadan portion are mostly of the Rajur tribe, which again is subdivided into numerous families.

The Hindū inhabitants are principally Soda Thakurs or Rāj-pūts, who inhabit the extreme eastern part of this district. They are a well-built and sturdy race, nomadic in disposition, and fond of liberty. Their only wealth consists in their herds of camels, oxen, sheep, and goats. Their chief food is butter-milk and camels' milk, as well as the coarsest grain. The Sindi language is generally spoken among the people of this State, as also a corrupt kind of Hindūstāni.

The entire revenue of this territory, which it is as well to mention, is collected, not in cash, but in kind, according to the old "*battai*" system (a description of which will be found under the heading NAUSHAHRO), the ruling Mir receiving a third of the



ledged that the revenues of this State are quite insufficient to meet the lavish and wasteful expenditure.

There are but two courts of justice in this State: one permanent, and held at the town of Khairpur; the other is of an ambulatory nature, as it always accompanies the Mir, wherever he may be. A Hindū officer presides over the former, and two Maulvis over the latter. All sentences passed by these courts require the Mir's confirmation before they can be carried out. The punishments resorted to in the case of convicted persons are generally fine and flogging, with or without imprisonment; the punishment of death is seldom inflicted, but His Highness has the power of life and death throughout his dominions. Formerly, when Hindūs were convicted of offences in the courts of this State, they were offered the option of embracing Islamism in lieu of suffering punishment. Such conversions are, however, it is stated, unknown under the rule of the present Mir. In civil cases the plaintiff is required to give to the State one-fourth of his claim as costs and expenses, and it is, no doubt, on this account that but few suits are brought into the Mir's courts, the litigating parties preferring to have them settled by means of *panchāsts*, or friendly arbitration.

In matters of education it may be stated that there are only a few private schools in the Khairpur State. In these Persian is taught, to a slight extent, by Mullās, who, for the instruction they afford, receive one pice *weekly* from the parents of each child.

The value of the articles exported from this state to British Sind and the native State of Jaisalmir has been approximately estimated at about five and a quarter lākhs of rupees, and that of imported articles to somewhat more than two and a half lākhs. These exports and imports comprise the following articles, with the quantities of each:—

## EXPORTS.

Articles.	Quantity.	Value.
	maunds.	rupees.
Wheat, juar and bājri . . . . .	20,424	57,704
Matar ( <i>Lathyrus sativus</i> ) . . . . .	1,000	1,250
Cotton and wool . . . . .	7,150	1,02,400
Indigo. . . . .	2,728	2,40,400
	pieces.	
Cloth (manufactured) . . . . .	4,500	7,000
	maunds.	
Ghi . . . . .	3,250	91,000
Khār and chāniho . . . . .	2,330	2,127
Tobacco and miscellaneous . . . . .	6,010	28,627
Totals . . . . .	48,892	5,36,508

IMPORTS.

Articles.	Quantity.	Value.
	maunds.	rupees.
Rice, wheat, juār and bājri . . . . .	50,010	1,14,703
Piece-goods . . . . .	225	28,125
Barley . . . . .	10,000	17,500
Molasses . . . . .	3,500	15,750
Sugar, &c. ; dates and kopra . . . . .	910	13,790
Oils . . . . .	904	6,328
Ghi . . . . .	200	5,188
Silk and silken stuffs. . . . .	8	3,200
Tobacco . . . . .	200	1,004
Miscellaneous. . . . .	11,488	47,032
Totals . . . . .	77,445	2,52,620

The chief manufactures of this State are cotton fabrics, such as *khēsis*, or woven sheets, *ajraks*, *susis*, coloured cloths, silk fabrics, silver ware of different kinds, lacquered woodwork, boots, shoes, horse-trappings, swords, matchlocks, and earthen pottery for home consumption. A small quantity of salt and saltpetre is also manufactured.

The lines of communication in this State are very few, and excepting the main trunk road from Hyderabad to Rohri, which passes through this district at a distance of 20 miles or so from the Indus, and another which leads to the same towns, but is somewhat shorter in length, there are no other made roads in Mir Ali Murād's territory. The latter road was till very lately used by the postal department. The electric telegraph line runs along the former trunk road. The towns and villages on both these lines of communication, with distances from each other, are shown in the following table :—

TELEGRAPH LINE ROAD.	Miles.	FORMER POSTAL ROAD.	Miles.
Rohri to Babarloi . . . . .	5	Rohri to Abhūro . . . . .	7
Babarloi to Khairpur . . . . .	10	Abhūro to Khairpur . . . . .	7
Khairpur to Tando Masti Khān. . . . .	10	Khairpur to Tando Masti Khān . . . . .	9½
Tando Masti Khān to Pipri . . . . .	10	Tando Masti Khān to Takio Shāh . . . . .	8
Pipri to Rānipur . . . . .	10	Takio Shāh to Rānipur . . . . .	4½
Rānipur to Setaiyā . . . . .	6	Rānipur to Setaiyā Muthia . . . . .	5½
Setaiyā to Mangna-pota . . . . .	6	Setaiyā Muthia to Mangna-pota . . . . .	5
Mangna-pota to Kotri . . . . .	6	Mangna-pota to Kotri . . . . .	6
Kotri to Kandīāro . . . . .	8	Kotri to Kandīāro . . . . .	8
	71		60½

At all these towns water and supplies generally are said to be

abundant, but it is necessary to mention that there are no regular staging bangalows at any one of these places.

The ferries in this district, which are mostly situate on the Indus, are six in number, and have each one boat attached to them. Their names are—1, Bindu ; 2, Alipur ; 3, Saga ; 4, Rafidēro ; 5, Agro ; and 6, Nūrpur.

The so-called state of Khairpur may be said to date its existence from the time Mir Fateh Ali Khān Talpur, in conjunction with his nephew, Mir Sohrāb Khān, and Mir Tharo Khān, drove out the last sovereign of the Kalhora line and established themselves firmly in Sind. To Mir Sohrāb fell the town of Khairpur and the adjacent districts, a small and confined tract at first, but which, by conquest and intrigue, he managed to enlarge till it comprised a territory extending to Sabzalkot and Kashmir on the N., the Jaisalmir desert on the E., and the borders of Kachh Gandāva on the W. The tract of country obtained on the W. bank of the Indus was known under the name of Mogali, and included the two divisions of Būrdika and Shikārpur. The city of Shikārpur was acquired in 1823, but in this the Khairpur Mīrs had an interest amounting only to three-sevenths. Lieutenant (now Colonel Sir) Lewis Pelly, formerly a deputy collector in the Shikārpur Collectorate, thus wrote of this State in 1854: "In or about the year 1813, the Mīrs, availing themselves of the crisis at Kābul, consequent on the expulsion of the Sadozai dynasty and the establishment of the Barukzais in Afghānistān, refused to continue the tribute which the Kalhoras and Talpurs had irregularly paid up to that date, and thenceforward Khairpur remained practically independent up to the time when the British urged claims in behalf of Shāh Sujah for a balance of tribute due, if not indeed for a renewal of tribute demandable. In 1811 Sohrāb, wearied of public life, abdicated the Raisat in favour of his son, Mir Rūstam, and retired to the fort of Dijī, formerly called Ahmadābād. During the year which intervened between his abdication and death many documents were issued by the ex-Rais, or at least under his seal and sanction, *modifying and re-apportioning his territory.* In these documents the name of a son, Ali Murād, born in 1815 to Sohrāb, when in retirement, by the wife of his old age, found prominent insertion. By a will dated 18th May, 1829, the country was apportioned among his three sons, in four shares, each having one share as his property, and Mir Rūstam, as Rais, holding the other share in addition to his patrimony, with remainder to his two brothers, Mīrs Mubārak and Ali Murād. The whole revenue of the territory so appor-



tioned may be roughly estimated at 20,39,000 Kh. rupees, or 18,65,000 Co.'s rupees, of which Mir Rüstam's share was 12,00,000 Co.'s rupees; Mir Mubarak's, 3,15,000 Co.'s rupees; and Mir Ali Murād's, 3,50,000 Co.'s rupees. This included all the Jāgirdārs, the greatest number of whom were in Mir Rüstam's share. The last paper bearing Sohrāb's seal is reported to have decreed that the 'turban' should descend in the direct, and not in the collateral line. At length, in 1830, Sohrāb fell from a window in his palace at Khairpur, and survived for a period only long enough to commend his boy, Ali Murād, to the care and protection of his elder brother, Mubarak. The latter failed to obey this last injunction. He and Rüstam seem to have combined to avail themselves of the youth's inexperience to defraud him of part of his rightful inheritance, and thus were sown the seeds of those dissensions destined in after years to contribute towards the common ruin of the brothers and of their country. Ali Murād, arrived at maturity, accurately estimated the injustice perpetrated upon him, and he appears to have early determined to lose no opportunity for retaliation. Our interference in the affairs of Sind indicated the approach of such an opportunity. The relations between Sind and the British Government began in 1758, when the latter obtained from Ghulām Shāh, the Kalhora, permission to establish a factory, and to send an agent to Tatta. These relations were rudely broken off by Sarafrāz in 1775. Towards the close of the century, however, the factory was restored, but, misunderstandings again ensuing, the English were re-expelled. In 1809 the Eastern policy of Napoleon entailed upon England the necessity of securing the N.W. frontier of India, and accordingly, on the 22nd of August in that year, a treaty was concluded with the Talpurs, providing for eternal friendship between the two Powers. In 1820 the depredations of the Khosas, and some infractions of the rights of immigrants, resulted in another treaty. At length, on the 4th of April, 1832, the political individuality of Khairpur was recognised by the British in a treaty concluded with that State, providing for the use of the river Indus and the roads of Sind. This last treaty was consequent upon the report of Lieutenant Burnes, relative to the capabilities of the river and the advantages to be derived from the countries on and beyond it. On the 22nd of April of the same year a supplemental treaty with the Hyderabad Mirs was concluded, in the third article of which it was stipulated that a copy of the instrument itself should, in conformity with previous provision, be forwarded to Mir Rüstam of Khairpur. On 23rd December, 1834, was issued a commercial

treaty relative to tolls and duties. On 20th April, 1838, the then Governor-General ratified a treaty, engaging, on his part, to use his good offices in adjusting differences existing between the Mirs of Sind and Ranjit Singh, and providing for the establishment at the court of Hyderabad of a British Resident. By the tripartite treaty of 26th June, 1838, the contracting Powers agreed in the fourth article to abide, in respect of Shikārpur and the territory of Sind lying on the right bank of the Indus, by whatever might be settled as right and proper, and the Mirs were informed of the high importance to them of the measures treated, and of the magnitude of the benefits they would derive from securing undisturbed possession of their territories by paying Shāh Sujah the reduced and reasonable claim upon them for 20,00,000 rupees.

“In conformity with the terms of the treaty of the 20th April, 1838, an accredited agent, in the person of Colonel Pottinger, having repaired to Hyderabad, Sir A. Burnes was deputed to Khairpur, and on the 25th of December following entered into a treaty with the then Rais, Mir Rūstam, providing in a separate article, and as subsequently explained by Lord Auckland, for the occupation by the British of the fort of Bukkur only during actual war and periods of preparing for war. This treaty further acknowledged the dependence of Khairpur upon British protection; and as it was made out in the name of the Rais alone, documents were accorded to Mirs Mubārak Muhammad and Ali Murād, engaging, on the part of the East India Company, ‘never to covet one reā of the revenue’ of the shares of Sind in their possessions respectively. Such then was the position of affairs when Ali Murād awaited his opportunity for retaliation upon his brothers, and for saving himself in the probable event of a general wreck of his country. It would not, however, appear that he found either in Colonel Pottinger or Sir A. Burnes an instrument fitted to his designs; for Ali Murād was cautious in coming forward, and it was not till Mr. Ross Bell’s arrival as Political Agent in Upper Sind that he ventured in any degree to develop his policy. That gentleman was oppressed with business, and both indulgent and trustful of natives brought into immediate communication with him. In the summer of 1839 Mir Ali Murād opened his communications with Mr. Bell by addressing to him a letter without date. Upon Mr. Bell’s replying, the Mir, after exculpating himself from the charge contained in his correspondent’s letter, of hostility towards the English, proceeded to confide to him the state of affairs between himself and his brothers, and he went on to solicit that Mr. Bell would either cause his

possessions to be restored to him, or else allow him to recover them by force. The political agent was directed to maintain friendly correspondence with Ali Murād, but to postpone any final adjustment of terms. It appears that Ali Murād did not inform Mr. Ross Bell at any early date of the separate document he had obtained from Sir A. Burnes. His motives for such silence are not clear, but it is upon record that when the political agent did hear of the fact he considered it sufficiently doubtful, and of sufficient importance to require a reference to the supreme Government, one which was made accordingly. In July 1840 Mr. Bell, in obedience to the orders of the Governor-General, re-entered upon the subject of the claim of subsidy. Mir Rūstam's liability to this demand had been recommended to be cancelled, in consideration of his cession of the island and fort of Bukkur, and of his general amicable disposition. Mubārak had, on the contrary, been from the first more or less openly hostile to British interests, and he had obtained the separate document, similar to the one willingly accorded to Ali Murād, only at the urgent intercession of his brother the Rais. It was not probable, therefore, that any claim against him would be waived. The amount demanded was 7,00,000 rupees, and as Mubārak had died on 19th July, 1839, at a date when the claim could not with safety be pressed, he had left the debt as a legacy to his sons, from whom it was now required. These heirs endeavoured to evade the claim by producing a document given under Sir A. Burnes's seal, purporting to promise that the Company would never take tax or tribute from their possessions. This evasion was, however, upon Sir Alexander's explanations, pronounced groundless, and Mr. Bell was directed to adjust the question at an early date. It does not appear that the subsidy was ever paid in cash. In 1841 Mr. Ross Bell was succeeded by an officer whose character was one upon which, apparently, Ali Murād did not consider it expedient to practise; and from that period up to the commencement of the events which led to annexation the outline of Khairpur history, like that of all Sind, was comparatively tranquil. Major Outram, by the force of his personal qualities, so impressed the Mirs with the conviction of his honest policy and friendship, that they remained faithful, or at least unaggressive, during the Afghān disasters; and he thus contrived to stave off during eighteen months the approach of that crisis which he dreaded as unjust towards Sind, but which others saw to be inevitable. It is not to be concealed, nevertheless, that during Major Outram's tenure of office many infractions of the commercial treaty were

committed; that intrigues were occasionally carried on to the prejudice of the British, and that when, in 1842, an amicable negotiation was in progress for the transfer of Shikārpur to the British, Mir Nasir Khān of Hyderabad so influenced Mir Rūstam of Khairpur to hostile feelings towards them, that no alternative was left but to suspend the negotiation. Meanwhile, family dissensions continued among the Khairpur Mirs, until they finally came to an open rupture, met in arms, and after a battle, so called, signed upon the field a document, dated 15th September, 1842, since famous under the name of the 'Naunāhar treaty,' but which, as it will appear from the subject of a later portion of this report, need not now be further noticed. In the very month in which the above-mentioned treaty was signed Sir Charles Napier arrived in Sind, invested with full powers, whether military or political. He came to carry into execution Lord Ellenborough's policy of exchanging tribute for territory—of refraining from the acquisition of any territory on or beyond the Indus which might not be required for the purpose of commanding that river—of granting a great reward to that most faithful ally, the Khān of Bahāwalpur, and of making the Mirs feel that their treaty with the British could not be violated with impunity. So accredited, the General declared frankly, and with truth, that it was not for him to consider how the British came to occupy Sind, and he avowed, in predication of his subsequent method of unravelling the tangled skein of Indus intrigues, a political maxim more frequently acted upon than admitted in the East—that the Mirs' plea of not being able to control their aroused Balochis was sufficient excuse to any other government to overturn them. In the autumn of 1842 Sir Charles arrived in Upper Sind, and Ali Murād at once renewed the requests he had made to Mr. Bell. The General quickly detected in him a vigorous-minded, ambitious, and cunning barbarian. Ali Murād complained that his brother Rūstam, in contempt of the law of Sind, was arranging for the transfer, either during life or after death, of the turban of Upper Sind to his son Husain, to his (Ali Murād's) prejudice. The General replied that he would, as bound by treaty, support the applicant's claim against his nephew, but not against his brother, Mir Rūstam; 'That,' rejoined Ali Murād, 'is all I want,' and from that moment he took his side. In the meanwhile Sir Charles proceeded to carry out his instructions regarding the territorial penalty to be inflicted upon the Upper Sind Mirs, by the loss of Sabzalkot and Bhūngbhāra in favour of the Khān of Bahāwalpur, instructions rendered the more harsh by a second order of Lord Ellen-

borough's, written, apparently, under erroneous information, and declaring that all the territory of the Mirs of Khairpur, &c., intervening between the dominions of Bahāwalpur and the town and district of Rohri should be ceded by those Mirs—an order, in fact, mulcting the latter in more than 6,00,000 rupees, rendering the majority of them desperate, and so hastening the crisis of the battle of Meeānee. These measures, combined with the consciousness of being suspected by the General of having written a treasonable letter to Sher Singh in the Panjāb, and aggravated by the troubles of family discord and treachery, so frightened Mir Rūstam, then 85 years of age, that upon the 18th of December following he sent to the General an offer to come into his camp and place himself under his personal protection. Sir Charles Napier recommended him rather to seek the protection and advice of his younger brother, Ali Murād. Mir Rūstam did so, and shortly afterwards it was reported that he had resigned the turban of Upper Sind to that brother. On the 27th of December the General proposed, through the new Rais, to pay his respects to the aged chieftain, but the next morning it was discovered that he had decamped to the desert, whither many other Mirs had already sought refuge, and where they were collecting their followers in their strongholds. The part which Ali Murād had played in this imbecile and ruinous policy on the part of poor Rūstam is painfully suspected, and probably will never be more than painfully suspected. That an officer of Sir Charles Napier's genius and experience should not see through his cunning barbarism is not for an instant supposable, but he was contented, in his own words, to walk over Rūstam's folly and Ali Murād's intrigues, going his own way. From the time when the turban treaty was reported to him, the General's course was fixed. That treaty might have been, as asserted subsequently by Rūstam, the effect of compulsion, or it might have been otherwise; to Sir Charles Napier the intrigues of these people were nothing. Ali Murād had become Rais; he was able, and if a traitor, yet a steady friend, and the General resolved accordingly that he would not reopen a question upon which, as he considered, the tranquillity of Upper Sind depended. When, therefore, the Mirs ensconced themselves in the desert fortress of Imāmghar, Sir Charles Napier, considering that that stronghold was, in virtue of his 'Raisat,' the legal property of Ali Murād, marched thither with that Mir's consent and personal co-operation, and destroyed it on the 13th of January, 1843. Towards the close of the same month the Khairpur Mirs failed to meet Major Outram, according to

appointment, at their capital. They had preferred to move with their followers towards Hyderabad, whither the General also shortly afterwards marched, and cut at Meeānee and Daba the tangled skein of Sind affairs, by placing, with the exception of the possessions of Ali Murād, the country on both banks of the Indus, from Sukkur to the sea, at the disposal of the British Government. From that period, the sole native state in Sind retaining political individuality was Khairpur. This territory, as guaranteed to him after the conquest, yielded, according to His Highness Ali Murād's own statement, a revenue of 15 lakhs of rupees, and was inhabited by upwards of 800,000 people. The manner in which these territories were defined and settled will be most clearly shown by quoting Mr. Pringle's memorandum on the subject. That memorandum sets forth the principles by which Sir Charles Napier was guided in the occupation of the territory acquired by the conquest were to recognise, as being conformable to the law of the country and creed of the parties, by which the British Government were bound by treaty to abide, the assumption of the turban by Mir Ali Murād, in virtue of the voluntary resignation in his favour of his eldest brother, Mir Rūstam, any retraction of which was by the same law inadmissible; and the appropriation by Ali Murād of the lands which had belonged to Mir Rūstam, both in right of the turban, and as his personal patrimony under a will of their father, Mir Sohrāb, in so far as they were in Mir Rūstam's rightful possession at the outbreak of the war. Also to recognise Ali Murād's right to all such lands as were in his own rightful possession at the same period, and to retain all the rest for the British Government, in right of conquest or of forfeiture imposed on the Khairpur Mirs generally, for breach of engagements previous to the war. The memorandum goes on to relate that a draft of a proposed treaty between the British Government and Ali Murād was submitted by Sir Charles Napier on the 4th of May, 1845, and that correspondence at protracted intervals was maintained on the subject up to the 18th of January, 1847, but that in the meantime a circumstance had come to Sir Charles Napier's knowledge, or rather he obtained corroborative proofs of former suspicions in respect to it, which tended to invalidate the authenticity of one of the documents on which the application of his rights to the forfeited territory north of Rohri had been based. This document was a treaty purporting to have been executed between Mir Ali Murād and Mirs Rūstam and Nasir Khān (the son of their brother Mubārak) towards the close of the year 1843. At that time the

dissensions of these Mirs had been brought to the issue of arms, and in an action in which Ali Murād had the advantage, peace was purchased by the other two by the cession to him of certain lands enumerated in this treaty, which was written in a copy of the Kurān. It was, however, brought to Sir Charles Napier's knowledge that a fraud had been committed by Ali Murād in respect to this document, by endeavouring to substitute in it the word '*district*' for '*village*' in the designation of a place in which the village and its surrounding district bore the same name, and interpolating the names of some districts altogether; and that when this attempt was unsuccessful, the leāf itself on which the names were written had been extracted, and the matter which it bore was written afresh, with the desired alterations and additions, on another blank leaf of the same Kurān by the same person who wrote out the original treaty. The effect of this was to convey to Ali Murād districts of considerable value, in place of villages of trifling extent. Thus, then, in fact, His Highness's territories had not been finally defined and settled before the question of the validity of his tenure had again to be mooted. In the spring of 1850 a commission, attended by Mir Ali Murād in person, sat to pass their opinion upon the accusation against His Highness of having made interpolations and additions in the treaty signed at Naunāhar by Mirs Rūstam, Nasir Khān and himself, whereby he obtained possession of the parganas of Mirpur, Mathela, and Meharki, instead of the villages of Dādloi and Mathela; and of having afterwards substituted a leaf in the Kurān containing these alterations copied fairly, in lieu of one in which they had been originally made. The verdict of this commission resulted in the issue, on the 21st of January, 1852, by order of the Most Noble the Governor-General of India (Lord Dalhousie), of a proclamation (see page 53 of Introduction) declaring that His Highness Ali Murād Khān's guilt had been proved; that he was therefore degraded from the rank of Rais, and that all his lands and territories, excepting those hereditary possessions which were allotted to him by his father, Mir Sohrāb Khān, should henceforth be a portion of the British empire in India. The tendency and final issue of the British relations with Sind, and, as a consequence, with the Khairpur State, have been to establish, under circumstances of more or less difficulty, the firm and undisputed rule of the British Government in that province. This result could not be arrived at without involving the exclusion of that confederacy of kings, or rather barons, under the title of Mirs, who ruled over the valley of the Indus for about thirty years as tributaries of

Kabul, and for about the same period as independent chieftains, who then lost upon the field of Meeanee the kingdom which, sixty years before, they had, in revenge, usurped, and who are now represented in the political world solely by that hated and minor member of their dynasty who, discovering in very early life, and from fraternal treachery, but too valid cause for distrusting humanity, resolved, when opportunity offered, to play, if a traitor's, yet a winning part, who, in so doing, usurped, as it is suspected, his brother's turban, betrayed his country, and was left, amid the common ruin, the Iago of the scene, to find, after many years, fit retribution in being degraded from that rank which never perhaps was rightfully his." The present ruler of the Khairpur State, His Highness Mir Ali Murād Khān Talpur, is the youngest son of Mir Sohrāb Khān Talpur, and was born in the year 1815; he is consequently at the present time (1875) about 61 years of age. He has several sons now living, amongst whom are Mirs Faiz Muhammad (38), Jān Muhammad (33), and Khān Muhammad (30). His eldest son, Mir Shāh Nawāz, died on 11th October, 1874, and as he left male offspring, the eldest son of the deceased Mir may be considered as the heir apparent to the chieftainship of the Khairpur State.

