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SOME CITIES OF INDIA.



(DRAFT ARTICLES FOR THE IMPERIAL GAZETTEER.)



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## SOME CITIES OF INDIA.

(DRAFT ARTICLES FOR THE IMPERIAL GAZETTEER.)

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## AGRA.

The administrative head-quarters of the Agra district, **Situation.** United Provinces, situated on the right bank of the river Jumna, in  $27^{\circ} 10' \text{ N.}$  and  $78^{\circ} 3' \text{ E.}$ , 843 miles by rail from Calcutta and 839 miles by rail from Bombay. The city is the fourth in size in the United Provinces and is growing rapidly in population : 1872, 149,008 ; 1881, 160,203 ; 1891, 168,822 ; 1901, 188,022. The figures include the population of the cantonments, which amounted to 22,041 in 1901. Hindus numbered 121,249 and Musalmāns 57,760.

Before the time of Akbar Agra had been a residence of **History.** the Lodi kings whose city, however, lay on the left or eastern bank of the Jumna. Traces of its foundations may still be noticed opposite the modern town, and a flourishing suburb has grown up on part of the former site. Bābar occupied its old palace after his victory over Ibrāhīm Khān in 1526 ; and when a year later he defeated the Rājput forces near Fatehpur Sikri and securely established the Mughal supremacy, he took up his permanent residence at this place. He died at Agra in 1530 ; but his remains were removed to Kābul, so that no mausoleum preserves his memory here. His son, Humāyūn, was for a time driven out of the Ganges valley by Sher Shāh, the rebel Afghān governor of Bengal, and after his re-establishment on the throne he fixed his court at Delhi. Humāyūn was succeeded by his son, Akbar, the great organizer of the imperial system. Akbar removed the seat of government to the present Agra, which he founded on the right bank of the river, and built the fort in 1566. A second name of the city, Akbarābād, is still used by natives. Four years later he laid the foundations of Fatehpur Sikri, and contemplated making that town the capital of his empire, but was dissuaded apparently by the superior advantages of Agra, situated as it was on the great waterway of the Jumna. From 1570 to 1600 Akbar was occupied with his conquests to the south and east ; but in 1601 he rested from his wars and returned to Agra, where he died four years later. During his reign the palaces in the fort were commenced and the gates of Chitor were set up at Agra. Akbar had named Jahāngir as his successor, who had to suppress an abortive attempt on the throne made by his own son, Khusrū. Jahāngir built his father's mausoleum at Sikandra, and also erected the tomb of his father-in-law,

ʿImād-ud-daula, on the left bank of the river, as well as the portion of the palace in the fort known as the Jahāngir Mahal. In 1618 he left Agra and never returned. Shāh Jahān was proclaimed emperor at Agra in 1628, and resided here from 1632 to 1637. It is to his reign that most of the great architectural works in the fort must be referred, though doubtless many of them had been commenced at an earlier date. The Moti Masjid, or Pearl Mosque, the Jāma Masjid, or Great Mosque, and the Khās Mahal were all completed under this magnificent emperor. The Tāj Mahal, generally allowed to be the most exquisite piece of Muhammadan architecture in the world, commemorates his wife, Mumtāz Mahal. In 1658 Shāh Jahān's third son, Aurangzeb, rebelled and deposed him; but the ex-emperor was permitted to live at Agra in imperial state, though in confinement, for seven years longer. After his death Agra sank for a while to the position of a provincial city, as Aurangzeb removed the seat of government permanently to Delhi. It had often to resist the attacks of the turbulent Jāts during the decline of the Mughals; and in 1763 it was actually taken by the Bharatpur forces under Sūraj Mal and the renegade, Walter Reinhardt, better known by his native name of Sumrū. In 1770 the Marāthās ousted the Jāts and were themselves driven out by the imperial troops under Najaf Khān four years later. Najaf Khān then resided in the city for many years with great state as imperial minister. After his death in 1779 Muhammad Beg was governor of Agra; and in 1784 he was besieged by the forces of the emperor Shāh Alam and Mādhuji Sindhia, the Marāthā prince. Sindhia took Agra, and held it till 1787, when he was in turn attacked by the imperial troops under Ghulām Kādir and Ismail Beg. The partisan, General de Boigne, raised the siege by defeating them near Fatehpur Sikri in June 1788. Thenceforward the Marāthās held the fort till it was taken by Lord Lake in October 1803. From this time it remained a British frontier fortress, and in 1835, when the new presidency of Agra was founded, this city was chosen as the seat of Government, though the Board of Revenue and the principal courts remained at Allahābād till 1843, when they were moved to Agra. The British rule continued undisturbed until the Mutiny in 1857. News of the outbreak at Meerut reached Agra on the 11th of May, and the fidelity of the native soldiers at once became suspected. On the 30th of May two companies of Native Infantry belonging to the 44th

and 67th Regiments, who had been despatched to Muttra to escort the treasure into Agra, proved mutinous, and marched off to Delhi. Next morning their comrades were ordered to pile arms, and sullenly obeyed. Most of them then quickly retired to their own homes. The mutiny at Gwalior took place on the 15th of June, and it became apparent immediately that the Gwalior contingent at Agra would follow the example of their countrymen. On the 3rd of July the Government found it necessary to retire into the fort. Two days later the Nimach and Nasirābād rebels advanced towards Agra, and were met by the small British force at Sucheta. Our men were compelled to retire after a brisk engagement; and the mob of Agra, seeing the English troops unsuccessful, rose at once, plundered the city, and murdered every Christian, European or native, upon whom they could lay their hands. The blaze of the bungalows was seen by our retreating troops even before they reached the shelter of the fort. The mutineers, however, moved on to Delhi without entering the town; and on the 8th partial order was restored in Agra. During the months of July and August, the officials remained shut up in the fort, though occasional raids were made against the rebels in different directions. The Lieutenant-Governor of the North-Western Provinces (John Colvin) was one of the officers thus shut up. He died during those months of trouble, and his tomb now forms a graceful specimen of Christian sepulture within the fort of the Mughals. After the fall of Delhi in September, the fugitives from that city, together with the rebels from Central India, unexpectedly advanced against Agra on the 6th October. Meanwhile, Colonel Greathed's column from Delhi entered the city without the knowledge of the mutineers. Neither force knew of the presence of the other till the attack took place, but the rebels were repulsed after a short contest, which completely broke up their array. Agra was immediately relieved from all danger, and the work of reconstituting the district went on unmolested. The provisional Government continued to occupy the former capital until February 1858, when it removed to Allahābād, which was considered a superior military position. Since that time Agra has become for administrative purposes merely the head-quarters of a Division and a district; but the ancient capital still maintains its natural supremacy as the finest city of Upper India, while the development of the railway system, of which it



## AGRA.

CSL

forms a great centre, is gradually restoring it to the commercial importance it once held.

description.

The city of Agra stretches inland west and south from the Jumna, forming a roughly equilateral triangle, with its base running west from the river. The cantonments lie beyond the southern point, and include a large rectangular area. Most of the civil station is surrounded by portions of the native city, but the jails and Judge's court lie north of it. The bazars are better built than those in most towns in the Provinces, and contain a large proportion of stone houses. The Mughal buildings for which the place is famous lie on the edge of the city or some distance away. The Jāma Masjid or great mosque stands at the centre of the south-eastern face, separated from the river by the vast pile of buildings included in the fort. From the north angle of the fort the Jumna curves away to the east, and on its bank at a distance of a mile and a half rises the lovely marble building famous as the Tāj. The space between, which was formerly an unsightly stretch of ravines, is now occupied by the MacDonnell Park, commenced as a famine work in 1897, which occupies about 250 acres. The tomb of Itimād-ud-daula and the Chīnī-kā-rauza are situated on the left bank of the river; and the magnificent tomb of Akbar is at SIKANDRA, 5 miles north-west of Agra. The main building of the Jāma Masjid, 130 feet in length by 100 in breadth, is divided into three compartments, each of which opens on the courtyard by a fine archway, and is surmounted by a low dome built of white and red stone in oblique courses, producing a somewhat singular, though pleasing, effect. The work has all the originality and vigour of the early Mughal style, mixed with many reminiscences of the Pathān school. The inscription over the main archway sets forth that the mosque was constructed by the emperor Shāh Jahān in 1644, after five years' labour. It was built in the name of his daughter, Jahānārā, who afterwards devotedly shared her father's captivity when he was deposed by Aurangzeb. This is the noble-hearted and pious princess, whose modest tomb lies near that of the poet Khusrū, outside Delhi. The splendid Jāma Masjid at Agra is her public memorial. Opposite to the Jāma Masjid, across an open square, lies the fort, whose walls are 70 feet high, and a mile and a half in circuit; but as they are only faced with stone, and consists within of sand and rubble, they have no real strength, and would crumble at once before the fire of modern artillery. A drawbridge leads

The Jāma Masjid.

The fort.

across the deep moat which surrounds the crenelated ramparts, and gives access through a massive gateway and up a paved ascent to the inner portal. The actual entrance is flanked by two octagonal towers of red sandstone, inlaid with ornamental designs in white marble; the passage between them being covered by two domes, and known as the Delhi gate. Within it, beyond a bare space once occupied by a courtyard, lie the palace buildings, the first of which is known as the *Diwān-i-ām*, or hall of public audience, formerly used as an armoury. It was built by Aurangzeb in 1685, and did duty as an imperial hall and court-house for the palace. The roof is supported by colonnades which somewhat impair the effect of the interior. This hall opens on a large court or tilt-yard; and while the emperor with his *grandeess* sat in the open hall, the general public occupied three of the cloisters. A raised throne accommodated the sovereign, behind which a door communicated with the private apartments of the palace. The main range of buildings does not belong to Akbar's time, but was built by his son and grandson. The centre consists of a great court 500 feet by 370, surrounded by arcades and approached at opposite ends through a succession of corridors opening into one another. The *Diwān-i-ām* is on one side, and behind it are two smaller enclosures, the one containing the *Diwān-i-khās* and the other the harem. Three sides were occupied by the residences of the ladies, and the fourth by three white pavilions. The *Diwān-i-khās*, or hall of private audience, consists of two corridors, 64 feet long, 34 feet broad, and 22 feet high, both built in 1637. It has been repaired in a spirit of fidelity to the original. The *Machhī Bhawan*, or court between these and the *Diwān-i-ām*, were probably built by *Shāh Jahān*. On the riverside of this court are two thrones, one of white marble and the other of black slate. The substructures of the palace are of red sandstone; but the corridors, rooms, and the pavilions are of white marble elaborately carved. Next to the *Diwān-i-khās* comes the *Shish Mahal*, or Palace of Glass, which was an oriental bath adorned with thousands of small mirrors. To the south again lies a large red building called the *Jahāngir Mahal*, with a fine two-storied façade and relieving lines of white marble; one of the inner courts is 70 feet square, and both are of red stone. Between them is a handsome entrance on pillars. The *Jahāngir Mahal* presents some admirable examples of Hindu carving, with projecting brackets as supports to the broad eaves, and to

the architraves between the pillars, which take the place of arches. This Hindu form is adopted in the Jahāngir Mahal and in the neighbouring Saman Burj instead of the arch; and the ornamentation of the former is purely Hindu. The exquisite Motī Masjid, or Pearl Mosque, stands to the north of the Diwān-i-ām. It is raised on a lofty sandstone platform, and has three domes of white marble with gilded spires. The domes crown a corridor open towards the court and divided into three aisles by a triple row of Saracenic arches. The Pearl Mosque is 142 feet long by 56 feet high, and was built by Shāh Jahān in 1654. It is much larger than the Pearl Mosque at Delhi; and its pure white marble, sparingly inlaid with black lines, has an effect at once noble and refined. Only in the slabs composing the floor is colour employed—a delicate yellow inlaid into the white marble. There is, however, in the Agra fort a second and much smaller Pearl Mosque, which was reserved for the private devotions of the emperors. This exquisite miniature house of prayer is entirely of the finest and whitest marble, without gilding or inlaying of any sort.

#### The Taj.

The Taj Mahal with its beautiful domes, “a dream in marble,” rises on the river bank. It is reached from the fort by the Strand Road made in the famine of 1838, and adorned with stone *ghāts* by native gentlemen. The Taj was erected as a mausoleum for the remains of Arjmand Bānū Begam, wife of the emperor Shāh Jahān, known as Mumtāz Mahal or Exalted of the Palace. She died in 1629, and this building was set on foot soon after her death, though not completed till 1648. The materials are white marbles from Jaipur, and red sandstone from Fatehpur Sikri. The complexity of its design and the delicate intricacy of the workmanship baffle description. The mausoleum stands on a raised marble platform, at each of whose corners rises a tall and slender minaret of graceful proportions and exquisite beauty. Beyond the platform stretch the two wings, one of which is itself a mosque of great architectural merit. In the centre of the whole design, the mausoleum occupies a square of 186 feet, with the angles deeply truncated, so as to form an unequal octagon. The main feature of this central pile is the great dome, which swells upward to nearly two-thirds of a sphere, and tapers at its extremity into a pointed spire, crowned by a crescent. Each corner of the mausoleum is covered by a similar though much smaller dome, erected on a pediment pierced with graceful Saracenic arches. Light is admitted



into the interior through a double screen of pierced marble, which tempers the glare of an Indian sky, while its whiteness prevents the mellow effect from degenerating into gloom. The internal decorations consist of inlaid work in precious stones, such as agate and jasper, with which every spandril or other salient point in the architecture is richly fretted. Brown and violet marble is also freely employed in wreaths, scrolls, and lintels to relieve the monotony of the white walls. In regard to colour and design the interior of the Taj may rank first in the world for purely decorative workmanship; while the perfect symmetry of its exterior, once seen, can never be forgotten, nor the aerial grace of its domes, rising like marble bubbles into the clear sky.

The Taj represents the most highly elaborated stage of ornamentation reached by the Indo-Muhammadan builders—the stage at which the architect ends and the jeweller begins. In its magnificent gateway the diagonal ornamentation at the corners which satisfied the designers of the gateways of the Itimād-ud-daula and Sikandra mausoleums is superseded by fine marble cables, in bold twists, strong and handsome. The triangular insertions of white marble and large flowers have, in like manner, given place to a fine inlaid work. Firm perpendicular lines in black marble, with well-proportioned panels of the same material, are effectively used in the interior of the gateway. On its top, the Hindu brackets and monolithic architraves of Sikandra are replaced by Moorish cusped arches, usually single blocks of red sandstone in the kiosks and pavilions which adorn the roof. From the pillared pavilions a magnificent view is obtained of the Taj gardens below, with the noble Jumna river at their farther end, and the city and fort of Agra in the distance.

From this splendid gateway one passes up a straight alley, through a beautiful garden cooled by a broad shallow piece of water running along the middle of the path, to the Taj itself. The Taj is entirely of marble and gems. The red sandstone of other Muhammadan buildings has disappeared; or rather the red sandstone, where used to form the thickness of the walls, is in the Taj overlaid completely with white marbles; and the white marble is itself inlaid with precious stones arranged in lovely patterns of flowers. A feeling of purity impresses itself on the eye and the mind, from the absence of the coarser material which forms so invariable a material in Agra architecture. The lower walls and panels

headquarters of the Agra Volunteer Corps. The cantonment fund has an annual income and expenditure of over Rs60,000 ; a Cantonment Magistrate is stationed here.

# Trade.

The trade of Agra has undergone considerable changes under British rule, the principal factors being the alteration in trade routes due to the extension of railways, and changes in native fashions. It was formerly celebrated as a great centre through which sugar and tobacco passed to Rājputāna and Central India, while salt was received from Rājputāna, cotton and *ghī* were imported from the surrounding country, and stone was supplied from the quarries in the west of the district. There was also a considerable trade in grain, the direction of which varied according to the seasons. Agra has now become a great railway centre at which the East Indian and Great Indian Peninsula broad-gauge lines, and the narrow-gauge Rājputāna-Mālwa line meet, and these important functions of collection and distribution have increased and been added to. The recent opening of another broad-gauge line to Delhi will increase its trade still further. In addition to the products of the country, European piece-goods and metals are largely imported and distributed to the neighbouring towns and villages. Agra was also famous for its native arts and manufactures, gold and silver wire drawing, embroidery, silk weaving, calico printing, pipe stems, shoes, carving in marble and soapstone, inlaying of precious stones in marble, and the preparation of mill-stones, grinding-stones, and stone mortars. Consequent on the growing preference for articles of European manufacture, the industries connected with embroidery, silk weaving, wire drawing, shoe making, and pipe stems have declined ; and calico printing is little practised. On the other hand the trade in useful stone articles has prospered, and ornamental work has been fostered by the large sums spent in the restoration of the principal buildings and by the demand created by European visitors. And although some of the indigenous arts have become depressed, new industries have been created. In 1903, there were 6 cotton gins and presses employing 959 hands ; and 3 cotton spinning mills with 1,562 workers and 30,000 spindles. The Agra Central jail has been noted for many years for the production of carpets, of which about 15,000 square yards are turned out annually, and a private factory also manufactures the same articles. A flour mill and a bone mill are also working. The total value of the annual rail-borne traffic of Agra is nearly 4 crores of rupees. The trade with the rest of



the United Provinces amounts to nearly half of this, and that with Rājputāna and Central India to a quarter. Bombay has a larger share of the trade of this city than Calcutta.

Agra is one of the chief educational centres of the United Provinces. The Agra College was founded by Government in 1823, and endowed by a grant of land in 1831. In 1883, it was made over to a local committee, and now receives a grant of ₹7,000 from Government. In 1904, it contained 175 students in the arts classes, besides 45 in the law classes and 312 in the school department. The Roman Catholic College, St. Peter's, was founded in 1841, and is a school for Europeans and Eurasians, with 6 students reading in college classes in 1904. In 1850, the Church Missionary Society founded St. John's College, which in 1904 contained 128 students in college classes and 398 in the school. It also had a business department with 56 pupils and 5 branch schools with 350. The municipality maintains one school and aids 22 others with 1,756 pupils. In addition to these colleges and schools there are a normal school for teachers, and a medical school (founded in 1855) for training hospital assistants. The latter contains 260 pupils including candidates for employment under the Dufferin fund. There are about 20 printing presses, and 4 weekly and 6 monthly papers are published. Agra is noted as the birthplace of Abul Fazl, the historian of Akbar, and his brother, Faizi, a celebrated poet. It produced several distinguished authors of Persian and vernacular literature during the 19th century. Among these may be mentioned Mir Taki and Shaikh Wali Muhammad (Nazir). The poet, Asad-ullah Khān (Ghalib), resided at Agra for a time.

Education.

are covered with tulips, oleanders, and full-blown lilies, in flat carving on the white marble; and although the inlaid work of flowers, done in gems, is very brilliant when looked at closely, there is on the whole but little colour, and the all-prevailing sentiment is one of whiteness, silence, and calm. The whiteness is broken only by the fine colour of the inlaid gems, by lines in black marbles and by delicately written inscriptions, also in black, from the Korān. Under the dome of the vast mausoleum, a high and beautiful screen of open tracery in white marble rises round the two tombs, or rather cenotaphs,\* of the emperor and his princess and in this marvel of marble, the carving has advanced from the old geometric patterns to a trellis-work of flowers and foliage, handled with great freedom and spirit. The two cenotaphs in the centre of the exquisite enclosure have no carving, except the plain *Kalamdān*, or oblong pen-box, on the tomb of emperor Shāh Jahān. But both are inlaid with flowers made of costly gems, and with the over-graceful oleander scroll.

Tomb of  
Itimād-ud-  
daula.

The tomb of Itimād-ud-daula stands some distance from the left bank of the river. Itimād-ud-daula was the Wazir or prime minister of the emperor Jahāngir, and his mausoleum forms one of the treasures of Indian architecture. The great gateway is constructed of red sandstone, inlaid with white marble, and freely employing an ornamentation of diagonal lines, which produce a somewhat unrestful Byzantine effect. The mausoleum itself in the garden looks from the gateway like a structure of marble filigree. It consists of two storeys; the lower one of marble, inlaid on the outside with coloured stones chiefly in geometrical patterns, diagonals, cubes, and stars. The numerous niches in the walls are decorated with enamelled paintings of vases and flowers. The principal entrance to the mausoleum is a marble arch, groined, and very finely carved with flowers in low relief. In the interior painting or enamel is freely used for the roof and the dado of the walls; the latter is about  $3\frac{1}{2}$  feet high, of fine white marble inlaid with coloured stones in geometrical patterns. The upper storey consists of pillars of white marble (also inlaid with coloured stones), and of a series of perforated marble screens stretching from pillar to pillar. The whole forms a lovely example of marble open filigree work.

Modern buildings and some fine public buildings. Among these may be mentioned officials.

\* The real tombs are in a vault below.

the three Colleges, the Roman Catholic Cathedral and the Mission buildings, the Thomason Hospital, now one of the best equipped in the Provinces, and the Lady Lyall Hospital, the Central and District jails, and the Lunatic Asylum. Agra is the headquarters of the Commissioner of the Division, the Commissioner of Salt Revenue in Northern India, two Superintending Engineers in the Irrigation Branch, the Chemical Examiner to Government in the United Provinces, and an Inspector of Schools. The town was the earliest centre of missionary enterprise in northern India, for the Roman Catholic Mission was founded here in the 16th century, and in 1620 a Jesuit College was opened. Northern India was constituted an Apostolic Vicariate in 1822 with headquarters at Agra; but in 1886 Agra became the seat of an Archbishop appointed by the Holy See. The Baptist Mission here was founded in 1811, and the Church Missionary Society commenced work in 1813.

Agra was constituted a municipality in 1863. In ten M unicipal- years ending 1901, the average income and expenditure were ity. 3·3 lakhs, excluding the loan account. In 1903-04 the income was 5·3 lakhs, which included octroi, 2·4 lakhs; water-rate, R68,000; rents, R37,000; sale of water, R33,000; tolls, R35,000. The expenditure was 4·8 lakhs, including repayment of loans, 1·3 lakhs; conservancy, R70,000; water-supply and drainage (capital, R12,000; maintenance, R63,000); administration and collection, R50,000; roads and buildings, R24,000; and public safety, R41,000. An attempt was made between 1884 and 1887 to obtain a water-supply from an artesian well, but was abandoned in favour of a supply from the Jumna. The work commenced in 1889, and water was first supplied to the city in 1891. Many extensions and improvements have been made since, and loans amounting to nearly 16 lakhs have been taken from Government. In 1903, the daily consumption of filtered water was more than 9½ gallons per head, and there were 811 house-connections. About 27 miles of drains are flushed daily. The drainage system has long been recognised as defective owing to the small flow in the Jumna in the hot weather, and changes in its channels. An intercepting sewer is now (1904) being constructed at a cost of R89,000, which will discharge its contents below the city.

The cantonment is ordinarily garrisoned by British and Cantonment. native infantry and by British artillery. Agra is also the



## AJMER.

Population  
and  
situation.

A large and important city in Rajputāna, and the administrative head-quarters of the small British Province of Ajmer-Merwāra (26° 27' N.; 74° 37' E.) Ajmer is 677 miles north of Bombay, and 275 miles south of Delhi, 228 west of Agra, 305 north of Ahmadābād and 393 north of Khandwā, the four principal termini of the Rājputāna-Mālwa Railway. Population (1872) 35,111, (1881) 48,735, (1891) 68,843, and (1901) 73,839—males 39,467, females 34,372. Hindus numbered 43,346 in 1901, Muhammadans 25,569, Jains 2,483, and Christians 1,871. The opening of the railway in 1879 brought with it a large influx of people, and since then the population has steadily increased. Ajmer lies at the foot of the Tārāgarh hill. It has some well-built open streets, contains many fine houses and is surrounded by a stone wall, now in disrepair, with five gates. The ancient town stood in the Indrakot valley, through which the road leads to Tārāgarh. A small portion of the population, all Muhammadans, and known as Indrakotis, still reside at the entrance to the valley, immediately outside the Tirpolia gate. The hill, on the summit of which the fort of Tārāgarh was built, towers in an imposing manner immediately above the city and commands it at every point. It stands, with precipitous surroundings, at a height of 2,855 feet above sea-level, and between 1,300 and 1,400 feet above the level of the valley at its base, and is partially enclosed by a wall, some 20 feet thick and as many high, built of huge blocks of stone, cut and squared. The hill fort was dismantled in 1832 and since 1860 has been used as a sanitarium for the European troops stationed at Nasirābād and Mhow. Within it stands the shrine of a Muhammadan Martyr, Saiyid Husain, known as the *ganj shahīdān* (Treasury of Martyrs).

HISTORIC  
BUILDINGS.  
*Arhāi-din-kā-  
Jhonprā.*

Ajmer is rich in objects of archæological interest. The most important is the mosque known as the *Arhāi-din-kā-Jhonprā* or "two and a half days' shed." This, originally a Hindu college, established by the Chauhān king Visaldev is said to have been converted into a mosque by order of Muhammad Ghari, the legend being that, as he passed the college, he ordered that it should be ready for him to pray in on his return in two and a half days. The pillars and roof of

the college were permitted to remain, but the rest of the building was demolished and much of the carving on the pillars defaced. A façade of remarkable beauty was then erected, and forms the front of the present mosque which was surrounded by lofty cloisters, with a tower at each corner of the quadrangle. The cloisters have largely fallen in and the surviving portion of the towers is very imperfect. The façade, however, and mosque itself, are in good preservation, having been extensively repaired during Lord Mayo's viceroyalty, while considerable restorations were carried out in 1900-02. The mosque is of about the same date as the Kutab Minār near Delhi.