Khairpur, the capital town of the territory belonging to His Highness Mir Ali Murād Khān Talpur, in latitude  $27^{\circ} 31' N.$ , and longitude  $68^{\circ} 45' E.$ , seated on the Mirwāh canal, and situate about 15 miles east of the river Indus. It is distant about 17 miles south from Rohri, the main road from which town to Hyderabad runs through Khairpur. It has road communication also with the villages of Tando Masti Khān and Abhuro, distant from it 10 and 7 miles respectively. The town, which is irregularly built, consists of a large collection of mud hovels, intermingled with a few houses of a better description. It is very filthy, and, owing to the excessive heat of the place and the deleterious influence of the stagnant marshes around it, is decidedly unhealthy. The palace, covered with gaudy lacquered tiles of various hues, is situate in the midst of the bazars, and presents little worthy of notice. Outside the town are still standing a few tombs of certain Muhammadan saints—Pirs Ruhan Ziāwadin and Hāji Jafir Shāhid. There is a court of justice here, presided over by a Hindū officer. The population, consisting of Muhammadans and Hindūs, the former of whom greatly predominate in number, is estimated by some at from 4000 to 5000 souls, but by others as high as 10,000; at present (1875) it is supposed to be 7275. During the flourishing period of the Talpur dynasty it is said to have possessed not less than 15,000



inhabitants, but the place is now believed to be fast hastening to ruin and decay. The trade of Khairpur is principally in indigo, grain (juār and bājri), and oil-seeds, which form the chief articles of export, the imports being mostly piece-goods, silk, cotton, wool, metals, &c. The manufactures comprise the weaving and dyeing of cloths of various kinds, goldsmith's work, and the making of firearms, swords, &c. On the present site of the town of Khairpur, which owes its rise to Mir Sohrāb Khān Talpur, stood, prior to the year 1787, the village of Boira, and the zamindāri or estate of the Phulpotras. It was selected as the residence of the chief Mirs of Northern Sind, and for some time during Talpur rule, a British Resident was stationed here, in terms of the treaty of 20th April, 1838, concluded between the British Government and the Mirs of Sind.

**Khairpur Dharkī**, a Government town in the Ubauro talūka of the Rohri Deputy Collectorate, distant about 65 miles north-east from Rohri. It has road communication with Ubauro, Rawati, Mirpūr and Raharki. This town, which is the head-quarter station of a Tapadār, possesses a musāfirkhāna, vernacular school, a thāna with a police force of 7 men, and a cattle pound. The population, numbering 1602 souls, comprises 482 Muhammadans, mostly of the Dhar, Malik, Kori, Muhāna, Lohar, Dakhan, Daya, and Shēkh tribes, and 1120 Hindūs, who are chiefly of the Banya caste. The trade of the place is principally in grain, sugar, molasses, oil, and cloth. The Lohars of this town are noted for their handiwork in pots, pipe bowls, knives, razors, &c. The Dhars, who were once the principal landowners in the Ubauro district, are thus referred to by Lieutenant Lester, a former Deputy Collector in Sind, in his report (written in 1852) on the districts on the left bank of the Indus: "The Dhars are a race of Musalmāns, but originally Hindūs, who emigrated from their native country of Tonk Jodah, near Delhi, under their chief, one Jodh Dhar, and settled in Ubauro. This took place about H. 551 (A.D. 1150). The Dhars took Ubauro by force of arms from the Odhānas, a Muhammadan race, who formerly possessed it, and Jodh Dhar became the acknowledged ruler of the district of Ubauro. Alim Khān, the twelfth chief in succession to Jodh Dhar, was the first who surrendered his independence. He became subject to the kings of Delhi about A.D. 1634, and one of their first *sanads* is dated H. 1052 (A.D. 1626), by which one-half of the grain produce is allowed to the Dhar chief, and the other half taken by the Delhi Government. About A.D. 1795, the Talpur chiefs, Mirs Sohrāb and Rūstam, wrested from the chief of Ubauro some of the west and south-west

parts of that pargana near Sirhad, and called this acquired territory 'Nao Khalsa.' The Dhars were, however, allowed the zamindāri of these lands. In 1817 the Talpurs took Sabzalkot, two-thirds of which were possessed by the Hyderabad Mirs, and one-third by Mir Rŭstam. The Talpurs continued to encroach by degrees on the possessions of the Dhars in Ubauro, until one-half only remained in the possession of the latter. At length, on the death of Bhambū Khān, his son, Abŭl Khair, was only allowed an eighth share of the Government revenue besides zamindāri; he was permitted to hold one jāgir, called Chanāli, and four wheels." The town of Khairpur Dharki is comparatively modern, having been founded about 1787 by the grandfather of Jām Abul Khair Dhar, the present head of the Dhar tribe.

✓ **Khairpur Jūso**, a jāgir village in the Lārkāna talūka of the Lārkāna Deputy Collectorate, distant about 10 miles west by south from the town of Lārkāna. This village is held in jāgir by Mir Bijar Khān Talpur (Shāhdadāni), a lineal descendant and representative of the Mir Bijar, who was murdered by the Kalhora prince, Abdŭl Nabi Khān. It has direct road communication with Lārkāna and Wārā, being on that line of road, and is the head-quarter station of the Tapadār of Lang. It has also lines to accommodate five policemen and a musāfirkhāna. The population numbers 955 souls, of whom 296 are Musalmāns of the Isrān, Chana, Sahta, and Tunia tribes, and 659 Hindŭs of the Nangdev and Ahūja castes. There are no manufactures of any importance, and the local trade is mostly in juār and rice, but to what extent is not known. There is no transit trade. There is a fort in this village, built originally by one Jūso, of the Muhāna tribe; it is now occupied by the jāgirdār, Mir Bijar Khān.

✓ **Khairpur Natheshāh**, a town in the Kakar talūka of the Mehar Deputy Collectorate, situate 8 miles south of Mehar, with which place it has road communication, as well as with Kakar, Sita, and Gozo. There is also water communication by the Kudan canal, and the Western Nāra is only one and a half miles distant from it to the westward. It is a jāgir village belonging to Mir Khān Muhammad Talpur, and has now a municipality, established in August 1873, the receipts of which in 1873-74 were 575 rupees, and the disbursements 347 rupees. There was a musāfirkhāna here, but it was destroyed by the floods of 1874. There is accommodation for 4 men of the district police, and the place also possesses a Government vernacular school and cattle pound. The inhabitants, numbering 1430 in all, are composed of 840 Musalmāns and 590 Hindŭs. The former are of the

Saiyad and Sindi tribes; the latter Brahmans and Lohānas. The chief employments of the population are agriculture and trade. The trade, both local and transit, is in grain of different kinds, and cloth; of manufactures there seem to be none of any consequence.

✓ **Khalid**, a Government village in the Lārkāna talūka of the Lārkāna Division, 6 miles west from Lārkāna, with which town, as also with Akil, it has road communication. The inhabitants, numbering in all 1247, comprise 1034 Musalmāns of the Kalhora and Ghado tribes, and 213 Hindūs. Their chief employment is agriculture.

✓ **Khānpur**, a Government village in the Shikārpur talūka of the Sukkur and Shikārpur Deputy Collectorate, distant about 8 miles north-east from Shikārpur. It is close to the Sherwāh *bandh*, which protects it from the northern floods, and is situate on the road leading from this latter town to Kashmor, and has road communication with Zurkhēl, Thairio and Abād Mēlāni. It is the head-quarter station of a Tapadār, and has a small police post of 7 men, a musāfirkhāna and a "*dhak*," or cattle pound. The population, numbering 2807, comprises 1849 Musalmāns, principally of the Bapar and Sethar tribes, and 958 Hindūs of the Lohāno caste. The occupation of the inhabitants is mostly agricultural.

Much of the land around this town has been bought up by a wealthy Banya. Cultivation by well is largely carried on, there being in and around this village no less than 52 wells. The manufactures of this place are weaving, shoemaking, and pottery. The trade of Khānpur is in agricultural produce, but to what extent and value does not appear to be known.

✓ **Khānwāhan**, a Government village in the Kandiāro talūka of the Naushahro Division, distant 18 miles north-east from Tharūshā, and 8 miles north-east from Kandiāro. It has road communication with the villages of Bhēlāni and Gulshāh, distant from it respectively 6 and 2 miles. It is the head-quarter station of a Tapadār, but has no police lines. The population, numbering 1085 in all, comprises Muhammadans, mostly of the Saiyad and Sahta tribes, and Hindūs of the Lohāno caste, but the number of each class is not known. Their occupation is chiefly agricultural. Lieutenant Jameson mentions that the number of inhabitants in 1852 was 829, of whom 418 were Muhammadans, and 411 Hindūs. The houses in all were 251, and the number of shops 41. Cotton cloth is manufactured here to a small extent for both home consumption and export; but the trade, which

is in grain and cloth, is both small and unimportant. The town is supposed to have been founded about 300 years ago, by one Khān Sahta, a Zamindār.

- ✓ **Khatiān**, a Government village in the Hyderabad talūka of the Hyderabad Collectorate, distant 10 miles north of Hyderabad, and having road communication with Tando Jām and Masu Bhhurgari. No Government officers reside here. There are police lines for 2 men. The population, numbering in all 1670 persons, comprises 1224 Musalmāns of the Khatiān tribe, and 446 Hindūs, mostly Lohānos. Their chief employment is agriculture. The trade is in cotton and grain, but to what extent is not known.
- ✓ **Khipra**, a talūka (or revenue sub-division) in the Thar and Pārkar Political Superintendency, with an area, including the Sānghar talūka, which is subordinate to it, of about 3114 square miles. It has 8 tapas and 28 dehs, with a population of 45,145 souls. The revenue, imperial and local, of this sub-division for the four years ending 1873-74, is as follows :—

	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . . .	rupees. 76,529	rupees. 1,15,146	rupees. 1,21,264	rupees. 1,26,593
Local . . . . .	8,175	13,007	15,364	13,158
Total rupees .	84,704	1,28,153	1,36,628	1,39,751

- ✓ **Khipra**, a town in the talūka of the same name, in the Thar and Pārkar Political Superintendency, seated on the Eastern Nāra, and distant about 40 miles north-west from Umarmkot. It has road communication with the towns of Mirpur Khās (in the Hālā division), Ghulām Nabi Shāh-jo-got, Sanghar, Umarmkot, Hathungo, and Fuledi. It is the head-quarter station of a Mūkhtyārkar and Tapadār, and has a police post of 29 men, civil and criminal courts, a dispensary, dharamsāla, and a cattle pound. There was a Government school established here, but it was broken up, owing to the poor attendance of pupils. Khipra possesses a municipality, established in 1862, the revenue of which in 1873-74 amounted to 2362 rupees, and the expenditure to 2178 rupees. The population, numbering in all 1227, comprises 211 Musalmāns of the Baloch, Khāskēli, Kalhora, and Hingoro tribes, and 1016 Hindūs, principally Brahmans, Lohānos, Khitris, Dhils and Mēngwars. Their occupation is for the most part agricultural. The

manufactures of this place consist mainly in the weaving and dyeing of cloth, and the trade is in cotton, wool, cocoa-nuts, metals, grain, sugar, tobacco, and other articles. The transit trade is in grain, cattle, wool, ghi, indigo, sugar and cloth. This town is supposed to have been founded about a century ago by one Hālā Mari.

**Khokhar**, a town in the Alahyar-jo-Tando talūka of the Hālā Deputy Collectorate, seated on the Sarafrāzwāh canal, and distant 20 miles south-east from Hālā. It has road communication with Nasarpur and Alahyar-jo-Tando. There is a Tapadār's "dēra" here, as also a police thāna. The population is 939 in number, is composed of Musalmāns and Hindūs, but the number of each is not known. The former are chiefly of the Khokhar and Khāskēli tribes, and the latter Lohānos and Panjābis. Their principal occupation is agriculture. The trade of the place is mostly in grain, ghi, sugar and oil, but both it and the transit trade are of no consequence. There is no manufacture of any kind in this town. Khokhar is said to have been founded by one Bahādūr Khān Khokhar, about 97 years ago; the chief men of note now residing in it are Bira Khān Khokhar, Rata Khān Khokhar, Muhammad Khān Khokhar, and Assumal Sett.

**Khora**, a village in the Khairpur State, seated on the Abulwāro canal, and distant about 20 miles south from the town of Khairpur. The postal road between Hyderabad and Multān runs through this place, and it has road communication besides with Kot Diji and Gambat. The population, numbering in all about 3675 souls, consists mostly of Musalmāns, who are engaged in weaving coarse cotton cloths.

**Khorwāh**, a Government village in the Gūni talūka of the Tanda Deputy Collectorate, and the head-quarter station of a Tapadār, is situate in latitude 24° 40' N., and longitude 68° 27' E. It is distant 26 miles south of Tanda Muhammad Khān, and 47 from Hyderabad, and has road communication with Badin, Mirpur Batoro (Kar. Coll.), Būlri and Tanda Muhammad Khān. There are police lines, and a Tapadār's "dēra," but no other public buildings. The inhabitants number 1320, but the number of Hindūs and Musalmāns is not known. They are mostly of the cultivating class, with a few traders and shopkeepers, while the trade and manufactures of the place are poor and unimportant, the former mostly in cloths, grain, rice and ghi. The transit trade consists only of rice and ghi, in inconsiderable quantities. This village is supposed to have been built about 98 years ago, by one Kamāl Khor.

**Kohistān**, a talūka (or portion) of the Karāchi Collectorate, included, so far as magisterial jurisdiction is concerned, in the Sehwan division of the same collectorate. This talūka comprises a very barren and hilly tract of country, extending in length from north to south 60 miles (though according to Major Preedy, a former collector of Karāchi, 120 miles), and in breadth from east to west from 45 to 50 miles. It is bounded on the north by the Sehwan division; on the east by the same and the Jerruck districts, a range of hills known at various places under the name of Kāro, Sūrjāno, Sumbak, Eri, Hothiyan, Rani Kāra, Sian, and Dhāran, forming the boundary line; on the south by the Kadēji hills and the Karāchi talūka; and on the west by the Habb river and the Khirthar range of mountains. The configuration of this district on its northern, eastern, and southern sides is in several places very irregular. The area of Kohistān is mentioned by Preedy to be about 6000 square miles, but the Sind Survey Department does not estimate it at more than 4058 square miles. The general aspect of this talūka is decidedly mountainous; its principal ranges being, in fact, continuations of the great Khirthar range. In its southern portion there are extensive plains, separated from each other by low lines of hills, running generally from north to south, and showing evident signs of volcanic action. These plains, after a fall of rain, produce an abundance of forage, and vast herds of cattle from the neighbourhood of the Indus are frequently pastured there. In the central portion of this highland district the hills rise to the dignity of mountains, with proportionately deep and wide valleys. To the north they are of limestone formation, with very precipitous sides, and the bottoms are filled with huge boulders of rock brought down by hill-torrents after heavy rain. The valley of the Mohul, which is 20 miles long by 10 in breadth, has a pretty appearance after rain, the hills inclosing it being from 800 to 1000 feet in altitude.

The principal streams in Kohistān are the Habb, Bāran, and Malir. The first, which, excepting the Indus, is the only permanent river in Sind, is said to take its rise at a spot near either Zehri or Hoja Jamot, in Balochistān, or, as some affirm, near Kelāt. In the upper part of its course it flows in a south-easterly direction for 25 miles, and then turning due south, it holds its way for about 50 miles; it then turns to the south-west, and, after a total length of 100 miles, falls into the Arabian Sea on the north-western side of Cape Monze, in latitude  $24^{\circ} 50'$  N., and longitude  $66^{\circ} 36'$  E. Delhoste states that this river, which for a long distance forms the western line of boundary between Sind

and the Las Bēla territory, has never been known to fail in water-supply, even in the driest seasons. After heavy rain in the hills, a very large body of water comes down this stream; but it soon passes off, leaving here and there deep pools which abound with fish and alligators. The whole course of this stream is described as a succession of rocks in gravelly gorges in the rugged and barren Pabb mountains. Another stream, the Bāran, which is in fact nothing more than an extensive mountain torrent, rises in the Khirthar range 60 miles north-west of Hamlāni, and after a course of about 90 miles, in which it is said to drain an area of 1250 square miles, joins the Indus a few miles below the town of Kotri. After rain in the hills, a large body of water flows down the bed of this river into the Indus. In several places there is a considerable extent of arable land on this stream, but except about its head, westward of the Khirthar range, where there is a small area cultivated by the Gabol tribe of Balochis, the land is nearly all waste. The Bāran would appear to have forced its way through the Khirthar hills by a very narrow pass—the work, it is presumed, of some convulsion of nature. Both this stream and the Gaj river, in the Sehwan district, seem to have found their way through these hills in a similar manner. The rocky sides of both passes are perfectly perpendicular, and, as remarked by Mr. James, a Deputy Collector of Sehwan, one would suppose some giant had cut two distinct slices out of this lofty range. The scenery in their neighbourhood is very fine and attractive, and these passes must be considered to rank among the most remarkable natural objects to be seen in this part of the Karāchi Collectorate. The Malir river, known as the Vadia near its source in the western range of hills, in about latitude  $25^{\circ} 20'$  N., and longitude  $67^{\circ} 38'$  E., and as the Gurban in its middle course, from a village of that name near which it flows, after taking a south-westerly course of about 60 miles, falls into the sea by the Gisri creek. When in flood, after heavy rains in the hills, a very large head of water flows down its bed for a short time, but during the greater part of the year it is nearly dry. This river is said in its course to drain an area of 770 square miles. There are numerous other mountain streams, or "nais," as they are called, but they are dry almost the whole of the year, though water is readily obtainable by digging a few feet in the beds of these torrents. Owing to the very hilly nature of this district, and its distance from the Indus, there are no canals for irrigational purposes.

CLIMATE.—The climate of this hilly portion of Sind differs in

some respects from that in the plains. Thus, at Būla Khāns' Thāna, it is, it seems, neither so hot, nor, at the same time, so cold as at other towns in the flat country. During the year 1871, the mean maximum heat at that station was only 86°, the mean minimum being 73°: the hottest months were April, May, and June. During January and February the prevailing winds were from the east and west, and during the remaining ten months from the east and south-west. The maximum, minimum, and mean temperature at this station during the three years ending 1874 is shown below :—

Year.	Maximum.	Minimum.	Mean.
1872	91	68	79
1873	100	62	81
1874	99	64	81

The average yearly rainfall, as observed at Būla Khān's Thāna during a period of eight years ending 1874, is 8'22 inches; that for five years ending 1874 is shown in the following table :—

Months.	1870.	1871.	1872.	1873.	1874.	Months.	1870.	1871.	1872.	1873.	1874.
January . . .	..	..	..	'21	'21	July . . .	'14	'68	11'18	'07	5'54
February . . .	..	'36	..	'06	'23	August . . .	1'71	'33	'55	1'35	5'20
March . . .	'68	..	..	'04	..	September . . .	..	..	1'27	..	..
April . . .	..	'23	.83	..	..	October . . .	..	..	..	..	..
May . . .	..	'07	..	..	..	November . . .	..	'04	..	..	..
June . . .	3'51	..	'04	..	'03	December . . .	..	..	..	'25	..
	4'19	'64	'87	'21	'56		2'87	1'09	13'00	3'67	10'74

The wild animals of this district are the same as those generally found in the hilly portions of the province, and comprise the hyena, panther, wolf, fox, ibex, "gud" (wild sheep), &c. Among birds, the vulture, raven, grey pigeon, partridge and quail: reptiles of various kinds are also numerous. Large herds of sheep and goats are pastured in different parts of this talūka by the Baloch tribes, and form the greater part of their wealth.

The inhabitants of this district in 1856 numbered, it was supposed, about 16,410 souls, of whom 14,154 were Musalmāns



and 2246 Hindūs. The exact number, as found by the census of 1872, was 5681, which would thus only give 1·4 persons to the square mile. Of this number 900 are Hindūs and 4713 Musalmāns. The population is, however, from its nomadic nature, a very fluctuating one, there being but six permanent villages throughout the whole talūka. The people inhabiting this district are Balochis of the Gabol, Rind, and Nohāni tribes, as also Nūmriās and Jokias. The Baloch tribes live mostly in the northern part of Kohistān, about Pokhan, Dhul and Rani-jo-Got, while the Nūmriās and Jokias are found in the central and southern portions. These two latter tribes are Sindis proper, and claim a descent from the great Samma tribe. Of the Nūmriās there are about twenty-four sub-divisions. The Jokias state themselves to be of Rājput descent, the first man of any consequence among them having been Jām Bijar; they are noted for courage and fidelity, and many of the tribe are in the employ of different native governments. They mostly inhabit that part of the district near the Malir, Rann Pitiāni, Malmuāri, Gadap, and the country generally lying between the Ghāro creek and the Habb river. Both the Nūmriā and Jokia tribes have been described at some length in another part of this Gazetteer (*see* JERRUCK). Their chief employment is in tending immense flocks of sheep, goats, &c., on which they subsist. The Gabols seem the most inclined to agricultural pursuits, but the other tribes are essentially nomadic in their habits, moving about from place to place according to the requirements of their flocks. As a rule, they never erect any dwelling of a more substantial character than a mat hut, which can be put up in a couple of hours. The Nūmriās are especially averse to have any dealings with the Government; but all the tribes are great adepts at cattle-lifting, which is the chief prevailing crime among them, as it is generally throughout Sind.

Of the revenue derived by Government from this immense tract of country there is nothing to be said at present, since all land assessment in the talūka was remitted for twenty years, commencing from 1865, at the suggestion of Colonel W. R. Lambert, Collector of Karāchi. Formerly there was appointed for this district a Mūkhtyārkar, on a salary of 50 rupees per mensem, with a subordinate establishment costing about 90 rupees per mensem, or 1680 rupees in all per annum; but the entire revenue of the talūka in some years was only 500 rupees, and it was in consequence of this deficiency that a reduction of establishment became imperatively called for. Major Preedy, who reported on Kohistān, states that the revenue

from all sources in 1834-55 was 1171 rupees, much of which was raised from a tax on cart-loads of grass and garden cultivation, carried on principally in the Malir valley. The Government establishment there cost 90 rupees per mensem, but this was subsequently increased to 205 rupees. The assessment on land then in force was very light, as will be seen from the following statement :—

In Kot Rani, Barāni land . . . . .	6 annas per jirēb.
In other places . . . . .	4 " "
On well cultivation . . . . .	5 rupees per well.

The abolition of all assessment on land in this district for a period of twenty years would, it was expected, induce many of the tribes to give their attention more to cultivation than they hitherto have done. To some extent this expectation has already been realised, and about 6000 acres are now estimated to be yearly cultivated, and this area is yearly increasing. The Government establishment at present kept up in Kohistān consists only of a Kotwāl, with the powers of a subordinate magistrate, on a monthly salary of 40 rupees, with two peons and a small monthly contingent allowance. The police force comprises in all 77 men, under a chief constable. Of these 25 are mounted, and the remainder armed and unarmed foot-police. There is one thāna, a sub-thāna, and 17 police posts. Colonel Lambert also recommended the construction of a road from Būla Khān's Thāno, the chief village in the talūka to Kotri, a distance of 32 miles, and this has since been carried out. The road also from Jhāngār to Karāchi, a distance of 136 miles, has been much improved, especially that portion crossing the Kadēji hills. The following is the road route from Jhāngār to Karāchi; and, in a barren desert like that of Kohistān, it may not be out of place to state that, though water and forage are, as-a rule, abundant, other supplies are not generally procurable, and travellers by this route will do well to take with them all they may require in this respect :—

FROM JHĀNGĀR TO KARĀCHI.

Stages.	Distances in Miles.	Remarks.
1. Chorlo . . . . .	15½	Has a Dharamsāla.
2. Maliri . . . . .	11½	Do.
3. Pokhan . . . . .	13	Do.
4. Kajūr . . . . .	9½	Do.
5. Bachāni . . . . .	11	Do.
6. Būla Khān's Thāno . . . . .	8½	
7. Dumāj . . . . .	8	Do.
8. Irak . . . . .	9½	
9. Kadēji . . . . .	17½	Do.
10. Gurban . . . . .	6	
11. Dumb . . . . .	10	Do.
12. Saphura . . . . .	7½	Do.
13. Karāchi . . . . .	8½	
Total . . . . .	136	

Besides the two lines of communication already referred to, there is a branch road, 17 miles in length, from Kajūr to Taung, near the Kelāt boundary. This latter village is one of the principal police stations in Kohistān. There is another road also, 5 miles in length, connecting Būla Khān's Thāno with Malūk, a village belonging to Sardar Khān.

The chief town of this district is Būla Khān's Thāno, a Government village, distant about 32 miles west from Kotri, and 64 miles north-east from Karāchi, with both which places, as well as the village of Malūk (5 miles), it has road communication. This town is seated not far from the Bāran river, from which good water is at all times obtainable by digging some five or six feet under the surface of its apparently dry bed. It is the head-quarter station of a Kotwāl, who has the powers of a subordinate magistrate, and there is a police thāna with a force of 16 men, under a chief constable. The population of the place is not more than 440, of whom 238 are Musalmāns, chiefly of the Nūmria and Būrfat tribes, and 202 Hindūs of the Banya caste. As a rule, their occupation is principally pastoral and agricultural, and what trade does exist is for the most part in wool, ghi, and cattle. In addition to a branch post-office there is a dispensary at this town, under the charge of an officer of the subordinate Government Medical Establishment; it is wholly supported by Government at an average annual cost of about a thousand rupees. The admissions,

&c., into this dispensary during the years 1873 and 1874 were as follows :—

	Admissions in		Casualties in		Average Daily Attendance.		Remarks.
	1873.	1874.	1873.	1874.	1873.	1874.	
In-patients .	..	11	..	..	..	..	No epidemic disease has ever prevailed here since the establishment of the dispensary.
Out-patients .	785	969	..	..	13.9	13.1	

FEUDS.—A system of blood feud prevails in Kohistān between various Baloch tribes, inducing a state of things which is deserving of notice. The causes from which these arise are at times trivial in the extreme: thus, in a squabble where the turban of a man of one tribe may happen to be knocked off his head by a man of another tribe, a sufficient provocation is presumed to have been given, not alone to the insulted individual, but even to his relatives or his tribe, which can only be wiped out by the blood of either the insulter or of one of his relations. When this is effected, the other tribe proceeds to avenge the murder of their clansman, and thus the feud may go on for years. To put a stop to this state of things, it becomes necessary to imprison the chief of the tribe, though sometimes the offended party whose turn it is to take revenge is willing to be appeased by a gift of money, camels, or cattle, and then there is an end to the feud. Mr. James, a former Deputy Collector of Sehwan, thus refers to a feud as at present existing between two tribes, the Būrfat Loharānis (a branch of the powerful Nūmria family) and the Barējos, who reside near Taung, in Kohistān: "Four or five years ago, one Nur Muhammad, a man of great influence amongst the Barējos, seduced a Loharāni woman and slew her husband. He attempted to purchase peace, but the Loharānis declined the offer. He was tried for murder, but the refinements of our English procedure not suiting cases of this sort, as occurring among barbarous and wild tribes, he was acquitted, although the whole country around knew of his guilt and the Government had taken very strong measures towards securing his extradition from the Kelāt State. Some Loharānis were subsequently caught by the police with arms in their hands going to murder him, and these were bound over to keep the peace; but it was of no avail trying to save his life. On the 26th of April, 1871, he, accompanied by his step-son and another man

was met by his enemies in a pass near Taung, when the two former were shot and cut to pieces with swords. The third man happened to be a wandering minstrel of the powerful Chuta tribe, and his life was spared, but he had recognised the murderers. When the case came on for trial, the Barējos tried to implicate another man, a Gabol, as they have a feud with a section of that tribe also. They thought, in fact, if I may be allowed the expression, to kill two birds with one stone, but the desire, as might be expected, failed, and the three real murderers were acquitted. It is now the Barējos' turn to take a life, and if stern measures be not taken to stop the feud, they will most assuredly do so. This example will show how, notwithstanding that the district has been under British rule for 25 years, the vendetta still flourishes amongst the rude Baloch tribes."

**Kot Diji.** (*See DIJI FORT.*)

**Kot Habib**, a Government village in the Naushahro Abro talūka of the Sukkur and Shikārpur Deputy Collectorate, distant 6 miles west from Shikārpur, and 12 miles west from Garhi Yāsin, the road from the Lakhi Tar, near Shikārpur, to Jhali passing by it. It is the head-quarter station of a Tapadār, and has a cattle pound. There is also a small vernacular school, supported by the Zamindār, Faiz Muhammad Mahar. The population, numbering in all 861 souls, consists of Musalmāns of the Bapar and Sethar tribes, and Hindūs, mostly of the Lohāno caste, but the number of each class is not known. The manufactures and trade of this place seem to be of small importance, the former consisting in the weaving of cloth, shoemaking and pottery, the latter in agricultural produce.

**Kot Sultan**, a large Government village in the Shikārpur talūka of the Sukkur and Shikārpur Division, distant 8 miles north of Shikārpur, on the main road from which town to Jacobabad it is situate. It has road communication also with Got Mian Sahel, Jagan, and Zorkhel. It is the head-quarter station of a Tapadār, and possesses police lines, a Government school and a dharamsāla. The inhabitants, numbering in all 2014, comprise 1275 Musalmāns (Pathāns and Saiyads), and 793 Hindūs. The population are mostly employed in trade.

**Kotri**, a talūka (or revenue sub-division) of the Sehwan Deputy Collectorate, having an area of 684 square miles, with 3 tapas, 29 villages, and a population of about 23,643 souls. The revenue, imperial and local, of this sub-division for the four years ending 1873-74 is as follows (*see next page*):—

	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . . .	rupees. 13,054	rupees. 28,364	rupees. 36,449	rupees. 37,872
Local . . . .	12,537	13,698	12,482	12,931
Total rupees .	25,591	42,062	48,931	50,803

**Kotri**, a large and important town in the talūka of the same name of the Sehwan Deputy Collectorate, in latitude  $25^{\circ} 22' N.$ , and longitude  $68^{\circ} 20' E.$  It is situate on the right bank of the Indus, opposite to the village of Gidū Bandar, in the Hyderabad talūka, and is between 66 and 67 feet above mean sea-level. The river bank at Kotri may be considered as permanent, being high and well protected from the stream, but there is much low-lying land to the westward of the town, and at times Kotri has been placed in considerable danger of being washed into the river from the sudden and violent inundations of the Bāran mountain-torrent. This danger has to some extent been removed by the cutting of deep channels to the northward of the town, and these, leading into the Indus, drain off the surplus water arising from these inundations. A *bandh* or dam was also put up a few years since as some preservative against the flood waters. The river opposite to Kotri may be considered as having a mean breadth of over 600 yards, with a general mean depth of between 9 and 10 feet, though during the inundation season this latter may be estimated at from 18 to 20 feet. The town has three means of communication with other places: first, by the river, in steamers and native sailing craft; second, by roads, main and branch; and thirdly, by railway, Kotri being the present northern terminus of the Sind railway. By the river, Kotri is placed in regular and periodical communication with Sukkur (about 270 miles distant) and a few intermediate stations; with Mitankot (430 miles), Multān (570 miles), and other places in the Panjāb; and in addition to this, native sailing vessels, known as *dūndhis*, use it from both up and down river, bringing and taking away merchandise of various kinds. At times the river bank at Kotri, with the flotilla steamers, their barges, and numerous native boats moored close to the shore, all either discharging or taking in cargo, presents an animated and busy appearance not to be seen at any other station on the river between this town and Sukkur. Kotri has road communication with Sehwan, distant 84 miles N.N.W., *viā* Bādā, Unarpur, Gopang, Mānjhand,

Sann, Amri, and Laki; with Karāchi by two road routes, one by Būla Khān's Thāno, distant about 96 miles, and the other *via* Jerruck, Tatta, Ghāro, Pipri, and Lāndhi, distant about 111 miles. A road also runs from Kotri to Band-vira, distant 24 miles. By railway, Kotri has communication with Karāchi, *via* Balhāri, Metting, Jhimpir, Jungshāhi, Dābēji and Malir, distant 106 miles. For the more convenient transport of goods to and from the river steamers at Kotri, some miles of sidings are laid down on the river bank in a zig-zag direction, in such a manner as to suit any condition of the river, whether at its lowest or in the flood season. Kotri is the head-quarter station of numerous Government officers connected with the Deputy-Collectorate, such as the Deputy Collector, the Mūkhtyārkar of the talūka, the Civil Surgeon, the Settlement Officer for all Sind, the Conservator and Registrar of the Indus, and the Judge of the subordinate Civil Court. A large number of officials connected with the Indus Steam Flotilla Company and Sind railway also reside here. There are two Christian churches in the place, one Protestant and the other Roman Catholic; for the duties of the former place of worship a minister is provided at the joint expense of Government and the railway company. Kotri possesses also a civil hospital, court house, subordinate jail, post-office, Government and other schools, travellers' bangalow, dharamsāla, and cattle pound. The Indus steam flotilla establishment at Kotri is on an extensive scale, having its offices in the old fort, and near it are the workshops for the repairs of the steamers and their barges. This company has also a large floating dock on the river, capable of receiving any of its steamers for repair. There is a police thāna here with a force of 31 men, of whom two are chief constables; there was besides an European inspector of town police, but this post has recently been abolished. Kotri possesses a municipality, established in 1854, having an annual income ranging from 7000 rupees to 10,000 rupees. The municipal garden, close to the old fort, is small but used to be well kept, and produced, at certain seasons of the year, a fair quantity of vegetables and fruit. Much has already been done by the municipality towards carrying out a proper system of conservancy; and the severe cholera visitation of 1869 has shown the necessity for filling up many of the pits, which were somewhat numerous in both the European and Native quarters of this town. The European quarter, which lies to the north and west of the Native town, is well laid out, and is, as it were, embosomed in foliage, the roads being fairly lined on both sides with fine trees of various kinds, now very properly kept thinned since the cholera

epidemic of 1869. The bungalow, which are here built of mud and *kachha* brick, are everywhere surrounded by large "compounds," or inclosures, containing in some instances neatly-kept gardens, walled round with the same material. It is in this quarter that the different European Government officers, the officials of the Indus flotilla, Sind railway, and others reside. On the southern side of the European quarter is the Library and Mechanics Institute (formerly the billiard-room of the Indus Flotilla Company), and on the main road, near the fort, stands a fine red-brick built edifice used as a school, which owes its existence to Colonel M. R. Haig, settlement officer for the whole Province, and an accomplished Sindi scholar. The railway station and buildings at Kotri are only temporary erections, and offer but poor accommodation to passengers. The area occupied by the railway company is a very large one, and the company possesses a row of upper-storied buildings, erected in the first instance specially for the accommodation of its own subordinate *employés*, but at present they are indiscriminately occupied. The Native town is to the south-east of the European quarter, and skirts the river bank for some distance. In matters of sanitation, much more attention has been given by the inhabitants to the cleanliness of the town since 1869, the cholera year, when so many of the people fell victims to the frightful epidemic which prevailed in the month of September of that year. The streets run pretty regularly at right angles to the river, and present the usual signs of a large and busy Indian town.

The population of Kotri by the late census of 1872, including its adjacent hamlets of Khānpur and Miāni Multani, was found to be 7949; of these 5166 were Musalmāns of the Nūmria, Saiyad, Shekh, Gorkhāni and Pathān tribes; the Hindūs number 2455, and are principally of the Brahman and Lohāno castes. The Christian population, comprising Europeans, Eurasians and Goanese, are 304 in number, and the remaining 24 are made up of Parsis and other nationalities.

The trade of Kotri is locally inconsiderable, but its transit trade, owing to the situation of the town on a permanent bank of the Indus, and to its ready accessibility to Karāchi by railway, is of great importance. The articles of merchandise, mostly sent up-river by the Indus Flotilla Company's steamers to Sukkur and the Panjāb, comprise liquors, such as beer, wines, and spirits (chiefly for the European troops quartered in the Panjāb), metals, railway materials, piece-goods and silk. Those principally brought down by the same company's boats to Kotri, are cotton, wool, grain of



sorts, oil-seeds, indigo, ghi, oil, saltpetre and sugar. Of the merchandise sent from Kotri by rail to Karāchi, the chief articles are cotton, oil-seeds, grain of sorts, wool, indigo, oil, ghi, and dye-stuffs. Water from Kotri is forwarded to Karāchi especially for the manufacture of ice, and for drinking purposes generally. The following tables, drawn up from the statistical returns furnished by the Deputy Auditor of the Sind, Panjāb and Delhi railway, will show the quantity of various articles of merchandise despatched by the flotilla steamers up-river from Kotri, principally to Multān in the Panjāb, as well as that received at Kotri from different places on the Indus, during the past five years, ending with 1874; and in addition to this, the quantity of goods carried by the Sind railway to and from Kotri during the three years ending 1871, no information of a *later* date being available (*see pp.* 456-9):—

TABLE I.

Description.	1870.		1871.		1872.		1873.		1874.	
	Up-river.	Down-river.	Up-river.	Down-river.	Up-river.	Down-river.	Up-river.	Down-river.	Up-river.	Down-river.
	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.	tons.
Ammunition . . . . .	371½	8	125	...	10	...	3	...	11	1
Books and Stationery . . . . .	11½	5	35	10	26	24	49	32	56	12
Confectionery . . . . .	2½	...	...	...	...	...	...	1	...	...
Commissariat Stores . . . . .	...	...	159	14	4,442	9	4,310	6	3,554	16
Cotton (raw) . . . . .	...	2,923	...	1,678	...	649	...	904	...	371
Cotton Piece-goods . . . . .	1,985½	4,681	1,348	588	900	806	1,217	924	1,515	992
Dyewood . . . . .	½	1	1	79	5	46	29	175	193	231
Fruits and Vegetables . . . . .	1	10	160	80	273	35	436	148	548	16
Grain (and Pulse) . . . . .	...	5,557	5	3,201	26	1,572	3	3,044	114	2,544
Gunnies . . . . .	39½	6½	63	19	31	10	103	...	187	4
Ghi and Oil . . . . .	1	376	15	93	54	361	162	193	139	139
Hemp . . . . .	...	13	...	...	...	12	...	98	1	...
Indigo . . . . .	...	672	...	462	2	508	21	307	3	203

Liquors—Malt . . . . .	7,194	...	4,271	1	206	3	320	...	...	...
Wines and Spirits . . . . .	224	...	363	2	455	1	439	...	546	...
Machinery . . . . .	70½	...	...	...	98	...	91	2	4	...
Metals—Copper . . . . .	...	...	...	...	4	1	7	1	116	1
Brass and Copper . . . . .	396½	...	201	7	101	10	74	19	42	19
Iron . . . . .	123	½	33	2	101	42	652	80	2,033	5
Railway Materials . . . . .	2,165½	...	...	...	797	...	3,779	37	6,387	216
Saltpetre . . . . .	...	...	...	...	...	56	...	148	...	80
Seeds . . . . .	8½	551	54	992	561	382	167	2,189	3	4,382
Silk . . . . .	129½	42½	24	14	19	24	15	299	15	18
Spices . . . . .	20	...	292	75	129	44	181	69	253	31
Sugar (and saccharine matter) . . . . .	3	163½	42	2,266	326	1,366	77	3,771	101	3,647
Tea . . . . .	29	8½	20	10	6	3	5	10	...	13
Tobacco . . . . .	4½	2	9	40	10	41	14	30	23	33
Treasure . . . . .	...	...	3	1	33	...	4	...	9	1
Wool . . . . .	1	1,108½	11	2,937	3	2,944	7	4,198	7	3,386
Miscellaneous . . . . .	1,218	675	1,220	826	775	841	516	674	919	468

TABLE II.

Descriptions.	From Kotri to Karāchi.			From Karāchi to Kotri.		
	1869.	1870.	1871.	1869.	1870.	1871.
	tons.	tons.	tons.	tons.	tons.	tons.
Chunam . . . . .	77	239	720	...	...	15
Cotton (raw) . . . . .	7,699	13,170	9,738	...	...	6
Cotton Piece-goods . . . . .	...	...	97	2,793	2,536	2,693
Dangari and Thread . . . . .	119	31				
Dyestuff . . . . .	233	245	217	...	...	47
Fruits (and Vegetables) . . . . .	553	295	395	3,960	856	3,220
Dates . . . . .	...	...				
Copra . . . . .	...	...	187	496	...	3
Fuel—Coal . . . . .	...	...	371	...	...	...
Firewood and Charcoal . . . . .	3,195	1,017	1,130	...	...	64
Ghi and Oil . . . . .	1,467	2,005	28,757	...	...	153
Grain—Bājri, Jār . . . . .	1,724	...				
Grain . . . . .	781	...	...	...	...	...
Rice . . . . .	2,493	5,180	...	...	...	...
Wheat . . . . .	1,580	...	...	...	...	...
Grams edible . . . . .	...	...	...	...	...	...
Grass . . . . .	528	...	...	...	2,816	...

Gunny bags . . . . .	...	...	26	499	640	1,065
Indigo . . . . .	1,227	875	550	...	...	2
Liquors—Malt . . . . .	...	...	...	6,371	6,466	4,618
Wines and Spirits . . . . .	...	...	81	941	720	443
Metals—Copper . . . . .	...	...	14	628	454	330
Iron . . . . .	...	...	56	4,048	2,415	2,917
Provisions and Oilmen's stores . . . . .	...	...	76	150	72	1,313
Potash . . . . .	29	59	101	...	...	28
Railway Materials . . . . .	...	...	...	1,162	1,545	...
Saltpetre . . . . .	74	114	110	...	...	...
Seeds . . . . .	3,807	8,933	13,044	...	...	3
Spices . . . . .	...	...	11	181	274	302
Black Pepper . . . . .	...	...	...	429	308	58
Stores (Government) . . . . .	156	18	134	753	352	406
Sugar (and saccharine matter) . . . . .	63	81	14	2,357	2,196	2,215
Tea . . . . .	...	...	13	288	84	25
Timber . . . . .	...	...	60	1,021	296	278
Tobacco . . . . .	157	240	212	...	...	20
Water . . . . .	639	454	...	...	...	...
Wool . . . . .	2,949	2,763	5,186	...	...	2*
Miscellaneous . . . . .	3,778	3,387	2,831	5,489	9,006	2,408

KOTRI.

Kotri possesses no manufactures of any marked importance, such articles as coarse cloth, and those things used generally among Sindis, being alone made here. Ice used to be made in large quantities at this place, for sale at both Hyderabad and Karāchi, but the manufacture was fluctuating, and was dependent on the supply of this article at Karāchi. There is a Government steam ferry, annually leased out on contract, which plies backwards and forwards from sunrise to sunset from Kotri to Gidū Bandar (for Hyderabad), taking over passengers, baggage and animals at certain fixed rates, those for passengers ranging, according to class, from half an anna to four annas. There are, besides, several row-boats also employed in conveying passengers across the river at about the same fares.

The town of Kotri is held almost entirely in jāgir by Malik Sardar Khān, chief of the Nūmria tribe. Captain Preedy, a former Collector of Karāchi, in reference to this subject thus wrote in 1847 of the then Nūmria chief, Ahmad Khān: "This chief also possesses extensive jāgirs near Kotri and Ryla, in Ghorabāri. He formerly enjoyed the privilege of collecting customs and tolls on the river at Kotri. On the abolition of customs, he received a grant of 600 *bigās* of land near Budhāpur as compensation for the loss of his customs and tolls. The village of Kotri and the gardens near it formerly belonged to Ahmad Khān, but the latter being required for Government purposes, the chief readily relinquished them, and obtained other gardens above and below Kotri in exchange." Heddle, in his Memoir on the Indus, also refers to this town as it appeared in 1836: "Opposite Gidū Mal-jo-Tando, on the right bank of the Indus, is situate another considerable village, called Kotri. At this point the great northern and southern roads from Karāchi and Kandahar abut; and at this point are established two ferries (one at the village itself, and the other half a mile below), which keep up the communication between the opposite banks of the river. The village is said to contain 600 huts, inhabited principally by Lohānos and Muhānas. There is also established at Kotri one of the three distilleries which supply the capital and its vicinity with spirituous liquor. The establishment here, however, is small, consisting of only one still, which produces monthly more than fifteen maunds of the highly-rectified aromatic spirit so much admired by the Sindis." Kotri was, some years before the conquest, looked upon as an important station in a military point of view, owing to the roads from Sehwan, Karāchi, and the Delta meeting here, and it was in consequence supposed to command, in a great measure, the southern

part of Sind west of the Indus. It was at this place, in 1839, that the Bombay division of the British army advancing on Afghānistān was encamped for a time.

Kotri was for some years the head-quarter station of the Indus naval flotilla, then commanded by an officer of the late Indian navy, who resided here with his staff. This river fleet was, about 1859, broken up, and a company (the present one) called the "Indus Flotilla Company" (now amalgamated with the Sind, Panjāb, and Delhi railway) was organised, several of the steamers and barges of the old flotilla, as well as land and buildings, being transferred to the new undertaking by the Government. The steam-vessels of this company generally leave Kotri for up-river, with passengers and cargo, once a week in the busy season of the year.

**Labdarya**, a talūka (or sub-division) of the Lārkāna Deputy Collectorate, containing an area of 207 square miles, with 4 tapas, 58 villages, and a population of 31,201 souls. The revenue, imperial and local, of this talūka during the four years ending 1873-74 is as follows:—

	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.
Imperial . . . .	93,002	93,820	93,177	84,502
Local . . . . .	11,263	8,984	8,165	7,637
Total rupees . .	104,265	102,804	1,01,342	92,139

**Lakhi**, a town in the Sukkur talūka of the Sukkur and Shikārpur Deputy Collectorate, 234 feet above mean sea-level. It is seated on the main road between Shikārpur and Sukkur, and is 8 miles south of the former and 15 from the latter town, and has road communication also with the villages of Māri and Kazi-Wāhan. It is the head-quarter station of a Tapadār, and possesses a travellers' bangalow, school, and cattle pound. There is also a police post of 8 men. The population numbers in all 1414 souls, of whom 835 are Musalmāns, the remainder (579) being Hindūs. There are a large number of blacksmiths and weavers in this town; the latter manufacture some coarse cloths, but the trade and manufactures of the place do not appear to be of much account.