The embankment of the Anāsāgar lake supports the beautiful marble pavilions erected as pleasure houses by Shāh Jahān. Of the five original pavilions, four remain in good preservation; the remains of the fifth have been preserved, but are very scanty. The embankment, moreover, contains the site of the former *hammām* (bath-room) the floor of which still remains. Three of the five pavilions were at one time built into residences for British officials, while the embankment was covered with office buildings and enclosed by gardens. The houses and enclosures were finally removed in 1900-1902, when the two south pavilions were re-erected, the marble parapet completed, and the embankment restored, as far as was practicable, to its early condition.

The Dargāh Khwāja Sāhib, wherein is the tomb of the Muhammadan saint Mu'in-ud-dīn Chishtī, who died here about 1235, is another remarkable building, and is an object of pilgrimage to Muhammadans from all parts of the country. The yearly number of pilgrims is about 25,000. The shrine also contains a mosque by Akbar, another by Shāh Jahān and several more modern buildings. The gateway, though disfigured by modern colouring, is picturesque and old. The shrine contains the large drums and brass candlesticks taken by Akbar at the sack of Chitor. The saint's tomb, which was commenced in the reign of Shams-ud-dīn Altamsh and finished in that of Humāyūn, is richly adorned with gold and silver, but only Muhammadans are permitted to enter its precincts. A festival, called the *Urs melā*, which lasts 6 days, is held annually at the Dargāh in the Muhammadan month of Rajab at which the following peculiar custom is observed. There are two large cauldrons inside the Dargāh, one twice the size of the other, known as the great and little *deg*. Pilgrims to the shrine propose to offer a *deg* feast.

The smallest sum for which rice, butter, sugar, almonds, raisins and spices to fill the large *deg* can be bought is R1,000, while the donor has to pay about R200 more in presents to the officials of the shrine and in offerings at the tomb. The materials for the small *deg* cost half the sum required for the large one. After a gigantic rice-pudding of this description has been cooked it is scrambled for boiling hot. Eight earthen pots of the mixture are first set apart for the foreign pilgrims, and it is the hereditary privilege of the people of Indrakot and of the menials of the Dargāh to empty the cauldron of the remainder of its contents. All the men who take part in the "looting of the *deg*" are swathed up to the eyes in cloths to avoid the effect of the scalding fluid. When the cauldron is nearly empty, the Indrakotis tumble in together and scrape it clean. There is no doubt that this custom is an ancient one, though no account of its origin can be given. It is counted among the miracles of the saint that no lives have ever been lost on these occasions, though burns are frequent. The cooked rice is bought by all classes, and most castes will eat it.

The Fort, etc.

The Ajmer fort was built by Akbar. It is a massive square building with lofty octagonal bastions at each corner. The fort was used as the residence of the Mughal emperors during their visits to Ajmer, and was the head-quarters of the administration in their time and in that of the Marāthās. The main entrance faces the city, and is lofty and imposing. It was here that the emperors appeared in state, and that, as recorded by Sir Thomas Roe, criminals were publicly executed. The ground surrounding the fort has been largely built over, and its striking appearance is thus considerably impaired. The interior was used as a magazine during the British occupation until 1857, and the centre building, now used as a *tahsil* office, has been so much altered that its original shape and its proportions are difficult to trace and restore. With the fort the outer city walls, of the same period, are connected. These surround the city and are pierced by the Delhi, Madār, Usri, Agra and Tirpolia gates. The gates were at one time highly decorated, but the Delhi gate alone retains any traces of its earlier ornaments. In the older city, lying in the valley beneath the Tārāgarh hill and now abandoned, the Nūr-chashima, a garden house used by the Mughals, still remains, as does a water lift commenced by Māldeo Rāthor, to raise water to the Tārāgarh citadel. The Daulat Bāgh or Garden of Splendour, which was made by the emperor Jahāngir in



the 16th century, stretches for some distance from the Anāsāgar embankment in the direction of the city. It contains many venerable trees, is maintained from municipal funds and is a popular public resort.

Ajmer is an important railway centre and the local emporium for the trade of the adjoining parts of Rājputāna. The locomotive, carriage and waggon shops of the Rājputāna-Mālwa Railway are established here and employ about 7,000 hands, while the whole of the earnings of the Railway are paid into the Ajmer Treasury. Several important Seth trading firms have their head quarters at Ajmer, with branches throughout Rājputāna, and in Calcutta, Bombay and other principal cities of India. They act chiefly as bankers and money lenders and transact considerable business with Native States.

Ajmer as a  
Railway and  
Commercial  
centre.

Ajmer has been a municipality since 1869. The municipal committee consists of 22 members, mostly Natives. Its income in 1902-03 was R183,000, or R2½ per head of population, the principal source of revenue being octroi.

Municipality  
and water-  
works.

The city derives its water-supply from the Foy Sāgar tank some 3 miles to the west of the city. It was built as a famine relief work in 1891-92, the money being lent to the municipality by Government. The water is conveyed into the city and suburbs through pipes which are laid under-ground. The capacity of the tank is 150,000,000 cubic feet, and when full it holds, approximately, a two years' supply of water for the city, the civil station and the Railway Workshops. When the water level in the reservoir is below a certain depth, the water has to be pumped.

The Mayo College and the local Government College are the principal educational institutions. The former was established at the suggestion of Lord Mayo as a college where the sons of Chiefs and nobles would receive an education which would fit them for their high positions and important duties. The endowment fund, subscribed by 17 of the Rājputāna States, amounts to about 7 lakhs of rupees and the interest on this sum, added to a Government subsidy, forms the income of the college. Some of the Native States have built boarding houses, while the Government of India presented the college park, comprising 167 acres and formerly the site of the old Residency, and erected the main building, the residences of the Principal and Vice-Principal and the Ajmer boarding house. It also provides the salaries of the English

Mayo  
College.

staff. The foundation stone of the college was laid in 1878 and the building was opened by the late Marquis of Dufferin in 1885. The main building is of white marble in the Hindu-Saracenic style. The Jaipur boarding house stands apart, to the south of the main building, while the other 9 boarding houses are arranged in the form of a horse-shoe, with the college in the centre of the base. A fine marble statue of Lord Mayo, by Noble, erected from funds subscribed by British and native residents in Rājputāna, stands in front of the main building. The college is administered by a Council, of which the Viceroy is the President, and the Agent to the Governor-General for Rājputāna, Vice-President. The Chiefs of Rājputāna and the Political Officers accredited to them are members of the Council and the Principal is the Secretary. The English staff was strengthened in 1903 and now consists of a Principal, a Vice-Principal and two assistant masters. The native staff has also been strengthened and improved. The college curriculum is not fettered by any prescribed code and a course of studies is followed which experience has shown to be as useful and as practical as possible. The total number of admissions from the opening of the college up to 1st April 1904 has been 359, of whom 83 are now on the rolls. The total includes several ruling Chiefs both in and out of Rājputāna, whence the greater number of boys come.

Miscellaneous.

Ajmer possesses a Central jail, a large General Hospital and two smaller hospitals. The United Free Church of Scotland, the Church of England, the Roman Catholics and the American Episcopal Methodists have Mission establishments here. It is likewise the head quarters of a Native Regiment and of a Railway Volunteer Corps. There are 12 printing presses in the city, from which 8 weekly newspapers (mostly vernacular) issue, none of which is, however, of any importance.

## AURANGABAD.

The headquarters of the Division and District of the same name in the Hyderābād State, lying in  $19^{\circ} 53' \text{ N.}$  and  $75^{\circ} 20' \text{ E.}$ , on the eastern bank of the river Kaum. In point of historical interest and population it is the second city in the State. Its population at the last three censuses was as follows :—in 1881, 30,219 ; in 1891, 33,887 ; and in 1901, 36,837, including the Aurangābād Cantonment. In 1610 Malik Ambar the minister of the Nizām Shāhi kings of Ahmadnagar, built the city and named it Kharki. The Mughals and the Nizām Shāhi troops under Malik Ambar were constantly at war during the early part of the seventeenth century. After the death of Malik Ambar in 1626, the power of the Ahmadnagar kingdom gradually declined, until 1632, when the Nizām Shāhi territories were incorporated in the Deccan Sūbahs of the Mughal empire. Aurangzeb was first appointed viceroy of the Deccan in 1635, and again in 1653, and during his residence at Kharki changed its name to Aurangābād. It was from here that he directed his earlier campaigns against the Marāthās and the Bijāpur and Golconda kingdoms. In 1657, he dethroned and imprisoned his father Shāh Jahān. A few years later he undertook the subjugation of the Muhammadan kingdoms of the Deccan, and commenced his wars with the Marāthās, in which he was almost continuously engaged until his death, at Ahmadnagar, in 1707. Bijāpur fell in 1686 and Golconda, the Kutab Shāhi capital, in 1687 ; which resulted in the annexation of the territories of the two kingdoms to the empire of Delhi. He was succeeded by his eldest son in 1707. During the confusing and internal dissension that followed for the next few years, Nizām-ul-mulk Asaf Jah, the first Nizām, retired to Aurangābād, and having declared his independence, subsequently made Hyderābād his capital.

The city is bounded on the north and south by the Sichel and Sattara ranges. During the reign of Aurangzeb its population is said to have been not less than 200,000, and the ruins of the present day bear testimony to its former extent. The modern city is situated to the east of old Aurangābād and the cantonments lie to its west, being separated from it by the Kaum river. The garrison of the cantonments consists of two regiments of infantry, and one of cavalry, under the command of British officers.

In 1853 Aurangābād was the scene of a sharp conflict between the Contingent troops and a body of Arabs, who were defeated. Of the Contingent troops fifteen were killed and forty wounded. In the eventful year of 1857 some of the troops showed a spirit of disaffection, and an attack was meditated upon the cantonment. The authorities at Hyderābād had been apprised of this, and troops from Poona were ordered to march to Aurangābād. When the Poona troops arrived under General Woodburn, the disaffected cavalry were summoned to a dismounted parade. On the names of the ringleaders being called out, a jemadar ordered his men to load their carbines. A scene of wild confusion ensued, and some of the troops profiting by it ran to their horses and mounting them fled, and though pursued by the 14th Dragoons from Poona, they escaped. Two-thirds of the regiments remained loyal. A court-martial was held and twenty-one of the condemned were shot and three blown away from guns.

At Aurangābād the Sūbahdar (Commissioner), the *Nazim-i-Sūbah* (Judicial Commissioner), the First Talukdar and other officers hold their courts. There is a large Central jail, a high school, a school of industry and several smaller schools. The city is an important centre of trade, and silk and gold and silver cloth and lace of a very superior quality are manufactured here and largely exported. There is a large spinning and weaving mill which gives employment to 700 persons. The city suffered severely from plague and the famines of 1897 and 1900, and but for the opening of the Hyderābād-Godāvari Valley Railway, the city and the country around would have been depopulated. The increase of population in 1901 is due to the immigration of famine-stricken people from the neighbouring villages. Aurangābād has an old system of water-supply which was introduced by Malik Ambar and completed by Aurangzeb, and though much of it has fallen into decay, that which remains yields sufficient water to supply the needs of the people. A new system of water-works was opened in 1892, which supplies filtered water to the cantonment.

There are many places of interest in the city and its suburbs ; as for instance the Makbara or the tomb of Aurangzeb's wife, the Jāma Masjid built by Malik Ambar, the ancient palace of the Nizāms near Borapal and the Kila Ark or citadel which was Aurangzeb's palace. About two miles to the north of the city are the Aurangābād caves, eleven in number, mostly of Buddhist origin, three of which are unfinished.

## BAHAWALPUR.

The capital of the Bahāwalpur State, Punjab, headquarters of the Bahāwalpur *nizāmat* and tahsil and a station on the North-Western Railway, lying on the south bank of the Indus, 65 miles south of Multān, in  $29^{\circ} 24'$  N. and  $71^{\circ} 47'$  E. Population (1901) 18,546. It was founded in 1748 by Nawāb Bahāwal Khān of Bahāwalpur, and replaced Derāwar as the capital of that State. The palace built by Nawāb Sir Sādik Muhammad Khan IV in 1882 is a vast square pile, with towers at each corner. The reception hall in the centre is 60 feet long and 56 high, the vestibule to it being 120 feet high. The palace contains underground apartments where the thermometer remains at about  $70^{\circ}$  F., while it rises to  $100^{\circ}$  and even  $110^{\circ}$  in the upper rooms. From the roof of the palace an extensive view is gained over the vast desert of Bikaner, which stretches away waterless for 100 miles. Five miles from Bahāwalpur, the North-Western Railway crosses the Sutlej by the magnificent iron girder 'Empress' bridge opened in 1878, 4,258 feet in length, with 16 spans, each 250 feet long. The guest-house or 'Nūr Mahal,' built in 1875 at a cost of 12 lakhs, is a handsome building in the Italian style. The town possesses the Sādik-Egerton College, an anglo-vernacular middle, Church Mission, and theological schools, an orphanage and hospital. The town has a considerable trade, and some flourishing industries. The municipality, constituted in 1874, consists of 24 nominated members, and had in 1903-94 an income of Rs32,503. The cantonment contains the lines of the Nizām regiment and Imperial Service Camel Corps.

## BANGALORE.

The seat of government for the Mysore State, and headquarters of the Bangalore District of the Indian Army; situated in  $12^{\circ} 57' N.$ ,  $77^{\circ} 35' E.$ , by rail 219 miles from Madras, and 692 from Bombay. Total population 159,046. It covers an area of 25 square miles, and is composed of two separate but adjacent parts,—Bangalore City (the Peta, Pētē, or original native town of Bangalore proper), under the Mysore Government, and the Civil and Military Station (formerly called the Cantonment), an Assigned Tract under British administration through the Resident.

Bangalore City has been largely extended of recent years, especially since the outbreak of plague in 1898, and now covers an area of 11 to 12 square miles, extending from the Imperial Service Lancer lines in the north to the Bull temple in the south, a distance of 7 miles, and from Cubbon Park in the east to Chāmrajpet in the west, above 4 miles. The

1871	60,703
1881	62,317
1891	80,285
1901	69,447

population has been as in the margin, the decrease since 1891 being due to plague. The City is divided into 9 municipal divisions or wards, namely, Palace, Balepatē, Manivartapetē, Halsūrpētē, Negartapetē, Lāl Bāgh, Fort, Basavangudi, and Mallesvaram. The municipal board is composed of a President, 5 other *ex-officio* and 5 nominated members appointed by Government, and 13 elected members. The privilege of election was granted in 1892. The principal heads of municipal receipts and expenditure are (1900-01) :—

Receipts.		Expenditure.	
	R		R
Octroi . . . . .	45,925	Interest on debts . . .	1,278
Tax on houses and buildings . . . . .	23,679	Head office charges . . .	10,384
Lighting tax . . . . .	4,718	Collections . . . . .	13,418
Licenses for liquor shops, etc. . . . .	18,723	Conservancy . . . . .	34,244
Tax on vehicles and animals . . . . .	3,949	Health department . . .	11,913
Tolls . . . . .	19,800	Lighting charges . . . . .	12,844
		Public Works . . . . .	46,765
		Charitable grants . . . . .	21,658
		Education . . . . .	11,874
Carried over . . . . .		Carried over . . . . .	

Receipts.		Expenditure.	
Brought forward .		Brought forward .	
Water tax . . .	919	Miscellaneous . . .	4,822
Mohatarfa (on shops, looms, oil mills and carts) . . .	7,148	Deposits, repayment of loans, etc. . .	12,684
Rents . . .	7,765		
Fines and fees . .	370		
Contribution for hospitals, roads, etc. . .	9,664		
Miscellaneous . . .	17,347		
Deposits . . .	5,946		
Total . . .	1,65,953	Total . . .	1,81,894

The name is properly Bengalūru, the ūru or town, of *bengatu* or beans. The Hoysala king Vira Ballāla, it is said, became separated from his attendants when hunting and was benighted. Faint and weary, he came upon a solitary hut in which was an old woman, who could give him only some *bengalu* or beans boiled in a little water. This he was glad to share with his horse and passed the night there. The incident soon became known, and the ūru or village which sprang up was called the Bengal-ūru. This was situated to the north, beyond Kodigehalli, and is now known as Old or Halē Bengalūru. Bangalore was founded in 1537, by Kempe Gauda, the chief of Yelahanka, and a watch-tower at each of the cardinal points marks the limits to which it was predicted it would extend, a prophecy now more than fulfilled. The first extension was Chāmrājpet, from the Fort westwards, in 1892. In 1899 were added the Basavangudi extension, south from the Fort, and the Mallesvaram extension, north from the city railway station. The Fort is to the south of the original town, but since 1888 has not been used for any military purpose. First built of mud, it was enlarged and built of stone in 1761, under Haidar Ali, captured by the British in 1791, subsequently dismantled by Tipū Sultān, but restored in 1799. The walls have now been pierced for roads, and a part pulled down and the moat filled up providing a site for the Victoria Hospital. The most important buildings included in the City are the Maharāja's Palace to the north, and the range of public offices in Cubbon park.

East from the Fort is the Lāl Bāgh, or State Botanical gardens, dating from the time of Haidar Ali.

On the west of the city are large spinning and manufacturing mills, woollen, cotton and silk mills, oil mill and soap factory, brick and tile works, eastwards, a silk-worm farm under Japanese management and to the south-west, the Government distillery. Near the city railway station are locomotive workshops, and an iron foundry. Near the cantonment railway station are large coffee curing works, where also artificial manures are prepared.

The water-supply (provided in 1896) is pure and abundant, drawn from the Hesarghatta tank on the Arkāvati, 13 miles to the north-west. The water is pumped to the top of a small hill at Banavar, from there runs by gravitation through cast-iron pipes to settling and filtering beds near the city, and thence to a subterranean reservoir at the race-course, from which it is distributed to all parts. The daily supply provides for a million gallons. The drainage of the city is collected into one main channel which runs out from the southern side of the old town and is continued as far as the Sunnakal tank, a distance of 2 or 3 miles, where the sewage is applied to agricultural purposes.

The Civil and Military Station of Bangalore adjoins the city on the east, and covers an area of 13 square miles, extending from the Residency on the west to Binnamangala on the east, about 4 miles, and from the Tanneries on the north to Āgram on the south, about 5 miles. The population at each census was returned as in the margin. The decrease since 1891 is

1871	• •	81,810	due chiefly to plague, but also partly
1881	• •	93,540	to the absence of troops in 1901 at
1891	• •	100,081	the seats of war in South Africa and
1901	• •	89,599	China.

The cantonment was established in 1809, on the removal here of the British garrison from Seringapatam, which had proved too unhealthy for the troops. But the headquarters were at first in the Fort, where also the principal Europeans lived. The name cantonment continued till 1881, being known to the Hindus as *Dandu* and to the Musalmāns as *Lashkar*. On the rendition of Mysore in that year, it was made over to the British as an Assigned Tract, and under the present designation became subject to the administration of the Resident.

The garrison contains 3 batteries of artillery, and regiments of British cavalry and infantry, native cavalry,

sappers and miners, pioneers, and infantry (2), mounted infantry, supply and transport corps, and mule corps. There are, besides, the Mysore Imperial Service Lancers and transport corps, Mysore Barr infantry, and the Bangalore rifle volunteers.

The Station municipal board has the District Magistrate as president, and is composed of 6 *ex-officio* and 18 non-official members, the latter being elected. There are 6 divisions or wards,—Halsur (Ulsoor), Southern, East General Bazar, West General Bazar, Cleveland Town, and High Ground. The elected commissioners are so apportioned among them as to represent the several classes in each. There are thus 6 Europeans and Eurasians, 5 Muhammadans, and 8 Hindus and others. The principal heads of municipal receipts and expenditure are (1900-01) :—

Receipts.		Expenditure.	
	R		R
Rates and Taxes	2,24,592	Public Works . . .	1,06,123
Revenue from Municipal property . . .	79,757	Education . . .	10,002
Grants and contributions . . .	23,757	Sanitation and Medical services . . .	3,510
Miscellaneous . . .	6,041	Health department . . .	1,45,146
Extraordinary and Debt. . . . .	25,000	Miscellaneous . . .	31,671
Advances recovered . . .	9,984	Supervision and Management . . .	40,083
		Pensions and gratuities . . .	14,282
		Advances recoverable . . .	7,921
Total . . .	3,69,161	Total . . .	3,58,738

The water-supply is drawn from the same source as for the city, namely, the Hesarghatta tank, but by an independent system of pumping works, filter beds, and pipes, to a reservoir on the high ground. The daily supply is calculated at a million gallons, of which one-third is in theory for the military and two-thirds for the civil population. In case of failure the troops have the prior claim to water. The drainage of the bazar and cantonment is carried by a large sewer passing through a tunnel in the Halsur tank to some distance beyond Halsur, where it is applied to cultivation.

The Assigned Tract occupied by the Civil and Military Station is under the control of the Resident, and provided



## BANGALORE.

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with various departments and administrations separate from those of the Mysore Government. The revenue work is discharged by the Collector and District Magistrate. For police there is a Superintendent with 39 officers and 234 constables. The police jurisdiction also extends over railways (327 miles), for which purpose there are 18 additional officers and 118 men. The criminal courts are the Bench of Honorary Magistrates, those of the second Magistrate, of the Sessions Judge, who is the Assistant Resident, and the High Court which is that of the Resident. The civil courts are the Munsiff's Court under the second Magistrate and the District Court under the District Magistrate. There is no separate jail, but prisoners are sent to the Bangalore Central jail of the Mysore Government and paid for. The medical institutions are under the Residency Surgeon, and the educational institutions, all of which are aided (36, with 3,095 pupils<sup>1</sup>), are visited by an Inspector from Madras.

The revenue of the Assigned Tract for 1900-01 was **Rs 7,23,683** (of which **Rs 6,19,522** was derived from excise) and expenditure **Rs 4,21,626**. The surplus goes to the Government of India. The municipal accounts for the same year show receipts **Rs 3,69,161**, and expenditure **Rs 3,58,738**.

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<sup>1</sup>This does not include regimental schools under the Military authorities.

## BENARES.

Municipality and cantonment and headquarters of the Situation, Benares District and *tahsil*, United Provinces, lying on the left bank of the Ganges, in  $25^{\circ} 18' \text{ N.}$  and  $83^{\circ} 1' \text{ E.}$ ; distance by rail from Calcutta 479 miles, and from Bombay 941 miles. The city is the second largest in the United Provinces; but its population includes a large number of pilgrims and is liable to considerable variations: 1872, 175,188, 1881, 214,758; 1891, 219,467; 1901, 209,331. In 1901, the population included 153,821 Hindus and 53,566 Musalmāns and about 1,200 Christians. The cantonment contained a population of 4,958, which is included in the figures already given.

The ancient name of the city of Benares was Vārānasi, History. the etymology of which is uncertain; its popular derivation from Varanā (Barnā) and Asī, the names of the two small streams which confine the modern city is, however, untenable. A more recent name, still commonly used by Hindus in all parts of India, is that of Kāshī or Kāshī, which is possibly taken from the name of a tribe of Aryās, though popularly explained as meaning bright. In the 18th century the city was officially known as Muhammadābād. The great antiquity of Benares is attested by its mention in both the Mahābhārata and Rāmāyana; but details of its history are very scanty, and even the Purānas only mention one dynasty of kings. It was close to Benares in the deer-park, which is identified with the country round SARNATH, that Gautama Buddha commenced to preach. In the 7th century A.D., Hiuen Tsiang found the kingdom of Benares mostly inhabited by Hindus, and only a few followers of the law of Buddha. The city at that time contained 20 Hindu temples with a gigantic copper image of Siva. It is probable that Benares was sacked by Mahmūd of Ghazni early in the 11th century, and nearly two hundred years later it fell into the hands of Muhammad Ghorī. Throughout the Musalmān period its political importance was slight, and the active cultivation of the Hindu religion was forcibly restrained. In the 18th century, the city and surrounding country gradually came under the Rājā of Benares, and finally in 1775 was ceded to the British.

Benares or Kāshī is at the present time one of the holiest Description. places to the orthodox Hindu and attracts great concourses of tions.

pilgrims, while many of its inhabitants are persons who have settled there in the hope of salvation through a death within its sacred precincts. The native town lies for four miles along a *kankar* ridge on the north-west bank of the Ganges, which forms a slightly curved reach below it, thus permitting the eye to take in at a single sweep the long line of picturesque *ghāts* surmounted by irregular buildings of various styles and proportions, the slender white minarets of Aurangzeb's mosque rising high above the general level. For a distance of from one to two miles from the bank the city consists of winding labyrinths and narrow alleys, lined by many storied buildings used as shops or private houses, with innumerable shrines in every part, ranging from a shapeless fragment of stone smeared with vermilion to magnificent temples. Rājā Mān Singh of Jaipur is said to have presented 100,000 temples to the city in a day.

Build-  
ings.