The town of Lakhi is of ancient date, and was the chief place of that part of Sind then known as the Burdika and Lārkāna

district, at a time when the town of Shikārpur had no existence, and when its present site was covered with thick forest. Goldsmid, in his historical memoir on the town of Shikārpur, refers to Lakhi as being the capital of that portion of the country in the early part of the 17th century. It was occupied by the tribe of Mahars, who were Zamindārs of great power, wealth, and influence. Quarrelling with the Daūdpoṭra tribe, from whom the Kalhora princes are said to have derived their descent, the Mahars were defeated in a general engagement, and their town captured. This event was soon after followed by the founding of the town of Shikārpur, and Lakhi from that time gradually dwindled away in both size and importance.

**Laki**, a Government village in the Mānjhand talūka of the Sehwan Deputy Collectorate, seated close to the west bank of the river Indus and adjacent to the entrance of what is known as the Laki pass, through which runs the Indus valley railway. The place is somewhat picturesquely situate, the Laki mountains, here of considerable elevation, sloping down to the west of the town, which is on the main road leading from Kotri to Sehwan. Laki has a branch road also to the Dhāra Tirth, or hot springs, distant about 2 miles. From Sehwan this village is distant 14 miles south, and from Mānjhand 32 miles north-west. There are lines for four policemen as well as a Tapadār's *dera*, a post-office, and a dharam-sāla. The inhabitants are 1018 in number, and consist of 833 Musalmāns and 185 Hindūs; their occupation is principally agriculture. There do not seem to be any manufactures or trade of any consequence in this village.

**Lārkāna**, a large division (or Deputy Collectorate) in Upper Sind, forming a portion of the Shikārpur Collectorate. It is bounded on the north by the frontier district and the territory of H.H. the Khān of Kelāt; on the east by the river Indus and the Sukkur and Shikārpur Division; on the south by the Mehar Division; and on the west by the same division and the territory of H.H. the Khān of Kelāt, the Khirthar range of hills forming for some distance a good natural line of demarcation. This district is, according to the Deputy Collector's estimate, 1860 square miles in area, but the Revenue Survey Department have computed it at 2241 square miles, including the western hills, a portion of which has probably not been included in the talūka areas. It is divided into five talūkas with 29 tapas, as shown in the following table:—



Talūka.	Area in Square Miles.	Tapas.	Number of Villages.	Population.	Towns having 500 Inhabitants and upwards
1. Lārkāna . . . . .	290	1. Lārkāna . . . . .	...	...	Lārkāna.
		2. Arēja . . . . .	...	...	Khairpur Jūso.
		3. Bakkapur . . . . .	...	...	Ghoghāro.
		4. Nerah Jamārani . . . . .	132	79,042	Vikia Sanghi.
		5. Lang . . . . .			Khalid.
		6. Mahota . . . . .			Aghāni.
		7. Morio Khuhro . . . . .			Walid.
		8. Biro Chāndio . . . . .			
		9. Muhammad Gujrāni . . . . .			
2. Kambar . . . . .	943	1. Pawhāro . . . . .	...	...	Kambar, Sher Muhammad Naitch.
		2. Karda . . . . .	...	...	Gathar, Beyr.
		3. Mahiun . . . . .	...	...	Ghaibi Dēro.
		4. Būthi . . . . .	144	73,329	Juneja.
		5. Sir Karda . . . . .			Shāhdādpur, Buthi, Miāni.
		6. Isi . . . . .			Mirakhan.
		7. Kambar . . . . .			Chujna.
		8. Dost Ali . . . . .			
3. Rato Dēro . . . . .	228	1. Rato Dēro . . . . .	...	...	Rato Dēro.
		2. Nawo Dēro . . . . .	...	...	Bangūl Dēro.
		3. Bangūl Dēro . . . . .	86	35,896	Khairo Dēro, Shāh-jo-Got.
		4. Wārisdino Machi . . . . .			Panjo Abro, Nawo Dēro.
		5. Khānwāh . . . . .			
4. Labdarya . . . . .	207	1. Manand . . . . .	...	...	Garēlo.
		2. Dokri . . . . .	58	31,201	Madd Baho.
		3. Bēli-Gāji . . . . .			Arija.
		4. Shēkh Fojo . . . . .			
5. Sijāwal . . . . .	192	1. Sijāwal . . . . .	86	15,107	
		2. Jiand Junēja . . . . .			
		3. Sanjar-bhati . . . . .			
	1,860		506	234,575	

The area, in English acres, of each talūka, showing that cultivated, cultivable, and unarable, is also shown below :—

Talūka.	Total Area in English Acres.	Cultivated.	Cultivable.	Unarable.
	acres.	acres.	acres.	acres.
1. Lārkāna . .	165,000	78,582	58,586	27,832
2. Kambar . .	603,686	111,892	359,543	132,251
3. Rato Dēro . .	145,899	41,614	60,999	43,286
4. Labdarya . .	132,387	29,525	48,753	54,109
5. Sijāwal . .	116,236	34,419	48,164	33,653

**GENERAL ASPECT.**—The general aspect of the Lārkāna Division is, like other parts of Sind, singularly flat and uninteresting. Exception must, however, be taken to the extreme western part of this Deputy Collectorate where the Khirthar mountains form a natural boundary between it and Bālochistān. Many of the peaks of this range are very lofty, one of them, known as the Kuto-jo-Kabar (or dog's tomb) in the Mehar Division being, it is said, 7200 feet above sea-level. Those portions of the district lying between the Indus and the Western Nārā, and again between this latter stream and the Ghār canal, are one dead flat of rich alluvial soil, well cultivated, and, on the whole, thickly populated. In some few places tracts of "*kalar*" (or salty soil) are met with, while in others closely adjoining the Indus there are either broken patches of sandy waste or a low jungle of tamarisk. In that part of the district, north of the Ghār, which is not watered by canals, but is dependent on precarious falls of rain and on the water of hill-torrents, there is, as a natural consequence, but little cultivation, and the appearance of this tract is sterile and wretched in the extreme. The jungle, when seen, is composed of tamarisk, *kandah* (a kind of stunted bābul) and kirar (or wild caper), but more often vast plains are met with where the soil is found to be thickly impregnated with salt. Here the land, instead of being so sandy as in other parts of the division, has more of the composition of a stiff clay loam. This portion of the Lārkāna Deputy Collectorate has thus more of the appearance of a pastoral than an agricultural country.

**HYDROGRAPHY.**—The canal system of the Lārkāna district is extensive, and it is owing to the great facilities afforded for irrigation that a part of this division is known as the garden of Sind. The principal canals are the Western Nārā, Ghār, Nau-

rang, Bire-ji-Kur and Edenwāh. Some of the Zamindāri canals are also large, especially the Shāh-ji-kūr, Dāte-ji-kūr, Mir, and several others. The Western Nārā, which may be considered as a natural river *artificially* improved, is the largest canal in this district, and, as its name implies, is very tortuous in its course. After flowing through portions of the Lārkāna, Rato Dēro, and Labdarya talūkas, it enters the Mehar and Sehwan divisions respectively, falling at last into the Manchhar lake. It is navigable for boats between May and September, and during the season of inundation it is, as a route, preferred to the Indus. The Ghār, which is also supposed to be a natural river, is very winding in its course, and is of great width and depth. The fact of the banks of this canal being so level, and there being no traces of any mounds throughout its entire length, seems to show that this canal is really a natural and not an artificial stream. It flows through the Lārkāna and Rato Dēro talūkas, and enters the Mehar Division through the Nasirābād talūka. The following is a list of the canals, Government and Zamindāri, in the Lārkāna Deputy Collectorate, with other information connected with them\* (see pp. 466, 467, 468):—

Name of Canal.	Length in Miles.	Width at Mouth.	Average Annual Cost of Clearance for Five Years, ending 1873-74.	Average Annual Revenue for Five Years, ending 1873-74.	Remarks.
1. Nasratwāh . . . .	11	feet. 28	rupees. 1,846	rupees. 17,355	A branch from the Ghār canal; flows through the tapas of Nawa Dēro, Khānwāh, Rato Dēro, and Bangūl Dēro.
2. Ghār . . . . .	22	80	11,653	85,744	A main-feeder; taps the Indus near Madēji in Shikārpur and Sukkur divisions, and flows through the Nawa Dēro, Mahota, Lārkāna, and Biro Chāndio tapas.
3. Nārā (Western) . .	30	100	7,703	2,49,364	A main-feeder; taps the Indus on the boundary of this and the Shikārpur and Sukkur divisions, but its mouth is constantly changing. Flows through the Nawa Dēro, Akil and Morio Khuhro tapas, and between the Manand and Lārkāna, Shekh Fojo and Dokri tapas.
4. Fordwāh . . . . .	5	100	456	70,317	Joins the Nārā and Ghār, flowing through the Akil and Mahota tapas; was originally intended for a boat canal, but its sluice is seldom if ever opened. It is so called after an able officer, Capt. Ford, once Deputy Collector of the Lārkāna district; dug in 1855, and cost 28,560 rupees, of which the Zamindārs contributed 19,560 rupees.
5. Naurangwāh . . . .	21	90	664	47,320	Is a branch, or rather continuation, of the Ghār canal; waters the Biro Chāndio, Kambar, and Lang tapas.
6. Gathwāh . . . . .	13	60	595	42,132	A branch of the Naurang; flows through the Kambar and Lang tapas for a few miles, and then enters the Mēhar Division.

7. Chilowāh . . . .	7	60	5,814	91,386	Another branch of the Naurang, flowing for a few miles through the Kamar and Lang tapas, and then entering the Mehar Division.
8. Nurwāh . . . .	10	28	809	69,221	A branch of the Ghār; flows through the Isi and Dost Ali tapas. Tails off into the "Altan" Dhandh near the village of Dost Ali.
9. Edenwāh . . . .	23	12	149	15,758	This canal used to branch from the Bēgāri, but being intersected by the Sukkur canal, is supplied from the Shāh-ji-Kūr in the Karda and Sanjar-bhati tapas.
10. Gillespiewāh . . .	10	17	2,782	Included in the W. Nārā.	A new branch canal, issuing from the Nārā near Nawa-ābād, and rejoining it near Bagi. Waters the Manand, Bēli Gaji and Dokri tapas.
11. Bire-ji-kur . . . .	27	48	...	21,461	A branch of the Nasrat, flows through the Rato Dēro tapa; formerly a Zamindāri canal.
12. Kur Khairo Gachal .	12	50	...	16,533	A branch of the Nasrat, flows through the Rato Dēro tapa; was formerly a Zamindāri canal.

ZAMINDĀRI CANALS.

1. Gahwar Isrān . . .	10	35	320	18,859	Is a branch of the Nārā, flowing through the Shēkh Fojo and Lang tapas. Tails into the Chilo in the Mehar Division. Is cleared by the Zamindārs.
2. Shāh Hamir . . . .	10	70	300	19,821	A branch of the Ghār, and flows through the Mahota and Arejā tapas. Tails into the Shāh-ji-Kūr, and is cleared by the Zamindārs.
3. Shāh-ji-Kūr. . . .	22	24	1,447	32,248	A branch of the Ghār, and flows through the Buthi and Karda tapas. Is at present the chief feeder to the Edenwāh, and is cleared by the Zamindārs.
4. Dāte-ji-Kūr . . . .	22	24	733	43,038	A branch of the Ghār, and flows through the Buthi and Karda tapas, and tails into the Edenwāh. Is cleared by the Zamindārs.
5. Maksūdo . . . .	6	50	...	38,930	Formerly a branch of the Nasrat, but now of the Sukkur canal. Flows through the Sanjar-bhati tapa.

Name of Canal.	Length in Miles.	Width at Mouth.	Average Annual Cost of Clearance for Five Years, ending 1873-74.	Average Annual Revenue for Five Years, ending 1873-74.	Remarks.
6. Kür Mohbat . . .	8	feet. 10	rupees. ...	rupees. 5,510	Continuation of the Nurwäh; flows through the Karda tapa.
7. Kür Sando . . .	6	8	...	3,400	Ditto.
8. Fatohal-jo-wäh . .	12	12	..	7,535	Branch of the Nurwäh; flows through Ghaibi Khân Chândia's jägir.
9. Khair Muhammad } Kartio-jo-wäh }	8	8	...	5,125	Branch of the Naurang; flows through the Biro tapa.
10. Hirawäh . . . . .	16	12	...	15,261	Branch of the Ghâr; flows through the Mahota tapa.
11. Mir . . . . .	20	10	78	11,768	Branch of the Ghâr; flows through the Nawa Dêro tapa.
12. Nabi Bakhshwäh . .	15	6	...	1,013	Branch of the Nârî; flows through the Lârkâna tapa.
13. Kaduwäh . . . . .	15	5	405	18,074	Branch of the Nasrat; flows through the Nawa Dêro tapa.
14. Ghâri Kathûrio-bûdho	19	5	460	9,581	Branch of the Ghâr; flows through the Biro Chândio tapa.
15. Khânwäh . . . . .	8	5	116	3,666	Branch of the Ghâr; flows through the Mahota tapa.
16. Chanûrwäh-duibo . .	10	5	170	4,898	Branch of the Nârî; flows through the Lang and Biro Chândio tapas.
17. Ghâri Khokhar . .	12	4	240	3,056	Branch of the Ghâr; flows through the Biro Chândio tapa.
18. Chutowih . . . . .	10	4	120	5,691	Branch of the Shâh Hamir; flows through the Arêja tapa.
19. Daruwäh . . . . .	10	4	150	5,189	Branch of the Gahwar Isranwäh; flows through the Lang tapa.

The average revenue of the nineteen Zamindāri canals can be given, but the cost column cannot wholly be filled up, since the clearances are done by the Zamindārs themselves, and the accounts of all are not kept by them. All the Government canals used to be under the immediate management of the Deputy Collector of the District, but they are now controlled by the executive engineer of the Ghār Division and his establishment. The clearance of the Government canals is also carried out by the Department of Public Works. During the inundation season an establishment, known as the "Abkalāni," consisting of 11 darogas, and a number of mukhadams and bēldars, is entertained for the proper conservancy of all the Government canals in the division.

FLOODS.—The principal floods or "*lēt*s" affecting the Lārkāna district are three in number—the Jhali, Muhromāri, and Kashmor. The two former, as rising in the Sukkur and Shikārpur Division, have already been treated of in the description of that district, and it will therefore suffice to say that the Jhali flood in 1870 flowed through the Rato Dēro, Khānwāh, Bangūl Dēro, Muhammad Gujrāni, Mahiun, Isi, Kambar, Dost Ali, and Pawhāro tapas, doing much damage and destroying the staging bangalow at the village of Pawhāro. A *bandā* which had been put up at Jhali, in the hope of keeping out this destructive flood in the future, was again breached in the inundation season of 1874. The Muhromāri flood, which has for a long time past caused great devastation in the Shikārpur districts, is also a frequent visitant in the Lārkāna Division. After leaving the Naushahro talūka of the former district, it enters the Wārisdino Machi tapa of the Rato Dēro talūka, flowing through the Sanjar-bhati and Karda tapas. The *bandā* now being built at the town of Muhromāri will, it is hoped, keep out this *lēt* in the future. The Kashmor flood, which has its rise at the town of the same name in the Frontier District, enters this division in much the same way as the Muhromāri *lēt*. In 1874 this flood, conjointly with the Jhali *lēt*, inundated nearly 100,000 acres of waste and cultivated land, besides destroying in a greater or less degree 53 villages. Besides the three floods just mentioned, there used to be another, which, rising at Kanūri, in the Bēli Gāji tapa of the Labdārya talūka, was formerly very destructive, but it has done little harm since the erection of the Abād Hatri *bandā* in 1862-63.

CLIMATE.—The climate of the Lārkāna district does not differ in any particular respect from that of other parts of the Shikārpur Collectorate. There are two seasons, the hot and cold; the former begins from the middle of March and continues till the

end of September. The heat during this period is at times very oppressive, the thermometer not unfrequently showing a temperature of  $110^{\circ}$  in the shade, and rising to more than  $140^{\circ}$  in the sun. Perhaps the very hottest season in the year is from about the 1st of May to the 10th of June, known by the natives as the "*chāliho*," or forty days. Dry, hot winds also blow from the middle of May to the middle of July, and dust-storms are of frequent occurrence, followed sometimes by light showers of rain and thunder. The cold season commences about October and lasts till the middle of March. The month of October may be considered to be the most unhealthy in the year, owing to the malaria engendered by the drying up of the inundation waters. November and December, though decidedly unhealthy on this account, are less so than the month of October. During the cold weather, the thermometer shows a temperature of  $46^{\circ}$  in the morning, and from  $60^{\circ}$  to  $65^{\circ}$  in the afternoon. The following table will show the minimum, maximum, and mean temperature as observed at Lārkāna from 1864 to 1874, extending over eleven years:—

Years.	Maximum.	Minimum.	Mean.
1864	114	54	85
1865	112	49	79
1866	108	48	78
1867	114	49	80
1868	108	51	80
1869	109	50	82
1870	112	52	83
1871	114	48	81
1872	111	44	77
1873	114	45	79
1874	110	45	77

**RAINFALL.**—The average annual rainfall in the Lārkāna Division may be estimated at 5.17 inches, the result of ten years' observations at the town of Lārkāna. The following table will show the monthly fall for seven years ending with 1874 (*see next page*).

During the hot season the prevailing wind is from the southward; in the cold weather it is from the north and east, and is at times piercingly cold and cutting; frost and ice occur in the coldest months.



Months.	1868.	1869.	1870.	1871.	1872.	1873.	1874.
January . . .	...	1'14	...	...	...	'55	'42
February . . .	'21	'16	...	...	'04	...	'54
March . . .	'82	3'95	'93	...	'35	...	...
April . . .	...	...	...	...	...	...	'25
May . . .	...	...	...	...	...	'14	...
June . . .	...	...	'65	...	...	...	'27
July . . .	'49	2'56	...	1'60	'39	'22	3'15
August . . .	...	...	5'02	...	2'33	5'16	2'75
September . . .	...	2'23	...	...	'20	...	...
October . . .	...	...	...	...	...	...	...
November . . .	...	...	...	...	...	...	...
December . . .	'38	...	...	...	'55	'47	...
	1'90	10'04	9'60	1'60	3'86	7'54	7'38

**DISEASES.**—The chief diseases in this district are intermittent fevers, which prevail, more or less, all the year round; they are attended with great prostration of strength, and very frequently induce enlargement of the spleen. Remittent fevers occur, but not to any extent, and are mild in type. Diarrhoea and dysentery are not uncommon, and ophthalmia is a prevalent disease, especially among children under ten years of age. Rheumatism of both an acute and sub-acute character are frequent. The Lār-kāna district has also been occasionally visited with cholera, at times of a very virulent kind.

**SOILS.**—The Lār-kāna Division, as regards soil, differs in no striking degree from the other districts of Upper Sind. It is, however, remarkable as containing a portion of one of the finest alluvial tracts in the whole province—that between the Indus and Nārā, and again that between the Nārā and the Ghār. There is, perhaps, no part of Sind that is so admirably suited for irrigation, and the soil is, in consequence, so wonderfully fertile and productive as to have procured for this tract the name of the Garden of Sind. It is composed for the most part of a mixture of lime and clay, and in some places of a loose sand with considerable saline impregnation. The following is a list of the principal prevailing soils in this district :—

**Sallābi**, alluvial land surrounded by water and kept moist by percolation; it is generally sown with cotton.

**Attla**, a rich alluvial soil constantly under tillage.

**Qasārī**, alluvial soil left by the river Indus.

**Kharo**, alluvial rice land.

**Drib**, uncultivable sandy waste.

**Būt**, a stiff clay soil uncultivable with native implements of agriculture.

**Wāriāsi**, a soil which though sandy is still cultivable.

**Kalar**, a soil strongly impregnated with saline matter, which appears on the surface as a white crystalline efflorescence.

The minerals found in this division are a coarse kind of salt and saltpetre, which are obtained by washing earth impregnated with these salts and evaporating the solution by solar heat. Alum and sulphur are also found in the hills to the west.

**ANIMALS.**—The wild animals in the Lārkāna district are the tiger, only occasionally met with (this beast generally comes down from the forests above Sukkur), the wild hog, antelope and "*pharho*," or hog-deer, the hyæna, jackal, wolf, fox, porcupine, hare, &c. The ibex is found in the hills to the west. Among domestic animals are the camel (the one-humped variety), horse, ass, buffalo, bullock, donkey, mule, sheep (the dumba, or large-tailed kind), goat, dog, &c. The birds comprise the "*tilūr*" (a sort of bustard), duck of various kinds, the black and grey partridge, quail, snipe, flamingo, cormorant, &c. The domestic birds are the common barn fowl, duck, and pigeon. Among fish, the "*pala*," or salmon of the Indus, is the finest, but it is found only in the river; the others are dambhro, singāri, mori, khaggo, and gandan, which are caught, not alone in the Indus, but also in the different kolābs and dhandhs of this division, where also the shakir, siriho, mūri, soni, popri, lohar, goj, gogat, and numerous other kinds are taken.

**FISHERIES.**—The fisheries of this district, from which in 1873-74 the Government derived a revenue exceeding 7000 rupees, are shown in the following table. The revenue as entered is the annual average for the past three years ending 1873-74 :—

Talūka.	Name of Fishery.	Revenue.	Total Revenue.
		rupees.	rupees.
	Pala fishing in the Indus . . . .	598	
	Kolāb "Lang and Rēti" . . . .	45	
	Dhoras and the sides of Bandhs in deh "Pakho" . . . .	12	
	Dhands and sides of Bandhs in deh "Daidar" . . . .	10	
	Dhoro and Pai in deh "Ghoghāro" Ditto in Ghoghari Sultan Virikh . . . .	10 20	
	Paths and Pais along the Nasir- ābād road in Rashid Wagan . . . .	30	
	Dhoras and sides of Bandh Shohi and deh "Bilāwal" . . . .	6	
	Ponds and Dhoras in deh Rango . . . .	2	
	Ditto and Pai of Bandh in deh Laūngai . . . .	11	
	Pais along both sides of the Shāh Hamirwāh . . . .	12	
	Ponds and Kabela in deh Sharifāni Ditto along Bandhs in the Nira Jamarāni tapa . . . .	7 38	
	Ponds in deh "Rato-Kot" . . . .	16	
	Dhoras, Gharas, Kūnhs, &c., in deh Rato-Kot . . . .	7	
Lārkāna . . . .	Dhoras and Kūnhs in deh "Potho Bakapūr" . . . .	78	
	Ponds on both sides of the Arēja road and the Bhūro Laūngai Bandh . . . .	11	
	Ponds, Dhoras, and Kabelas along the Kambar and Rato Dēro road in deh Kothi . . . .	23	
	Pais along the Kandari Bandh and ponds in deh Zakrio . . . .	16	
	Ponds in deh "Kanga" . . . .	15	
	Ghār wāh (old) to deh Samtia . . . .	6	
	Shāh Hamirwāh . . . .	412	
	Paths, Kabelas, &c., in deh Fati (new) Pond called Dūri Majid . . . .	10 8	
	Pais of Chutho . . . .	6	
	Kethi Kūshal (other half of the re- venue goes to Mir Ali Murād of Khairpur) . . . .	12	
	Ghār wāh as far as Naurang and Upper Ghār . . . .	702	
	Fordwāh . . . .	162	
	Naurangwāh . . . .	213	
	Dhandh left by the Indus . . . .	149	
	Other sources of income . . . .	74	
	Nara (W.) canal . . . .	514	
			3,235
Rato Dēro . . . .	Kadūwāh (Zamindāri canal) . . . .	39	
	Kūr Khairo (Government canal) . . . .	...	
	Kūr Biro do. . . .	...	
	Kolāb "Andrūn" Ghār wāh . . . .	1,147	
	Mirwāh (Zamindāri) . . . .	...	
	Carry forward . . . .	1,186	3,235

Talūka.	Name of Fishery.	Revenue.	Total Revenue.	
		rupees.	rupees.	
Rato Dēro . . .	Brought forward . . . . .	1,186	3,235	
	Pond at Bangūl Dēro . . . . .	6		
	Ditto Khauro Dēro . . . . .	24		
	Water left by the Muhromāri flood	...		
	Ditto Tarai flood . . . . .	...		
	Ghār wāh . . . . .	62		
	Nasratwah . . . . .	11		
	Pond at Makan Aklan . . . . .	6		
				1,295
	Labdarya . . .	Nārā Canal . . . . .	77	
Kolāb "Khat Hatri" . . . . .		146		
Ponds at Garēlo . . . . .		109		
Ditto Thūlah . . . . .		4		
"Wahur" Kēti Lakko Siāl . . . . .	84			
			420	
Kambar . . .	Kolāb "Atan Dhandh" . . . . .	1,406		
	Ditto "Drig Changro" . . . . .	988		
	Flood water left in deh "Andrun)			
	Behram" . . . . .	9		
	Ditto Junēja . . . . .	179		
	Ditto Laktia . . . . .	69		
	Ditto Daphur . . . . .	8		
	Ditto Kohi . . . . .	36		
	Ditto to the south of the)	...		
	Kambar and Lārkāna road . . . . .			
	Kolāb Būti or Mahmu . . . . .	37		
	Flood water left in deh Dailar . . . . .	13		
	Mira Khān's Pond in deh Shahab)			
	Tunio . . . . .	4		
	Kolāb "Hasi Iso" in deh Mail)			
	Wadha . . . . .	...		
	Kolāb "Char" Chila . . . . .	49		
	Kūr Dato . . . . .	100		
	Kūr Shāhji . . . . .	49		
	Dhori "Drib Chāndio" . . . . .	11		
	Ponds at Chajra, Ali Khān, Kam-)			
	bar and Gathur . . . . .	151		
	"Kabela" along both sides of the)			
	Lārkāna and Kambar road . . . . .	58		
	Kolāb "Hasū" . . . . .	34		
	Pai along the Rato Dēro road near)			
	Abra . . . . .	18		
Pond at Piroz Bhati . . . . .	4			
Ditto deh Gahno-jo . . . . .	9			
Ditto Tanda Murād Ali and Got)				
Ghulām Shāh . . . . .	16			
Kabela on both sides of the Nau-)				
rangwāh . . . . .	6			
Kolāb Dhori Nathar . . . . .	29			
Pai along both sides of the Kambar)				
and Sijāwal road . . . . .	8			
Ditto Nasirabad road . . . . .	8			
Flood water left in deh "Kaim)				
Gopang" . . . . .	14			
Dhori in deh "Hani" . . . . .	5			
	Carry forward . . . . .	3,318	4,050	

Talūka.	Name of Fishery.	Revenue.	Total Revenue.
		rupees.	rupees.
	Brought forward . . . . .	3,318	4,950
Kambar . . . . .	Pond in village of Ilani . . . . .	8	
	Flood water left in Dhoros "Pir Bakhsh and Raunti" . . . . .	11	
	Ditto in dehs "Pawharo, Bangaracha and Drib Mitho" . . . . .	8	
	Pond at Ber Changro . . . . .	3	
	Dhoho Makan Drig . . . . .	10	
	Nurwāh from mouth to Kur Mohbat Edenwāh . . . . .	52	
		40	
			3,450
Sijāwal . . . . .	Kur Bīro Chāndio . . . . .	...	
	Water left by the floods in the Kunh Gaju . . . . .	23	23
	Total rupees . . . . .		8,423

It is hardly necessary to remark that the revenue derived from the fisheries in the different flood waters left by the inundation is very precarious.

VEGETABLE PRODUCTIONS.—The chief vegetable productions of this division are juār, rice, wheat and barley; of pulses, mung, matar and gram; of oil-seeds, sarsū and til, besides sugar-cane, cotton, tobacco, indigo, and a large variety of garden vegetables. The wheat grown in the Labdarya talūka is excellent. The rice crops of this division, which are very fine and large, are mostly produced in the Kambar talūka; the soil is also well adapted for the growth of sugar-cane. The fruits are—the mango, which thrives well, the plantain, date, lime, pomegranate, which are common, and the apple and nectarine, but these are small and ill-flavoured. The forest trees are the nim, sissu (*Dalbergia sissu*), bābul, siris (*Mimosa siris*), lēsuri (*Cordia myxa*), pipal (*Ficus religiosa*), karil (*Capparis aphylla*), which is small in size. The tamarisk, though generally found as a shrub, is occasionally met with of a large growth. A great deal of the jungle of this district consists of this tree, and as it is plentiful, is of great use to the inhabitants for firewood. The Government forests in this division are few in number, and do not cover a larger area than between 9000 and 10,000 acres. The following is a list of these forests, with other information connected with them (*see next page*):—

Name of Forest.	Area in English Acres	Revenue for 1873-74.	Remarks.
1. Gūd . . .	...	392	Area does not seem to be known, but was formerly entered at 5320 acres. Planted by Mir Nasir Khān Talpur.
2. Kanuri . .	3,630	3,085	
3. Kēti Ubhūro	5,576	3,552	Planted by same Mir.
4. Mohbat-dēro	253	...	
	9,459	7,029	Eroded by the river Indus.

The management of these forests is with a Tapadār, assisted by a number of foresters, who are under the orders of the Forest Department in Sind.

POPULATION.—The total population of the Lārkāna Division, which consists almost wholly of the two great classes, Muhammadans and Hindūs, was, at the census taken in 1856, set down at 148,903 souls, of whom 144,514 were Muhammadans, 3477 Hindūs, and 12 Christians; but by the census of 1872, these had increased to 234,575, of whom 202,008 are Musalmāns, and 32,381 Hindūs, the remaining 186 being made up of other nationalities. There are thus, it would appear, 105 souls to the square mile, a rate which contrasts favourably with the Rohri and Mehar Deputy Collectorates, but is lower than that in the Sukkur and Shikārpur Division. The Musalmān portion of the community, who are mostly of the Sūni persuasion, may be classed as follows :—

## MUHAMMADANS.

Tribes.	Number.	Sub-divisions.	Remarks.
1. Balochis . . .	Not known by census of 1872.	Chandia, Magsi, Mari, Bhugti, Khosa, Rind, Baldi, Jatoi, Shar, Lund, Dasti, Jag-rāni, Laghāri, Khakhrani, &c.	The chief Musalmān tribes inhabiting this division are the Chāndias, Jamālis, Abras, and Jats. The first are still numerous, and it is from them that this part of the country obtained the name of Chānduka or Chāndko. At present they are much scattered, but about the time of the Conquest (1843) they were sufficiently powerful to form a fighting force of 10,000 men, which under their former chief, the celebrated Wali Muhammad, had proceeded in 1843 to join the Talpur Mirs against the English, but arrived too late to render any assistance. This tribe occupies that portion of the division towards the west under the hills. Their present chief is Ghaibi Khān Chāndio, who resides in the town of Ghaibi Dēro. The Jamālis are a Baloch race living on the borders of the desert. They are to be found mostly about Khairo Garhi. The Abras inhabit that part of the division to the south-west of Lār-kāna. Lieut. James mentions them as being originally a portion of the Kalhora army. The Jats are found scattered about pretty generally all over the division, and are mostly cultivators and cattle-breeders. Lieut. James mentions several sub-divisions of this tribe, such as the Darodgarhs, Junejās, Kohawars, Wagans, and others.
2. Jats . . .	do.	Siyāl, Lashāri, Hajāna, &c.	
3. Saiyads . . .	1,676	Bokhāri, Jelāni, Kayāni, Shirāzi, Selāni, &c.	
4. Sindis . . .	Not known by census of 1872.	Dhamraha, Junēja, Khokhar, Abra, Sangah, Mashori, Mohāna, Langah, Jingham, Bhuta, Arēja, Mahota, Kibar, Agāni, Sāmtia, Shāh-āni, Mahēsar, Kalhora, Kanga, Lahori, Khoh-āwar, Chutā, and numerous others.	
5. Mogals and Pathāns . . .	285		
6. Mēmōns . . .	653		
7. Shekhs . . .	3,540		
8. All others, including Balochis and Sindis . . .	195,854		
Total . . .	202,003		

## HINDŪS.

Castes.	Number.	Sub-divisions.	Remarks.
1. Brahmans .	152	Pokarna, Sārsudh, &c.	
2. Kshatrias .	65	...	
3. Waishia .	31,615	Lohāno and Bhatia.	This number also includes certain Hindū outcastes, such as the Mochi, &c.
4. Sudras .	549	Sonāro, Lohāno, Sikh, Bogri, &c.	
Total .	32,381		

CHARACTER, &c.—The character of the two great classes of the population of this division does not seem to have changed since the time (1847) when Lieut. James wrote of them as inhabiting what was then called the Chānduka (or Chāndko) pargana. "The Hindū portion," he says, "from living in a tolerated state in a Muhammadan country, have of course lost the purest part of their religion, and are lax in the performance of their rites. They wear beards and the Baloch head-dress, eat flesh and fish, drink wine, and seldom perform the ablutions laid down for their observance. Dirt, fear, meanness, and an inordinate love of wealth form the leading characteristics of the trading Hindūs, who are, however, on the other hand, industrious in their avocations. The Musalmān Sindis are, generally speaking, a quiet and industrious race; they are nearly all cultivators, and occupied entirely in tending their crops and cattle. Equally with the Hindūs they have no regard for the truth, and whether in the preparation of forged documents, or in giving evidence, their lying propensities can scarcely be surpassed. They are a very superstitious race, and place great reliance on the ability of departed spirits to serve them. 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."

DRESS AND FOOD.—With regard to dress, which, it may be as well here to remark, differs in no particular point from that generally worn by the inhabitants of this province, the Hindū adopts the pagri, dhoti, and angrakar, while the Muhammadan class wear the pagri, wide "paijāmas" of a dark-blue colour, and either a *pahirān* (a loose shirt) or a "lungi" of coarse cloth. The Sindi cylindrical hat is often worn by the higher classes instead of the pagri. In their food there is no marked difference in this respect between the inhabitants of this division and of other districts



throughout Sind. The staple grains, juār and bājri, form, as elsewhere, the great articles of food among the lower classes generally.

CRIME.—The most prevalent crimes in the Lārkāna district are thefts of various kinds, cattle-lifting especially, and adultery—or rather the enticing away of married women with a criminal intent. Murder is not uncommon, and cases of unnatural crime are by no means rare. The following tables will show the principal crimes committed in this division of the Shikārpur Collectorate, as well as the amount of litigation prevailing among its inhabitants during the four years ending 1874 :—

## I. CRIMINAL.

Year.	Murders.	Hurts, Assaults, and use of Criminal Force.	Thefts.		Receiving Stolen Property.	House-breaking.	Highway Robbery.	Other Offences.
			Cattle.	Others.				
1871	...	219	84	217	38	65	3	509
1872	...	117	37	158	10	60	...	391
1873	...	172	29	136	35	65	...	500
1874	...	155	43	179	45	45	...	683

## II. CIVIL.

Year.	Suits for Land.		Suits for Money.		Other Suits.		Total.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1871	39	rupees. 5,185	1,546	rupees. 1,04,552	29	rupees. 5,015	1,614	rupees. 1,14,752
1872	24	3,527	1,609	95,567	25	3,675	1,658	1,02,769
1873	36	2,968	1,610	97,072	29	2,316	1,675	1,02,356
1874	32	7,229	1,533	97,341	31	2,715	1,595	1,07,285

ESTABLISHMENTS.—As in other Deputy Collectorates of the Province, the chief revenue and magisterial officer in the Lārkāna Division is the Deputy Collector, who is also the magistrate in charge of the division, and vice-president of all the municipalities in it. There is generally an extra Assistant Collector and Magistrate attached to this district, as well as five Mūkhtyārkar, each

having the revenue and magisterial charge of a talūka (or subdivision of a Deputy Collectorate). Under these native officers are others called Tapadārs, whose duties are exclusively of a revenue nature, and extend over a tapa (or cluster of villages), several of which make up a talūka.

**CIVIL COURTS.**—There is a Subordinate Civil Court at Lārkāna, presided over by a native judge, whose jurisdiction extends over the whole division. He visits the towns of Kambar and Rato Dēro on circuit, and is directly subordinate to the District and Sessions Judge of the Shikārpur district.

**POLICE.**—The total number of police employed in the Lārkāna Division is 207, or say one policeman to every 1133 of the population. Of these 36 are mounted either on horses or camels. The whole form a part of the large police establishment directly controlled by the District Superintendent of Police, whose headquarters are at Shikārpur. The Lārkāna police force is distributed as follows:—

Talūka.	Mounted Police.	Armed and Unarmed Foot Police.	Municipal Police.	Total.
1. Lārkāna . . . .	10	41	29	80
2. Kambar . . . .	9	35	10	54
3. Rato Dēro . . . .	7	17	6	30
4. Labdarya . . . .	7	17	...	24
5. Sijawal . . . .	3	16	...	19
Total . .	36	126	45	207

**REVENUE.**—The revenue, imperial and local, of this important and productive division is, as may be expected, very large, and is shown, under its separate heads, for the five years ending with 1873-74 in the following tables:—

## I. IMPERIAL REVENUE.

Items.	Realisations in				
	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.
Land Revenue . . . . .	6,18,893	6,86,509	6,78,657	6,56,802	6,36,279
Abkārī . . . . .	18,799	15,647	22,040	20,519	25,186
Drugs and Opium . . . . .	1,254	10,289	9,918	9,545	10,105
Stamps . . . . .	25,450	33,191	11,257	35,002	33,582
Salt . . . . .	19,860	22,682	17,426	10,553	9,376
Registration Department . . . . .	3,007	3,953	3,279	3,400	2,847
Postal do. . . . .	867	1,346	2,119	2,578	2,714
Income (and Certificate) Tax . . . . .	15,346	18,970	11,096	6,360	2
Fines and Fees . . . . .	4,960	2,959	6,895	1,875	3,449
Miscellaneous . . . . .	553	4,994	27,380	4,836	1,821
Total rupees . . . . .	7,10,989	8,10,533	8,01,067	7,41,689	7,25,382

## II. LOCAL REVENUE.

Items.	Realisations in				
	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.
	rupees.	rupees.	rupees.	rupees.	rupees.
Cesses on Land and Sayer Revenue . . . . .	41,833	46,446	48,623	46,904	41,765
Percentage on Alienated Lands . . . . .	472	320	473	472	473
Cattle Pound and Ferry Funds . . . . .	6,475	11,364	10,349	8,440	7,322
Fisheries . . . . .	11,110	9,438	6,734	8,725	6,618
Fees and Licences . . . . .	80	5	75	74	180
Total rupees . . . . .	59,970	67,573	66,254	64,615	56,368

In the time of the Talpurs, the land revenue of this district, then known as the Chāndko pargana, was collected according to four different modes of assessment: 1. Batāi, or rent in kind; 2. Kasgi; 3. Cash rent; and 4. Iri Rakab. The first was a certain portion of the produce, varying from a fourth to a half, but generally it was about two-fifths. Kasgi was also a portion of the produce, but estimated with reference to the extent of land cultivated; it was equal to about one-fourth. The cash rents varied, according to the nature of the crop, from three to five rupees. The Iri Rakab was a commutation of kasgi into cash, by taking the average market price for six months of certain villages laid down. Those crops paying kasgi, cash, or Iri Rakab rents were, when in a forward state of maturity, appraised by an Amin, and subsequently measured by a Daroga and ten assistants, remissions being allowed where necessary. In batāi lands, field

watchers were appointed as soon as the crops were in a forward state, the villagers feeding them, and the State paying them two rupees a month. When the corn was ready, a Batāidār went to each granary, first laying aside a portion from which fees, &c., were taken, and then dividing the balance between the Government and the cultivator, in the standard proportion of the village. The Zamindārs preferred the kasgi system of rent, as it opened the way for so much chicanery in the appraisement and measurement of the crops. The system of the Mirs was to assess the land 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 the Government could in any way be effected. Under the Mirs, the general superintendence of the revenue was entrusted to the Kārdārs of tapas, and they were in this duty assisted by the Kotwāls of villages. There was also a Mūkhtyārkar who resided permanently at Lārkāna, and whose business it was to wind up the accounts of the pargana. The land revenue and other sources of income were frequently sold in contract, the object of the Mirs being to amass as large a sum as possible in advance. Other items of revenue were river customs and town duties, which were always farmed out to contractors, and taxes, some of which fell heavily on the Hindū community. Of these there were, 1, the *Sirshumārī*, or poll-tax on Musalmān artificers; it ranged from two to five rupees per annum, 2, the *Bahrah*, or tax on fishermen, and 3, *Peshkush*, or tax on Hindū traders; this last was a lump sum on each town and village, and it was left to the Hindūs to settle among themselves the proportion each individual should pay. Contracts for the sale of liquors and drugs were always farmed out. In fisheries and ferries, the Government received one-fourth of the proceeds, and always sold its share in advance to a contractor. In gardens, the Government share was always so large that no inducement to plant out other than date-groves was offered, five-sixths was the usual share, and it was never less than one-half. These were always sold by contract every season. The Mirs are said to have obtained from the Chāndko pargana a yearly revenue amounting to eight lākhs of rupees, but it is believed that only *five* lākhs were actually received. In 1846, Lieut. H. James, then in charge of this district, reported that under British rule the revenue was collected either in batāi at one-third, or in cash at one-eighth per bigā for Kharif, and two-eighths per bigā for Rabi crops; the fees on grain payments being four kāsas *per kharwar*, and on those in

cash six per cent. Town and transit duties were abolished from 1st January, 1846, and a frontier duty established. All taxes were likewise done away with on the same date, and this gave universal satisfaction. The annual receipts of the Chāndko district were at that time about three lakhs of rupees, and the average cost of establishment and revenue charges was estimated at 20,000 rupees.

**SURVEY SETTLEMENT.**—The topographical survey of this district, which was commenced in 1859-60, has long since been completed, and settlement operations, which followed quickly after, have been generally introduced. The first settlement made in the Lārkāna talūka was that by Major Goldney, in 1847. It was for seven years, and expired in 1853-54. The rates were heavy, rabi land being assessed as high as 5 rupees 1 anna per acre, and kharif and peshras lands at 3 rupees 1 anna. In 1855-56 a new settlement was introduced in both this and the Kambar talūka by Captain Ford, a former Deputy Collector of this district, by which the rates for rabi and kharif were much reduced, according as the cultivation was mok, sailāb, by wheel or by well. A further reduction was made in the sailāb rates in 1859-60. The following table will show the different survey rates, with other particulars, introduced at the latest revenue settlement into each of the five talūkas of the Lārkāna Deputy Collectorate (*see pp.* 484, 485):—

Talūka.	When Introduced, and for what Period.	Class of Village.	Maximum Survey Rates per Acre for					Average Rate on Survey Assessed Cultivable Land.	Remarks.	
			Mok.	Inundation Wheel.	Sailāb.	Perennial Wheel.	Barāni.			
1. Lārkāna . . . . .	{ In 1870-71, for ten years . . . . .	I.	r. a. 4 0	r. a. 1 8	{ 4 0 }	r. a. 4 0	...	{ r. a. 1 9 }	{ Two villages only in this talūka remain unsettled.	
		II.	3 8	1 4		3 8	...			
		III.	3 0	1 0		3 0	...			
		IV.	2 8	...		2 8	...			
2. Kāmbar . . . . .	{ In 1870-71, for ten years, in ninety-six villages . . . . .	I.	4 0	1 8	...	...	...	{ r. a. 1 5 }		{ Four villages only in this talūka remain unsettled.
		II.	3 8	1 0	...	...	...			
		III.	3 0	0 12	...	...	...			
		IV.	2 8	0 10	...	...	...			
		V.	2 4	...	...	...	...			
	VI.	2 0	...	...	3 0	...				
	VII.	1 12	...	...	...	...				
	VIII.	1 8	...	...	...	...				
	IX.	1 6	...	...	...	...				
	X.	1 4	...	...	...	...				
	XI.	1 0	...	...	...	...				

3. Rato Dēro . . .	{In 1871-72, for ten years . . . . .}	I.	3 0	1 4	4 0	...	...	} 1 1	{Six villages only in this talūka remain unsettled.
		II.	2 12	1 0	3 8	...	...		
		III.	2 8	0 12	3 0	...	...		
		IV.	2 4	0 8	...	...	...		
		V.	1 12	...	...	...	...		
		VI.	1 8	...	...	...	...		
		VII.	1 4	...	...	...	...		
4. Labdarya . . .	{Into the Shēkh Fojo and Dokri tapas, for ten years, from 1870-71 . . . . .}	I.	3 0	...	...	...	...	} 1 10	{Forty-one villages in this talūka remain unsettled.
		II.	2 8	...	...	2 8	...		
		III.	2 0	...	...	...	...		
5. Sijawal . . .	{In 1870-71, for ten years . . . . .}	I.	2 8	1 4	...	...	...	} 0 12	
		II.	2 4	0 12	...	...	...		
		III.	2 0	0 8	...	...	...		
		IV.	1 12	...	...	...	...		
		V.	1 8	...	...	...	...		
		VI.	1 4	...	...	...			
		VII.	1 0	...	...	...			

TENURES.—Before the conquest of the Province by the British in 1843, this part of Sind was known as the Chāndko pargana, and the ownership of the entire lands in each village seems then to have been vested in the Zamindārs and their heirs in perpetuity. They cultivated a portion themselves, leaving the rest to men who appear to have possessed an hereditary right to cultivate, as the lands could not be taken from them at pleasure; but they paid “lāpo,” or rent, to the Zamindār, generally in kind, at so many kāsas per bigā. Besides this there was a fee called “Wajah Zamindāri,” claimed by the head-man, and this was leviable on the produce of the lands. When a portion of the land was sold, the purchaser became entitled to the lāpo, but the wajah was still given to the head-man. The Zamindārs made their own terms with those to whom they rented their lands, usually receiving, besides fees, a portion of the produce, they paying the Government demands themselves. The Zamindār, in fact, only transacted business with Government or the contractor, and he made his own collections from the tenants. The villagers paid him great respect, and his advice was generally acted upon in all the agricultural affairs of the community. For further information on the subject of tenures, which in this division are similar to those prevailing in other parts of the Province, see under Chapter IV. of Introduction, page 79.