The ordinary throng of a large city is added to by the presence of strings of pilgrims being conducted from one to another of the more important shrines, and by the number of sacred bulls which wander about the streets. Along the *ghāts* strange figures of religious mendicants and ascetics are to be seen, some superintending the ablutions of the pilgrims in the sacred stream of the Ganges, while others practise devotions or various forms of austerity. Within the city there are many handsome houses substantially built and elaborately decorated; but the narrow, dirty, and crowded environments usually disappoint the visitor, after the high expectations aroused by the view from the river. Even the temples are generally small, and are not more than a few hundred years old. From a religious point of view the Bisheshar or golden temple, dedicated to Siva, is the most important. Siva in the form of Bisheshar is regarded as the spiritual monarch of the city, and this is the holiest of all the holy places in the sacred city. It contains the venerated symbol of the god, a plain *lingam* of uncarved stone. The building is not of striking dimensions and has no great pretensions to beauty, but is crowned by a dome and spire covered with copper, which was gilded at the cost of Mahārājā Ranjit Singh of Lahore. It was built by Ahalyā Bai, the Marāṭhi princess of Indore. Subordinate to Bisheshar is Bhaironāth, who acts as his minister and magistrate. The other temples to which pilgrims are specially directed are those of Bhaironāth, and his staff or Dandpānī, Ganesh or Dhundi Rāj, Vindumādhava or Vishnu, Durgā and Annpurna. These were chiefly built by Marathās in



the 18th century, and are all comparatively small. The Durgā temple is, however, remarkable for its simple and graceful architecture, and is situated in the outskirts on the bank of a large tank. Along the river front the Dasāshwamedh, Manikarnikā, and Panchgangā *ghāts* are the most esteemed. At the first of these Brahmā is said to have performed ten horse-sacrifices. Near the second is situated the famous well, which Vishnu dug with his discus and filled with his sweat, forming one of the chief attractions for pilgrims, thousands of whom annually bathe in the fetid water. The Panchgangā *ghāt* is so named from the belief that five rivers met at it, but the Ganges alone is visible to the gross material eye. Rājā Jai Singh's observatory, built in 1693, is a handsome and substantial building overlooking the Mān Mandir *ghāt*. It includes a number of instruments which have been allowed to fall out of repair. Close by stands the Nepalese temple which is ornamented by a series of obscene wooden carvings. The huge mass of Aurangzeb's mosque, built from the remains of a temple, towers high above a steep cliff over the Panchgangā *ghāt*, and is the most conspicuous building in the city when seen from the river. Another mosque, also built on the remains of a temple of Bisheshar, stands close to the Gyān Bāpī or well of knowledge, where Siva is said to reside. The older buildings and remains are chiefly found in the north and west of the present city, and the ancient site appears to have been situated on both banks of the Barnā. This stream flows into the Ganges about a mile beyond the present northern limit of the town. West of the city lies the suburb of Sigrā, the seat of the chief missionary institutions. Northwards, the Sikraul cantonments and parade-ground stretch away to the bank of the Barnā, which is here crossed by two bridges of stone and iron respectively. The civil station, including the courts and central jail, occupy the northern bank. The most noteworthy of the modern buildings are the mint, the Government College, the Prince of Wales Hospital, built by the gentry of Benares in commemoration of the visit of His Majesty to the city in 1876, the police-station, and the Town Hall, a fine building constructed at the expense of a Mahārājā of Vizianagram. Benares is the headquarters of the Commissioner of the Division, who is also a Political Agent for the payment of certain pensions; of an Inspector of Schools, and of an Executive Engineer in the Roads and Buildings branch. It contains three male and

three female hospitals, besides a lunatic asylum, a leper asylum, a poor-house and branches of the Church Missionary, London Mission, Baptist and Wesleyan Societies. Some members of the ex-Royal family of Delhi reside at Benares in a large building called the Shivalā, which was once occupied by Chet Singh.

**Municipality.**

A municipality was constituted in 1863. In the ten years ending 1901, the average income was 4·8 lakhs, and the expenditure was 5·8 lakhs, the latter, however, including capital expenditure on water-supply and drainage. In 1903-04, excluding a loan of 1·5 lakhs, the income was 4·7 lakhs, the chief items being octroi 3 lakhs, water-rate R83,000, other taxes R34,000, and rents R30,000. The expenditure amounted to 6·4 lakhs, including repayment of loans and interest 1·1 lakhs, water-supply and drainage capital, 2·2 lakhs, and maintenance R72,000, conservancy R70,000, roads and buildings R28,000, public safety R50,000, and administration and collection R40,000. An excellent water-works system was constructed between 1890 and 1892, which has cost upwards of 26 lakhs. In 1903-04, the daily consumption of filtered water amounted to over 16 gallons per head of population, and there were more than 5,000 house-connections. Water is pumped from the Ganges and filtered before use. An elaborate drainage scheme is still under construction, and is estimated to cost 15 lakhs. It includes a system of sewers, with house-connections.

**Cantonment.**

The cantonment is usually garrisoned by British and native infantry. The average receipts and expenditure of the cantonment fund in the 10 years ending in 1901 were R12,400. In 1903-04 the income was R12,700 and the expenditure R13,100.

**Trade and Manufactures.**

The wealth of Benares depends largely upon the constant influx of pilgrims from every part of India, whose presence lends the same impetus to the local trade as that given to European watering-places by the season visitors. Some of the pilgrims are Rājās or other persons of importance, who bring considerable retinues, and become large benefactors to the various shrines and temples. Hindu princes of distant States pride themselves upon keeping up a "town residence" in holy Kāshī. The city thus absorbs a large share of the agricultural produce of the District, and it also acts as a distributing centre. Its manufactures include ornamental brassware, silk, both plain and embroidered with gold and

silver, jewellery, and lacquered wooden toys. The brassware has a considerable reputation among Europeans as well as natives. The trade in silk *kamkkwāb* or *kincob*, woven with gold and silver, is decreasing, as native taste inclines towards European fabrics. A good deal of German silver work is now turned out in Benares, and employs a number of workmen who formerly prepared gold and silver wire. This is perhaps the most flourishing industry of Benares. The only factories are 3 ice works, two brick yards, 2 chemical works, and a few large printing presses.

The Benares College was opened in 1791, and the fine Education. building in which it is now housed was completed in 1852. It is maintained by the State and includes a first grade college with 97 pupils in 1904, and a Sanskrit college with 427 pupils. The Central Hindu College was opened in 1898, and is affiliated to the Allahābād University up to the B. A. standard. It contained 104 students in the college and 204 in the school department in 1904. It was founded largely through the efforts of non-Indian theosophists, and is intended to combine Hindu religious and ethical training, on an unsectarian basis, with modern western education. The missionary societies maintain a number of schools both for boys and girls, and the Church Missionary Society is in charge of Jai Nārāyan's collegiate school which was founded by a Hindu, after whom it is called, in 1818, and presented to the Society. The same Society manages a Normal school for female teachers. The municipality maintains 15 schools and aids 7 others attended by more than 1,300 pupils. Benares has produced a number of Hindu scholars and authors, and was the residence of the celebrated religious teachers Vallabhāchārya, Kabīr, and Tulsī Dās, and the 19th century author and critic, Harish Chandra. The Sanskrit college issues a periodical called *The Pandit*, dealing with Sanskrit learning, and a Society called the Nāgari Prachārini Sabhā has recently commenced the publication of ancient vernacular texts. There are several active presses and a few newspapers are published, but none of importance.—(Rev. M. A. Sherring, *the Sacred City of the Hindus*, 1868.)

## BHARATPUR.

The capital of the State of the same name, is situated in  $27^{\circ} 13' \text{ N.}$  and  $77^{\circ} 32' \text{ E.}$ , 34 miles by railway west of Agra, 875 miles north-west of Calcutta and 815 miles north-east of Bombay. It is the sixth largest city in Rājputāna, having a population of 43,601 against 66,163 in 1881 and 67,555 in 1891. The large decrease of over 35 per cent. is said to be due, partly to exaggerated enumeration in 1891 and partly to the fact that, in the year last mentioned, several suburbs were considered as part of the city whereas in 1901 they were treated as separate villages. According to the latest census, Hindus number 30,784 or 70 per cent. of the population, Musalmāns 11,964 or over 27 per cent., Jains 722 and "others" 131. The city and fort are said to have been founded about 1733 and to have been named after Bharat, a legendary character of great fame in Hindu mythology. The fort of Bharatpur is celebrated as having baffled the attacks of Lord Lake in 1805, and been captured by Lord Combermere on the 18th January 1826. The famous mud walls still stand, though a good deal out of repair. The only important manufactures are the *chauris* or fly-whisks made of ivory or sandal-wood. The art is said to be confined to a few families who keep the process a profound secret. The tail of the fly-whisk is composed of long, straight fibres of either of the materials above mentioned which in good specimens are almost as fine as the ordinary horse hair. These families also make fans of the same fibres beautifully interwoven. A municipal board of 12 members is responsible for the sanitation and lighting of the city, the State providing the necessary funds, about ₹23,000 a year. The central jail is at Sesar, about 3 miles to the south-west and, though much improved during recent years, is not altogether satisfactory as a prison. It has accommodation for 179 prisoners and the daily average number of inmates has varied from 261 in 1901 to 215 in 1903. The manufactures such as rugs, carpets, blankets, matting, etc., yield a yearly profit of about ₹1,500. The educational institutions, 8 in number (omitting indigenous schools such as *maktabs* and *patshālas*), are attended by 850 boys and 89 girls. Of these, 5 are maintained by the State and 3 by the Church Missionary Society. The



## *BHARATPUR.*

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only school of any note is the Darbār high school which teaches up to the entrance standard of the Allahābād University and which, since 1894, has passed 19 students for that examination. Including the two Imperial Service regimental hospitals and that attached to the jail, there are five hospitals and a dispensary at Bharatpur. They have accommodation for 148 in-patients and, in 1903, 48,934 cases (2,116 being those of in-patients) were treated and 1,182 operations performed. In the Victoria hospital, one wing of which is solely for females, the Bharatpur State possesses what has been pronounced by experts to be the best equipped and most thoroughly up-to-date institution as regards medical and scientific details in India at the present time.

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## BIKANER.

The settlement or habitation (*ner*) of Bika is the capital of the State of the same name, and is situated in  $28^{\circ}$  N. and  $73^{\circ} 22'$  E., 1,340 miles by rail north-west of Calcutta and 759 miles almost due north of Bombay. Bikaner is the fourth largest city in Rājputāna and its population at each of the three censuses was: 1881, 33,154; 1891, 50,513; and 1901, 53,075. In the year last mentioned, Hindus numbered 38,796 or over 73 per cent. of the population, Musalmāns 10,191 or over 19 per cent., and Jains 3,936 or over 7 per cent.; there are also a few Christians, Sikhs, Parsis and Aryās. The city, which was founded in 1488, is situated on a slight elevation about 736 feet above the sea and has an imposing appearance, being surrounded by a fine wall crowned with battlements and possessing many lofty houses and temples and a massive fort. The wall, 40 miles in circuit, is built wholly of stone and has five gates and six sally-ports. It is 6 feet thick and from 15 to 30 feet high, including a parapet 6 feet high and 2 feet thick. There is a ditch on three sides only, the ground on the southern face being intersected by deep ravines which have broken up the whole plain in that quarter; the depth of the ditch is about 15 and the breadth 20 feet.

The old fort, built by Bika 3 years before he founded the city, is picturesquely situated on some high rocky ground close to, and on the south-west side of, the city. It is small and now rather a shrine than a fort; near it are the cenotaphs of Bika and two or three of his successors, as well as of some persons of less note. The larger fort is more modern having been built by Rājā Rai Singh between 1588 and 1593; it contains the old palaces and is situated about 300 yards from the Kot gate of the city. It is 1,078 yards in circuit, has two entrances each of which has three or four successive gates, and its rampart is strengthened by numerous bastions about 40 feet high and a moat running all round in a direction parallel to the curtains without following the curve of the bastions. The moat is 30 feet wide at the top but narrow at the bottom and from 20 to 25 feet in depth. This fort has been besieged several times but is said to have never been taken though the old one once was. The palace buildings are the work of successive Chiefs nearly every one of whom has contributed something; the latest addition is the spacious Darbār hall called Ganga Niwās after the present

Mahārājā, it is a fine building, the interior being of carved red sandstone, the ceiling of carved wood and the floor of marble, but being of different material and architectural style it does not blend very well with its surroundings.

The city is irregularly square in shape and contains many good houses faced with red sandstone richly carved, the tracery being called khudai or manomat, but the majority of these houses are situated in narrow tortuous lanes where they can scarcely be seen. The poorer buildings are besmeared with a sort of reddish clay, abundant in the ravines near the city, which gives the place an appearance of neatness and uniformity, the walls being all red and the doors and windows white. The north-western portion of the city, where the richest bankers reside, was so much congested that it was found necessary to extend the wall in that direction so as to bring in a considerable area of habitable land ; this is being rapidly built over while in the northern and north-eastern portions, where formerly there were only a few small houses, such public buildings as the jail, hospital, high and girls' schools, post office and district courts have been erected. The total number of wells in the city and fort is 45, of which 5 are fitted with pumping engines ; water is found from 300 to 400 feet below the surface and, though not plentiful, is generally excellent in quality. There are 10 Jain monasteries (*upāsarās*) which possess many Sanskrit manuscripts, 159 temples and 28 mosques, but none of these buildings is particularly striking in appearance.

Outside the city the principal buildings are the Mahārājā's new palace called Lālgarh, a handsome edifice of carved red sandstone, fitted with electric light and fans ; the Victoria memorial club, the new public offices called Ganga Kacheri and the Agency. Bikaner is famous for a white variety of sugar candy and for its woollen shawls, blankets and carpets. Since the establishment of a municipality in 1889, the sanitation and lighting of the city have been greatly improved. The average income of the municipality is about ₹10,600 a year, derived mainly from a conservancy tax and a duty on *ghī*, and the average expenditure is about ₹31,400, the deficit being found by the Darbār. A number of metalled roads have been constructed in the city and suburbs, the principal one from the new palace to the fort being lit by electric light. The central jail is probably the best in Rājputāna ; it has accommodation for 590 prisoners. In 1903-04 the daily average strength was 378, the expenditure about ₹22,000 and

the net profits on jail manufactures over Rs. 18,600. There are 3 State schools at the capital, one of which is for girls, and in 1903-04 the daily average attendance was 453 boys and 74 girls. The principal educational institution is the high school which is affiliated to the Allahābād University. Excluding the Imperial service regimental and the jail hospitals, there are one general hospital and 2 dispensaries for out-patients while a hospital solely for females is under construction. The general hospital, named Bhagwān Dās after a wealthy Seth of Churu who provided the necessary funds for its construction, has accommodation for 70 in-patients and is largely attended. Five miles east of the city is the Devī kund, the cremation tank of the Chiefs of Bikaner since the time of Jet Singh (1527—1541). On each side of this tank are ranged the cenotaphs of fourteen Chiefs from Kalyān Singh to Dūngar Singh; several of them are fine buildings with enamel work on the under surface of the domes. The material is red sandstone from Dalmera and marble from Makrāna (in Mārwar); on the latter are sculptured in bas-relief the mounted figure of each Chief while in front of him, standing in order of precedence, are the wives and behind and below him the concubines who mounted his funeral pile. The date, names of the dead and in some cases a verse of Sanskrit are inscribed. The last distinguished sati in Bikaner was a daughter of the Udaipur ruling family named Dip Kunwar, the wife of Mahārājā Sūrat Singh's second son, Moti Singh, who died in 1825. Near the tank is a palace for the convenience of the Chief and his ladies when they have occasion to attend ceremonies here, while about half way between Devī kund and the city is a fine though modern temple dedicated to Siva with a garden attached to it known as Siva bāri.

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## BOMBAY.

The city of Bombay, the capital of the Presidency of **Situation,** Bombay, and the principal seaport of western India, is situated etc. on an island in  $18^{\circ} 55'$  N. and  $72^{\circ} 54'$  E. Bombay Island is one of a group lying off the coast of the Konkan; but by the recent construction of causeways and break-waters it is now permanently united on the north side with the larger island of Salsette, and so continuously with the mainland. The remainder of the group of islands constitutes a part of the Kolāba District. For certain administrative purposes Bombay City is regarded as constituting a District by itself, with an area of 22 square miles, and a population, according to the census of 1901, of 776,006 souls.

In the beauty of its scenery, as well as in the commercial **General** advantages of its position, Bombay is unsurpassed by any of **aspect.** the cities of the East. Bombay Island is connected with the mainland on the north by two railway embankments and as many causeways. The entrance into the harbour from the sea discloses a magnificent panorama. The background is shut in by the barrier range of the Western Ghāts. In front opens the wide harbour, studded with islands, dotted with the white sails of innumerable native craft, and affording a secure shelter to fleets of steam-propelled merchantmen. The city itself consists of well-built houses and broad streets ennobled by public buildings. The seashore is formed by docks, warehouses, and a long line of artificial embankments extending continuously for nearly five miles. On approaching Bombay from the west, there is little to strike the eye: the coast is low, the highest point, Malabar Hill, being only about 180 feet above the sea. But on entering the harbour a stranger is impressed with the picturesqueness of the scene. To the west the shore is crowded with buildings, some of them, as Colābā Church and the Rajābai Clock tower of the University, very lofty and well-proportioned. To the north and east are numerous islands, and pre-eminent among the hills, the remarkable one of Bāva Malang, otherwise called Malanggarh, on the top of which is an enormous mass of perpendicular rock, crowned with a ruined fort. The harbour is an animated and picturesque scene. There are usually a troopship and a man-of-war of H. M.'s East India Squadron, together with numerous large passenger or merchant steamers, among which may be mentioned those of the Peninsular and

Oriental Company, the Italian Rubattino, the British India Steam Navigation Company, the Messageries Maritimes, the Austrian Lloyd, the 'Clan,' 'Anchor,' and 'Hall,' lines. Many other steamers, and an occasional sailing vessel, are to be seen riding at anchor, swinging with the swiftly-flowing tide, and discharging or receiving cargo. All kinds of boats, ships, *dingies*, steam-launches, native *bunders* and *karāchis* incessantly ply on the harbour. At the southernmost point of the "Prongs," a dangerous reef jutting from Colābā point, stands the light-house built in 1874 and containing a first class dioptric light, which is visible for eighteen miles.

The Island consists of a low-lying plain about  $11\frac{1}{2}$  miles long by 3 to 4 broad, flanked by two parallel ridges of low hills. Point Colābā, the headland formed by the longer of these ridges, protects the harbour lying on its eastern side from the force of the open sea; the other ridge terminates in Malabar Hill; and between the two lies the shallow expanse of Back Bay. The island is in shape a trapezoid. It is popularly likened to a hand laid palm upwards, with the fingers stretching southwards into the sea, and the thumb representing Malabar Hill, with Back Bay between the thumb and forefinger: others see in it a resemblance to a withered leg, with a very high heel and pointed toe, the heel being Malabar Hill and the toe Colābā. On a slightly raised strip of land between the head of Back Bay and the harbour is situated the Fort, the original nucleus round which the town grew up, but now chiefly occupied by stately public buildings and commercial offices. From this point the land slopes westward to the central plain, which, before the construction of the embankment known as the Hornby Vellard, was liable to be submerged at high tide. To the north and east recent schemes of reclamation have similarly shut out the sea, and partly redeemed the foreshore for the use of commerce. In the extreme north of the Island a large tract of salt marsh still remains unreclaimed.

The Government offices, the business houses, and the shops, cluster thickly in the Fort. Many of the public and commercial buildings, constructed during the past forty years, are of splendid dimensions, and have no rival in any other Indian city, except perhaps Calcutta. The houses in the native bazar are also handsomely built, rising three, four, and even six stories in height, with elaborately carved pillars and front-work. Some of the narrow, unpaved and crowded streets give an inadequate idea of the real opulence of their inhabit-

Bombay  
Island.

The Fort.  
Public  
buildings,  
etc.



ants. But in many of them may be seen evidences of the wealth of the city and of the magnificence of its merchant princes. The most conspicuous line of public buildings is on the Esplanade facing Back Bay. Here is the Secretariat, an enormous erection in the Venetian-Gothic style of architecture; the University Library, Senate Hall, and Rājābai Clock-tower; the High Court; the Public Works, Post and Telegraph Offices. A little inland, and behind the Secretariat range of buildings, runs the broad thoroughfare of Rampart Row, off which branch many narrow streets containing native and European shops. Rampart Row and its continuation towards the Apollo Bunder (landing-place) form the main line of thoroughfare of the European city of Bombay. Along one side of Rampart Row is a colonnade of arches giving entrance to the Bombay Club, the French Bank, and other buildings. On the opposite side of Rampart Row, which is here fifty or sixty yards broad, rises another line of many-storied offices chiefly belonging to merchants in grain and cotton. The Fort is illuminated during the night by incandescent light. Near the Apollo Bunder is the Sailors' Home, erected at the expense of a former Gaikwār of Baroda. Behind the Sailors' Home is the Yacht Club, a favourite resort of Bombay society; and adjoining are the club residential quarters and the grand structure of the new Taj Mahal Hotel. At the other end of Rampart Row is a white marble statue of the Queen, under a Gothic canopy, also the gift of the Gaikwār. The most important buildings in the densely-built space occupying the site of the Fort are the circular row of offices and warehouses known as the Elphinstone Circle, the Custom House, the Town Hall, the Mint, and the Cathedral.

The Castle and Fort St. George are the only two spots now retaining any traces of the old fortifications. The existing defences of Bombay harbour are batteries on the rocks, which stud the sea from about opposite the Memorial Church at Colābā to the Elphinstone reclamation. The one most to the south is called the Oyster Rock, which is 1,000 yards from the shore and 8,400 feet south-west of the Middle Ground Battery. The fort on the Middle Ground shoal is in the middle of the anchorage, 1,800 yards from shore. The third defence is on Cross Island, at the north end of the anchorage, 100 yards from the shore and 4,000 yards from Middle Ground. There are also batteries at Malabar Point and Mahalakshmi on the western side of the Island.

On leaving the Bazar Gate police station, which represents the most northernly point of the Fort section, the first object

Other parts  
of the city.

of interest is the Victoria Terminus of the great Indian Peninsula Railway, a very handsome building standing on the original site of an old temple of Mumbādevī. Opposite the station are the Municipal Offices, the foundation stone of which was laid by Lord Ripon in December 1884. Immediately beyond them the new offices of the leading Bombay newspaper, *The Times of India*, have now been erected, and thence a few minutes' stroll will bring the visitor to the great markets, named after Mr. Crawford, who held the post of Municipal Commissioner from 1865 to 1871. North of the markets lies the native city proper. Two of the best known thoroughfares in this portion of the Island are the Kālbādevī Road and Abdur Rahmān Street, both of which lead to the Pāydhuni (foot-wash) locality, so called from the fact that in very ancient times a stream flowed there, in which passers-by used to wash the dust of travel from their feet. Close to the junction of the Kālbādevī Road and Abdur Rahmān Street stand the modern temple and tank of Mumbādevī, the guardian goddess of the Island. To the north of Pāydhuni there are two interesting buildings, namely, the City Jail in Umar-khadi built in 1804, under the administration of Jonathan Duncan, and the Jewish synagogue called "The Gate of Mercy." The latter was built by a member of the Beni-Israel community named Ezeckiel, who served in the Bombay army during the campaign against Tipū Sultān. Having been captured, he was about to be executed with other prisoners, when the mother of Tipū begged that his life might be spared and her request was seconded by the chief munshi, who declared that Ezeckiel belonged to a race known as "the chosen of God." He was accordingly taken into Tipū's service, but managed at length to escape to Bombay, where, in gratitude for his deliverance, he built the synagogue. Leaving the Tādvādi and Mazagaon sections, which contain several features of interest, as for example the Victoria Gardens in the former and the temple of Ghorupdeo in the latter, and journeying northward, one reaches the historic locality of Parel. It was here and in the neighbouring villages of Naigaon, Vadala, and Mātunga that Bhīma Rāja and his followers settled on their arrival from the Deccan about 1294. In later times Parel was the favourite quarter of the European residents, and contained the official residence of the Governor of Bombay. It has now yielded place as a fashionable European quarter to Malabar Hill, and Cumballa Hill (a continuation of the former), both of which are covered

with handsome houses and bungalows. The views obtainable from the ridge of Malabar Hill and the summit of the Altamont Road, which winds up Cumballa Hill, are magnificent. Standing by night upon the ridge, one looks down upon the palm-groves of Chaupāti, and across the sweep of Back Bay to the Rājābai tower, the Secretariat, and the Light-house at Colābā point, the whole curve of land being jewelled with an unbroken chain of lights, which have earned the appropriate title of "The Queen's Necklace." From Cumballa Hill the view to the east includes the whole native city, the hill of Mazagaon, upon which, in early days, a well whitewashed house stood as a guide for vessels entering the harbour, and beyond them the harbour, islands, and mainland of the north Konkan. To the left lies the industrial area, with its high chimney-stacks and mill roofs, and the coast section of Siwri, in which may still be seen relics of the old fortress built upon a projecting spit of land. Siwri in these days contains the European cemetery, which was originally the garden of the Horticultural Society of Bombay. On the west side Cumballa Hill slopes down to the shore, where, close to the Hornby Vellard, the Mahālakshmi temples command attention. The present shrines are comparatively modern; but they are stated to stand upon the site of three very old temples which were destroyed during the period of Muhammadan domination. The temples form the northern limit of another suburb, known as Breach Candy, where the houses are built close down upon the seashore within the refreshing sound of the waves. The ruined fortress of Warli can be visited from this point; while a good road leads through the great cocoanut woods of Māhīm to the Lady Jamsetji Causeway and the neighbouring island of Salsette. The causeway was opened in 1845, up to which time communication between Bombay and Bāndra, the southernmost village in Salsette, had been carried on by means of ferry-boats.