JĀGIRS.—The Jāgīr land in this division, culturable and unculturable, comprises in all about 84,000 acres, of which by far the largest area is found in the Kambar talūka, Ghaibi Khān Chandio's jāgīr taking up 75,966½ acres. The following is a list of the jāgirdars in the Lārkāna Division, showing the extent of land held by each, with other particulars (*see pp.* 487-489):—



Name of Jāgirdār.	Class.	Talūka and Village.	Cultivable Land.		Uncultivable Land.		Yearly Amount of Government Revenue represented.		
			acres.	g.	acres.	g.	rup.	a.	p.
<b>TAL. LĀRKĀNA.</b>									
1. Muhammad Khān Laghāri . . . . .	I	Kot Rato . . . . .	660	0	480	0	4,077	0	0
2. Mir Ghulām Husain Khān . . . . .	I	Khairpur Juso . . . . .	1,208	20	1,200	0	6,312	2	0
3. Hasan Ali Khān . . . . .	I	Khēdkar . . . . .	467	20	363	20	1,346	10	0
4. Ghulām Muhammad Fakir . . . . .	{ For Life }	Bakapur . . . . .	15	0	...	...	102	0	0
5. Aiyo Khān Bhūgti . . . . .	I	Bhūgti Balochan . . . . .	5	0	...	...	25	0	0
6. Daihi Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
7. Jehān Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
8. Bachal Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
9. Mazar Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
10. Jafir Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
11. Walu Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
12. Harmu Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
13. Baloch Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
14. Baigu Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
15. Bajhi Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
16. Rohal Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
17. Bhāi Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
18. Mūshak Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
19. Nabi Bakhsh Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
20. Kadir Bakhsh Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
21. Chuto Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
22. Mitho Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0
23. Kambar Khān Bhūgti . . . . .	I	Ditto . . . . .	5	0	...	...	25	0	0

Name of Jagirdar.	Class.	Talūka and Village.	Cultivable Land.		Uncultivable Land.	Yearly Amount of Government Revenue represented.		
			acres.	g.		acres.	g.	rup.
24. Haidar Khān Bhūgti . . . . .	1	Bhūgti Balochan . . . . .	5	0	...	25	0	0
25. Shābu Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
26. Muhammad Bakhsh Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
27. Dhani Bakhsh Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
28. Jhākhu Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
29. Mīr Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
30. Baloch Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
31. Tindo Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
32. Jafir Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
33. Ali Bakhsh Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
34. Samandar Khān Bhūgti . . . . .	1	Ditto . . . . .	5	0	...	25	0	0
35. The Bhūgtis Nos. 5 to 34 also enjoy together . . . . .	...	Ditto . . . . .	50	0	...	250	0	0
36. Rashid Mujandar . . . . .	1	Habibāni . . . . .	1	20	...	6	0	0
37. Mahan Nabh . . . . .	1	Lahori . . . . .	4	0	...	20	0	0
38. Mahrāb Khān Būrgri . . . . .	2	Walid . . . . .	5	0	...	25	0	0
39. Mitharadas Shaikardas . . . . .	9	Dandāno . . . . .	5	0	...	25	0	0
40. Muhammad Darvāsh . . . . .	2	Lahori . . . . .	1	0	...	5	0	0
41. Uddandas . . . . .	2	Habibāni . . . . .	30	0	...	150	0	0
42. Engwandās . . . . .	2	Sumar Sānghi . . . . .	4	32	...	22	0	0
43. Fir Bakhsh Kathio . . . . .	2	Ibas . . . . .	4	28	...	22	0	0
44. Fateh Muhammad Lahori . . . . .	2	Lahori . . . . .	6	27	...	30	0	0
45. Dewān Hashtmatrai . . . . .	2	Bāgo Vigiamaal Lahori . . . . .	4	0	...	20	0	0
46. Wali Muhammad and Bakhsh Ali . . . . .	2	Habibāni . . . . .	10	0	...	60	0	0
47. Jarāchand . . . . .	4	Baharpur . . . . .	6	28	...	35	0	0
			0	20	...	2	8	0

		TAL. LABDARYA.				
1.	Fāteh Khān Laghāri . . . . .	2	Ihsān-wāhan . . . . .	419 18	98 25	605 13 0
2.	Ghulām Mustafā Khān Laghāri . . . . .	2	Tarāi . . . . .	296 32	15 28	400 12 0
3.	Mubārak Khān and Fateh Khān . . . . .	2	Chhato-wāhan . . . . .	539 13	103 12	800 12 0
		TAL. RATO DĒRO.				
1.	Nawāb Alahdād Khān Laghāri . . . . .	2	Nur Mālah . . . . .	632 22	64 28	1,714 13 5
2.	Dewān Kimatrai . . . . .	2	Taib Lorar . . . . .	3 20	...	18 0 0
3.	Dilawar Khān Khoso . . . . .	4	Thul . . . . .	257 15	131 23	872 11 0
4.	Rajo Khān Khoso . . . . .	4	Ditto . . . . .	150 26	108 26	510 8 0
5.	Pir Rukan Shāh . . . . .	...	Sharīfpur . . . . .	7 0	...	30 0 0
		TAL. KAMBAR.				
1.	Ghaibi Khān Chandio . . . . .	1	Ghaibi Dēro . . . . .	30,000 0	45,966 19	32,219 9 11
2.	Pir Amamal Din Shāh . . . . .	2	Silra . . . . .	116 5	...	102 6 8
3.	Pir Ashraf Shāh . . . . .	2	Ditto . . . . .	110 28	...	1,513 10 8
4.	Tūlsidās . . . . .	{ For	Langah . . . . .	10 13	...	86 0 0
5.	Atmaram . . . . .	{ Life	Chajra . . . . .	4 10	...	25 0 0
		do.				
		TAL. SIJĀWAL.				
1.	Daūd Khān Chandio . . . . .	4	Alah Bakhsh . . . . .	73 20	...	300 0 0

There are no seri grants in this division, but the number of Mamuldars and Māfidārs, with the average of their grants in each talūka, is as follows :—

Talūka.	Mamuldars.			Māfidārs.		
	No.	a.	g.	No.	a.	g.
1. Lārkāna . . . . .	37	144	12	16	208	35
2. Labdarya . . . . .	11	46	14	6	8	11
3. Kambar . . . . .	19	94	7	10	19	19
4. Rato Dēro . . . . .	20	133	8	24	216	32
5. Sijāwal . . . . .	17	47	17	10	37	9

**MUNICIPALITIES.**—There are municipal institutions in three of the towns of this division, viz., Lārkāna, Rato Dēro, and Kambar. The receipts and disbursements of these municipalities for the three years ending 1874 are contained in the following statement :—

Where situate.	Date of Establishment.	Receipts in			Disbursements in		
		1872.	1873.	1874.	1872.	1873.	1874.
1. Lārkāna .	1 May, 1855	rupees. 12,149	rupees. 13,374	rupees. 17,090	rupees. 10,850	rupees. 14,891	rupees. 12,748
2. Kambar .	1 May, 1862	4,496	1,880	4,737	3,555	4,901	2,902
3. Rato Dēro	do.	2,904	2,800	3,415	2,644	3,739	3,319

The revenue of these municipalities is made up chiefly from town duties, cattle-pound fees and fisheries, and the principal disbursements are in maintaining the police, lighting, the conservancy of the town, in aiding education, and repairing buildings, roads, bridges, &c.

**MEDICAL ESTABLISHMENT.**—The only medical establishment at present in the Lārkāna Division is a dispensary situate at the town of Lārkāna. Formerly there was a lunatic asylum in this town, established in the month of November 1861, and which occupied the old fort built in the time of the Kalthora dynasty. It was under the control of a sub-assistant surgeon of the Bombay Medical Establishment, who superintended this institution, assisted by a small staff of attendants and others. The patients, who were received from different parts of the Province, numbered in 1870

ninety-five, and these were employed in ordinary housework, making of pots, and in cultivating the asylum garden, which surrounded the fort. The annual cost of this lunatic asylum for 1869-70 was 10,697 rupees, of which 6036 rupees was on account of establishment, including the salary of the superintendent. The remainder was spent in diet, clothing, and contingencies. In 1871 the inmates and establishment were removed to a new building near Hyderabad, called the Kauasji Lunatic Asylum, and the Lārkāna institution ceased to exist from that year. The dispensary was established in 1854, and is under the charge of a subordinate officer of the Bombay Medical Service, assisted by a small establishment. The annual expense incurred by Government on account of this institution is about 670 rupees, in addition to a supply of medicines, the cost of which is not known. The Lārkāna municipality defrays the cost of repairing the building, and in paying the salaries of the vaccination assistant and the peon, &c. The following table will afford other information as to the attendance, &c., of patients at this dispensary during the two years 1873 and 1874:—

	Total Admissions in		Casualties in		Average Daily Attendance.	
	1873.	1874.	1873.	1874.	1873.	1874.
In-patients . .	84	91	7	6	3·2	4·0
Out-patients .	9,573	10,801	...	...	93·5	108·4

PRISONS.—There are no jails in this division, but at every Mūkhtyārkar's head-quarter station there is a kind of subordinate jail or lock-up, where untried prisoners are detained, and where those sentenced can undergo imprisonment up to one month; others with longer sentences are sent to the jail at Shikārpur.

EDUCATION.—The number of Government schools of all descriptions in this division in 1873-74 was 15, with an attendance of 976 pupils. The number of such schools in each talūka in 1873-74, with other particulars, is contained in the following statement (*see page 492*):—

## LĀRKĀNA.

Talūka.	Government Schools.		Remarks.
	No.	Pupils.	
1. Lārkāna . . . .	6	498	An Anglo-vernacular and girls' school at Lārkāna.
2. Kambar . . . .	1	103	
3. Rato Dēro . . . .	4	245	
4. Labdarya . . . .	4	130	
5. Sijāwal . . . .	...	...	
Total . . . .	15	976	

AGRICULTURE.—There would seem to be three seasons for cultivation in this district—Peshras, Kharif, and Rabi; the principal crops produced at these particular seasons are shown in the accompanying table :—

Season.	Time when		Principal Crops produced.
	Sown.	Reaped.	
Peshras .	March . . . .	July . . . .	Cotton, sugar-cane, kirang ( <i>Seta Italica</i> ), and different country vegetables.
Kharif .	June and July .	{ November and December .	{ Juar, bajri, rice, til, indigo and several pulses, and hemp.
Rabi .	{ September and October . . .	} April and May	{ Wheat, barley, oil-seeds, gram, peas, tobacco, carrots, turnips, onions, &c.

The cultivation in this district is mostly "mok." In the Labdarya talūka, however, there is a great deal of "well" cultivation, and along the banks of the larger canals "charkhi" cultivation is largely carried on. Near the western hills, "barāni" crops, or those raised from land saturated with rain-water, are chiefly grown. Owing to the amazing fertility of much of the land in this division, the wheat and rice crops are correspondingly excellent, the Kambar talūka being notorious as a good rice-producing district. It may here be not out of place, for purposes of comparison, to add a statement, originally drawn up by Lieutenant H. James, a former Deputy Collector, showing the average produce *per bigā* in 1845-46 of the various grains then cultivated in the Lārkāna district, with other information in connection with this subject :—

Grains, &c.	Quantity of Seed per Bigā.	Average Produce per Bigā.	Number of Waterings.	Quantity of Manure per Bigā.	Season of		Number of Maunds per Kharwār.
					Sowing.	Reaping.	
Juar . . . .	scr.	maunds.		maunds.	June and July . . . .	November and December	18
Bājri . . . .	2	4	4	...	June and July . . . .	November and December	20
Rice . . . .	14	4½	Mok	8	July . . . . .	November . . . . .	14
Til . . . .	1	¾	2	...	June and July . . . .	November and December	15
Wheat . . . .	21	7	6	16	November . . . . .	May . . . . .	21
Barley . . . .	18	4½	2	...	November . . . . .	May . . . . .	18
Mustard . . . .	1½	1½	Bosi	...	October . . . . .	April . . . . .	16
Peas . . . .	8	1½	do.	...	October . . . . .	April . . . . .	21
Gram . . . .	5	2½	do.	...	November . . . . .	May . . . . .	20
Mung . . . .	5½	2	do.	...	August . . . . .	December . . . . .	21
Cotton . . . .	4	3	15	12	February and March . .	July and August . . . .	...
Indigo . . . .	15	10	Incessant	...	June and July . . . .	November and December	...
Tobacco . . . .	½	10	6	32	February . . . . .	July . . . . .	...

The agricultural implements in use in this Deputy Collectorate are the same generally as are met with in other parts of the Province. There is the plough (*har*), the harrow, or *sahar*, the *nari*, or sowing funnel, the *datro*, or reaping-hook, the *kuria*, or weeding hoe, and the *kuharo*, or hatchet.

TRADE.—Of the trade of this important division, all that seems to be known is that the exports, which are principally to the Hyderabad and Karāchi districts, comprise grain of different kinds, cotton, and other agricultural produce, in addition to wool, and that the imports consist of English cloths from Karāchi, *viā* Sukkur, and silk, fruits, &c., brought from Khorasān by *kāfilas* during the cold season. But of the annual quantity of exports and imports, both in the local and transit trade, and their several values, there does not appear to be any record whatever—a fact which is greatly to be deplored, since the Lārkāna Deputy Collectorate is perhaps the richest, as regards productive fertility, of any throughout the province of Sind, and some reliable statistics concerning the import and export trade, both local and transit, of this division would have proved not only interesting, but very useful, in showing to what extent, for instance, it supplied other districts with the agricultural produce they needed. The town of Lārkāna itself may be regarded as one of the chief grain marts in Sind, hence it may naturally be supposed that its exports of this particular commodity is on a correspondingly large scale. Again, this town lies along the route taken by the *kāfilas* coming from Kandahār *viā* the Bolān pass to Southern Sind, hence the transit trade is no doubt of some importance—a fact which has to some extent been shown in treating of the inland trade of the town of Karāchi (see p. 402). It is thus a matter of regret that no statistical tables of even an approximate nature are forthcoming to illustrate the commerce of so important a division as that of Lārkāna.

MANUFACTURES.—The manufactures of the Lārkāna Division consist principally of coarse cotton cloths, salt, working in metal, such as culinary utensils, &c., shoes, native saddles and other leather work. There is also a small paper manufactory at the town of Lārkāna. The quantity and value of these articles made annually do not, however, seem to be known.

It may not perhaps be here considered out of place to refer to the manufactures of this part of the Shikārpur Collectorate when known under the name of the Chāndko pargana, as described by Lieutenant James in 1847, since the various methods adopted by the Sindis in the weaving and dyeing of cloths are entered into



at some length; and these may be considered to be the processes usually followed throughout Sind :—

“ 1. 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 cotton-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, and the thread 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, and in this state 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 sers 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 the cleaning of the wool, is carried on by the household of the manufacturer, his profits may be calculated at a rupee *per diem*; under the Mīrs 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 Kandahār, and sometimes dyed in this country. Lungis were formerly very well made of silk and gold, but the only kind now manufactured is a checked cotton with silk borders. The dyers were a numerous class, for the under-garments of Sindis 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 carrying on his trade. The following are the modes adopted in dyeing cloths of the undermentioned hues :—

“ *Red*.—Twelve *chitaks* (say 24 ounces) of bitter oil are mixed with the same quantity of iskhar, and half a ser (say 1 lb.) 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 chitaks of tamarisk berries, after which it is again dried, and then put into an earthen vessel containing two chitaks of alum, and again dried and washed. Twelve chitaks of manjit (a kind of madder, the *rubia tinctoria*) are then put into a large copper vessel with twenty sers of water, and boiled, and into this the cloth is placed until well coloured, when it is finally dried and cleaned.

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

"*Green*.—The cloth is first coloured in a quarter of a ser of indigo, mixed with water, and then put into two sers of water with one chitak of fine tumeric, taken out and dried. Six chitaks of dried pomegranate skins are then boiled in a copper vessel with five sers of water, until three sers of water only remain, when the cloth is placed in it and afterwards again dried. One chitak of alum is then boiled in a quarter of a ser of water, and being afterwards mixed with two sers of cold water, the cloth is put into it, and the final colouring obtained.

"*Yellow*.—A quarter of a ser of tumeric is mixed and beaten up with half a ser of dried pomegranate skins, in an earthen vessel, with three sers of water. The cloth is first placed in the above, and then dried. One chitak of alum is then put into the same preparation, and the colour is then finished.

"*Dark blue*.—A quarter of a ser of indigo, a quarter of a ser of iskhar, and one chitak of lime are mixed up with a great quantity of water, and allowed to remain from sunset to 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 tumeric, alum and manjit are imported. The *iskhar* is a low shrub, but its botanical name does not seem to be known."

Paper is manufactured at Lārkāna, but not of a very fine description. Old fishing-nets and unwrought hemp are beaten up in water with the charcoal obtained from the iskhar and lime, and 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, which is in 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 drying, the paper is rubbed and polished with a large stone. A finer kind is made from pieces of Chinese and European paper beaten up instead of hemp. From twelve to fourteen quires can be made in a day, the average price being from three to four quires per rupee, according to the quality. The poll-tax paid by each paper manufacturer was eight rupees twelve annas per annum. Oil and sugar-cane pressers did not manufacture on their own account, but were employed by the Hindūs at four annas a day. 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 in form, but at the same time thoroughly effective in expressing the juice. About six and a half sers of oil-seed (mustard, or *sarson*) are pressed at a time, from which about a ser and a half of oil is obtained: twenty-six sers of seed can be pressed in a day, producing six sers of oil. The seed after pressure is sold at one rupee per maund as food for bullocks. With regard to sugar-cane, the *gur* is consumed in the country, but not refined into sugar. Coarse leather is manufactured, and a common kind of salt all over Chāndko.

There are no fairs of any importance in this district.

ROADS.—The Lārkāna district has above 400 miles of roads, trunk, postal, and cross. The main line of communication is that running from Lārkāna to Shikārpur, and from the former town southward towards Mehar. It is furnished with milestones, and has district bangalows and musāfirbānas at the towns of Nawā Dēro and Bangu Kalhora. This road is specially repaired and otherwise attended to by the Public Works Department as an imperial work, but all other roads in the division are kept up at the expense of the local funds. None of the roads in this district are metalled, but *juār* straw is laid down on many of them, to keep down the dust arising from the traffic. The following is a list of these roads, with their length, description, &c. (see pp. 498, 499):—

From	To	Length in Miles.	Description of Road.	Remarks.
Lārkāna . . .	Shikārpur . . . . .	39	Main and postal line.	Passes through the town of Nawa Dēro, where there is a bangalow and musāfirkhāna. This road is bridged and has milestones.
Ditto . . . .	Garhi Khairo Jamālī . . . . .	35	Cross-road.	Passes through Sijāwal, where, and at Chausul, there are bangalows and a musāfirkhāna. Is bridged.
Ditto . . . .	Kambar . . . . .	14	Main.	Passes through Biro Chāndio, where is a musāfirkhāna. There is a bangalow and musāfirkhāna at Kambar. Road is bridged.
Ditto . . . .	Rato Dēro . . . . .	18	do.	Passes through Bangul Dēro. There is a bangalow and musāfirkhāna at Rato Dēro. Road is bridged.
Ditto . . . .	Bākrāni . . . . .	9	Cross-road.	A bangalow and musāfirkhāna at Bakrāni. Road is bridged.
Ditto . . . .	Mehar . . . . .	18	Main and postal.	There is a bangalow at Bangu Kalhora. This road is bridged, and leaves the Lārkāna district 18 miles from Lārkāna.
Ditto . . . .	Nasirābād . . . . .	16	Main.	Road leaves this district 16 miles from Lārkāna. There is a bangalow and musāfirkhāna at Rashid Wagan. This road is bridged.
Ditto . . . .	The Fordwah . . . . .	4	Cross.	Not bridged.
Ditto . . . .	The Fordwah sluice . . . . .	9	do.	Passes through villages of Khalid and Akil; a bangalow at the sluice. This road is bridged.
Ditto . . . .	Shahal Muhammad . . . . .	6	do.	Is bridged.
Ditto . . . .	Wāra . . . . .	15	Main.	Passes through Khairpur Juso, where there is a musāfirkhāna; leaves the district 15 miles from Lārkāna.
Ditto . . . .	Dokri . . . . .	12	Cross.	There is a bangalow at Dokri. Road only partly bridged.
Ditto . . . .	Phulu Bandar . . . . .	6	...	Much of this road has lately been destroyed by the Indus.
Ditto . . . .	Ābād . . . . .	10	Cross.	This road is only partly bridged.
Kambar . . . .	Ghaibi Dēro . . . . .	20	do.	Passes through Pawhāro. There are bangalows at Pawhāro and Ghaibi Dēro. Road is partly bridged.
Ditto . . . .	Sijāwal . . . . .	18	Main.	Passes through Miro Khān. Bangalow and musāfirkhāna at Sijāwal. Is bridged.
Ditto . . . .	Rato Dēro . . . . .	21	do.	Passes through Chausul, where there is a bangalow. Road is bridged.
Ditto . . . .	Nasirābād . . . . .	6	...	Extends in this district to Wagan, 6 miles. Is bridged.
Ditto . . . .	Ber . . . . .	4	Cross.	Unbridged.

Kambar.	Dost Ali	7	Cross.	Is partly bridged.
Ditto	Shāhdādpur	17	Main.	Is bridged. A bangalow at Shāhdādpur.
Sijāwal	Ditto	10	do.	Ditto.
Ditto	Rato Dēro	11	do.	Ditto.
Rato Dēro	Nawa Dēro	10	do.	Ditto. A musāfirkhāna at Nawa Dēro.
Ditto	Shikārpur	26	do.	Passes through Dakhan <i>via</i> Gahēja. Only two miles of this road are in the Lārkāna division. Is bridged.
Ditto	Jacobabad	35	do.	Only a mile of this road is in the Lārkāna district. Is bridged.
Ditto	Garhi Khairo Jamāli.	28	Cross.	Passes through Warisdino Machi. Only 11 miles of this road are in the Lārkāna division. Is partly bridged.
Ditto	Dost Ali	22	do.	Is partly bridged.
Bakrāni	Bangu Kalhora	3	do.	Ditto.
Ditto	Nawa Dēro	25	do.	Ditto.
Ditto	Dokri	8	do.	Ditto. There is a bangalow at Dokri.
Ditto	Dabi Vichola	14	do.	Is partly bridged.
Ditto	Kot Chāndko	7	do.	Ditto.
Nawa Dēro	Sukkur	5	Main.	Only four or five miles of this road are in the Lārkāna district. Is bridged.
Ditto	Fatehpur	8	do.	Is bridged.
Shāhdādpur	Garhi Khairo Jamāli	12	do.	Ditto.
Ditto	Hamal	36	Cross.	26 miles of this road are in the Lārkāna district. Bangalow at Pawhāro. Is partly bridged.
Dokri	{Thari Mohbat {Badra. . . . .}	...	Main.	Only a mile in Lārkāna district. Is bridged.
Ditto	Abād	16	Cross.	Is not bridged.
Bakrāni	Gerelo	6	do.	Is bridged. A musāfirkhāna at Gerelo.

There are musāfirkhānas also at Hassan Wāhan, Mira Khān, and Bangul Dēra, also serāis or landhis at the villages of Ganja and Tobo Shāh.