At Malabar Point the Governor of Bombay has a pretty marine villa, in which he spends the cold-weather months of the year. During the hot-weather months the Bombay Government repair to Mahābaleshwar, while they spend the rainy or monsoon season at Poona. Not far from Malabar Point lie the ruins of the old temple of Wālkeshwar, which was built by the Silāhāra dynasty some time between 810 and 1260 A.D. Other interesting religious monuments of the Island are the tomb of a Musulmān *pīr* at Māhīm and



the great Jāma mosque in the city. The former was built about 1431 in memory of Sheikh Ali Paru and is the only architectural legacy to Bombay of early Muhammadan rule. The shrine, which was repaired and enlarged in 1674, is surmounted by a dome, the inner side of which is ornamented with a gilt inscription in Arabic characters recording the name and dates of the birth and death of the saint. An annual fair is still held here and is attended by Muhammadans from all parts of India. The Jāma mosque was built in 1802.

#### Climate.

Bombay never attains great extremes of heat or cold such as are encountered in the interior of India, but the climate, though temperate, is oppressive owing to the extreme saturation of the air with moisture during the greater part of the year. The cold season last from December till March. In June the south-west monsoon breaks and heavy rain continues with great regularity till the end of September. The hottest months are May and October. The average rainfall for the twenty years ending 1901, as registered at Colābā Observatory, was 74·27 inches, the maximum being 99·74 and the minimum 35. The average temperature is 79·2° F.

In the year 1902 the chief causes of mortality were plague (13,786), remittent fever (4,777), and diseases of the respiratory system (7,211).

#### History.

##### Early inhabitants.

Originally Bombay consisted of seven separate islands, and formed an outlying portion of the kingdom of Aparānta or the North Konkan, of which the earliest ruler known to history was named Asoka. To him succeeded a dynasty of Sātakarnis or Sātavāhanas, who flourished about the 2nd century A.D., and were in turn succeeded by Mauryas, Chālukyas, and Rāshtrakūtas. The earliest inhabitants of the islands were the Kolis, an aboriginal tribe of husbandmen and fisherfolk, who must have journeyed thither about the opening of the Christian era, and formed rude hut settlements in those portions of the Island which are now known as Upper Colābā, Lower Colābā, Dongri, Mazagaon, Naigon, Sion, Mahim, and Warli. The Island takes its name from the Koli goddess Mumbā, a form of Pārvatī, whose temple as above mentioned formerly stood close to the site now occupied by the Victoria station.

##### Hindu and Muhammadan rulers.

In the Maurya and Chālukya periods (c. 450—750 A.D.) the city of Puri on ELEPHANTA island was the chief place in Bombay harbour; but under the Silāhāra chiefs of the Konkan

(810—1260) Bombay became better known through the discovery of the Shrigundi or stone of trial, and the building of the Walkeshwar temple at Malabar point. But no town sprang up until Rājā Bhīmā, who probably belonged to the house of the Yādavas of Deogiri, founded Mahikāvati (Māhim) as a direct result of Alā-ud-dīn Khilji's raid into the Deccan in 1294. Bhīmā's followers, among whom the Prabhus, Palshikar Brāhmans, Panchkalshis, Bhandāris, Bhois, and Thākurs were the most noteworthy, spread over the Island and settled in Māhim, Siwri, Naigaon, Mātunga, Vadāla and Parel. Representatives of these classes are found in Bombay today, while many place names in the Island undoubtedly date back to this era of Hindu rule which lasted till 1348, when Salsette and Bombay were conquered by a Muhammadan force from Gujarāt. The islands remained part, first of the province, and then of the kingdom, of Gujarāt until 1534, when Sultān Bahādur ceded them to the Portuguese. With the exception of the well-known shrine at Māhim and one distinct class of the population, the Konkani Muhammadans, the era of Muhammadan rule has left little trace upon modern Bombay, for the Sultāns of Gujarāt contented themselves with establishing a military outpost at Māhim, and delegated their administrative powers to tributary Hindu chieftains.

The Portuguese were no more successful in the work of colonisation than their immediate predecessors. The lands were gradually divided by them into manors or fiefs, which were granted as rewards to deserving individuals or to religious orders on a system known as "aforamento" whereby the grantees were bound to furnish military aid to the king of Portugal, or, where military service was not deemed necessary, to pay a certain quit-rent. The northern districts were parcelled out among the Franciscans and Jesuits, who were responsible for the building of several churches on the Island, notably that of Our Lady of Hope on the Esplanade, now destroyed, and those of S. Michael at Māhim and of Our Lady of Salvation at Dādar, which exist to this day. The Quinta or Manor House, built some time in the 16th century, stood upon the site of the modern arsenal behind the Town Hall, and was surrounded by a lovely garden. It was partly burnt by the Dutch and English in 1626, but remained standing in a more or less dilapidated condition until 1661, when Donna Inez de Miranda, the proprietress of the Manor of Bombay, handed it over to the British representative Humphrey Cooke. The intolerance of the Portuguese had

Cession to  
the English,  
1661.

seriously hindered the growth of the settlement, which, when it was handed over to the English, had a population of some 10,000, mostly Kolis, Agris, and other low castes, with a sprinkling of Prabhus, Brāhmans, and Muhammadans.

The English had coveted Bombay for many years before it came into their possession under the terms of the marriage treaty between Charles II. and the Infanta of Portugal. They had endeavoured to seize it by force in 1626; the Surat Council had urged the Directors of the East India Company to purchase it in 1652; and the Directors in their turn had urged upon Cromwell the excellence of the harbour and its natural isolation from attack by land. But it was not until 1661 that Bombay was ceded to the English King, nor until 1665 that Humphrey Cooke took possession of the Island on his behalf. The revenues at the date of the cession were not large, accruing mainly from taxes upon rice-lands, oil and *ghī* and upon the cocoanut and arecanut palms which grew in abundance between the *maidān* or Esplanade and Malabar Hill. Moreover, so averse were the Portuguese in India to the cession that they retained their hold upon the northern portion of the Island, declaring that it was private property, and it was only by the vigorous actions of Cooke and his immediate successors that Māhim Sion, Dhārāvi, and Vadāla were taken from the Portuguese religious orders and incorporated with the Island proper.

Transfer  
to East  
India  
Company.  
Gerald  
Aungier.

The Island was transferred in 1668 from the Crown to the East India Company, who placed it under the Factory of Surat. The real founder of the modern city was Gerald Aungier (1669-77) who believed in the future of "the city which by God's help is intended to be built," and increased its population to 50,000 by the measures which he took for the settlement of the land revenue, the establishment of law courts, the strengthening of the defences, and the securing of freedom of trade and worship to all comers. Among the most important of the new settlers were Baniās, Armenians and Pārsis.

In the later years of the 17th century the settlement became so unhealthy through the silting up of the creeks that separated its component islands and through the prevalence of plague and cholera (*mort de chine*), that it was said that "two monsoons were the life of a man." Progress was further checked by quarrels among the leading men and the rivalry between the old and the new East India companies. The steady unfriendliness of the Portuguese and the prevalence of



piracy made trade unsafe, and supplies for the large population hard to obtain, while down to 1690 the Sidi admirals of the Mughal fleet were frequent but unwelcome guests of the English, who did their best to trim between them and the Marāthās.

In 1708 a brighter period began with the union of the two companies, which was followed by the transfer of the Governor's head-quarters from Surat to Bombay. The great needs of the time were a base of supplies on the mainland and the suppression of piracy. The former object was attained in 1733 by an alliance with the Sidis, but the pirates, though held in check, were not yet suppressed. The Marāthā conquest of Bassein and Salsette (1737-39) put an end to the hostility of the Portuguese, but warned Bombay to strengthen its forces by sea and land against a more dangerous enemy. The town wall had been finished in 1718 and settlers again flocked in, especially from distracted Gujarāt.

The dockyards were extended under the superintendence of a "wadia" or ship-builder from Surat, Lowji Nasarwānji, who arrived in Bombay in 1736: a marine was established about the same date: a criminal court was created in 1727, and a mayor's court in 1728 for the settlement of all civil disputes: and a bank for the encouragement of trade and agriculture was established on the Island in 1720. Severe measures were taken for the prevention of treachery as evidenced by the historic trial and conviction of Rāma Kāmāthi: monetary loans were granted, and other conveniences afforded, to various classes, such as the weavers and small traders, whose settlement it was held desirable to stimulate. As a result, the population had expanded to 70,000 by the year 1744, and the revenues of the Island had risen to about 16 lakhs as compared with about Rs. 37,000, which it had yielded to the Portuguese. The most notable building in the Fort at this time was St. Thomas' Church, which was opened by Mr. Boone on Christmas Day 1718.

The defences of the town were further strengthened by reason of the French wars (1744-48 and 1756-63), and the influx of settlers from the mainland made the question of supplies as well as that of the protection of trade from piracy more pressing. Both were in a measure secured by an alliance with the Peshwā, which resulted in the acquisition of Bānkot (1755) and in the destruction of the pirate nest at Vijayadurg by a force under the command of Watson and Clive (1756). The occupation of Surat castle (1759) and the

Progress during early part of 18th century.

1740-70.

capture of the forts of Malvān and Reddi (1765) were further steps taken in the interests of trade. This period witnessed the opening of two new docks at Bombay, one being completed in 1750 and the second in 1762, and a further increase in the number of vessels. Regulations were also passed for the preservation of good order on the Island; a town scavenger was appointed; building rules were promulgated in 1748; advances made from the Land Pay Office to the poorer inhabitants whose dwellings had been destroyed by fire; passage-boats between Bombay and the mainland were organised into a regular service; and a Court of Requests was instituted in 1753 for the recovery of debt. As a result, a very large increase of population took place; and so many houses were built in the native town that many of them had eventually for safety's sake to be removed. Grose referred in 1750 to the enormous amount of building which had taken place in the oarts and groves; and new thoroughfares and burial grounds were continually being opened throughout the period. The old Government House at Parel is first spoken of in these years as "a very agreeable country house, which was originally a Romish chapel, belonging to the Jesuits, but was confiscated about 1719 for some foul practices against the English interest." The building has long been deserted by the Governors of Bombay, and is at present utilised as a laboratory for the preparation of preventive and curative plague-serum.

1770-1817.

It was the wish to acquire Salsette as a defence and a base of supplies that led the Bombay Council to enter the field of Marāthā politics (1772). The history of the transactions that ended in the formation of the modern Presidency is dealt with elsewhere. In the Island itself great improvements were made. A tariff of labour rates was formulated; a better system of conservancy was enforced in 1777; hospitals, to which Forbes refers in the "Oriental Memoirs," were erected in 1768 and 1769; an accurate survey of the land was carried out; a proper police force was organised about 1780 in place of the old Bhandāri militia; and in 1770 the cotton trade with China was started, in consequence of a considerable famine in that country, and an edict of the Chinese Government that a larger proportion of the land should be utilised for the cultivation of grain. The orderly extension of the native town was also taken in hand about 1770; crowded and insanitary houses were in many cases removed;

the Esplanade was extended and levelled ; new barracks were built ; and every encouragement was given to the native community to build their dwellings at a greater distance from the Fort. The great Vellard, which takes its name from the Governor Mr. William Hornby (1771-87), was erected during this period, and, by uniting the southern boundary of Warli with the northern limit of Cumballa Hill, shut out the sea from the central portions of the Island, and rendered available for cultivation and settlement the wide stretch of the flats. The traveller Parsons, who visited the Island in 1775, speaks of the town as "nearly a mile in length from the Apollo Gate to that of the Bazar, and about a quarter of a mile broad in the broadest part from the *bunder* across the green to Church Gate, which is nearly in the centre as you walk round the walls between Apollo and Bazar Gates. Between the two marine gates is the castle, properly called Bombay Castle, a very large and strong fortification which commands the bay ; and the streets are well laid out and the buildings so numerous as to make it an elegant town."

In 1798 the mayor's court gave place to that of a Recorder. In 1800 this court was held in Mr. Hornby's house, which is familiar in these days as the Great Western Hotel ; and thither Sir James Mackintosh, who succeeded the first Recorder in 1802, used to repair for the purpose of deciding civil and criminal suits. In 1793 the Governor and Members of Council were the only Justices of the Peace in Bombay, and in 1796 sat in a court of quarter sessions, inviting two of the inhabitants to sit with them. This system continued till 1807 when the Governor and Council were empowered to appoint a certain number of the Company's servants or other British inhabitants to act as justices under the seal of the Recorder's Court. Two notable events at the commencement of the 19th century were the famine of 1803, which drove a vast number of people from the Konkan and Deccan to seek refuge and employment in Bombay, and the great fire which broke out in the Fort in the same year. Though the damage done to house property was enormous, the conflagration enabled the Government to open up wider thoroughfares in very congested parts of the Fort, and it acted as a great incentive to the native community to build their houses, shops, and godowns outside the Fort walls, and in those areas which are now the busiest portion of the city. The abolition of the Company's monopoly of the

Indian trade in 1813 led to a great increase in the number of independent European firms and largely improved the export trade in raw cotton.

1818-39.  
 Expansion  
 of Bombay  
 Presidency  
 and City.

The conquest of the Deccan in 1817-18 put an end to the Marāthā troubles and transformed Bombay from a trading town to the capital of a large province. The Recorder's Court was replaced in 1823 by the Supreme Court. The Borghāt road to Poona was opened in 1830, and a regular monthly mail service to England by the overland route was established in 1838. The same year saw the construction of the Colābā Causeway, which united the last of the original seven islets to the parent Island of Bombay, and was immediately followed by commercial speculation in recovering a certain portion of ground for building factories, wharves, and for the greater facility of mercantile operations. A new hospital was built in Hornby Row in 1825, a new mint was opened in 1827, and the well-known Town Hall was completed after a series of vicissitudes in 1833. The Bishopric of Bombay was constituted in 1835, and in 1838 the old church of St. Thomas became the cathedral of the diocese.

1840-70.  
 The Cotton boom.  
 Development of  
 the City.

The year 1840 marked the commencement of a period of progress and prosperity. The first sod of the Great Indian Peninsula Railway was turned in 1850; the first twenty miles to Thāna were laid by 1853; and ten years later the Borghāt incline was opened. The Bombay, Baroda and Central India Railway was completed southwards as far as Bombay in 1864. In 1855 the first contract was made with the Peninsular and Oriental Company for fortnightly mail service, which became weekly in 1857. The Austrian Lloyd's, the Rubattino, and the Anchor lines at this time (1857) started regular services. The first bank of Bombay was opened in 1840; and by 1860 there were at least six large banking corporations, all holding an assured position. Industrial enterprises and schemes, such as the Elphinstone Reclamation scheme, were promoted; the great Vehār water-works were constructed; the first tramway communications were opened in Colābā in 1860; a scheme of drainage was formulated in 1861; and in 1857 the first spinning and weaving mill commenced to work. By 1860 six more mills had been opened, and Bombay had become the great cotton market of western and central India. Between 1861 and 1865 occurred the enormous increase in the cotton trade which was brought about by the outbreak of the Civil War in America. The supply of American staples being suddenly cut off,

Lancashire turned eagerly to Bombay for her cotton, and poured into the pockets of the mercantile community some 81 million pounds sterling over and above what they had in former years considered a fair price for their cotton. An unexampled exportation of cotton continued as long as the war was carried on. "Financial associations," as Sir Richard Temple wrote in *Men and Events of my time in India*, "sprang up like mushrooms; companies expanded with an inflation as that of bubbles; projects blossomed only to decay." Suddenly when commercial delirium was at its height, the American war ended. The price of Bombay cotton at once fell fast, and the whole elaborate edifice of speculation toppled down like a house of cards. Nevertheless the commercial stability of the city suffered no permanent damage, and modern Bombay was literally built up and established during those years. The wealth of speculators of the early sixties was sunk in the engineering and reclamation schemes, which pushed back the sea and gave the Island her splendid wharf accommodation. It was they who presented Bombay with her University Library Buildings, the Rājābai Tower, the Jamsetji Jijibhai School of Art, her hospitals and museum, and the Mechanics' Institute. The Government aided private enterprise in the task of beautifying and improving the Island; and it was during this period that those great schemes were formulated which have endowed the city with the unrivalled line of public buildings facing Back Bay, with the Elphinstone Circle, with admirable railway workshops, with a fine dockyard at Mazagaon, with new Police Courts, and Light-houses, with the Wellington Memorial Fountain, and the European General Hospital. Room was made for many of these improvements by the demolition of the walls of the Fort in 1862.

Great changes took place at this time in Municipal administration. In 1858 a triumvirate of Municipal Commissioners was appointed for the control of urban affairs, and was succeeded in 1865 by a body corporate composed of Justices for the Town and Island, the entire executive power and responsibility being vested in a Commissioner appointed by Government for a term of three years. This system existed until 1872, when a new Municipal Corporation, consisting of 64 persons, all of them rate-payers, was established by law. Considerable progress was made in sanitation and communications. An efficient Health department was organised in 1865; many old and dangerous graveyards were closed between 1866 and 1871; special committees were appointed to deal with the

drainage question; new markets were built, notably the Arthur Crawford Markets, which were opened in 1869 and form one of the most useful of all the public improvements executed in Bombay; the water-supply of Vehār was increased; the Tūlsī water-works were commenced; the Oval and Rotten Row were laid out as recreation grounds; and the reclamation of the flats with town sweepings was after much discussion taken in hand.

Develop-  
 ment up to  
 present day.

Between 1872 and 1881 railway communication was extended across the continent of India and steam navigation along the coast. The mill industry thrived apace, and gave employment in 1882 to about 32,000 persons. The Tūlsī water-works were completed in 1879; the Port Trust was established, on the model of the Mersey Board, in 1873, and opened the Prince's Dock in 1880; new roads were opened in various parts of the Island; the lighting of the town was extended; the Victoria Gardens, the Elphinstone Circle Garden, and the Northbrook Garden in the poorer portion of the city, were opened between 1873 and 1874; while in 1878 the Municipality raised a loan of 27 lakhs for drainage purposes, and commenced the task of laying a new main sewer from Carnac Bunder to Love Grove, and a new outfall sewer pumping station, and pumping plant at Warli. The resources of Bombay were tested in 1878 when an expeditionary force was despatched to Malta: within fourteen days after the receipt of orders the Bombay Government engaged 48,000 tons of merchant shipping and despatched from the port 6,000 men and 2,000 horses with two months' supplies of provisions and six weeks' supply of water. Again in 1899 the salvation of Natal directly resulted from the promptitude with which the Bombay Government carried out the embarkation and despatch to South Africa of a large military force.

The water-supply of the city was further improved by the opening of the Pawai works in 1889, and of the great Tansa works in 1891-92. Between 1872 and 1891 much attention was paid to education, with the result that the census of 1891 showed an increase of 46,000 in the number of literate persons. Schools for deaf-mutes were subsidised; the Victoria Jubilee Technical Institute was founded by Lord Reay's Government; tramway communications were greatly extended; a good fire brigade service was organised; special cholera and small-pox hospitals were erected for the benefit of the poorest classes; and the streets were cleared of lepers by the opening of the Matunga Leper Asylum, in which the victims of this

unsightly disease are so well cared for that they feel no temptation to stray away. The export and import trade showed a remarkable increase during the ten years prior to 1891, while the mill industry assumed such large proportions that legislation for the regulation of female and child labour became imperative in 1890. Not only had sections of the city proper, such as Māndvi and Dhobi Talao, been choked with buildings in such a way that their original character was wholly obliterated, but the northern sections of the Island such as Parel, Byculla, Tādvādi, Nāgpāda, and Chinchpugli, had expanded through the progress of industrial enterprise into the populous dwelling-places of a large immigrant labour population.

The great influx of labourers which took place between 1860 and 1890 has been indirectly responsible for the continued presence and virulence of the plague, which broke out for the first time in 1896. The congested state of many streets, and the monstrous overcrowding of houses, which were erected to accommodate a great influx of population, have proved highly favourable to the spread of a disease which, during the last seven years, has played havoc with the cotton industry and with trade, and has raised the mortality rate of the city and island to an alarming figure. It is the object of the City Improvement Trust, created by Lord Sandhurst's government, to open out such localities, and by the erection of model dwellings for the artisan classes, to combat successfully the spread of evils, such as plague and phthisis, which at present flourish unchecked in the moist and infected air of the industrial quarters.

At the time of the cession of Bombay to the English, the population is stated by Dr. John Fryer in his "New Account of East India and Persia" (1698) to have been 10,000; and, according to Niebuhr, it had increased to 70,000 in 1744. In 1780 a special committee, appointed to enquire into the price of food-grains, was furnished with a rough census of all residents, which totalled to 113,726. By 1814 this number had, according to a contemporary writer, risen to 180,000; and an estimate recorded in 1833 showed a further increase to 236,000. On the initiative of Sir Bartle Frere a properly organised census was for the first time taken in 1864, which recorded a total population of 816,562. This abnormal figure, which was mainly due to the extraordinary prosperity which Bombay enjoyed during the American war, decreased in 1872 to 644,405; but the decrease was the natural outcome

of the reversion of Bombay commercial life to its ordinary groove, and was in no wise permanent, as is apparent from the census figures of 1881 and 1891 which amounted to 773,196 and 821,764, respectively. According to the census of 1901 the population of the area administered by the Bombay municipality, which is co-extensive with Bombay Island, in an area of 22 square miles, is 776,006. This figure includes 37,681 persons who are described as homeless, as the harbour population, or as travellers by the railway. The density of population per acre for the whole Island is 51, but this figure varies largely in different areas. In Kumbārwada, for example, there are 598 persons to the acre, in Khāra Talao 556, in Second Nāgpāda 516, in Chakla 472, and in Umarkhādi 460; whereas in Sion there are only 5 persons to the acre, in Siwri 20, in Māhim 21, and in Warli 25. It will be apparent from these figures how suitable a field is afforded by the northern portions of the Island for the wider and more healthy distribution of the native population. The extension of electric traction, which the municipality is at present endeavouring to establish, will draw off the surplus population of the central portions of the city and lower the death-rate. The average population per inhabited house is 24·5 for the whole Island, rising to 35 in B ward which includes Chakla, Māndvi, Umarkhādi, and Dongri, and sinking to 15 in G ward, which comprises Māhim and Warli. The great poverty of the bulk of the population is shown by the fact that 80 per cent. of the whole number occupy tenements containing a single room only, the average number of occupants in such a room being about 5. Instances were discovered at the time of the 1901 census of 39, 43, and 54 persons occupying and sleeping in a single room; while three of the largest tenement houses in the central part of the Island gave shelter to as many as 537, 663, and 691 individuals. The proportion of males in the total population is over 61 per cent. The number of females to 1,000 males varies considerably by localities, there being 770 in Dongri and only 234 in the southern portion of the Fort. A very large proportion of the male inhabitants come to Bombay for a few months only in search of work, leaving their families in their native villages. The number of children under one year of age had sunk in 1901 to the very low figure of 9,900; but this was brought about by a high rate of mortality among infants since 1897 and an abnormally low birth-rate.

Before the outbreak of the plague in 1896 the average death-rate for the whole population was 24 per thousand.

Since 1896 it has risen to 78. The birth-rate is as low as 14 per thousand, but this is no indication of the true natural increase, the bulk of the population being immigrants whose women return to their homes at the time of motherhood.

Some 23 per cent. only of the total population claims the Island as its birth-place; and the proportion of those born in Bombay is highest in sections like Dhobi Talao and Chakla, which are inhabited respectively by Pārsis and Konkani Muhammadans, who are really indigenous. The District of Ratnāgiri in the Konkan supplies Bombay with most of her mill-hands and labourers, while Cutch and the Gujarāt Districts supply large numbers of the trading classes.

Hardly any city in the world presents a greater variety of Component races. national types than Bombay. The Hindus and Muhammadans of course predominate, but in the busy streets the characteristic dress of every Oriental people may be seen. The green and gold turban of the Musalmān, the large red or white head-dress peculiar to the Marāthā, the pointed red turban of the Gujarāti Baniā, and the black or brown brimless hat of the Pārsi, lend colour and variety to the scene. In Dongri and Māndvi one meets members of well-known commercial classes, such as the Osval Jains; in Chakla will be found the Konkani Muhammadans, a very rich and influential community, who trace their descent from the ancient "Nawāits," the children of Arab fathers and Hindu mothers, and who have gradually risen from the position of ships' officers, sailors, and boatmen to that of prosperous and educated merchants. The Sīdis, who are descended from the warriors of Sīdi Sambhal and from Zanzibar slave immigrants, will be seen in the Umarkhādi quarter; the Beni-Israel, whose ancestors were wrecked off Chaul in the 13th century, are settled in the same neighbourhood; the Julahas, a poor and somewhat turbulent class of Muhammadan weavers, are met with in Nāgpāda; the portion of Dhobi Talao known as Cavel shelters large numbers of Goanese and Native Christians, who have regarded this locality as their stronghold since the era of Portuguese dominion; the unmistakeable head-gear of the Arabs is constantly met with in Byculla; Parel and Nāgpāda are peopled by the lower and industrial classes from the Deccan and Konkan; while hidden away in many corners of the Island are small groups of Kolis, the lineal descendants of the earliest Bombay settlers known to history. The Pārsis exercise an influence much greater than is implied by their numbers. They commenced to settle in Bombay soon after

Port Trust.

The Port Trust, a small board of 13 members representing commercial and other interests, controls the administration of the port. It had in 1903 a revenue of over 59 lakhs and a reserve fund of 20 lakhs. The Trust is responsible for carrying out improvements to the port, and has under contemplation the early addition of a third and more commodious dock to the existing Victoria and Prince's Docks, which no longer meet the requirements of the local shipping.

City Improvement Trust.

A similar board of 14 members, constituted under the administration of Lord Sandhurst and styled the Bombay City Improvement Trust, has, as already mentioned, been entrusted with the regeneration of the city by the construction of new thoroughfares, the demolition of insanitary areas, the erection of sanitary quarters for the labouring classes, and the development of valuable sites for building. Its chief sources of revenue are an annual contribution from the municipality and the income from valuable property assigned to it by Government.

Land revenue.

There are eight forms of land tenure existing in Bombay, namely, 'Pension and Tax,' Quit and Ground rent, *Foras*, *Toka*, Lease-hold, Land newly assessed, Tenancies-at-will, and Inām. 'Pension and Tax,' from the Portuguese *pencao*, represents a fixed payment for fee-simple possession in compromise of a doubtful tenure and dates from 1674. It is not subject to revision, and is redeemable on payment of 30 years' assessment. Quit and Ground rent assessment represents a tax imposed in 1718 to cover the cost of erecting fortifications, and varies from 3 to 5½ pies per square yard. *Foras* lands are held at a low rate by occupants willing to improve them. The tenure dates from 1740 when low-lying land was offered to the public for cultivation at a rent or *foras* of 2 pies per sixty square yards. *Toka* represents a share of the produce of the land, the original payment in kind being subsequently replaced by a money payment, which in 1879-80 was fixed for 50 years. Lease-hold land is held for terms varying from 20 to 999 years. Newly assessed lands are rated under Act II of 1876, and the rates may be raised from time to time. The chief holders of Inām land in the Island are the Lavji family (1783) and the heirs of Jamsetji Bomanji (1821). They pay no cess or rent of any kind. The revenue of Bombay is collected under a special Act (Bombay Act II of 1876, modified by Act III of 1900), and amounted in 1902-03 to 3 lakhs. The excise revenue, including tree-tax for the same year, was 12 lakhs.



Education was represented in 1880-81 by 146 schools and colleges with a total of 16,413 pupils. In 1900-01 the number of those under instruction had risen to 40,104. By the close of March 1903 the city possessed 537 educational institutions of all kinds, as detailed in the subjoined table:—

Class at Institution.	Number.	Number of Pupils.		
		Male.	Female.	Total.
<i>Public.</i>				
Arts Colleges . . . . .	3	976	15	991
Professional Colleges . . . . .	2	912	32	944
High Schools . . . . .	40	8,901	1,331	10,232
Middle English Schools . . . . .	14	479	732	1,211
Middle Vernacular Schools . . . . .	33	1,899	246	2,145
Primary Schools . . . . .	195	13,359	5,608	18,967
Technical Schools . . . . .	10	1,367	...	1,367
Training Schools . . . . .	2	...	17	17
<i>Private.</i> . . . .	238	...	...	11,330
TOTAL . . . . .	537	...	...	47,204

Of these institutions the Grant Medical College, which was established in 1845, prepares students for the degrees of L. M. & S. and M. D., and is the only college of its kind in the Presidency. The Elphinstone College, to which a law class is attached, was instituted in 1835 and is under the management of Government. Among other important establishments are the Victoria Jubilee Technical Institute and a school for deaf-mutes. According to the census of 1901 the number of those who are wholly illiterate amounts to 81 per cent. of the total population.

A vigorous English and vernacular press flourishes in Bom- Newspapers  
bay. The *Times of India* and the *Bombay Gazette*, both of them daily journals, well-edited and well-informed, represent the Anglo-Indian community; and the *Advocate of India*, an evening paper adopting a more critical attitude, is also widely circulated. The *Bombay Samāchār* heads the list of vernacular newspapers, the most important of which are published in Gujarātī.

For purposes of health administration the city is divided Medical.  
into 4 divisions of 32 sections, each division being placed in

the cession of the Island to the English ; and now by the force of their inherited wealth, their natural genius for trade, their intelligence, and their munificent charities, they hold high rank among the native community. Their position was gracefully recognised by the Crown when Sir Jamsetji Jijibhai received a baronetcy in 1857 ; and the present representative of his family was chosen to represent the city of Bombay at the coronation of the King-Emperor in 1902. Next in importance to the Pārsis are the Hindu traders or Baniās who may be divided into two classes, those of Gujarāt and the Mārwaris of Central India. A large proportion of both these classes adhere to the Jain religion, while not a few of the remainder belong to the Vaishnav sect, especially to the sub-denomination known as Vallabhāchāryas. The Muhammadans include representatives from all the great countries that have embraced Islām—Arabs, Persians, Turks, Afghāns, Malays, and Africans. The three classes of trading Muhammadans—the Memons, Bohras, and Khojas—are especially numerous. The spiritual head of the last-named community, His Highness the Aga Khān, was among the representative men invited to His Majesty's coronation in 1902. The commercial dealings of these three classes are chiefly with the Persian Gulf, Zanzibar, and the East Coast of Africa ; but many of them do not shrink from visiting Europe for trade purposes, and are ready to take advantage of the improved means of communication now existing between Bombay and the rest of the world. The Pārsis and Jews compete with the English in the markets of Europe.

The following table gives the population of the city in 1901 classified according to religion :—

Religion.	Number.	Percentage.
Hindus . . . . .	508,608	65·54
Muhammadans . . . . .	155,747	20·07
Christians . . . . .	45,176	5·82
Pārsis . . . . .	46,231	5·96
Jains . . . . .	14,248	1·83
Jews . . . . .	5,357	
Others . . . . .	639	
<hr/>		
776,006		

Some idea of the cosmopolitan character of Bombay can be formed from the fact that 62 different languages or dialects are spoken within its limits. Marāthi and Gujarāti are the most widely prevalent, the latter being particularly the commercial language of the Island. A considerable number of

Religion  
and  
language.

Muhammadans are bi-lingual from an early age, speaking Hindustāni in their homes, but conducting their daily business in Gujarāti. In the same way Gujarāti and English are equally well known to many members of the Parsi community.

Of the total area of the Island a considerable portion is still cropped. The chief crop grown is rice; but many varieties of garden vegetables are also cultivated, particularly onions and several members of the gourd tribe. The tending of cocoanut trees, and the preparation of intoxicating drink from this tree and other species of palms, afford employment to a considerable section of the population. The original toddy drawers of Bombay were the Bhandāris, who at present number nearly 17,000 persons; but a large number of them discarded their hereditary pursuit in favour of military, police, and other duties during the 18th century, and they are found engaged at the present day in many different occupations. The Bombay mangoes are said to have been improved from grafts by the Jesuits and Portuguese priests; and it was from the Mazagaon groves that the royal tables at Delhi, in the time of Shāh Jahān, were furnished with their principal vegetable attraction. They have long been famous throughout India for their delicate flavour; and there exist to this day in Mazagaon two noted trees which bear a double crop of mangoes every year. The Bombay "pamalo," a shaddock which looks like a large orange, is also a favourite fruit.

Cultivation.

Bombay supports all the many industries incidental to the active life of a great city and seaport. The trades of dyeing, tanning, and metal-working are especially prosperous. The School of Art has done much to encourage those technical faculties which depend upon an artistic and scientific education; and the work of its pupils, which was exhibited at the Art Exhibition held during the Delhi Darbār of 1903, earned very high approbation. But the characteristic feature of Bombay manufacture is the rapid growth of the European factory system—mills, worked by steam and employing a large number of operatives, have been erected by local capital, especially in the northern suburbs, where the tall chimney-stacks recall a factory town in Lancashire. Between 1881 and 1902 the total number of factories in the Island rose from 53 to 138, the increase being mainly due to the construction and opening of new spinning and weaving mills; while the number of persons engaged in the manufacture and sale of cotton is 131,796 or 17 per cent. of the total population, as

Manufactures.

compared with 101,821 in 1891. This increase of the industry during the last decade has taken place in spite of very great disorganisation engendered by the plague, and in spite of a falling-off in the China demand for Bombay's production. Since 1897 the mill industry has been passing through a grave crisis, resulting to some extent from an unsuitable and improvident system of management. The better conducted mills, however, such as those of the great Parsi capitalist Mr. Jamsetji N. Tātā, have made and still continue to make a steady profit from their yarns and piece-goods. The industry has proved an inestimable boon to many of the poorer inhabitants of the Konkan and Deccan, who, without the steady wages which it offers, might have fared ill during the famines of the last few years.

Trade.

The latter half of the 19th century witnessed a remarkable development of the trade of the port. In 1854-55 the whole trade of Bombay was valued at 16 crores, and twelve years later (1866-67) rose to 47 crores. The yearly average for the succeeding five years was 51 crores. Between 1876-77 and 1895-96 the total value of imports and exports, including the value of the coasting trade, steadily increased from 61 crores to 105 crores. The constant demand from distant markets, coupled with a considerable improvement of communications, has brought about a rise under every head of imports and exports during the last twenty-five years, the most noticeable increase under the former category being in sugar and cotton manufactures, and under the latter in grain, cotton twist and yarn.

The total value of the sea-borne trade centred at Bombay in 1902-03 was 112 crores (exports 56 crores and imports 56 crores) of rupees, of which 91 crores represented trade with countries beyond India. The chief exports are grain, raw cotton, seeds, cotton twist and yarn; the chief imports, cotton goods, metals and machinery. The number of vessels, sailing and steam, which entered and cleared with cargoes from and to foreign countries at the port of Bombay in 1902-03 was 1,546 with a tonnage of 2,493,057.

Bombay possesses a Chamber of Commerce with 116 members representing 200 firms, and a committee of 12 elected annually, whose deliberations are presided over by a chairman. The Chamber is represented on the Legislative Council, the Municipality, the Port Trust, and the Bombay Improvement Trust.



There is also a special association for protecting and furthering the interests of the cotton industry, styled the Bombay Mill Owners Association. Over 100 mills are represented on the general committee, and the opinion of the Association therefore carries great weight on all questions connected with the industry. Founded in 1868, the Association has witnessed an increase from 3 to 138 mills in the territories from which it draws its members.

The Government land revenue, amounting to 2 lakhs of rupees, is collected under the direction of an official styled the Collector of Bombay, who is a member of the Covenanted Civil Service, and also performs the functions of Collector of Customs, Opium, and Abkari (Excise). The Presidency Stamp and Stationery office and the Steam Boiler Inspection department are in his charge, and he is assisted by two Indian Civilians, one of whom is Chief Inspector of the numerous factories in the Island. The ordinary local administration vests mainly in the Bombay municipality which, as constituted by Act III of 1888, consists of 72 members—36 elected by the rate-payers, 20 by the Chamber of Commerce, the University, and the Justices of the Peace, and 16 appointed by Government. The Corporation thus constituted possesses extensive powers, and elects its own President and 8 out of 12 members of a standing committee which deals with ordinary business. The other four members of this committee are appointed by Government. A chief executive officer, known as the Municipal Commissioner, is appointed by Government usually from the ranks of the Indian Civil Service. The revenue and expenditure of the Corporation is shown in the table at the end of this article. The municipality has raised loans amounting by 1904 to about 479 lakhs of rupees, mainly for the provision of an adequate water-supply and of drainage works.

Justice is administered by the Bombay High Court, which, in addition to the appellate and revisionary powers which it exercises throughout the Presidency, is a court of first instance for causes arising within the Island of Bombay. A Small Cause Court and four Presidency Magistrates exercise jurisdiction in minor civil and criminal matters.

The City Police force, under a Commissioner, who is directly subordinate to Government, consists of 2,126 officers and men, 83 of whom are mounted. The force contains 91 Europeans. The Commissioner is assisted by a Deputy and eight Superintendents. There is a Central jail at Byculla.

In the centre of the town stands Fort William surrounded by the noble expanse of park known as the Maidān. To the north of it are the shops and business houses of the Europeans, whose residential quarter bounds it on the east. To the south and south-east lie the European suburbs of BALLYGUNGE and of ALIPORE which contains the residence of the Lieutenant-Governor of Bengal. Surrounding the European quarter on all sides is the native town. Immediately north of the European commercial quarter is Burra Bazar, the chief centre of native business; the buildings are mainly one-storeyed masonry shops, and it is only here and in the adjoining quarters of Jorābāgān and Bow Bazar that brick buildings are more numerous than tiled huts. Three-fifths of the whole population live in the latter, which have mud or wattle walls and are known as *kutchā* houses. The native town is traversed by three main roads from north to south, and by five or six roads from east to west, but with these exceptions it is extremely ill-arranged. The lanes are narrow, tortuous and badly lit; the dwellings are overerowed and insanitary; and the overwhelming proportion of one-storeyed houses gives this portion of the town a peculiarly squalid appearance which belies the proud title of a city of palaces which Calcutta claims.

The town of Calcutta includes the area under the control of the municipal corporation, or Calcutta proper, and also Fort William and the Maidān (1,283 acres), which are under the military authorities, and the water area, or port and canals, with an area of 7,310 acres. Calcutta proper again is divided into the "Old Town" and the "Added Area." The former, which covers 3,766 acres, is divided into 18 wards, and is situated between Lower Circular Road and the river Hooghly. This is the tract within the old Marāthā ditch, and corresponds with the original civil jurisdiction of the *Sadar Dīwāni Adālat*. The Added Area lies south and east of the Old Town, and is separated from it by the Circular Road; it contains 8,188 acres distributed over 11 wards. It was excluded from the Suburban municipality and added to Calcutta by (Bengal) Act II of 1888.

#### Geology.

The soil on which Calcutta is built has been formed at a comparatively recent date by the alluvial deposits of the Gangetic delta, and excavations made for tanks and foundations disclose alternate layers of sand and clay. A bore-hole sunk in Fort William in 1840 revealed an ancient land surface at a depth of 382 feet.

The climate is hot and moist. The average mean temperature is  $79^{\circ}$  Fahr., the mean maximum being  $102^{\circ}$  in May and the mean minimum  $48^{\circ}$  in January. The average temperature in the hot weather is  $84.5^{\circ}$ , in the rains  $83.3^{\circ}$ , and in the cold season  $71.5^{\circ}$ . Humidity averages 78 per cent. of saturation, ranging from 69 per cent. in March to 89 per cent. in August. The average annual rainfall is 60 inches and the average number of rainy days in the year 118.

At the beginning and close of the rainy season Calcutta is frequently visited by cyclones, the most disastrous having occurred in 1737, 1842, 1864 and 1867. In that of 1737 the steeple of St. Anne's Church fell to the ground, many houses were blown down, and all but one of the ships in the river were driven ashore. In the cyclone of 1864 as many as 49 persons were killed and 16 injured; several brick houses were destroyed or damaged, and only 23 of the 195 vessels in the port escaped without injury.

The earthquake of 12th June 1897 was severely felt in Earth-Calcutta; the steeple of the Cathedral was destroyed and 1,300 houses were injured.

Calcutta is mentioned in a poem of 1495 A.D. as a village on the bank of the Hooghly. When the Portuguese began to frequent the river about 1530, SATGAON, not far from Hooghly on the old Saraswati river, was the great emporium of trade. Owing to the shallowness of the upper reaches of the river, however, the ships used to anchor at Garden Reach and their goods were sent up to Sâtgaon in small boats, and a market thus sprang up at Betor, near Sibpur, on the west bank of the Hooghly, which the Portuguese made their headquarters. In the 16th century the Saraswati began to silt up, and Satgaon was abandoned. Most of its inhabitants went to the town of Hooghly, but about the middle of the century four families of Bysakhs and one of Seths founded the village of Gobindpur on the site of the modern Fort William. Shortly after this the Portuguese moved to Hooghly, deserting Betor, and the trade of the latter place was gradually transferred to Sûtânuti (cotton mart) in the north of modern Calcutta. Job Charnock of the British East India Company came to this place in 1686, after his skirmish with the Mughals at Hooghly, and formulated certain demands on the Nawâb. These were rejected by the latter who ordered his subordinates to drive the British out of the country. Charnock retaliated by destroying the salt-houses

charge of a qualified medical officer subordinate to the Health Officer of the municipality. The municipal hospital for infectious diseases at Arthur Road is supplemented by numerous private plague hospitals where members of the different communities can be treated. Altogether there are 13 hospitals and 42 dispensaries and similar institutions, public and private, in Bombay, including a European General Hospital and five hospitals for women. The expenditure on public medical institutions in 1902 was Rs. 4,66,000, and the annual attendance was 20,350 indoor and 191,568 outdoor patients in the public institutions, and 1,076 indoor and 239,469 outdoor patients in 24 private institutions. There are 13 vaccinating stations with 8 vaccinators, and the number of persons vaccinated was 20,026.

A Leper Asylum at Mātunga, established by the efforts of a former Municipal Commissioner, Mr. H. A. Acworth, provides accommodation for 370 inmates at a yearly cost of Rs. 33,000. The lepers are mainly drawn from the neighbouring coast districts, though some come from remote towns in Central Asia. They are employed in cultivating food crops, assisted by a system of septic sewage tanks, and the asylum is popular among those who are afflicted.

A public Lunatic Asylum is maintained at Colabā Point for Europeans, Eurasians, and Pārsis. It had in 1902 an average strength of 141 inmates costing Rs. 244 per head per annum.

#### The Plague.

On 24th September 1896 a case of genuine bubonic plague was discovered in a house in Māndvi, a densely populated quarter of the native town on the east side of the Island. The disease spread rapidly, and by December the mortality of the city had attained alarming dimensions. Measures were soon imperatively demanded for checking the spread of the epidemic. The control of these measures was entrusted to a special committee of officers appointed by Government and invested with very full powers. Attempts were then made to enforce the segregation of persons who had been in contact with a plague patient, the removal of the patients to some properly equipped hospital, and the disinfection of clothing and premises. These measures were essentially unpopular, and besides adding a stimulus to emigration on a large scale, the population, fleeing as much from an unreasoning fear of all forms of control as from terror of the epidemic, eventually led to riots and bloodshed. The position was one of extreme difficulty. The sanitary service of the city was in the hands of *halakhors*



or scavengers. Had these joined the general exodus, the city would in a short time have been rendered uninhabitable. At the same time, the exodus of panic-stricken residents threatened to carry the plague over the whole of the Presidency and even beyond its limits. Attempts were made to enlist the co-operation of the leaders of native communities ; gradually calmer feelings began to prevail, and with the subsidence of the epidemic in the hot weather, Bombay tended to resume its normal aspect. But in the interval the exodus had been enormous (it was roughly estimated at one quarter of the population), the disease had been spread far and wide by heedless fugitives, business had almost been brought to a standstill, and the weekly mortality had risen to the appalling figure of 1,900. Annually since the fatal year of 1896 plague has become epidemic in the city. The highest rates of mortality reached in the succeeding years were :—

1897-98	. . . . .	2,250	per week,
1898-99	. . . . .	2,450	do.
1899-1900	. . . . .	2,820	do.
1900-01	. . . . .	2,620	do.
1901-02	. . . . .	2,594	do.
1902-03	. . . . .	1,902	do.
1903-04	. . . . .	2,604	do.

representing nearly 200 per 1,000 per annum. The usual season of maximum mortality is February or March. Gradually it came to be recognized that the continued existence of the plague, combined with the passive resistance of the people to measures which they failed to approve, rendered drastic expedients both undesirable and inoperative. After the abolition of the first plague committee, the Government maintained for several years a specially organized plague administration in Bombay Town and Island, charged with the carrying out of moderate measures of disinfection and insolation, as far as possible with the concurrence of the victims. Assistance was given for the evacuation of seriously infected localities by the erection of temporary 'health camps' in various parts of the Island. Finally, in 1901, the control of plague measures was handed over once more to the Health department of the municipality, with whom it now rests. The inoculation of healthy persons with Haffkine's preventive serum was carried out on a considerable scale, and with fair success, though the operation, partly owing to the shortness of the period for which it offers protection, and partly owing to prejudice, was never popular.



# BOMBAY.

CSL

## Revenue account of Bombay Municipality for 1902-03, in thousands of rupees.

REVENUE.		EXPENDITURE.	
<i>Taxation Proper.</i>			
General Tax . . . .	27,11	General Superintendence . . . .	2,17
Wheel Tax and Tolls . . . .	3,71	Assessment and Collection and Revenue and Refund Audit Depts. . . . .	2,93
Town Duties . . . . .	12,19	Fire Brigade . . . . .	1,10
Licenses . . . . .	1,02	Public Gardens—Maintenance and New Works. . . . .	59
Receipts from Government for Liquor Licenses . . . . .	1,44	Public Works (Engineer's) Dept. New Works . . . . .	15,02
Receipts from Government for Tobacco duty . . . . .	2,44	Police charges . . . . .	89
Total . . . . .	147,91	Public Health Department . . . . .	20,06
<i>Services rendered.</i>		Education . . . . .	5,98
Halalkhor Tax . . . . .	7,96	Hospitals . . . . .	1,10
Water Tax and other miscellaneous Water-works revenue . . . . .	15,14	Pensions, Gratuities, and Compassionate Allowance . . . . .	56
Total . . . . .	23,10	Contribution to the City Improvement Trust . . . . .	69
<i>Returns from Property and Miscellaneous.</i>		Total . . . . .	58,09
Market Receipts . . . . .	4,37	<i>Municipal Debt—</i>	
Public Gardens . . . . .	11	Interest and charges on Loans . . . . .	21,09
Tramway Rent . . . . .	50	Reduction of Debt and payment of Sinking Fund, including investment of Interest accrued on Sinking Fund . . . . .	6,02
Contribution from Municipal Servants towards Pension, etc., Fund . . . . .	23	Total . . . . .	27,11
Interest and Profit on Investments of Surplus Loan and other balances . . . . .	1,37	<i>Investments—</i>	
Interest on Sinking, Insurance, Worn-out Mains Renewal, School Building, and Net Premiums Investments . . . . .	1,98	Worn-out Water Mains Renewal Fund . . . . .	25
Miscellaneous . . . . .	335	Municipal Buildings Insurance Fund . . . . .	6
Total . . . . .	3,35	Interest on the Insurance, Worn-out Mains Renewal, School Building and Net Premiums Funds . . . . .	28
Miscellaneous . . . . .	2,19	Total . . . . .	58
Total . . . . .	10,75	<i>Miscellaneous . . . . .</i>	
Grand Total . . . . .	81,78	75	
		Grand Total . . . . .	84,53

## CALCUTTA.

Capital of the Indian Empire and the official residence of the Viceroy and Governor-General, situated on the east or left bank of the Hooghly river in  $22^{\circ} 34' N.$ , and  $88^{\circ} 22' E.$ , in the 24-Parganas District, Bengal. The city lies about 86 miles from the sea, and is only 18 to 21 feet above the mean sea-level. Stretching northward for 6 miles along the river-bank, and bounded on the east by the Circular Canal and the Salt Lakes, it covers at the present day an area of 20,547 acres, of which only 1,792 are rural, and 1,113 acres form the Maidan. Calcutta is so called after a village, which formerly occupied the site of the modern Bow Bazar; the name is supposed by some to be connected with the worship of the goddess Kālī.

The city is bounded on all sides by suburban municipalities which have been excluded from Calcutta for purposes of municipal administration. COSSIPORE-CHITPUR on the north, MANIKTALA on the east and GARDEN REACH on the south-west, as well as HOWRAH on the west bank of the Hooghly river, are industrial suburbs which form an integral part of the life of the metropolis. If these be included, Calcutta has a population of 1,106,738, which is greater than that of any European city except London, Constantinople, Paris and Berlin, and of any city in America, except New York, Chicago and Philadelphia. Excluding China, the population of whose cities is uncertain, the only city in Asia with more inhabitants than Calcutta is Tokio, and next to London, it is the most populous city in the British Empire. The present article is, however, confined to the municipal town of Calcutta as defined in (Bengal) Act III of 1899, Fort William and the water area, the population of which is 808,969, 4,612 and 34,215 respectively.

The importance of Calcutta lies in its position as the capital of the empire and as a seaport situated on a navigable river and connected by converging lines of railway, rivers, navigable canals, and roads with the rich valleys of the Ganges and Brahmaputra, whose produce it exports overseas, while it supplies their dense population with the products and manufactures of other countries.

Hospital was removed to its present site, and at this period the European quarter began to extend southwards along Chowringhee. In 1773 by an Act of Parliament the Bengal Council was vested with control over the other Indian possessions of the Company, and soon afterwards Warren Hastings removed the treasury from Murshidābād to Calcutta.

#### Municipal history.

The history of municipal administration in Calcutta dates from 1727 when the first Corporation came into existence. It consisted of a Mayor and 9 Aldermen, and its duties were to collect ground rents and town dues, and to make the necessary repairs to roads and drains. The amount thus spent was however insignificant. An effort was made, about 1757, to organise a municipal fund by levying a house-tax, but the scheme came to nothing. The duty of keeping the town in order rested with the Police Commissioner; but its insanitary condition was notorious, and in 1780 the native town was thus described by Mackintosh:—"It is a truth that, from the western extremity of California to the eastern coast of Japan, there is not a spot where judgment, taste, decency and convenience are so grossly insulted as in that scattered and confused chaos of houses, huts, sheds, streets, lanes, alleys, windings, gullees, sinks and tanks, which, jumbled into an undistinguished mass of filth and corruption, equally offensive to human sense and health, compose the capital of the English Company's Government in India. The very small portion of cleanliness which it enjoys is owing to the familiar intercourse of hungry jackals by night, and ravenous vultures, kites and crows by day. In like manner it is indebted to the smoke raised on public streets, in temporary huts and sheds, for any respite it enjoys from mosquitoes, the natural productions of stagnated and putrid waters."