FERRIES.—There are in all 34 ferries in the Lārkāna district, the greater number of these being on the Indus and the Western Nārā. Numbers 12, 13, 14, 17, 18, and 28 to 34 inclusive, have lately been struck off the list of public ferries, though boats are still employed there at the expense of private individuals. The following is a list of the various ferries in this division :—

Name of Ferry.	Where situate.	Number of Boats employed.
1. Khiri . . . . .	On the Indus . . . . .	1
2. Kūria . . . . .	Ditto . . . . .	1
3. Rāji Dēro . . . . .	Ditto . . . . .	1
4. Pir Ali Muhammad Shāh	Ditto . . . . .	1
5. Dabi Vicholo . . . . .	Ditto . . . . .	2
6. Tragar . . . . .	Ditto . . . . .	1
7. Nurpur . . . . .	Ditto . . . . .	1
8. Kot Chāndko . . . . .	Ditto . . . . .	1
9. Kanūri (or Sugi) . . . . .	Ditto . . . . .	1
10. Kūnbhar . . . . .	Ditto . . . . .	1
11. Lārkāna . . . . .	On the Ghār Canal . . . . .	1
12. Masū Habb . . . . .	Ditto . . . . .	1
13. Walid . . . . .	Ditto . . . . .	1
14. Gongra . . . . .	Ditto . . . . .	1
15. Meri . . . . .	Ditto . . . . .	1
16. Pir Arshid Shāh . . . . .	Ditto . . . . .	1
17. Phūl Pota . . . . .	Ditto . . . . .	1
18. Rahūja . . . . .	Ditto . . . . .	1
19. Sharifāni . . . . .	Naurang . . . . .	1
20. Ahrī . . . . .	Ditto . . . . .	1
21. Biti Kinghar Goghāro . . . . .	Chilo-wāh . . . . .	1
22. Patan . . . . .	Western Nārā . . . . .	1
23. Būtū . . . . .	Ditto . . . . .	1
24. Madd-bāhū . . . . .	Ditto . . . . .	1
25. Mahrābpur . . . . .	Ditto . . . . .	1
26. Vakro Nasirābād . . . . .	Ditto . . . . .	1
27. Dokri . . . . .	Ditto . . . . .	1
28. Bugi . . . . .	Ditto . . . . .	1
29. Sanri . . . . .	Ditto . . . . .	1
30. Akil . . . . .	Ditto . . . . .	1
31. Danlat Khuro . . . . .	Ditto . . . . .	1
32. Elias . . . . .	Ditto . . . . .	1
33. Khalid . . . . .	Ditto . . . . .	1
34. Hamzāni . . . . .	Ditto . . . . .	1

POSTAL LINES.—There is only one chief line of postal communication in the Lārkāna Division, running northward to Shikārpur from Lārkāna, and southward to Mehar from the same town. It is a foot line, the average running rate being 4 miles an hour. There are now disbursing post-offices at the towns of Lārkāna, Kambar, and Rato Dēro.

11.2226

ANTIQUITIES.—There are but few buildings in this district which can lay claim to any antiquity. They consist of the tombs of men of celebrity, and among these may be mentioned that of Shahal Muhammad Kalhora, near the village of Fatēhpur, which is thus described by Lieutenant James in his report on the Chāndko district: "Shahal Muhammad was the grandson of Adam Shāh, 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 Shahal Muhammad, the Kalhoras 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 Fatēhpur, about six miles from Lārkāna, that Shahal Muhammad 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 situate 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 Fatēhpur. 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 this saint, and 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 brocades, the offerings of the wealthier visitors; while on the hill-side are the humbler graves of the less celebrated of his descendants. This tomb was built about 150 years ago." The tomb of Shāh Bahārah and the old fort of Lārkāna will both be found described in the account of that town.

Lārkāna, a talūka (or sub-division) of the Lārkāna Deputy Collectorate, containing an area of 290 square miles, with 9 tapas, 132 villages, and a population of 79,042 souls. The revenue, imperial and local, of this fertile and productive sub-division during the four years ending 1873-74 is as follows (*see next page*):—

	1871-72.	1872-73.	1873-74.
Imperial . . .	rupees. 2,48,656	rupees. 2,93,449	rupees. 2,60,895
Local . . .	21,594	20,272	22,220
Total rupees .	2,70,250	3,13,721	2,83,115
			2,73,887

Lārkāna, the chief town of the Deputy Collectorate of the same name, is situate on the south bank of the Ghār canal (spanned here by a fine bridge), in lat.  $27^{\circ} 33'$  North, and long.  $68^{\circ} 15'$  East. The surrounding country, which is fertile, populous, and highly cultivated, is perhaps the finest tract in the whole of Sind. The town of Lārkāna, so called, it is supposed, from the tribe of Lārak which once settled here, has road communication with Shikārpur (*viā* Nawa Dēro), from which it is distant about 40 miles in a south-westerly direction, and with Mehar (*viā* Bangū Kalhora), from which it is distant 36 miles north-east. Roads also lead from it to Kambar, Rato Dēro, Bākranī, Wāra, Phulū-Bandar, Dokri, Garhi Khairo Jamāli, and Abād. By the Ghār canal it has water communication with almost every important town in Upper Sind. Within the town itself the roads are good, and lined on either side with large trees. The spacious walks, well laid-out gardens, and general profusion of foliage give this place a picturesque and beautiful appearance, and have gained for it the title of the "Eden of Sind," which it well deserves. This flourishing condition is said to be mainly owing to the energy and good taste shown by one of its former Deputy Collectors, Captain St. Clair Ford, who, during a period of four years, laboured hard to improve and beautify the place. The principal buildings of this town are the deputy collector's bangalow, built on the banks of the Ghār and surrounded by a fine garden, a civil court, a large travellers' bangalow with a fine covered swimming bath close to it, and a fort formerly used as a lunatic asylum. It is a mud building, said to have been erected in the time of the Kalhoras by one Maga Pulio, a former kārdār of this place. By the Talpurs it was used as an arsenal, and was the residence of their celebrated minister, Wali Muhammad Laghāri, a permanent Mūkhtyārkar of this district, a very able but dissolute man, of whom the Sindis had a saying, "*Gahi Wali, gahi But*" (sometimes a saint, sometimes a devil). It was afterwards, under British rule, turned into a hospital and jail, and contained also the store-rooms of the Camel Corps. Subsequently (in 1861) it became



the lunatic asylum for all Sind; but in 1871 this institution was removed to a spot near the town of Hyderabad. There is also a good Government Anglo-vernacular school with an attendance of more than 180 pupils. The building, which is comparatively new, is situate near the fort, and is an ornament to the town. The medical dispensary is on the banks of the Ghār, but is too small to supply the wants of a town like Lārkāna. The wards at present can accommodate only 8 in-patients. Between five and six thousand persons are said to be treated yearly at this institution for various diseases, especially fevers. A new and much larger dispensary is now in course of erection at an estimated cost of between 8000 and 9000 rupees. There are besides the Mūkhtyārkar's and Tapadār's offices, a municipal office, post office, musāfirkhāna, and police lines capable of accommodating 54 men. Lārkāna is the head-quarters of the Deputy Collector of the district, as also of a Mūkhtyārkar and Tapadār, and possesses a municipality, established in 1855, the income of which in 1874 was 17,090 rupees, made up mainly from town dues and cattle-pound fees. There are 3 bazars in this town; the principal one, containing some 300 shops, is covered over to keep out the rays of the sun. The other two, the grain bazar, known as "Cowper Bazar," and the fish market, called "Ford Ganj," are situate at a short distance from each other. The houses, which are mostly one-storied, are built of mud and kachha brick, and have flat roofs. They are divided into blocks called "*pādos*." The population of Lārkāna, estimated in the time of the Mirs at from 10,000 to 12,000 souls, did not in 1845-46, it was thought, exceed 8000, but by the census of 1872 there were 10,643 inhabitants, of whom 5666 are Muṣalmāns and 4972 Hindūs. The chief tribes among the former are Saiyads, Kalhoras, Muhānas, Khatris, and Lahoris.

The principal Hindū castes in Lārkāna are Brahmans, Dudānis, Nānṛānis, and Bhatias.

The greater number of the inhabitants of this town are said to be engaged in trade and manufactures, while a few only, comparatively speaking, are agriculturists. Sirai Thāra Khān Lohāri, one of the wealthiest and most public-spirited Zamindārs in this division, resides here within municipal limits. Lārkāna is one of the principal grain marts of Sind, and is famous for a particular kind of rice called the "*sugdāsi*." The local trade of Lārkāna is in grain, metals, cloth, and leather, and the transit trade in rice and various kinds of grain. These are exported to a considerable extent to the Hyderabad and Karāchi districts, but in

what quantity annually and to what value there does not appear to be any record. This is much to be regretted, as the transit trade passing through this town is believed to be of no small importance.

The manufactures of Lārkāna, in which so great a proportion of the population is engaged, formerly consisted chiefly of wove silk and cotton cloths to the yearly value of about 60,000 rupees; the silk was imported from Kandahar, and dyed in this district. Lūngīs (a kind of scarf) were also very well made of silk and gold, but the only kind afterwards manufactured was a checked cotton with silk borders. At present the principal manufactures of the district are coarse cotton cloths, metal vessels for cooking and other purposes, "*nathis*," or leather coverings for camel saddles, and other leathern work, but here again of the quantity yearly manufactured and its value nothing seems to be known.

The dyers of Lārkāna were once, it would appear, a numerous class, owing to the under-garments of Sindis of all classes being dyed, the common colour being a dark blue.

Among the antiquities in and about the town of Lārkāna may be mentioned the old fort, 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. Its uses have already been described. There is also, among others, a celebrated tomb at Lārkāna, in a garden on the north bank of the Ghār canal. It was built in honour of Shāh Bahārah, a minister of Nur Muhammad Kalhora, who 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 highly ornamented, and the inscriptions about it are numerous and well executed. These mausoleums are generally of an octagon shape, but in some instances they are square, and surmounted by a dome. They are internally decorated with flowers and fruits in enamel, and with verses from the Kurān and poets. From one of these in the building under consideration it is ascertained that Shāh Bahārah flourished about H. 1183 (A.D. 1774).

**Lukmān-jo-Tando.** (See TANDO-LUKMĀN.)

**Madd Baiho**, a Government village in the Labdarya talūka of the Lārkāna Division, 6 miles south of Lārkāna. It has road communication with Bakrāni and Nawa-abād. The population, numbering 977 in all, comprise 831 Musalmāns, mostly Saiyāds, and 146 Hindūs of the Brahman caste. Chief employments are agriculture and trade.

**Madēji**, a Government village in the Naushahro Abro talūka of the Sukkur and Shikārpur Deputy Collectorate, seated on the Ghār canal, and distant 20 miles south from Shikārpur. It has road communication with Lārkāna, distant  $26\frac{1}{2}$  miles, and with Sukkur also until lately, when the road was washed away by an encroachment of the Indus. It is proposed to construct another inside the Jhali "*bandh*." There is a police *thāna* and a cattle pound, and the place once possessed a travellers' bangalow and dharamsāla, but these fell down during the inundation season of 1871. The inhabitants, numbering 1354, comprise Muhammadans, principally Pathāns, and Hindūs, mostly Ahujas, but the number of each class is not known. The occupation of the people is mainly agricultural, and its only manufactures are shoemaking, weaving, and the making of pots.

**Magsi**, a Government village in the Mehar talūka of the Mehar Deputy Collectorate, distant 10 miles east of Mehar. It has road communication with Nari, Pirozshah and Shāh Panjo, and is the head-quarter station of a Tapadār. There is a cattle pound, but no police *thāna*. The inhabitants, numbering in all 825, comprise 670 Musalmāns of the Magsi tribe and 155 Hindūs, mostly Lohānos. Their chief occupation is agriculture. This place possesses neither trade nor manufactures of any importance.

**Mahrābpur**, a Government village in the Kandiāro talūka of the Naushahro Division, situate on the Mahrābpur canal, distant 22 miles north-east from Tharūsha, and 13 miles east from Kandiāro. It has road communications with Tanda Ali Akbar, distant 3 miles; is the head-quarter station of a Tapadār, and has a small police station of 3 men. There is a dharamsāla and school-house. The population, numbering 901 in all, comprises Musalmāns, chiefly of the Khaskēli and Mēmon tribes, and Hindūs of the Lohāno caste, but the number of each class is not known. Mir Ghulām Mūstapha Khān is the chief resident of this place. There are no manufactures nor trade in this village, which is supposed to have been founded about 150 years ago by one Mahrāb Khān Jatoi Zamindār.

**Mānjhand**, a talūka (or revenue sub-division) of the Sehwan Deputy Collectorate, with an area of 118 square miles, having 4 tapas, 29 villages, and a population of 18,551 souls. The revenue, imperial and local, of this talūka, for the four years ending 1873-74 is as follows (*see next page*):—

Makzi. see p. 324

	1870-71.	1871-72.	1872-73.	1873-74.
Imperial . . . .	rupees. 16,523	rupees. 15,175	rupees. 21,423	rupees. 18,565
Local . . . . .	3,376	2,005	2,836	2,226
Total rupees . .	19,899	17,180	24,259	20,791

Mānjhand, a town in the talūka of the same name, and the head-quarter station of a Mūkhtyārkar. It is situate somewhat close to the Indus, about 88 feet above mean sea-level, in latitude  $25^{\circ} 51' N.$ , and longitude  $68^{\circ} 19' E.$ , and stands on the main road leading from Kotri to Sehwan, being 42 miles north of the former and the same distance south of the latter town. Mānjhand has road communication also with the village of Lakri, distant 3 miles, and with Gulra, distant 4 miles. It possesses a municipality, established in 1861, the income of which in 1873-74, was 1477 rupees, and the disbursements 1297 rupees. There is also a Mūkhtyārkar's kutcherry and subordinate jail, police thāna with a force of 18 men, of whom 4 are mounted, a school, post-office, a dharamsāla, and a cattle pound. The inhabitants, numbering in all 2872, consist of 1550 Muhammadans, mostly of the Mānjhand, Mēmon, Muhāna, and Variāni tribes. The Hindūs, numbering 1311, are of the Udāsi and Lohāno castes. The place does not appear to possess any manufactures besides the ordinary ones of coarse cloth and shoes; but the trade, which is in grain, is large, great quantities being exported up and down river, the stable nature of the Indus bank at this town permitting this export trade to be carried on with advantage. Several wealthy native firms are engaged in this trade, the value of which does not, however, seem to be known.

Māri, a rather large village in the Sukkur talūka of the Sukkur and Shikārpur Deputy Collectorate, seated on the Sind canal, and distant but 3 miles from Shikārpur, and 22 miles west from Sukkur. It is on the Lārkāna and Shikārpur road, is surrounded by gardens, and has communication also with the village of Lakhi. The population of this place is 1659, of whom 946 are Hindūs, and 713 Musalmāns. No Government officers appear to reside here. The occupation of the inhabitants is mainly agriculture; the trade and manufactures do not seem to be of any importance.

Mastī Khān-jo-Tando. (See TANDO MASTI KHAN.)

Matāri, a town in the Hālā talūka of the Hālā district, in latitude  $25^{\circ} 35' N.$ , and longitude  $68^{\circ} 26' E.$ , distant 20 miles south

from Hālā, and 16 miles north from Hyderabad. It is situate on a slight eminence (the Mazjid and tombs in the place being visible from a long distance), and has road communication with Hālā, Hyderabad, Nasarpur, the ferry on the Indus opposite the town of Unarpur and Shēkh Tir. It is the head-quarters of a Tapadār, and possesses a commodious travellers' bangalow (lately rebuilt), a dharamsāla, Government vernacular school, and a number of private schools, police lines, and a cattle pound (or *dhak*). The population, numbering about 4920 souls, comprises 4149 Musalmāns, and 729 Hindūs. Of the former, the Mēmōns, Saiyads, Shēkhs, and Khāskēlis are most numerous. The Hindū portion is entirely made up of Lohānos and Brahmans. There is a municipality at Matāri, established in October 1868, the revenue of which in 1873-74 was 3123 rupees. The chief trade of this town is in grain, oil-seeds, cotton, silk, piece-goods and sugar, and its value, roughly estimated, amounts to about 60,000 rupees. The value of the transit trade, which consists mostly of the same articles, may be computed at nearly one lākh of rupees. There are no manufactures of any kind in this town. Matāri is said to have been founded in A.D. 1322 by one Sahēb Samma, and possesses, besides a fine Jama Mazjid, now about a century old, the tombs of two saints of reputed sanctity, Pirs Hāshimshāh and Rukanshāh. At these tombs, which are solidly constructed, annual fairs are held in the months of September and October, and these are each attended by from 2000 to 3000 Muhammadans. The chief men of note residing in this place are Pirs Alahyarshāh and Fazul Ali Shāh; Saiyads Muhammad Ali Shāh and Muhammad Husain, and Akhūnds Habibula and Azizula.

Meeānee (or Mīāni), a small and inconsiderable place near the village of Hathri in the Hyderabad talūka of the Hyderabad Collectorate, about 6 miles north of the city of Hyderabad. It was here that Sir Charles Napier, on the 17th of February, 1843, with a British force amounting to but 2800 men of all arms and 12 pieces of artillery, encountered a Baloch army of 22,000 men strongly posted on the banks of the Fulēli, and totally routed them, with a loss to the enemy of 5000 killed and wounded, the whole of their artillery, ammunition, standards, and camp, with considerable stores and some treasure. The British general had ascertained that, had he delayed offering battle to the Mīrs, another day would have placed nearly 30,000 men in his rear and on his left flank, and, in order to extricate himself from this threatening situation, it was necessary to engage

the Balochis at once with the small force he had with him. A monument, surrounded by iron palisading, marks the spot where this great action was fought, and on the eastern side of the pillar are inscribed the names of the officers and the number of rank and file who fell on the occasion. Meeānee was at one time the head-quarters of the Sind Camel Baggage Corps.

**Mehar**, a large division and Deputy Collectorate of the Shikārpur district.

**BOUNDARIES AND AREA.**—It is bounded on the north by the Lārkāna Division; on the east by the river Indus; on the south by the Sehwan Division of the Karāchi Collectorate, and on the west by the territory of His Highness the Khān of Kelāt, the Khirthar range of mountains forming a natural line of demarcation on that side. Its extreme length from north to south is about 45 miles, and breadth 32 miles; and the entire area of the division, according to the professional survey report, is 1528 square miles, but by revenue survey estimate 2504 square miles, which latter includes the hilly portion of the division beyond the Kācha. It is divided into 3 talūkas and 34 tapas, with a population, according to the census of 1872, of 142,305 souls, or 57 to the square mile, a fair rate when compared with that of all Sind, but less in this respect than either the Sukkur, Shikārpur, or Lārkāna districts. The following is a statement of the several talūkas and tapas, with their area, population, &c. :—

Talūka.	Area in Sq. Mīles.	Tapas.	Number of Villages.	Population.	Towns having 800 Inhabitants, and upwards.
1. Mehar (including Tigar)	583	1. Muhammad Jatiāl 2. Gāji Dēro . . . 3. Bādrah . . . 4. Vehar . . . 5. Nawa-got . . . 6. Magsi . . . 7. Nari . . . 8. Ganjo Thoro . . . 9. Kolāchi . . . 10. Kamāngar . . . 11. Khāro . . . 12. Kothi . . . 13. Khondi . . . 14. Rojbān . . . 15. Thalo . . .	165	62,265	Mehar. Thari Mohbat. Magsi.
2. Nasirabad.	343	1. Wārah . . . 2. Nasirabad . . . 3. Ahūn . . . 4. Chijni . . . 5. Phekrāto . . . 6. Chaudaro . . . 7. Thari Hāshim . . . 8. Wagan . . .	54	33,597	Nasirabad. Wagan. Gāji Khuhāwar
3. Kakar . .	602	1. Buriri . . . 2. Khānpur . . . 3. Bahādarpur . . . 4. Gozo . . . 5. Kandēchukhi . . . 6. Ghāro . . . 7. Bhangar . . . 8. Pat Gul Muhammad . . . 9. Pāt . . . 10. Sita . . . 11. Dangar . . .	124	46,443	Khairpur Natheshāh. Kakar.
Total . .	1528		343	1,42,305	

The area in English acres of each talūka, with other information, is also subjoined:—

Talūka.	Area in English Acres.	Cultivated.	Culturable.	Unarable.
1. Mehar (with Tigar)	373,431	92,638	249,540	31,253
2. Nasirābād . .	219,520	58,391	73,615	87,514
3. Kakar . . .	385,194	76,093	91,093	218,098

**GENERAL ASPECT.**—With the single exception of the extreme western portion of this district, the Mehar Deputy Collectorate may be described as being on the whole a flat country, intersected by the Western Nāra canal, the tract between this stream and the Indus being equal, perhaps, in fertility and productiveness to any part of the adjoining Lārkāna district. The land bordering on the river Indus is fairly wooded; but after leaving the Western Nāra, and proceeding towards the Western hills, a desert tract of country is passed through, which nevertheless only requires irrigation to be brought into cultivation; at present it is dependent in this respect upon the occasional torrents from the Khirthar mountains, which, unless directly under the hills, make cultivation in this part of the district very precarious. At the same time there is a considerable extent of "kalar," or salt soil, utterly uncultivable, and incapable of affording subsistence to any living creature except the camel and goat. The Western hills are found to be divided into three distinct ranges; the lowest, evidently of sandstone formation, has a gradually ascending slope with winding gorges, and is covered in parts with huge boulders; the second range, which is of nummulitic limestone, has an average altitude of 4000 feet, and the third range, which is still higher, has some of its peaks fully 6000 feet above sea-level. On a closer inspection, the rocks in this range show considerable evidence of water action. From the plains they have an imposing appearance, though the want of vegetation is a great drawback; this applies, however, not alone to the mountains in this division, but to the whole of the range where it first touches the northern boundary of Sind down to Cape Monze.

**HYDROGRAPHY.**—The river Indus, which forms the eastern boundary of the Mehar Division, is the great source of supply for all the canals which intersect this district. The Western Nāra, itself a natural channel artificially improved, which derives its water supply entirely from the Indus, flows throughout this division in its entire length from north to south, entering it from the Lārkāna district at the Nasirābad talūka, and leaving it for the Sehwan division by the Kakar talūka. It is navigable throughout its whole length, and boats prefer to enter it from up-river during the inundation season by way of the Aral river and Manchhar lake, and coming out again into the main river at its mouth, which is on the boundary of the Lārkāna and Shikārpur divisions. Several other canals, Government and Zamindāri, branch off from this important stream. Next in size and length to the Western Nāra is the Wāhurwāh, flowing through what was formerly known



as the Tigar talūka. The following is a list of all the canals, both Government and Zamindāri, in the Mehar Division, with other information connected with them :—

Name of Canal.	Length.	Width at Mouth.	Average Annual Cost of Clearance for 5 Years ending 1873-74.	Average Annual Revenue for 5 Years ending 1873-74.	Remarks.
1. Nāra (Western)	miles. 71	feet. 60	rupees. sec page	rupees. 591	Main feeder; taps Indus on the Lārkāna boundary, entering Mehar district in the Nasirābād talūka, and leaving it for the Schwan district near Kakar.
2. Wāhurwāh . . .	30	80	1,049	26,464	Main feeder; taps Indus at Chana, watering the Vehar, Nawo-got, Magsi, Nāri, and Sita tapas, and tails off into the Indus near Sita.
3. Marui . . .	15	12	919	7,775	Branch of the Wāhurwāh.
4. Kakol . . .	11	20	2,082	32,226	Branch of the Western Nāra.
5. Kudan . . .	20	20	2,551	31,631	Branch of the Nāra.
6. Gul Muham- madwāh . . .	7	10	998	...	Ditto, Revenue included in the Fordwāh
7. Gathwāh . . .	4	50	See under	Lārkāna	Branch of the Naurangwāh, a canal in the Lārkāna district.
8. Chilowāh . . .	12	55	do.	do.	Branch of the Naurangwāh.
9. Nasirwāh . . .	22	20	1898	25,414	Branch of the Gathwāh.
<b>ZAMINDĀRI CANALS.</b>					
1. Gahwar Isran . . .	...	..	(estimate) ...	1409	Branch of the Nāra.
2. Rājwāh . . .	12	10	111	1934	Ditto.
3. Kaimshāhwāh . . .	6	10	226	6362	Branch of the Kakol.
4. Nabibakshwāh . . .	8	12	184	5904	Branch of the Nāra.
5. Nasirwāh . . .	8	12	170	5727	Ditto.