By a statute of George III Justices of the Peace were appointed for the town in 1794, and regular assessments were authorised. The Circular road was metalled and the conservancy establishment was increased. But many defects remained, and in 1803 Lord Wellesley pointed out the extremely defective construction of the public drains and water-courses, the absence of any regulations in respect of the situation of public markets and slaughter-houses, the irregularity of the buildings and the dangerous condition of the streets and appointed a Town Improvement Committee of 30 members to carry out the necessary reforms.

Since 1793 it had been the practice to raise money for public improvements by means of lotteries, ten per cent. of their value being set aside for public works or charitable purposes. As long as the Town Improvement Committee existed these funds were made over to it; but in 1817 a Lottery Committee was formed, which was employed for 20 years in schemes for the improvement of the town. During this period a great advance was undoubtedly made. The Town Hall was built and the Beliāghāta canal dug, and a large number of streets were opened out, including the Strand Road, Amherst Street, Colootolla and Mirzāpur Streets, Free School Street, Kyd Street, Canal Road, Mango Lane, and Bentinck Street, and the long roadway formed by Cornwallis Street, College Street, Wellington Street, and Wellesley Street, with the four adjoining squares. Arrangements for watering the streets were also introduced. In 1820 a systematic plan for road metalling was adopted at an annual cost of Rs. 25,000. Public opinion in England having condemned this method of providing funds for municipal purposes, the Lottery Committee came to an end in 1836.

Meanwhile, under the Act of 1794, the Justices had met the expenses of the conservancy and police of the town from a tax on houses and licenses for the sale of liquor. In 1819 the house tax realised a little over 2½ lakhs of rupees, and in 1836 this had risen to 3 lakhs, while 1½ lakhs was derived from excise. The expenditure on conservancy and police was at this period 5½ lakhs, the difference being made up by Government.

In 1810 the principle of municipal taxation was extended to the suburbs. In 1840 an Act was passed dividing Calcutta into four divisions and authorising the rate-payers, on an application made by two-thirds of them, to undertake their own assessment, collection and management of the rates up to a limit of 5 per cent. on the assessable property in Calcutta. Nothing came of this Act and in 1847 the Justices were replaced by a Board of seven paid members, four of whom were to be elected by the rate-payers. They were empowered to purchase and hold property for the improvement of Calcutta and to make surveys, and were entrusted with the maintenance of the streets and drainage. In 1852 their number was reduced to four, two being appointed by Government and two elected; and they were allowed a maximum salary of Rs. 250 a month. The house-tax was raised first to 6½ per

and forts at Tāna or Garden Reach and seizing Hijili. He was shortly afterwards superseded by Captain Heath, who came out from England with instructions to seize Chittagong. The attempt on this place failed, but on the 24th August 1690 the English returned to Sūtānuti under Charnock, at the invitation of the Nawāb, and laid the foundation of modern Calcutta.

Several reasons led to the selection of this place as the headquarters of British trade in Bengal. The Hooghly river tapped the rich trade of the Ganges valley, and Calcutta was situated at the highest point at which the river was navigable for sea-going vessels; it was moreover protected against attack by the river on the west and by morasses on the east, and it could be defended by the guns of the shipping.

In 1696 the rebellion of Subha Singh, a Burdwān zamīndār, assumed formidable dimensions, and the British applied to the Nawāb for permission to fortify their settlement. This was granted and a fort was constructed on a site extending from the modern Fairlie Place on the north to Koila Ghāt Street on the south, the river forming the western, and Dalhousie Square the eastern, boundary. It was completed in 1702. Four years previously the three villages of Calcutta, Sūtānuti and Gobindpur had been purchased from the governor of Hooghly.

The town grew rapidly; within a short time a wharf, a good hospital, a Church and barracks were erected; and in 1707 the East India Company Directors declared it a separate Presidency accountable only to the Directors in London. The new settlement was perpetually harassed by the Muhammadan governors of Bengal, and in 1717 the Council of the Settlement sent an embassy to Delhi to procure the recognition of their rights in the country and permission to purchase property on the banks of the Hooghly. The emperor granted the permission sought for, but it was to a great extent rendered nugatory by the determined opposition of the Nawāb.

In 1742, the inhabitants commenced to dig an entrenchment round their settlement as a defence against the Marāthās, who were then raiding Bengal. This entrenchment, known as the Marāthā ditch, followed the course of the modern Circular Road, but it was never completed along the southern boundary. The scare caused by the Marāthā invasion and



the growing trade of the Company brought a large influx of new settlers, and in 1752 Holwell calculated the population at 409,000, though this was probably an over-estimate as the number of houses was still less than 15,000. The original settlement round the Fort was protected by palisades, but the Company's servants lived in the quarter now bounded by Canning Street on the north, Hastings Street on the south, Mission Row on the east, and the river on the west. Within this area there were in 1753, exclusive of the Fort and its warehouses, no less than 230 masonry structures, and the native portion of the town contained about the same number.

The chief event in the early history of Calcutta is its capture in 1756 by Sirāj-ud-daula, Nawāb of Bengal. The native troops deserted and the Europeans were driven into the fort which was practically indefensible, as its guns were masked by the surrounding buildings. The Governor and many of the officials made their escape to the ships which thereupon dropped down the river, and the garrison, under the command of Holwell, were driven to surrender. They were forced, to the number of 146, into a small room, measuring only 18 by 14 feet, which is known to history as the Black Hole. Here they were left for the night: it was the 20th June; the heat was intense, and the two small grated windows were quite insufficient to give air to the closely packed crowd, who endured terrible sufferings. When the morning came and the door was opened, only 23 were found alive.

The town was recaptured by Clive and Admiral Watson early in 1757, and after the battle of Plassey, Mīr Jafar gave the English the zamindāri of the 24-<sup>1</sup>/<sub>2</sub> arganas, as well as a free gift of the town and some of the adjacent villages. Heavy compensation was paid to the merchants and the Company's servants and adherents for their losses, and permission was granted to establish a mint. From this date the town has enjoyed uninterrupted prosperity. With part of the compensation money received from the Nawāb, Gobindpur was cleared of its inhabitants and the foundations of the present fort were laid. It was not finished till 1773 and is said to have cost 2 millions sterling, half a million of which was spent on works to protect the west face from the erosion of the river. The clearing of the jungle round the fort led to the formation of the Maidān. In 1766 the General

cent. and later to  $7\frac{1}{2}$  per cent., and a 2 per cent. lightning rate and a tax on carts were authorised; horses and vehicles had already been made taxable by the Act of 1847. The Commissioners were required to set aside  $1\frac{1}{2}$  lakhs for the sewage and drainage of the town. In 1856 their number was reduced to three, all of whom were appointed by the Lieutenant-Governor.

In 1863 the municipal government was vested in a body composed of all the Justices of the Peace for the town of Calcutta, together with all the Justices for the Province who happened to be resident in Calcutta. This body elected its own Vice-Chairman and had a regular Health Officer, Engineer, Surveyor, Tax Collector, and Assessor. A water-rate was imposed and the house-tax raised to a maximum of 10 per cent. The Justices' powers of borrowing were extended by several Acts, and during their period of office, the drainage and water system of the town were largely developed. The new market was erected in 1874 and the municipal slaughter-houses in 1866. Foot-paths were made along the main thoroughfares, Beadon Square was opened, and in all about 2 crores were spent on the improvement of the town.

In 1876 a new corporation was created, consisting of 72 Commissioners with a Chairman and Vice-Chairman; 48 of the Commissioners were elected by the rate-payers and 24 appointed by the Local Government. This body completed the original drainage scheme, largely increased the supply of filtered and unfiltered water and effected many other improvements, including the construction of the Harrison Road.

In 1888 the municipal boundaries were extended by the inclusion of a large portion of the suburbs lying south and east of the Circular Road. Seven wards were added, and additions were made to three other wards in the north of the town. The number of municipal commissioners was raised to 75, of whom 50 were elected, 15 appointed by Government, and the other 10 nominated by the Chamber of Commerce, the Trades Association and the Port Commissioners. During the following 10 years the filtered water-supply was further extended, at a cost of 18 lakhs, and an underground drainage scheme for the Added Area was started. A *dhobi-khānā*, or laundry, and an incinerator were constructed, and a number of insanitary tanks were filled up and replaced by



roads and squares. This constitution remained unaltered until 1900, when it was replaced by the system of municipal government now in force which will be described later.

The population of Calcutta in 1901 was 847,796, the mean density for the whole town being 41 persons per acre, while it was 68 in Calcutta proper. By far the most crowded ward is Colootolla with 281 persons to the acre, and it is followed by Jorāsānko (202), Jorābāgān (201) and Moocheepāra (199); these wards are in the centre of the native commercial quarter. The lowest density occurs in the suburbs of Alipore and Ballygunge, where much land is still not built over. The greatest increase in population during the last decade has occurred in the wards which were already most populous in 1891. Judged by European standards the city is seriously overcrowded; more than half the population have less than half a room per head, and 90 per cent. have three-quarters of a room or less. In Burra Bazar no less than 9,531 persons out of 31,574 are crowded four or more into each room. The town in normal years is fairly healthy, but of late the mortality has been greatly swollen by the plague which in 1903 accounted for 8,222 deaths out of a total of 29,765; the other chief diseases are fever, dysentery, cholera and respiratory complaints.

Estimates of the population were made from time to time, but they were partial and untrustworthy, and it was not until 1876 that the first complete census was taken. The population then enumerated for the whole area of modern Calcutta was 611,784 which grew to 612,307 in 1881, to 682,305 in 1891 and to 847,796 in 1901. On the last two occasions the increases have amounted to 11 and 24 per cent. respectively.

Only a third of the population of Calcutta were born there; half were born in other parts of Bengal and one-seventh in other parts of India. The number of persons born in other countries in Asia is 2,973, in Europe 6,701, in Africa 96, in America 175, in Australia 80 and at sea 9. Of the number born in other parts of Bengal the 24-Parganas supplies nearly one-fifth, and large numbers come from Hooghly, Gayā, Patna, Midnapore and Cuttack. Of those from other parts of British India the bulk are recruited from the United Provinces, chiefly from Benares, Azamgarh, Ghāzipur and Jaunpur. Of other Asiatics, the Chinese, who congregate in China Bazar and the Bow Bazar and Waterloo

Street sections, account for 1,709, of whom only 141 are females. Of those born in Europe 5,750 are British and 951 come from other countries, France (176), Germany (168) and Austria (108) alone having more than 100 representatives.

**Sex and age.** In the whole population there are only half as many women as men. This is due to the large number of immigrants amongst whom there are only 279 females to 1,000 males; the majority of these are temporary settlers who leave their families at home. Another result of the large volume of immigration is that 44 per cent of the entire population are male adults, which is double the proportion for the whole of Bengal.

**Languages.** No less than 57 different languages are spoken by people living in Calcutta, of which 41 are Asiatic and 16 non-Asiatic. The Bengali-speaking population numbers 435,000 and the Hindi-speaking 319,000. About 31,000 persons speak Oriyā, 29,000 English and 24,000 Urdu.

**Religions.** By religion 65 per cent. are Hindus, 29.4 per cent. Muhammadans and 4 per cent. Christians, leaving only about 1 per cent. for all other religions combined; the latter include 2,903 Buddhists, 1,889 Jews and 1,799 Brahmos. Hindus preponderate in the north of the town, while the chief Musalmān centres are Colootolla and Moocheepāra, and the outlying wards near the Docks and Canals. During the decade ending in 1901 the growth of the Christian population was 31 per cent. The number of native Christians during the same period increased from 6,671 to 9,872, or by 49 per cent., the Roman Catholic missions with a gain of 88 per cent. being the most successful. The chief protestant proselytising bodies are the Church Missionary Society, the Oxford Mission, the Baptist Mission, the London Mission, the Episcopal Methodist Mission and the missions of the Established and Free Churches of Scotland. Besides direct evangelization, most of the missions maintain schools and colleges, and thus promote the cause of higher education.

**Castes.** Brāhmans (83,000) are the most numerous caste, and with Kāyasths (67,000), Kaibarttas (37,000), Subarnabaniks and Chamārs (25,000 each), Goalās (23,000) and Tāntis (21,000) account for more than half the Hindu population. Among the Muhammadans 91 per cent. are Sheikhs and 5 per cent. Pathāns, while Saiyids number 8,000. Europeans number 13,571, and Eurasians 14,482.

Christian missions.

The main features of the statistics of occupation prepared at the census of 1901 are reproduced below :—

Main head of occupation.	WORKERS.		Total number of workers and dependants.	Percentage to whole population.
	Male.	Female.		
Government service .	18,737	213	39,590	5
Pasture and agriculture .	12,413	1,379	30,754	4
Personal service .	81,704	23,649	148,933	18
Preparation and supply of material substances .	140,110	12,970	271,713	32
Commerce, trade and storage .	123,698	1,981	203,854	24
Professions .	20,082	2,448	54,812	6
Unskilled labour .	33,054	16,967	61,523	7
Independent of labour .	12,171	6,629	36,617	4
Total .	441,969	66,236	847,796	100

Nearly a third of the inhabitants of Calcutta are engaged in manufactures, and nearly a fourth in trade, while personal service accounts for a sixth. Assuming that a man does not begin to work until 15 years of age, it would appear that no less than 96 per cent. of the males above that age are actual workers; the corresponding proportion in the case of women is only 32. The industrial population is most numerous in Colootolla, Moocheepāra, Jorāsānko, Bhawānipur, Intally and Beniāpukur, while Jorāsānko, Burra Bazar and Jorābāgān wards have the greatest number of persons engaged in commerce. The professional element is strongest in Burtolla in the north, and in Bhawānipur in the south of the town.

Of the total number of persons in Government service, no less than one-tenth (4,000) are municipal employes; the same number are employed as constables, messengers, etc.; and 6,000 are clerks or inspectors. Indoor servants number 58,000, of whom 18,000 are women and 12,000 are cooks. Masons (12,000) include 2,000 women, shopkeepers and brokers number 19,000 and 6,000 respectively, and there are as many as 25,000 boatmen. Of the professional population priestcraft, literature and medicine each account for 4,000, while 3,000 persons are engaged in educational pursuits and 2,000 in law. No less than 14,000 out of the 17,000 women entered under the head "unskilled labour" are prostitutes,

Of the persons shown as "independent of labour," only 5,000 have an independent income, while 8,000 are beggars.

Of the European population 7,269 are actual workers, and of these 3,064 are in Government service, while 1,667 are engaged in commerce, 1,094 in the professions, and 587 in the preparation of material substances. Under the first head the Army and Navy account for 2,480. Of the commercial population, 643 are general merchants and 270 are brokers. The professional classes include 345 engineers, 208 medical men, 127 ministers, etc., while 114 persons are engaged in education, 85 in law and 83 in literature.

Arts and  
 manufactures.

The city itself contains but few factories, only three jute mills and two jute presses lying within the town. In the outskirts of the city, however, several smaller industrial concerns are situated, including 63 oil-mills chiefly worked by cattle, 24 flour mills, two rice mills, 16 iron foundries and 12 tanneries, which employ less than 13,000 persons all told. The chief home industries are pottery and brass-work, but Calcutta exports little of its own manufactures, and it is to commerce that the city mainly owes its position.

Commerce  
 and trade.

Calcutta came into existence as a trading city, because its position enabled merchants to tap the rich traffic of the valley of the Ganges. The luxurious courts of the Mughal ruler had fostered the manufacture at Dacca and Murshidābād of the most beautiful silks and muslins that the world has ever known, and these were eagerly bought up in Europe. The saltpetre of Bihār was in great demand in England for the manufacture of gunpowder during the French wars, and rice; sesamum oil, cotton, cloths, sugar, clarified butter, lac, pepper, ginger, myrabolams and *tasar* silk were also in great request. Bengal produced all these articles, and Calcutta was the only seaport from which they could be exported.

The demand for Indian muslins gradually died out in Europe, while early in the 19th century Lancashire began to export manufactured cotton goods to India, and the introduction of steam-power placed the local weavers at such a disadvantage that piece-goods are now by far the largest article of import to Bengal, while the export of silk and cotton manufactures has practically ceased. The export of jute, on the other hand, has grown enormously since the middle of the 19th century, and the production of oil-seeds, indigo and tea has vastly increased. Bengal coal is in great demand all over India, and salt and mineral oils are largely imported.



Through all these vicissitudes of commerce, Calcutta has more than held its own, and the development of railways and of steamer routes along the main water ways has greatly strengthened its position, so that it now focusses the trade of Assam as well as of Eastern Bengal and of the Gangetic valley.

The foreign trade of the port in 1903-04, exclusive of the Sea-borne transport of treasure, was valued at 90.54 crores of which trade. exports amounted to 57.04 crores, and the coasting trade at 11.61 crores of which 6.66 crores represented exports. The total value of the sea-borne trade including treasure was 112.92 crores.

The steady progress of foreign trade in recent years is Foreign indicated by the figures below which show the average annual trade. value of the foreign imports and exports of merchandise (omitting treasure) during successive quinquennial periods:—

Five years ending	Lakhs of rupees.		Five years ending	Lakhs of rupees.	
	Imports.	Exports.		Imports.	Exports.
1875	16.48	23.59	1895	25.95	39.97
1880	17.80	27.78	1900	28.46	45.59
1885	21.50	33.08	Four years ending	32.66	54.28
1890	23.44	35.23			
			1904		

The chief imports into Calcutta are cotton goods representing in 1903-04 a value of over 16 crores. Next in importance are treasure, metals, oil, sugar and machinery, and these are followed by woollen goods, hardware and cutlery, salt, liquors, apparel, drugs and railway material. About seven-eighths (in value) of the imports came from Europe, three-quarters of the whole being from the United Kingdom.

The chief exports are raw and manufactured jute, tea, opium, hides and skins, oilseeds, grain and pulses, indigo, lac, raw cotton, coal, raw silk, saltpetre and oils. The most striking feature in the growth of the export trade has been the enormous increase in the shipments of jute and coal. The exports of jute have risen from 8 crores in 1893-94 to nearly 20 crores in 1903-04, and now form about three-eighths of the outward trade; while the shipments of coal to foreign ports amounted in 1901 to more than half a million tons as against 8 tons in 1880. During the same period the imports of foreign coal dwindled from 70,000 to 2,000 tons. More than half of the export trade was with European countries, the United Kingdom taking a third of the whole. Of the Continental countries Germany took almost as much as all

the others combined. The trade with the United States came next to that of the United Kingdom, and China took rather less than Germany. It is a significant fact that the balance of trade has been in favour of this country throughout the period mentioned.

**Coasting trade.**

The coasting trade has been influenced considerably by extensions of railway communications and by the development of direct steamship communications between other Indian ports and abroad. The value of imports in 1903-04 was 504 lakhs, of which 462 lakhs was the value of Indian produce and 32 lakhs of foreign merchandise, while 10 lakhs represented treasure. The exports were valued at 726 lakhs, of which 587 lakhs was the value of Indian produce and 79 lakhs that of foreign merchandise, treasure amounting to 60 lakhs. The chief ports with which the coasting trade is carried on are Rangoon, Moulmein, Akyab, Bombay and Madras. The imports are cotton goods and salt from Bombay, rice and mineral oil from Burma, and sugar, vegetable oil and oilseeds from Madras; and the exports are grain and pulses, coal, jute and gunnies, spices, tobacco and tea.

**Internal trade.**

In respect of internal trade the principal articles which make up the imports to Calcutta are, from Bengal, raw and manufactured jute, rice, coal, linseed, opium, tea, grain and pulses, hides and skins, silk and indigo; from the United Provinces, opium, oilseeds, grain and pulses, hides and skins and mineral manufactures; and from Assam, tea, oilseeds, grain, pulses and lime. In 1901-02 the imports from Bengal were valued at nearly 49 crores.

Calcutta being the chief distributing centre of Bengal, the principal articles exported to the interior are the same as those enumerated under the head of foreign imports. The total exports from Calcutta by rail, road and river were valued at nearly 38 crores in 1903-04.

**Trade association.**

The chief associations connected with the trade and commerce of the town are the Bengal Chamber of Commerce (founded in 1834) with its affiliated Societies, and the Royal Exchange, Bengal Bonded Warehouse Association, the Calcutta Trades Association and the Bengal National Chamber of Commerce.

**Communications.**

Four railways converge on Calcutta. The East Indian Railway connects Calcutta with Bombay, the United Provinces and the Punjab and is the outlet for the rich traffic



of the Ganges valley. Its terminus is on the west bank of the river at Howrah, but a branch crosses the Hooghly by a bridge at Naihati 25 miles up the river and provides access to the docks at Kidderpore over the Eastern Bengal State Railway. The Bengal Nagpur Railway runs through Orissa to Madras and westwards through the Central Provinces to Bombay; its terminus also is at Howrah, but a wagon ferry plies between Shalimār and the docks. The Eastern Bengal State Railway, the terminus of which is at Sealdah, connects Calcutta with North and Eastern Bengal and Assam and with Diamond Harbour. The Bengal Central Railway runs to Eastern Bengal.

The railways, however, by no means monopolise the traffic. Numerous native craft ply up and down the rivers, along the channels through the Sundarbans which connect Calcutta with Eastern Bengal and the valley of the Brahmaputra, and on the Midnapore and Orissa Coast canals. There are also several large steamer companies whose vessels navigate these inland waters and carry an extensive coasting trade to the Orissa ports; the most important of these are the India General, and the Calcutta Steam and River Steam Navigation Companies.

The Port was formerly under direct Government management, but in 1870 a Port Trust was formed, consisting at first of 12, and afterwards of 15, commissioners. The Strand Bank lands were subsequently made over to them on an annual quit-rent of Rs. 37,392. The value of the property taken over by the Trust was estimated at 27.65 lakhs, and with further advances the debt was consolidated into a single loan of 60 lakhs. During the last 30 years the commissioners have been adding considerably to the facilities of the Port. In 1870 there were only six screw-pile jetties, six cranes and four sheds for the accommodation of the sea-going trade; whereas now there are six unloading berths for sea-going vessels at the jetties, with [a frontage of 2,982 feet, and all the loading is done separately at the Kidderpore docks. These docks, which were constructed in 1884-85 at a cost of 285 lakhs, consist of a basin, connected by a double passage with the wet docks which accommodate 12 vessels, and of two graving docks. The petroleum wharf at Budge-Budge was established in 1886, and the tea warehouse in 1887. In 1889 the Port Commissioners were made the Conservators of the Port. They have their own dock-yard and workshop, and they maintain a staff of assistant harbour masters who



take over the pilotage of all vessels from Garden Reach; they license all cargo boats and pay three-fourths of the cost of the River police; they survey and prepare charts of the river from Calcutta to the sea, and are responsible for the lighting of the Hooghly.

The revenue of the Port in 1903-04 amounted to 80 lakhs and the expenditure to 77 lakhs. The bulk of the income is derived from a toll of 4 annas a ton on all goods shipped or discharged. The capital debt amounts to 501 lakhs and the book value of the Trust property is returned at 656 lakhs, exclusive of the Strand Bank and Howrah foreshore lands and an accumulated sinking fund of 42 lakhs.

The  
Hooghly  
pilots.

Even before the foundation of Calcutta, the East India Company had found it necessary to maintain a special staff to guide ships through the difficult channels of the Hooghly. The Pilot Service is now a Government department, consisting in 1903-04 of 58 officers who are paid by fees. Some account of the action taken from time to time to keep the channels open, and to facilitate navigation, will be found in the article on the HOOGHLY RIVER.

Shipping.

The trade of the port has grown up since 1727, when the shipping was estimated at but 10,000 tons. The steady growth in recent years will be seen from the following abstract:—

YEAR.	ENTERED.		CLEARED.	
	Number of vessels.	Tons.	Number of vessels.	Tons.
1886-87 . .	1,387	1,553,575	1,419	1,620,877
1891-92 . .	1,446	1,912,081	1,416	1,849,676
1896-97 . .	1,576	2,070,786	1,579	2,060,867
1901-02 . .	1,499	2,869,790	1,514	2,873,730
1903-04 . .	1,563	3,174,946	1,569	3,175,263

The most noticeable features of recent years are the substitution of steam for sailing vessels, the rapid growth of the coasting trade and the increase in the size of the vessels visiting the port. In 1886-87 the number of sailing vessels was 465, but in 1903-04 it had dropped to 87, and only 29 of these hailed from foreign ports. During the same period the volume of the coasting trade has grown from 1,410,000 tons to 3,517,000 tons; the average tonnage of vessels



engaged in the foreign trade has increased from 1,449 to 2,622 tons, and that of coasting vessels from 881 to 1,679 tons.

Up to 1867 only two of the roads in Calcutta were metalled with stone; and now (1905) there are 300 miles of road, of which 117 miles are metalled with stone. The roads are maintained by the Corporation with the exception of those on the Maidān which are under the charge of the Public Works Department. The city is intersected by four main roads running parallel with the river. The most westerly of these, known as the Strand Road, has been formed by successive reclamations of the foreshore and skirts the river bank from Hastings to Nimtolla, passing by Fort William, the Eden Gardens and the Jetties. East of this is the Chowringhee Road with its row of lofty houses facing the Maidān, which a traveller of the 18th century described as "an entire village of palaces." This road, with its northern continuations, Bentinck Street and the Chitpore Road, occupies the site of the old pilgrim road to Kālī Ghāt; and its southern continuation, known as the Russa Road, is still the route for pilgrims visiting that shrine. Between this and the Lower Circular Road is a street running through the heart of the town, the various sections of which are called Wellesley Street, College Street and Cornwallis Street; and to the east of it the Lower Circular Road sweeps round the town, one section of it following the course of the old Marāthā ditch from the *débris* of which it was formed in 1742. These four main roads are linked by a number of cross streets, the most important of which are Park Street, passing through the European quarter and so called because it originally bordered the spacious garden house of Sir Elijah Impey; Dhurumtolla Street, passing through a quarter largely inhabited by Eurasians; Lāl Bazar and its continuation Bow Bazar in the centre of the native town, presenting a mass of densely packed houses and shops; Canning Street and Harrison Road named after Lord Canning and a former Chairman of the Corporation; and, to the north of the town, Sobhā Bazar and Grey Street. From Government House to Kidderpore, two miles to the south, stretches the oldest road in the Maidān, known as the old Course and described in 1768 as being "out of town in a sort of angle made to take the air in"; to the north this road runs into Old Court House Street, so called from the Old Court House pulled down in 1792. Starting from Kidderpore the Garden

Roads and  
bridges.

Reach and Circular Garden Reach Roads connect the docks and the mills fringing the Hooghly, with the main town, while to the south the Diamond Harbour Road links Calcutta with the harbour after which it is named.

Calcutta is connected with the important city of Howrah, on the west of the river, by several ferries and also by a floating bridge opened in 1874. This structure supported on pontoons is 1,530 feet in length between the abutments, and has a road-way for carriages 48 feet in width with footpaths of 7 feet on either side. The bridge is opened three times a week to allow ships to pass to the dockyards above, and while it is open a ferry steamer plies across the river. Bridges over Tolly's Nullah at Kidderpore, Alipore and Kali Ghât connect the south-east portion of the present city with the old town. On the north the main roads converge at the Chitpur Bridge by which the old Grand Trunk Road crosses the Circular Canals.

Lines of tramway run from the High Court to Tollygunge, Nimtolla Ghât, and Sealdah, and from the Esplanade to Chitpur, Shâm Bazar and Sealdah. These tramways have been recently electrified. There is a large suburban traffic along all the main lines of railway and also on two small light railways from Howrah to Amtâ and Sheakhâlâ.

Civil and  
 criminal  
 justice.

In the "Old Town" civil justice is administered by a Judge of the High Court, who sits singly and tries cases above Rs. 2,000 in value and suits concerning land, and by the Small Cause Court with 5 Judges who try suits up to Rs. 2,000 in value. In the "Added Area" a small cause court and 2 munsiff's courts sit at Sealdah, and 3 munsiff's courts at Alipore; these are subordinate to the District Judge of the 24-Parganas. Both the District Judge and Additional Judge of the 24-Parganas have jurisdiction in Calcutta under the Land Acquisition Act. Criminal justice is administered in the Old Town by 3 stipendiary, and a number of honorary, Presidency Magistrates. The High Court holds Criminal Sessions and hears appeals from the Presidency Magistrates. In the Added Area the Sessions Judge and District Magistrate of the 24-Parganas have criminal jurisdiction. Two stipendiary magistrates sit, one at Alipore and the other at Sealdah, and there are also several honorary magistrates. Throughout Calcutta cases under the Municipal Act are tried by a stipendiary municipal magistrate.

The Chief Presidency Magistrate is also the presiding officer in the court for the trial of pilots and Judge of the Court of Survey for the Port of Calcutta.

The revenue receipts under the main heads amounted in Revenue. 1903-04 to 88·5 lakhs, of which Rs. 18,000 was derived from land revenue, 29·7 lakhs from stamps, 33·3 lakhs from excise and opium, and 25·4 lakhs from income-tax. The revenue receipts under the same heads in 1880-81, 1890-91 and 1900-01 were 33·5 lakhs, 61·4 lakhs and 80·1 lakhs, respectively. In 1881 the income-tax had not been imposed.

The Collector of Calcutta, who is assisted by a deputy collector, is Collector of stamp revenue in the "Old Town," and is Superintendent of excise revenue throughout Calcutta, and in the municipalities of Cossipore-Chitpore, Māniktala, Garden Reach, Howrah and Bally. He is also deputy collector of land revenue in the "Old Town"; and in this respect is subordinate to the Collector of the 24-Parganas, whose ordinary jurisdiction extends over the "Added Area" in all revenue matters except excise. There is a separate Collector of income-tax in the "Old Town."

The stamp revenue of Calcutta has risen from 23 lakhs in 1892-93 to 29·7 lakhs in 1903-04, when 14·2 lakhs was realized from judicial and 15·5 lakhs from non-judicial stamps. During the same period the income-tax receipts rose from 17·22 to 25·4 lakhs, in spite of the exclusion from assessment in 1903 of incomes below Rs. 1,000, and excise from 25·0 to 33·3 lakhs. The main items under the latter head are imported liquor (1·5 lakhs), country spirit (19·4 lakhs), opium (4·9 lakhs), hemp drugs (4·3 lakhs), rum (2·3 lakhs), and *tari* (Rs. 79,000).

In the "Old Town" there is, strictly speaking, no land revenue, as in 1758 the East India Company obtained from the Nawāb a free grant of the area on which Calcutta now stands. The so-called revenue is really ground-rent which has been permanently fixed and amounts to Rs. 18,163. The "Added Area" belongs for revenue purposes to the 24-Parganas District. The tract east of Tolly's Nullah and the Lower Circular Road, which comprises Bhawānipur, Ballygunge and Intally, is included in the PANCHANNAGRAM Government estate. West of Tolly's Nullah are ordinary permanently-settled estates belonging to private owners; a considerable area is, however, included in the Government estate Sahibān Bāgīcha.

Land  
revenue.

The grand total realized by the Customs department in 1903-04 was 388 lakhs, to which salt contributed 197 lakhs, cotton piece-goods 49½ lakhs, mineral oil 17½ lakhs, liquor 22¼ lakhs, articles of food and drink 12¼ lakhs, countervailing duties on sugar ½ lakh, and arms and ammunition 1¾ lakhs. The export duty on rice amounted to 15¼ lakhs. Besides this 26½ lakhs was paid into District treasuries on account of salt imported into Calcutta.

Municipal  
 govern-  
 ment.

The municipal administration of the city is now regulated by (Bengal) Act III of 1899, and is in the hands of three co-ordinate authorities, the Corporation, the General Committee and the Chairman. The Corporation, consists of the Chairman, appointed by Government, and 50 commissioners, of whom 25 are elected at ward elections, and the remainder are appointed as follows, *viz.*, four by the Bengal Chamber of Commerce, four by the Calcutta Trades Association, two by the Port Commissioners and 15 by the Bengal Government. The General Committee consists of 12 commissioners and the Chairman, who is President. Of the commissioners four are elected by the ward commissioners, four by the appointed commissioners and the remaining four are appointed by the local Government. The entire executive power is vested in the Chairman, to be exercised subject to the approval or sanction of the Corporation or General Committee, whenever this is expressly directed in the Act. To the Corporation are reserved the right of fixing the rates of taxation and all those general functions which can be efficiently performed by a large body. The General Committee stands between the deliberative and executive authorities, and deals with those matters which are ill-adapted for discussion by the whole Corporation, but yet are too important to be left to the disposal of the Chairman alone.

The Corporation thus constituted commenced work in April 1900, and their efforts have so far been mainly directed to the introduction of a continuous water-supply for the whole town, the completion of the drainage scheme, the decentralization of control and the punctual collection of the rates. The town has been divided into 4 districts, each with its own staff, for conservancy, roads and buildings. A large scheme for opening out the congested areas, with the assistance of Imperial funds, is under consideration.

Water-  
 supply.

The drinking water-supply is obtained from the Hooghly river at Paltā, 17 miles north of Calcutta, where it is pumped

up into settling tanks and filtered. The pure water is conveyed by gravitation through two iron mains to a masonry reservoir at the north end of the town. Thence it is pumped into the distributing mains and three other reservoirs in different quarters of the town, and from these it is again pumped into the distributing pipes. The scheme was inaugurated in 1860, and it was then intended to supply 6 million gallons per diem or 15 gallons per head. In recent years the works have been greatly extended, and the Corporation has now three pumping stations at Paltā and four in the town; there are 1,997 stand-posts and 5,904 ground hydrants, and the number of filtered water connections exceeds 26,000. These now give to Calcutta and the adjacent towns of Barrackpore, Dum-Dum, Cossipore-Chitpur, Maniktala and Garden Reach a daily supply of over 7,624 million gallons of filtered water, or  $21\frac{1}{2}$  gallons per head. The streets are watered and the drains flushed with unfiltered water pumped up in Calcutta, and for these purposes there are more than 3,500 connections. The initial cost of the works was 7 lakhs. Subsequent extensions have increased the capital cost to 210 lakhs; the annual cost of maintenance is  $16\frac{3}{4}$  lakhs.

The scheme of under-ground drainage, by which the town is freed of surplus water and of the filth which water will carry, was inaugurated half a century ago. The drainage is carried eastwards by a series of five parallel conduits which discharge into an intercepting sewer, and thence into a large well at Tengrā in the eastern suburbs. There it is raised by steam pumps into a high level sewer, which carries it to the Salt Water Lakes, east of the town, there to undergo oxidation. The original project was commenced in 1859, and took 16 years to complete, but meanwhile fresh additions had been found necessary, and these are still incomplete so far as the "Added Area" is concerned. The execution of the original scheme proved a very expensive undertaking and cost the municipality 95 lakhs including a storm-water out completed in 1883-84. The annual cost of maintenance amounts to Rs. 26,000.

Drainage.

Good progress has been made in lighting the town, specially in the southern area, and the Corporation have now over 9,000 street lamps. A municipal railway conveys street refuse to the Salt Lakes.

The income of the Corporation has increased largely in recent years, but its expenditure has grown even more rapidly,

Miscellaneous.

and its indebtedness on the 31st March 1904 was nearly 327 lakhs, of which 179½ lakhs has been borrowed during the last decade. The chief item of receipt is the consolidated rate which in the last 10 years has varied from 32 to 42 lakhs per annum. Next in importance are the license tax on trades and professions and the tax on animals and vehicles. The municipal market has also proved a source of profit to the Corporation. The average receipts and expenditure during the 10 years ending in 1903-04 are noted below :—

RECEIPTS.	In thousands of rupees.	EXPENDITURE.	In thousands of rupees.
Rates and taxes . . . .	46,52	General administration . . . .	5,62
Realisation under special Acts . . . .	46	Fire . . . . .	65
Other revenue apart from taxation . . . . .	4,54	Lighting . . . . .	4,50
Grants from Government . . . . .	52	Water-supply . . . . .	7,88
Other contribution . . . . .	9	Drainage . . . . .	7,55
Miscellaneous receipts including sale of water . . . .	2,34	Public works . . . . .	9,77
Loans . . . . .	19,37	Markets . . . . .	98
Realization from Sinking funds for repayment of loans . . . .	1,05	Hospitals . . . . .	52
Advances . . . . .	7,20	Conservancy . . . . .	11,90
Deposits . . . . .	7,21	Registration of births and deaths . . . . .	14
TOTAL . . . . .	89,30	Grants to public institutions . . . .	13
		Contribution for general purposes . . . . .	3
		Interest on loans . . . . .	11,83
		Miscellaneous . . . . .	3,52
		Repayment of loans and contribution to sinking funds . . . .	8,56
		Advances . . . . .	7,12
		Deposits . . . . .	6,92
		TOTAL . . . . .	87,52

Public buildings.

Calcutta possesses many fine buildings, both public and private. The original Government House occupied the site of the modern Customs Office. The erection of the present building was commenced in 1797 at the instance of the Marquis of Wellesley, who urged that "India should be governed from a palace, not from a counting-house." It was completed in about 7 years at a cost of 13 lakhs of rupees. The design was based on that of Kedleston Hall in Derbyshire, the structure consisting of four great wings running to each point of the compass from a central pile approached by a magnificent flight of steps on the north. The Grand Hall is an exceptionally fine chamber, and the building also contains the Council Chamber in which the Supreme Legislature holds its sittings. Various articles of furniture and trophies recall the perilous early days of the Company, having been captured

from European or native powers. The two fine full-length portraits of Louis le Bien Aimé and of his Queen, with the chandeliers and twelve busts of the Cæsars in the aisles of the Marble Hall, are said to have been taken from a French ship.

Belvedere, in Alipore, is the official residence of the Lieutenant-Governor of Bengal. Formerly a country house of Warren Hastings, it was purchased in 1854 as the residence of Sir Frederick Halliday, the first Lieutenant-Governor of Bengal. It is a handsome edifice and stands in extensive and well-kept grounds. It was greatly improved and embellished by Sir Ashley Eden. At the spot which is now the west entrance of Belvedere, on the Alipore Road, was fought the famous duel between Warren Hastings and Sir Philip Francis, in which the latter was wounded. Not far from this spot is Hastings House, the favourite residence of the great Governor-General, which is now used as a guest-house for native princes.

To the west of Government House, and nearer to the river, stands the High Court. This imposing structure in somewhat florid Gothic was completed in 1872, on the site of the old Supreme Court. The design is said to have been suggested by the town-hall at Ypres. The Town-hall stands west of Government House, between it and the High Court. It is a large building in the Doric style, approached by a noble flight of steps leading up to the grand portico. It was built in 1804 at a cost of about 7 lakhs, and contains many interesting statues and portraits. The Indian Museum is situated in Chowringhee and contains a fine collection of fossils and minerals, a geological gallery and a gallery of antiquities. Adjoining it are the Economic Museum and the School of Art. The Mint in the north of the town covers 18½ acres, and was built in 1824-1830. The style is Doric, the central portico being a copy in half size of the temple of Minerva at Athens. The Victoria Memorial Hall which it is proposed to erect in memory of the late Queen-Empress is now (1905) in course of construction at the south end of the Maidān near the Cathedral.

The General Post Office, opened in 1870, occupies a position in Dalhousie Square on the site of the old Fort. In the same square are Writers' Buildings used for the offices of the Bengal Secretariat, the Central Telegraph Office, the Currency office and the offices of the Commissioner of the

Presidency Division and the Collector of Calcutta. The offices of the Indian Secretariat and the Treasury lie between Government House and the Town-Hall, and the Foreign and Military Departments have recently transferred their offices to a handsome new building in the Esplanade. The Survey Office occupies substantial quarters in Wood Street. The Bank of Bengal was incorporated as a Presidency Bank by Act XI of 1876 and has a fine building in the Strand erected in 1809. Hard by it is the Metcalfe Hall, occupied by the new Imperial Library. The Muhammadan mosques and Hindu temples of Calcutta have no great architectural merit, the only mosque of any pretensions being the one at the corner of Dhurumtolla Street which was built and endowed in 1842 by Prince Ghulām Muhammad, son of the late Tipū Sultan. Kālī Ghāt, in the south of the town, is a place of great sanctity for Hindus, and numbers go there every day to bathe in Tolly's Nullah. The temple, which is said to be about 300 years old, has 194 acres of land assigned for its maintenance.

#### Churches.

The Cathedral Church of the See of Calcutta, St. Paul's stands at the south-east corner of the Maidān. It was commenced in 1839 and consecrated in 1847, and it is practically the work of Bishop Wilson. Of the 7½ lakhs raised to build and endow the Cathedral, the Bishop gave 2 lakhs, the East India Company 1½ lakhs, and 2·8 lakhs was subscribed in England; only Rs. 1,20,000 was collected in India. It is built in a style which is known in Calcutta as Indo-Gothic, that is to say Gothic adapted by a military engineer to the exigencies of the Indian climate. The building is 247 feet in length with a transept of 114 feet, and the tower and spire are 207 feet in height. Among the many monuments to famous Englishmen who have served in this country, the most conspicuous is a life-sized kneeling figure in bishop's robes by Chantry bearing the single word "Heber." The spire was rebuilt in 1897, the original one having been destroyed in the earthquake of that year.

St. John's, the old Cathedral, was commenced in 1784. It was erected to replace the still older Church of St. Anne's, which occupied the site of the modern Bengal Council Chamber and was demolished by Sirāj-ud-daula in 1756. St. John's was built chiefly by voluntary subscriptions, the site being the gift of a native Rājā. In the graveyard is the mausoleum which covers the remains of Job Charnock; and slabs commemorating William Hamilton, who died in 1717,



and Admiral Watson, are built into the walls of the Church. The old Mission Church has a peculiar interest as having been erected between 1767 and 1770 by Kiernander, the first Protestant Missionary to Bengal, at his own expense. In 1786 the good Swede found himself unable to defray the charges involved by his benevolent schemes and the Church was seized by the Sheriff. It was rescued and restored to religious purposes by Charles Grant, afterwards the well-known East Indian Director, who paid Rs. 10,000, the sum at which it was appraised. Other Churches of the Anglican Communion are the Fort Church of St. Peter, St. Thomas, St. Stephen's, Kidderpore, and St. James', besides several others belonging to missionary bodies.

The Roman Catholic Cathedral, situated in the heart of the commercial quarter, was built in 1797, taking the place of a Chapel built by the Portuguese in 1700. The Greek Church in the same quarter was built by subscriptions in 1780, and the Armenian Church was completed in 1790. At the corner of Dalhousie Square on the site of the old Mayor's Court House stands the Scots Church of St. Andrew.

The Maidān is the chief open space in Calcutta and stretches from Government House and the Eden Gardens on the north to Tolly's Nullah on the south, Chowringhee lying on the east, and the river and Fort on the west. Scattered over it are several monuments, the most conspicuous of them being the Ochterlony Monument, erected in honour of Sir David Ochterlony, who, "for 50 years a soldier, served in every Indian war from the time of Hyder downwards." It rises 165 feet with a Saracenic capital, and its summit commands a noble view of the city. Facing the river is a pillared archway erected by the citizens of Calcutta to perpetuate the memory of James Prinsep, founder of the science of Indian numismatics. Near Park Street is the fine bronze statue of Sir James Outram, in which he is represented with drawn sword looking round to his troops and cheering them forward. Among other monuments may be mentioned those of Lord William Bentinck, Lord Hardinge, Lord Mayo, Lord Lawrence, Lord Dufferin and Lord Lansdowne; and the statue to Lord Roberts is a noteworthy addition to this group. A statue of Her late Majesty Queen Victoria by Frampton has recently been placed on the Maidān, waiting till it may find a more honoured position in the Hall now (1905) being erected in her memory. On the south-west side of the

Squares  
and open  
spaces.

being passed for the purpose. Until 1889 the Chairman of the Calcutta Corporation was also Commissioner of Police, but in that year the appointments were separated.

#### Jails.

The Presidency Jail on the south of the Maidān contains accommodation for 70 European and 1,214 native prisoners, the average number of prisoners during the year 1903 being 1,209. The chief industry carried on in this jail is the printing of Government forms, and the printing work done during 1903 was valued at 1.77 lakhs; minor industries are the manufacture of mustard oil, wheat grinding and carpentry. It is intended to transfer this jail to another site in Alipore where new buildings are being erected for the purpose. There are also a District and Central Jail and a Reformatory School at Alipore, and a Criminal Lunatic Asylum at Dulunda.

#### Education.

At the census of 1901, 20.9 per cent. of the male, and 3.8 per cent. of the female, population were returned as literate. The percentage for Christians (both sexes) was 75.9, for Hindus 26.5 and for Muhammadans 12.2.

The University of Calcutta exercises, by means of the examinations for its degrees, paramount influence over English education throughout Bengal. An account of it will be found in the article on BENGAL. The University building is situated in College Street, and it contains a library adorned with paintings of some of the more famous persons who have been at various times connected with the University.

The higher colleges in Calcutta are the Presidency, the Doveton, the La Martinière, the Free Church Institution and Duff college, the London Mission Society's Institution, the Sanskrit college, Bishop's college, St. Xavier's, the General Assembly's Institution, the Metropolitan Institution, the City, Ripon, Central and Bangabāsi colleges for men, and the Bethune college for women. Of these the Presidency, the Sanskrit and the Bethune colleges are Government institutions; the first was founded in 1855 and the second in 1824; the third was founded in 1849 by the Hon'ble Mr. Bethune, and maintained by him till his death in 1851. It was then maintained by Lord Dalhousie until 1856, and from that date by the Government. The Doveton college was first opened in 1823 for the education of Christian boys under the name of the Parental Academic Institution, but it was subsequently called after Captain J. Doveton, who gave it an endowment of 2.3 lakhs. The La Martinière was founded by General

Claud Martin, and was opened in 1836. Bishop's college was founded by Bishop Middleton in 1820, and was at first located at Sibpur on the site now occupied by the Civil Engineering college. The college of the Scots Church was founded in 1830 and St. Xavier's in 1860. The second grade colleges are the Madrasa, the Albert college, the Armenian college and the Church Missionary college. The Madrasa (for Muhammadans only) was founded and endowed by Warren Hastings in 1781; in 1873 it received additional funds from the Hooghly Muhammadan Educational Endowment, and it is also assisted by Government. The Armenian college was opened in 1821, and is managed by trustees. The Sibpur college for Engineering (see HOWRAH town) is situated in the Howrah District, opposite Kidderpore, and was opened by Government in 1880.

Calcutta contains 75 schools teaching up to the standard for the Entrance Examination of the University, and a large number of primary schools. The oldest Christian school is the Calcutta Free School, which was founded in 1789 from the united funds of the "Old Calcutta Charity" and the Free School Society, which then amounted to 3 lakhs of rupees.

The Calcutta Medical college is a Government institution which was opened in 1835 and had 519 pupils in 1903-04; there are also four private medical schools with 454 pupils. Of the latter the oldest is the Calcutta Medical school to which the Albert Victor Hospital has lately been attached.

The two most important hostels under Government management are the Eden Hindu hostel and the Elliott Madrasa hostel. The former is intended chiefly for the accommodation of such Hindu pupils of the Presidency college and of the Hindu and Hare schools as do not live with their parents or guardians; the latter is for Muhammadans studying at the Calcutta Madrasa who have no parents or guardians to live with. In 1903-04 the number of inmates in the Eden hostel was 247 and in the Elliott hostel 222. The total expenditure of the former amounted to Rs. 30,000 and that of the latter, exclusive of messing charges, to Rs. 4,500. Out of this Government paid ₹700 and ₹1,400, respectively, chiefly for medical attendance and superintendence. The average cost of a student was ₹10 per month per head in the former and a little over ₹3 in the latter.

The Government school of Art attached to the Government Art Gallery was attended by 241 pupils in 1903-04.

Maidān is the race-course, while the rest of it is devoted to recreation grounds.

Other open spaces are the Eden Gardens, named after the Misses Eden, sisters of Lord Auckland, on the north-east of the Maidān, Dalhousie Square in the heart of the official quarter, Beadon Square in the north of the town, named after a Lieutenant-Governor of Bengal, and a series of squares by the side of Cornwallis, College, Wellington and Wellesley Streets. The Zoological Gardens at Alipore were opened by the (then) Prince of Wales in 1876. They are managed by an honorary Committee and are maintained chiefly by donations and subscriptions, entrance receipts and a Government grant-in-aid. The expenditure in 1903-04 amounted to Rs. 87,000, of which Rs. 42,000 was spent on new buildings. The Government of India have made a grant of a lakh of rupees, which it has been decided to devote mainly to permanent improvements. The gardens contain (1903-04) 464 mammals, 842 birds and 238 reptiles.

At Sibpur are situated the Botanical Gardens, which are beautifully laid out along the Hooghly and are stocked with rare tropical plants. They were founded in 1786 at the instance of Colonel Alexander Kyd for the collection of plants indigenous to the country and for the introduction and acclimatisation of plants from foreign parts. This object has been fully realised, and among the greatest triumphs of the gardens may be mentioned the introduction of the tea plant from China. They cover 272 acres and contain a fine herbarium, botanical library and monuments to the first two Superintendents, Kyd and Roxburgh.

#### Army.

Fort William is the head-quarters of the Lucknow division of the Eastern Command. The garrison consists of a battalion of British Infantry, a battery of Garrison Artillery, a company of the Indian Sub-Marine Mining Corps, and a regiment of Native Infantry in the Fort, and half a squadron of Native Cavalry and a regiment of Native Infantry at Alipore. The Volunteer forces are (1) the Calcutta Port Defence Volunteers in five companies, two being Naval Divisions, one of Garrison Artillery, one of Sub-Marine Miners and one of Electrical Engineers, with a strength in 1903-04 of 333 including 314 efficient; (2) the Calcutta Light Horse, in 5 troops, strength 187, efficient 132; (3) the Cossipore Artillery with 4 batteries, 6 guns, strength 428, efficient 402; (4) the Calcutta Volunteer Rifles with 3 batta-



lions (of which the third is a Cadet company), and a strength of 2,075, including cadets and reservists, of whom 2,058 are efficient; and (5) the Eastern Bengal State Railway Volunteers, strength 728, efficient 696. The military authorities have control over the erection of buildings on the Maidan and in the Hastings ward, which lies to the south of Fort William.