The direct superintendence of all the canals in this district lies with the executive engineer of the Ghār Division, whose headquarters are at Lārkāna, and their clearance is now carried out by his department. During the inundation season an "ābkalāni," or canal conservancy establishment, is entertained, comprising a number of darogas, mukhādams, and bēldārs. The Zamindāri

canals are cleared by those of the Zamindārs and others through whose lands these channels flow. The Mehar Division does not, as a rule, suffer from *lets* or floods, like those which at times devastate the Rohri and Shikārpur districts; but during the inundation season of 1874, portions of the Mehar district suffered severely from heavy falls of rain during the month of July in the western hills. The waters came down in force, spreading over the low-lying lands of this division, and 69 large and 414 small villages and hamlets were reported to have been more or less flooded by this visitation, while several Government buildings were entirely washed away. Floods from the Western Nāra take place occasionally, preventing rice cultivation in some parts of the district. Hill-torrents, or *nais*, as they are called, are frequent, but they afford the means of cultivating the "Barāni" land of the Kācha, artificial channels being made to conduct the water through the fields. This kind of land too, and the plains generally, are often swept by floods after the occurrence of heavy rains.

CLIMATE.—The climate of this division does not, on the whole, differ materially from that in other districts of Upper Sind. There are three principal seasons—the hot, temperate, and cold. The first begins about May with the *chāliho*, or forty days, a period when the greatest heat is supposed to occur, and lasts till the month of September. The prevailing winds during the season are from the southward and westward. The temperate months are March, April, and October, though occasionally hot winds are experienced at the end of April. The cold season may be said to last from the end of October to the following February, when at times great cold is felt; the prevailing winds during this season are from the northward and westward. The average annual maximum, minimum, and mean temperature at the town of Mehar, for the three years ending 1874, was 88·7°, 68·2°, and 78·4° respectively.

RAINFALL.—The average yearly rainfall for the Mehar Division may be set down at about five inches. This is the result of a series of observations taken at the station of Mehar from 1864 up to 1874, both years inclusive; the monthly rainfall from 1867 to 1874 is contained in the following table:—

Months.	1867.	1868.	1869	1870.	1871.	1872.	1873.	1874.
January . . .	...	'22	1'01	...	...	...	'50	'25
February . . .	...	'96	'08	...	...	...	...	'14
March . . .	0'13	1'20	2'53	1'33	...	...	...	...
April . . .	'27	'14	...	...	'04	...	'04	'23
May . . .	'03	...	...	...	...	...	'84	...
June . . .	...	'11	...	2'05	'07	...	...	2'55
July . . .	...	...	...	...	...	'85	...	...
August . . .	3'02	'78	...	7'64	...	6'71	5'50	...
September . . .	'52	...	...	...	...	1'00	...	...
October . . .	...	...	...	...	...	...	...	...
November . . .	...	...	...	...	...	...	...	...
December . . .	'09	'43	...	...	...	...	'33	...
Total for each Year . . .	4'06	3'84	3'62	11'07	'11	8'56	7'21	3'17

**DISEASES.**—The most common diseases in this division are, as usual throughout Sind, fevers of different kinds, arising mainly from the malaria engendered by the drying up of flooded lands after the periodical inundation of the river Indus. Fevers are generally prevalent from the end of September till the following December.

**DHAR YĀRO.**—While treating of the diseases common to this division, it will not be out of place to refer to the sanitarium of Dhar Yāro, situate on the western range of hills, or Khirthar mountains, which form the western boundary of this Deputy Collectorate, and the following description is an abstract of what the late Dr. Lalor, Bo. Med. Service, and Captain J. Macdonald, of the Sind Revenue Survey, have written upon it. Dhar Yāro may be considered as being in latitude  $27^{\circ} 20' N.$ , and longitude  $67^{\circ} 17' E.$ , and is distant 70 miles west from Lārkāna by the way of the villages of Hamal and Tridak. From Lārkāna to Hamal (where there is a bangalow), a distance of 35 miles, the road is good, thence to Tridak, 23 miles, it is circuitous and difficult. From Tridak to Dhar Yāro, a distance of 12 miles, there are several steep and rocky ascents and descents, one of the latter being 1200 feet deep, until the plateau of Dhar Yāro, about 6000 feet above sea-level, is reached. This is not, however, the highest point of these hills, as it is surrounded on all sides by others still loftier, one of these, the "Kuto-jo-Kabar" (or dog's tomb), being 7200 feet above the level of the sea. The sanitarium is, for this reason, not so exposed to high winds as to be disagreeable to residents. There are about a thousand acres of

cultivable land on the plateau of Dhar Yāro, possessing a soil of yellowish-red marl of considerable depth, but the inhabitants, who are Chutas, a Sindi tribe of Jats, give their attention mainly to the pasturing of large flocks of goats and "dumba," a flat-tailed sheep, the hills being fairly covered with grass after rain has fallen. They leave the hills in September or early in October, before the approach of winter. The wild animals found at Dhar Yāro and in its immediate neighbourhood, are the hyena, black bear, wolf, panther, and fox. Ibex and "gad," or wild sheep, are also found in small herds. Among birds, there are the vulture, goshawk, raven, grey pigeon, red-legged partridge, and quail; and of reptiles, snakes of various kinds and iguanos. Of trees growing on these hills, there are the rohri (*Celtis seratina*), the fig, which is found wild, the acacia, p̄ilu, kasir (only met with on the lower ranges), the khau (*Olea cuspidata*), the lohira (*Tecoma undulata*), or iron-wood. Among herbs are the spearmint, catmint (*Datiro*), and a kind of lavender. The "pis" or "pish," a fan palm, is common everywhere. With regard to the climate of Dhar Yāro, Dr. Lalor observes that in solar radiation the greatest heat shown by the thermometer there was  $148^{\circ}$ , while at Lārkāna it was  $170^{\circ}$ . In 1864 heavy rain fell in April and May, with the wind generally from the north-west and west, though occasionally a south wind blew in May. Six inches of rain were gauged, and this was followed by cool and delightful weather. In August also there were a few showers, the atmosphere being moist with a fair fall of dew at night. The heat was never found to be excessive, and it was remarked that even in April the temperature fell at times as low as  $41^{\circ}$ . The following table will show the range of the thermometer at Dhar Yāro during the months of April (latter part), May, June, July, August, and September (early part) of 1864, as observed by Dr. Lalor:—

Months.	Average.				Mean Daily Variation.
	6 A.M.	9 A.M.	Noon.	4 P.M.	
April . .	60	68	68	67	6 30
May . .	63	70	71	66	4 45
June . .	71	79	80	80	12 20
July . .	75	79	81	81	9 35
August .	68	77	81	77	10 93
September	65	77	77	74	13 44

Dr. Lalor has stated that Dhar Yāro, like the Danna Towers in this division, is not likely to answer as a good spot for a sanitarium, owing to the difficulty a sick person would experience in reaching it, since the hot winds which blow in the low country during the summer season, would make a journey at such a time very hazardous. It might, nevertheless, he thought, be made a place of some importance for officers employed in Upper Sind during the intense heat prevailing in the plains. Water is scarce, but new tanks, or rather a "bandh," which has been thrown across a wide and deep natural hollow, will, no doubt, provide an ample supply for all requirements. A house or shed was built here by Mr. S. Mansfield, a late commissioner in Sind, during his short stay at this station a few years ago.

**DANNA TOWERS SANITARIUM.**—There is but one other sanitarium, if it may be called so, in this division, also situate on the Western hills, to which sick European officers of the Government service might perhaps resort for the enjoyment of a more temperate climate, or when not sick, they might find a cool retreat during the intensely hot summer months of the year. These are the Danna Towers, seated at an elevation of 4500 feet above sea-level, on a plateau of the second or middle ridge of hills forming the Khirthar range of mountains; and as the place has been well described by the same eye-witness—the late Dr. Lalor, of the Bombay Medical Service—extracts from his interesting report on this subject will here be given.

"The Danna Towers, built on a ridge of the great Hāla (Khirthar) range, are situate about 50 miles to the south-west of Mehar, and in that Deputy Collectorate. After considerable inquiries, especially instituted within the last few years, with the object of procuring a cool retreat during the intensely hot months of summer, this place was selected by Captain Ford, Collector of Shikārpur, as offering the greatest probabilities of success. Considered with reference to the surrounding country, it will be found, after an irregular, rugged, and occasionally steep ascent, to overlook all that north-eastern portion of the valley of Sind to which it forms a barrier, and to be again overlooked by those higher ranges of which the Khāra Takar is here the natural and impassable boundary between Sind and Balochistān. For about 30 miles to the west of Mehar, a straight road has been marked out, leading for the most part, through a desert country, and dependent for cultivation on the mountain-torrents. The soil appears to be a fine rich brown loam, with apparently a considerable alluvial substratum from the repeated washings of mountain streams.

down those mountain-sides. Some beautiful ferns cover the edges of the spring, and a few well-known trees in Sind—the sirs, pipal, bābul, pilu and fig, together with the pink oleander, large reeds, and a stunted variety of bamboo—appear to be indigenous, though not flourishing in this place. On leaving the rocks the stream winds through the intermediate valley, and is lost amongst the lower hills, affording at one place—At-ke-Pere, about 4 miles from the towers—excellent drinking water. Several attempts have been made to procure a supply of water in the immediate neighbourhood of the towers, and two tanks, partially excavated by Captain Ford, will test the possibility of retaining the rain-water in a convenient situation. According to the hill-men, the water, after a wet season, lodges for four or five months in any place with a favourable watershed. The general aspect of the hills is wild and barren, but thousands of sheep and goats find herbage amongst the stunted shrubs and trees. Of the latter there are few of any size, and actually on the hills themselves none approaching to the dignity of a forest tree. With regard to temperature, the first and great element of climate, the mean of sixteen observations taken at 6 A.M. and 2 P.M. respectively, during the last fifteen days of June, was  $84^{\circ} 20'$ , the greatest maximum  $97^{\circ}$ , and minimum  $76^{\circ}$ . The mean daily variation during the same time was  $5^{\circ} 6'$ ; the greatest maximum  $14^{\circ}$ , and minimum  $1^{\circ} 30'$ . Solar radiation was powerful, but tempered by cool breezes, setting chiefly from the north-west during the first week, but afterwards from the east and north-east. These latter days were particularly cool and moist, accompanied by light clouds and rain. The thermometer never rose above  $78^{\circ}$ , and the daily variation was a minimum. The nights were invariably pleasant; a few positively cold, and in none could warm covering be conveniently dispensed with. High winds, cold, but otherwise of an exceedingly disagreeable nature, prevailed at the lunations in June. The small particles of sand and dust were swept along with a violence such as rendered walking or sitting in exposed situations very unpleasant. Shortly after the east and north-east breezes sprang up, the valley below became covered with fog, appearing at first in small patches, but gradually spreading, and finally rising above the level of the towers, seeming to settle along the top and sides of the Khāra range. During the night there was a good fall of dew, and in the day a most grateful alternation of cloud and sunshine. A slight shower of rain on the 30th, and again the atmosphere became dry. During the month of July, the atmosphere was much more uniform, the temperature lower, and daily varia-

them is difficult, particularly that to the south-west. This overhangs Herar, a pretty little valley about 3 miles south-west of the towers, containing an abundant supply of water. It is a place of some importance in the hills, was once intended by the Mirs of Hyderabad as a secure retreat, and still shows the half-finished walls and gateways of a fort. At a comparatively early era of creation, this valley must have been inhabited, and curious remains of a bygone age are seen in the Kafir Kots—regular, and evidently artificial ranges like *river terraces*. They were probably intended as sites for huts and tents, but it would be impossible ever to ascertain how they were formed. The popular belief is that those huge boulders were lifted into position by the giant race then inhabiting the earth, or they may have been arrested in their descent from the higher ridges by some artificial contrivance. But whatever may be the theory of their formation, they are strange and imperishable, though indefinite memorials of an age and race long since passed away.

“The soil here, as in every place on the hills, is a yellowish-red marl, derived, no doubt, from the disintegration of the rocks, and washed into those plateaux by the water; it is apparently very rich, and in the season is under cultivation. Excellent water can always be had from Herar, but the road is difficult. The rivulet, on leaving the valley, is lost to sight beneath the rocks for nearly half a mile, reappearing in a fine gushing stream, at full 300 feet of a lower level than the point of its disappearance. There seems but little doubt that it still retains the original bed, and that the superimposed rock is of a comparatively late formation, and in many places composed of petrified vegetable matter and debris.

“Large masses of this structure, with a dull hollow resonance, may be occasionally met with, which on fracture give the appearance of tube and fibre—unmistakably vegetable. Few sights are more curious or picturesque than the course of this rivulet, which, up to the point of its disappearance in the valley, exhibits no higher organisation than the *leech*, while here, at its escape from the rocks, it teems with animal life, varied and advanced in the scale of nature. Amongst these are many kinds of fish, similar apparently to the roach and perch, crabs, crayfish, and myriads of minute articulate animals. The lofty overhanging crags on either side are studded with flowers of various colours. In the bed of the stream are some huge grey limestone boulders, often 20 feet high, and as many in circumference, with masses of conglomerate, showing that once a mighty torrent must have swept

down those mountain-sides. Some beautiful ferns cover the edges of the spring, and a few well-known trees in Sind—the siris, pipal, bābul, pilu and fig, together with the pink oleander, large reeds, and a stunted variety of bamboo—appear to be indigenous, though not flourishing in this place. On leaving the rocks the stream winds through the intermediate valley, and is lost amongst the lower hills, affording at one place—At-ke-Pere, about 4 miles from the towers—excellent drinking water. Several attempts have been made to procure a supply of water in the immediate neighbourhood of the towers, and two tanks, partially excavated by Captain Ford, will test the possibility of retaining the rain-water in a convenient situation. According to the hill-men, the water, after a wet season, lodges for four or five months in any place with a favourable watershed. The general aspect of the hills is wild and barren, but thousands of sheep and goats find herbage amongst the stunted shrubs and trees. Of the latter there are few of any size, and actually on the hills themselves none approaching to the dignity of a forest tree. With regard to temperature, the first and great element of climate, the mean of sixteen observations taken at 6 A.M. and 2 P.M. respectively, during the last fifteen days of June, was  $84^{\circ} 20'$ , the greatest maximum  $97^{\circ}$ , and minimum  $76^{\circ}$ . The mean daily variation during the same time was  $5^{\circ} 6'$ ; the greatest maximum  $14^{\circ}$ , and minimum  $1^{\circ} 30'$ . Solar radiation was powerful, but tempered by cool breezes, setting chiefly from the north-west during the first week, but afterwards from the east and north-east. These latter days were particularly cool and moist, accompanied by light clouds and rain. The thermometer never rose above  $78^{\circ}$ , and the daily variation was a minimum. The nights were invariably pleasant; a few positively cold, and in none could warm covering be conveniently dispensed with. High winds, cold, but otherwise of an exceedingly disagreeable nature, prevailed at the lunations in June. The small particles of sand and dust were swept along with a violence such as rendered walking or sitting in exposed situations very unpleasant. Shortly after the east and north-east breezes sprang up, the valley below became covered with fog, appearing at first in small patches, but gradually spreading, and finally rising above the level of the towers, seeming to settle along the top and sides of the Khāra range. During the night there was a good fall of dew, and in the day a most grateful alternation of cloud and sunshine. A slight shower of rain on the 30th, and again the atmosphere became dry. During the month of July, the atmosphere was much more uniform, the temperature lower, and daily varia-



tion slight. There were none of those high winds so disagreeable in June. The first experiments on humidity showed a powerful evaporation and unduly dry state of the air, the mean depression amounting to 28°. In July there was a marked, but gradual and never violent, transition from dryness to moisture, which gave to the month its decidedly agreeable character. The observations on solar radiation show a different result from what might have been expected, and are opposed to the theory that "the calorific effects of the sun increase as we ascend." The greater clearness of the atmosphere and general absence of clouds seem to favour the theory. There is every reason, then, to suppose that the thermometer can only be taken as a measure of the accumulated free heat, which will be greater in the plains, both from the wider extent of radiating surface, and the forced accumulation from superincumbent pressure. The period of the highest range of the thermometer was between one and two o'clock, about one hour earlier than the greatest maximum within doors. From the nature of the locality, and the absence of vegetation, the glare is considerable, but, owing also to the greater purity and uniformity of the atmosphere, the sun's rays are never refracted in that dazzling 'mirage,' and the sickening effects of both the glare and solar heat in the plains are never experienced. East and north-east winds were almost the only ones during the months of June and July. This great uniformity results, no doubt, from the vapour rising out of the plains, and carried against the sides of the mountain, causing some condensation—a vacuum—and consequent rush of air in those directions. Rain came on towards the end of June. The vapour upraised from the plains formed for days, with low and continued mutterings of thunder along the Khāra, and at last fell in all the bright tints of a summer's evening shower. During the month of July these grateful and refreshing showers were of constant occurrence. The amount of heat evolved in condensation was curiously demonstrated, in the occurrence of a hot wind immediately following the subsidence of the rain. The thermometer suddenly rose from 70° to 84°, and as quickly fell again. The temperature, even during the hottest months of the year—June and July—bears a very strong and favourable contrast to that of the plains. But it is the modifications of the other physical conditions of climate—the buoyancy and elasticity of the atmosphere, owing to its escape from such enormous superintendent pressure, that constitute its most pleasant feature. This is the first thing that strikes a stranger on visiting the hills, and enables him to take an amount of exercise, without the accom-

panying feeling of lassitude, which from a long experience of the plains he would have believed impossible. The only hot months of the year are June and the early part of July. Once moisture prevails—as it did this season in July, and the natives say does always about the same time—the climate becomes most equable and pleasant. No doubt, in the present state of Upper Sind, a sanitarium is not only unnecessary, but would be injudicious, from the comparative solitude to which it would be doomed. The number of Europeans is very limited, and the facilities for reaching Karāchi—which, in addition to a change of climate, affords the equally grateful one of society—sufficiently great for any one whose means can afford it, or services be dispensed with. But that such a place can be found is nevertheless of the greatest importance in a remote aspect, should the vicissitudes of state ever require an increased establishment of Europeans. The immediate benefit conferred by the present cool retreat, in enabling a certain number of officers to carry on their official work, without that detriment to bodily and mental vigour which drives so many to seek a change before they have been more than a few years in Upper Sind, must be apparent. The present accommodation at the towers is unsatisfactory, and nothing but previous experience of the plains would induce any one to seek the change. But a good deal has been done—a tank excavated—sufficient at least to test the probability of obtaining water there; and the towers, begun originally by the Mirs, have been roofed and put into a comparatively comfortable state. A little more money, as judiciously expended, would not only procure for the civil staff of the Shikārpur Collectorate a healthy and beneficial change during the hot months, but would likewise be the means of obtaining valuable, and, perhaps, ultimately very necessary information regarding the climate and other natural and physical features of all the hill districts bounding the plains of Sind."

**GEOLOGY AND SOILS.**—The two chief prevailing descriptions of soil in the Mehar Division are alluvial deposit and hill detritus, the former found mostly in that portion of the district lying between the Indus and the Western Nāra, and for a short distance to the westward of the latter stream. The hill detritus is met with between this alluvial soil and the Western range of hills, but there is in this tract a great deal of saline soil. Under the hills the land is very favourable for cultivation, and admirably suited for cotton growing. One authority, Captain Macdonald, has estimated that quite 300,000 acres of this land are suited for the cultivation of that important staple. The principal geological features of that portion

of the great mountain barrier between Sind and Balochistān, lying in the Mehar Division, have already been referred to when treating of the Danna Towers Sanitarium. The several varieties of soils known in this district are as follows :—

**KALRĀTHI**, which is an unproductive saline soil useful only for the manufacture of salt.

**TĀK**, a hard, dark-coloured soil, containing little or no sand, hard to plough up, but considered suitable for rice cultivation.

**GASĀRI**, an alluvial soil deposited by the river Indus ; is well suited for wheat cultivation.

**NAO**, is land flooded by the river, which, after the subsidence of the inundation waters, is left covered with deep fissures ; in this description of soil, oil-seed crops are usually raised.

**CHIKI**, a kind of clayey earth used in the manufacture of pottery.

Such minerals as are found in this division are of a saline nature. Alum is said to be manufactured on the Khirthar range of mountains in large quantities and of a fair quality.

**ANIMALS.**—The wild animals found in the Mehar Division are panthers, ibex, and “*gad*,” or wild sheep, on the Western hills, but they are scarce. *Pharho*, or hog-deer ; chinkāra, or ravinē antelope ; the wolf, hyena, jackal, fox, wild hog, mangoos, hedgehog and hare are also found. Among birds there are several varieties of the duck, the tilur, or bustard, partridge, flamingo, heron, rock-grouse and quail. Parrots, hawks, kites, and vultures are also common. The pelican is frequently seen on the Indus, but duck, snipe, and other water-birds abound in the marshes of the Kakar talūka. The domestic animals are the same as in other parts of Sind, the camel being the most useful. The *dumba*, or large flat-tailed sheep, is common, and large numbers are pastured on the Western hills.

**VEGETABLE PRODUCTIONS.**—The chief vegetable productions of this district are juār, bājri, rice, oil-seeds, wheat, barley, gram, tobacco, cotton, sugar-cane, and a large variety of garden vegetables. The fruits, which are the same as those in the adjoining division of Lārkāna, comprise the mango, plantain, date, lime and pomegranate, which are common. The forest trees are the bābul, the nim (*Azadirachta Indica*), a very useful tree, valuable for its medicinal properties, and having a highly aromatic seed ; it attains a great height in Sind ; the siris (*Mimosa Siris*), an ornamental tree with a very fragrant blossom ; the sisu, or tāli, a kind of blackwood ; the bēr (*Zizyphus vulgaris*) and several others. On the hills, the wild olive, almond and medlar trees abound, and the nim is found there up to an altitude of 3500 feet. The ak (*Calo-*

*tropis Hamiltonii*), a camel-fodder plant, the fibres of which are also used for nets and the smaller kind for ropes, together with the tamarisk and other plants and shrubs, are common in the plains. The only Government forest in this division is the Magsi, with an area of 1483 acres, and a revenue, derived mostly from grazing fees, which in 1873-74 realised 135 rupees. It is under the charge of the Dāk Mūnshi of Sehwan.

FISHERIES.—The principal fish found in the river and in the canals and dhandhs of this division are the pala (caught only in the Indus), the dambhro, singāri, khago, gandan, and numerous others. The principal fisheries of this district, from which the Government derived during the past three years ending 1873-74 an average annual revenue of 3061 rupees (included under the head of Local Revenue), are shown in the following statement, which comprises those in the various kolābs and dhandhs :—