The Calcutta Police force is under a Commissioner, a Police. Deputy Commissioner and additional Deputy Commissioner of Police, and consists (1903) of 8 Superintendents, 55 inspectors, 74 sub-inspectors and European constables, 291 head constables and sergeants including mounted men, 2,484 foot constables and 130 river constables. It has under its control, besides the municipal area, the suburban municipalities of Cossipore-Chitpur, Maniktala, part of Garden Reach and the river. There are 18 police-stations in the "Old Town" and 14 in the "Added Area" and in the suburbs. The total cost of the police force in 1901 was 8.66 lakhs, of which 8.15 lakhs was paid from the Imperial and Provincial revenues, and the rest by local bodies and private individuals for services rendered. The proportion of police to population was 1 to 405 persons and to area 76.1 per square mile. Besides ordinary police duties, the Commissioner of Police is responsible for the working of the Arms Act and the Fire-Brigade. The latter consists of one chief engineer, 4 engineers, one European and 4 native drivers, 3 firemen, 16 tindals, 84 khalasis, and 1 inspector of warehouses. The force is equipped with 6 steam engines and 6 manual engines, and is paid for partly by fees levied on jute and other warehouses and partly by certain municipalities. The number of fires reported in 1903 in the town and suburbs, including Howrah, was 120, of which 7 only were serious. The Port Commissioners maintain their own boats and staff for fires on the river.

Until 1845, there does not appear to have been any disciplined force, the only police being a number of *thānādārs* and peons for night duty, but in that year the town was divided into 3 police divisions, each containing a police-station with 6 sub-stations. In 1852 the number of divisions was reduced to 2, and in 1877 the present divisions and *thānas* were created. By Act XIII of 1856 a Commissioner of Police was appointed, and in 1868 the detective branch was constituted. In 1861 the suburban police was made over to the Commissioner's control, a special Act [(Bengal) II of 1866]

An aided industrial school was attended by 47 pupils, and 3 unaided schools of Art taught 182 pupils. Besides, there were two schools for the blind and a deaf and dumb school. There were 4 training schools for mistresses in 1900-01, and one Normal school for the training of school masters. In addition to the Bethune college there were 6 other higher class female institutions in Calcutta.

The total number of pupils under instruction increased from 25,124 in 1883 to 40,724 in 1892-93 and 43,979 in 1900-01, while 39,524 boys and 8,277 girls were at school in 1903-04, being respectively 46·8 and 19·3 per cent. of the number of school-going age. The number of educational institutions, public and private, in that year was 531 including 20 Arts colleges, 89 secondary schools, 311 primary schools and 131 other special schools. The expenditure on education was 18·06 lakhs of which 6·22 lakhs was met from Provincial funds, ₹11,000 from municipal funds and 8·16 lakhs from fees.

#### Medical.

The chief hospitals are the Medical College, Eden, Ezra, Syama Charan Law Eye, Presidency General, Campbell, Police, Sambhu Nath Pandit and Dufferin Victoria Hospitals, the Mayo Native Hospital with 3 dispensaries and the Chandney Hospital attached to it, and the Kidderpore Municipal and Dockyard Dispensaries. Of these the Dufferin Victoria Hospital and the Eden Hospital are for women only. The Medical College Hospital was originally started in 1838 with only 30 beds. It was very largely attended and, the accommodation having soon been found quite insufficient, an enlarged building was opened on the present site in 1852. The Eden or lying-in Hospital, the Ezra Hospital for Jews, and the Eye Infirmary were subsequently added to it. The Presidency General Hospital for Europeans dates from about the middle of the 18th century. The central block was purchased by Government in 1768 and two wings were added in 1795. The foundation-stone of a new block was laid in 1898. This is one of the best hospitals in India; it contains (1903) accommodation for 233 patients, and has been provided with all modern requirements and conveniences. The Campbell Hospital, started in 1867, is the largest hospital in India and has accommodation for 752 patients. The Police Hospital with a capacity of 211 beds was opened in 1865 for the treatment of the members of the Calcutta Police. The Mayo Native Hospital, the successor of the old Chandney Hospital, contains



105 beds and was opened in 1874. The number of patients treated in these institutions during the year 1903 was 274,000 of whom 25,000 were in-door and 248,000 out-door patients. Of these 163,000 were men, 51,000 women and 59,000 children. These charities are mainly dependent on Government for their support. In 1903, out of a total income of 9.15 lakhs, Government gave 6.39 lakhs ; 1 lakh was supplied from local funds ; the Corporation contributed ₹46,000 ; interest on investments amounted to ₹25,000, while only ₹7,000 was subscribed, the balance being made up from fees from paying patients. Government therefore paid 71 per cent. of the entire cost. There are also two Lunatic Asylums entirely under Government control, while a Leper Asylum has lately been erected.

Vaccination is compulsory and is controlled by the Health Vaccination. Department of the Corporation. In 1903-04, 22,492 persons were vaccinated.

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## CAWNPORE.

Administrative head-quarters of the Cawnpore District, United Provinces, lying on the right bank of the river Ganges, 120 miles above its junction with the Jumna at Allahābād, in  $26^{\circ} 28' N.$  and  $80^{\circ} 21' E.$ ; distance by rail to Howrah 684 miles and to Bombay 839 miles. The city is the third largest in the United Provinces and is increasing rapidly. Population: 1872, 122,770; 1881, 151,444; 1891, 188,714; and 1901, 197,170, including cantonments (24,496). In the eighteenth century it was a mere village known as Kanhai-yāpur or Kanhpur, of which the present name is a corrupted spelling. Following the British victories in 1764-65 at Buxar and at Jājman, west of Korā, a treaty was made at Fyzābād in 1773 with the Nawāb Wazīr of Oudh, Shujā-ud-daula, who allowed the British to occupy two stations in his territories with troops. The places first selected were Fatehgarh and a site in the Hardoi District; but in 1778 the troops were moved from the latter place to Cawnpore, and in 1801 the District with others was ceded by the Nawāb. Like Calcutta, the city, which is now the most important trade centre in upper India, owes everything to British influence. The population in 1901 included 144,123 Hindus, 47,949 Musalmāns, and about 4,000 Christians, of whom nearly 3,000 were Europeans or Eurasians. The civil lines and cantonments stretch for several miles along the river bank, and separate the native city from it. The latter is of mean appearance and consists of a maze of narrow winding streets.

The Mutiny.

In 1857 Cawnpore was the scene of several of the most terrible episodes of the Mutiny. The native garrison included a company of artillery, a regiment of cavalry, and three of infantry, while there were only 200 British troops. Inflammatory rumours had already spread before the outbreak at Meerut on May 9th, and the news of that disturbance increased them. On the 20th, General Wheeler telegraphed to Lucknow for reinforcements; but Sir Henry Lawrence could only spare 50 men. The General then appealed to Dundu Pant, adopted son of the last Peshwā, who was living at Bithūr 12 miles away and who had a grievance against the British Government owing to Lord Dalhousie's refusal to recognise his succession to the late Peshwā's title. Dundu Pant, more familiarly known as the Nāna Sāhib, brought in 300 horse and foot and two guns. Before the end of May an



entrenchment was prepared consisting of a shallow trench and miserable parapet four or five feet high, surrounding two long single-storeyed barracks, the whole enclosure\* being but 200 yards square. On June 2nd the 50 men who had come from Lucknow were sent back with 50 more of the Cawnpore garrison. During the night of June 4th, the outbreak began with the departure of the cavalry regiment followed by the 1st Infantry, and the next day the other two regiments followed. In no case were the European officers injured and a few men of all the regiments, mostly native officers, joined the English in their entrenchments. The sepoys, after plundering the treasury and houses in the civil station and opening the jail, had started for Delhi; but on the 6th the Nāna, who had thrown off his too successful pretence of friendship, persuaded them to return. The European entrenchment contained between 750 and 1,000 persons, of whom 400 were men able to bear arms. On the 7th, the besiegers, who were subsequently reinforced and had as many as 12 guns, opened their attack in earnest; but in spite of three general assaults on June 12th, 18th, and 23rd, the failing stores and difficulty in obtaining water, the defenders still held out. The Nāna then decided to have recourse to stratagem. He promised that our forces should be allowed to march out with arms, that carriages should be provided for those who could not march and for the women and children, and that boats properly victualled should be ready at the Sati Chaura *Ghāt* to convey everybody to Allahābād. On the other hand the entrenchments, treasure, and artillery were to be given up. Early on June 26th the evacuation began. Though every detail of the coming massacre had been carefully prepared and the fatal *ghāt* was surrounded by armed men and guns, the mutineers could not restrain themselves, and victims began to fall before they had entered the ambussade. The majority were, however, allowed to embark, when a bugle sounded just as the boats were ready to start. For twenty minutes grape and bullets hailed on the boats, and then only did the enemy venture to come to close quarters. Every man caught was killed, and the women and children were taken to the Savāda Kothī, where their number were shortly increased by the inmates of a boat which had got away, but was subsequently captured. In the meantime Havelock had been advancing up the Grand trunk road, and he defeated the Nāna's brother and entered

\* A Memorial church now stands near the site of the entrenchment.

Rājputāna and Central India on the west, and the Districts north of the Gogra and Bihār and Bengal on the east, meet here. A net work of sidings also connects these lines with the leading factories in the place. In the last ten years imports have increased by about 2,000,000 maunds and exports by 3,000,000, or by 30 to 40 per cent. in each case. Cawnpore, however, is not only a collecting and distributing centre for raw products, such as cotton, food-grains, oilseeds, salt, saltpetre, sugar, and foreign manufactured goods; it has also become a great manufacturing town. In 1869 the Elgin Cotton Spinning and Weaving Mills were founded by a company and subsequently purchased by a private individual. Since then three other mills have been opened by companies, the Muir Mills in 1875, the Cotton Mills, Limited, in 1882, and the Victoria Mills in 1887. The nominal capital in 1901 was Rs 66,00,000, excluding the Elgin Mills, and there were 2,349 looms and 226,370 spindles at work, employing 6,481 persons daily. The next industry to be organized in factories was tanning, and it has now become of even greater importance than cotton. In upper India tanning is the traditional occupation of Chamārs, who are also day-labourers and formed a large proportion of the early population of the town. A Government Harness and Saddlery Factory—opened on a small scale soon after the Elgin Mills commenced operations—now employs 2,000 to 2,500 hands, and turns out goods valued at 30 lakhs annually. A still larger concern is the Army Boot and Equipment Factory, owned by a private firm and employing over 3,000 persons daily. In 1903, the three large tanneries inspected under the Factory Act employed 4,915 persons daily, and including small native works it was estimated that the capital involved exceeded 45 lakhs, and about 10,000 hands were employed. Military requirements have been furnished not only throughout India, but to troops sent from England to Egypt, China, and South Africa, while the boots and shoes manufactured here are also sold in the Straits Settlements and in South Africa. The chief tanning material is the bark of the *babul* tree which is found all over the Doab. A woollen mill was opened in 1876, which has developed from a small blanket manufactory into a large concern with a capital of 20 lakhs, employing 1,500 hands and using 300 looms and 13,100 spindles, while the outturn consists of every class of woollen goods, valued at 17 lakhs. The other factories in Cawnpore include a sugar mill where rum is also manufactured, a jute mill, 7 cotton gins and presses, a tent factory, two flour mills,



a brush and cabinet-making factory, two iron foundries, a tape factory, and chemical works. There is a small, but increasing, native industry in cheap cutlery. The total capital sunk in manufacturing enterprise is estimated at one million sterling, and more than half the inhabitants of the city are directly dependent on it. It must be pointed out that the manufactures of cotton, wool, leather, flour, and sugar, referred to above, were all assisted materially in the first place by Government contracts for army purposes; but although their establishment without such aid would have been difficult, they could now, almost without exception, be maintained independently of the official market.

The Upper India Chamber of Commerce was founded at Cawnpore in 1889, and now represents practically every European commercial firm and manufacturing concern of consequence in the United Provinces and the Punjab. The Association takes as its object the general welfare and interests of trade and commerce, and has supplied a want which would otherwise have been greatly felt. It has now decided to move the Allahābād Currency Office to Cawnpore.

The principal educational institution is Christ Church College, maintained by the Society for the Propagation of the Gospel Mission. It was founded as a High School in 1860 and affiliated to the Calcutta University in 1866. It is now affiliated to Allahābād and was raised to the first grade in 1896. In 1904 the number on the rolls was 106. The same Mission also manages an industrial school, which includes a carpenter's shop and brass foundry. The municipality maintains 10 schools and aids 12 others, with a total attendance of 1,046. A large experimental farm, with an agricultural school at which *kārunḡos* are trained, is situated in the old civil lines, north of the city. There are 24 printing presses and three weekly and four monthly newspapers, none of which is of much importance.

Education.

(Valuable information on the trade of Cawnpore has been obtained from a note by the late Mr. W. B. Wishart, Secretary to the Chamber of Commerce.)

the Cawnpore District on July 15th. The same night five men armed with swords entered the Bibighar, to which the women and children had been removed, and hacked and slashed till all were left for dead. Next morning the bodies of the dead and a few children who had survived, were thrown into a well in the compound. The well is now surrounded by a stone screen, and over it is a pedestal on which stands a marble figure of an angel by Marochetti. A large area round it was enclosed at the expense of the town, and is called the Memorial Garden. Cawnpore was occupied by Havelock on July 17th, and was held till the end of November, when the Gwalior Contingent got possession of it for ten days. It was recovered on December 6th by Sir Colin Campbell on his return from Lucknow. Since the Mutiny the most serious event has been the riot of April 1900. Two or three cases of plague had happened, and several patients had been segregated. A mob of the lowest classes of the people, led by ringleaders of better circumstances, attacked the plague huts and murdered six policemen and a *tahsil chaprasi*. There is reason to believe that some of these were thrown alive into the burning thatch. The rioters then proceeded to the parade-ground and were dispersed by troops who fired on them. Seven of the ringleaders were hanged and a punitive force of police was quartered in the city for a year.

#### Municipality.

Cawnpore has been a municipality since 1861. During the ten years 1892—1901, the average income was 5·6 lakhs and the average expenditure 5·5 lakhs; but the income includes loans from Government, amounting to 14½ lakhs, in the decade. Owing to its position as a trading centre, octroi was not levied here for many years, the chief receipts being derived from a license tax on trades and professions, and from the rents of escheated lands within the municipality, which are under the management of the municipal board. In 1892, octroi was introduced, but two years later it was replaced by a terminal tax on both imports and exports, which now produces about half of the total municipal receipts. In 1903-04, out of a total income of 5·3 lakhs (excluding a loan of 10 lakhs), the principal receipts were, terminal tax, 1·9 lakhs, tax on professions and trades, ₹60,000, house tax, ₹59,000 and rents, ₹35,000. The expenditure of 11·3 lakhs included general administration, ₹19,000, collection of taxes, ₹22,000, public works, ₹91,000, conservancy, 1·4 lakhs, repayment of loans with interest 3·9 lakhs, besides capital expenditure of 2·3 lakhs and plague charges ₹17,000.

A system of water-works was completed in 1894 at a cost of 14½ lakhs, and the annual charges for maintenance amount to about R68,000, while the income from sale of water is R27,000. The works supply the whole town with potable water drawn from the Ganges and filtered before distribution; standposts are situated in all parts for public use, and the daily supply amounts to about 10 gallons per head, about one-seventh being taken by a few of the largest mills. A drainage scheme which was much needed is now being carried out, and the house tax was especially imposed to meet the extra charges that will be necessary. Main sewers are complete, and the branches are nearly finished. The initial cost of the scheme was for the first time in the United Provinces met from a loan raised in the open market. Refuse is removed from the city by a steam tramway, the only one of its kind in the Provinces, and incinerators have been erected to consume it. An electric tramway has been sanctioned to run for about 4 miles through the town. The average receipts of the cantonment fund in the 10 years ending 1901 were R50,000 and the expenditure R48,000. In 1903-04, the income and expenditure were R60,000 and R68,000, respectively. The ordinary garrison in the cantonment consists of British infantry and artillery, and native infantry and cavalry.

While Cawnpore first became of importance as a military <sup>Tale.</sup> cantonment, its subsequent growth has been the result of alterations in trade routes dating from its connection by rail with Calcutta in 1863. When the demand for cotton arose during the American War, it was easiest to send it from Bundelkhand to the railway at Cawnpore. The strain on Cawnpore was difficult to meet. Lands covered with the mud huts of camp-followers were hastily taken up by the authorities. Commissariat elephants were brought out to push down the frail erections in order to clear space for the storage of the bales of cotton, which, piled up level with the roofs, had been blocking every lane in the city. At the same time the ordinary country produce of the Doab and of Oudh began to pour in here instead of passing by along the river. The trade which thus had its origin in the alignment of a railway has been immensely increased by the later development of the railway system of upper India. In addition to the East Indian Railway, the Oudh and Rohilkhand and the Indian Midland broad-gauge systems pass through Cawnpore, providing through communication with the northern part of the Provinces and with Bombay, while the narrow gauge lines traversing

## DARJEELING.

Administrative head-quarters of Darjeeling District, Bengal, situated in the lower Himalayas in  $27^{\circ} 3' \text{ N.}$  and  $88^{\circ} 16' \text{ E.}$ , 379 miles from Calcutta by rail. The name Darjeeling (*Rdo-rje-gling*) means the place of the "*dorje*," the mystic thunderbolt of the Lāmaist religion, and is connected with the cave on Observatory Hill, which was a sacred spot prior to the British occupation of the country, and above which once stood the monastery which has since been removed to a site lower down the hill. At the census of 1901 the population of the town with the two cantonments of Darjeeling and Lebong was 16,924, of whom 10,271 were Hindus, 4,437 Buddhists, 1,132 Christians, and 1,049 Musalmāns. The number of inhabitants during the summer months is much greater and a special enumeration effected in September 1900, disclosed a population of 23,852. Darjeeling was acquired by the British Government in 1835 as a sanitarium, and it soon became a favorite summer retreat for the officials of lower Bengal and their families. It is now the summer head-quarters of the Lieutenant-Governor of Bengal, and also of the Commissioner of the Rājshāhi Division. It occupies a long narrow ridge descending abruptly to the bed of the Great Rangit river. The highest and lowest points within the limits of the town are about 7,800 feet and 6,000 feet respectively. In 1872, before the days of the railway, the population numbered only 3,157, but during the next nine years it increased by more than 100 per cent., and it doubled again between the years 1881 and 1891. Since 1891 its growth has been less rapid, as most of the available building sites have been already taken up and built upon. Moreover, the disastrous landslips of 1899 caused a temporary check to its development. These were caused by a violent cyclone with heavy rainfall, which visited the District in September 1899. On the 23rd, a heavy thunderstorm broke in Darjeeling about 1-30 P.M., and for three hours the rain descended in torrents. A lull ensued till about 8 o'clock, and then the cyclone burst in all its fury. The storm raged the whole of the night of the 23rd, and all the next day and night, without the slightest intermission till about 3-30 in the early morning of the 25th. No less than 5-30 inches of rain fell during the 24 hours ending at 8 o'clock



on the morning of the 24th, and 19·40 inches before 4 A.M. of the following day. Most of the landslips occurred on the east of the town, where the hill-side is very precipitous. These overwhelmed many houses, and roads and pathways were broken away in many places by the constant stream of mud, water and stones down the hill sides. Seventy-two lives were lost. The station also suffered much damage in the great earthquake of 1897, when many houses were injured and a few were entirely wrecked ; three lives were lost by the fall of boulders from the hill sides.

The local trade of Darjeeling is practically confined to Commerce. supplying the want of European inhabitants and of the tea plantations. A considerable trade is carried on by the hillmen with residents and visitors in China cups, turquoise, coral and amber ornaments, jade and agate cups and beads, prayer wheels, bells, amulets and other curiosities illustrative of Buddhist monastic life, as well as *kukris*, Bhotiā and Lepchā knives, Nepālese brass work, etc. The Darjeeling shopkeepers deal mostly in European piece-goods, stores, glass, hardware and crockery.

The Darjeeling municipality was constituted in 1850, and at first coincided with the tract of 138 square miles ceded by the Sikkim Rājā ; it is now restricted to the station itself with the two cantonments of Darjeeling and Lebong, covering an area of 4·85 square miles, and is governed by a special Act (Bengal) I of 1900. The Committee consists of 25 members nominated by Government with the Deputy Commissioner as *ex-officio* Chairman. The average income for the decade ending in 1901-02 was 2·19 lakhs, and the expenditure 1·72 lakhs. In 1903-04, R48,000 was derived from a tax on houses and lands, R19,000 from a water rate, R29,000 from a lighting rate, R23,000 from a conservancy rate, R42,000 as ground rents from leases of Government property within the town, and R9,000 as fees from the municipal market. The incidence of taxation was heavier than in any other town in Bengal, being R7-2-10 per head of the population. In the same year R27,000 was spent on lighting, R98,000 on water-supply, R47,000 on conservancy, R10,000 on medical relief, R14,000 on roads, R4,000 on buildings, R5,000 on drainage, and R1,000 on education. A loan of 1·65 lakhs has been obtained from Government for the improvement of the water-supply. An electric light installation was introduced in 1897 at a cost of 1·31 lakhs, which supplies the streets and some of the houses ; an additional grant of R10,000 was made from Municipality.

## DELHI.

A city in the Delhi District, Punjab, head-quarters of the Delhi Division, District and tahsīl, and former capital of the Mughal empire. It is situated by rail in  $28^{\circ}39'N.$  and  $77^{\circ}15'E.$  on the west bank of the Jumna, distant by rail from Calcutta 956 miles, from Bombay 982 miles, and from Karāchi 907 miles. The population at the last three enumerations was : 1881, 173,393 ; 1891, 192,579 ; and 1901, 208,575 ; the increase in the last decade is greatly due to the development of mill industries. The population in 1901 included 114,417 Hindus, 88,460 Muhammadans, 3,266 Jains, 2,164 Christians and 229 Sikhs.

### History.

The point where the northernmost spur of the Arāvalli hills abuts on the Jumna has perhaps from the remotest times been the site of one great city after another. First of these is the city of Indraprastha, founded, according to the tradition preserved in the Mahābhārata, by the Pāndava chief Yudisṭhira, at a date which, as Sir Alexander Cunningham believed, cannot be later than the 15th century B. C. Indraprastha was, however, only one of the five *prasthas* or 'plains' which included Sonapat, Panipat, Pilpat and Baghpat. Ferishta has preserved a tradition that Delhi or Dillī was founded by a Rājā Dihtu before the Macedonian invasion, but as a historical city Delhi only dates from the middle of the 11th century A. D., when Anangapāla, a Rājput chief of the Tomāra (Tunwara) clan, built the Red Fort, in which the Kutab Minār now stands, and founded a town. He also removed the famous iron pillar on which are inscribed the eulogies of Chandragupta Vikramaditya from Muttra and set it up in 1052 as an adjunct to a group of temples. This remarkable relic consists of a solid shaft of metal 16 inches in diameter and about 23 feet in height, set in masonry, some 3 feet of it being below the surface. Tradition indeed asserts that a holy Brahman assured the Rājā that the pillar had been driven so deeply into the earth that it reached the head of Vasuki, the serpent king who supports the world, and consequently had become immovable, whereby the dominion was as ensured for ever to the dynasty of its founder, so long as the pillar stood. The incredulous Rājā ordered the monument to be dug up, when its base was found reddened with the blood of the serpent king. Thus convinced, Anangapāla at once commanded that the shaft should be sunk again

in the earth; but as a punishment for his want of faith, it appeared that no force could restore it to its place as before. Hence the city derived its name Dhili, from the fact that the column remained loose (*dhila*) in the ground. Unfortunately for the legend, not only does the inscription prove its falsity, but the name of Dilli is undoubtedly earlier than the rise of the Tomāra dynasty.

Anangapāla, who seems to have come from Kanauj, ruled a petty principality, extending to Hansi on the north, the Ganges on the east and Agra on the south. His dynasty lasted just a century, until 1151, when it was supplanted by Visala-dara or Bisaldeo, a Chauhān chief of Ajmer. Bisaldeo's grandson, the famous Prithvi Rāj or Rai Pithora, ruled both Delhi and Ajmer and built the city which bears his name at the former place. The walls of this city may still be traced for a long distance round the Kutab. From Delhi Rai Pithora, in 1191, led his Hindu vassals and allies to defeat Muhammad of Ghor at TURAWARI, but in the following year he met with a decisive overthrow at that place. With his death the history of Hindu Delhi ends. In 1193 Kutab-ud-din, Muhammad's slave general, took Delhi and on his master's death in 1206, it became the capital of the Slave Dynasty to whom old Delhi owes its grandest ruins. Kutab-ud-din's mosque was commenced, according to the inscription on its entrance archway, immediately after the capture of the city in 1193. It was completed in three years, and enlarged during the reign of Altamsh, son-in-law of the founder, and the greatest monarch of the line. This mosque consists of an outer and inner courtyard, the latter surrounded by an exquisite colonnade, whose richly decorated shafts have been torn from the precincts of earlier Hindu temples. Originally a thick coat of plaster concealed from the believer's eyes the profuse idolatrous ornamentations; but the stucco has now fallen away, revealing the delicate workmanship of the Hindu artists in all its pristine beauty. Eleven magnificent arches close its western façade, Muhammadan in outline and design, but carried out in detail by Hindu workmen, as the intricate lace-work which covers every portion of the arcade sufficiently bears witness. Ibn Batūta, the Moorish traveller, who was a magistrate in Delhi, and saw the mosque about 150 years after its erection, describes it as unequalled either for beauty or extent. The Kutab Minār, another celebrated monument of the great Slave king, stands in the south-east corner of the outer courtyard of the mosque. It

Provincial funds in 1903-04 towards the improvement of the installation.

**Public buildings.**

The chief public buildings are the Shrubbery, the residence of the Lieutenant-Governor of Bengal, built in 1879; the Secretariat offices, built in 1898; the Eden Sanitarium, the Lowis Jubilee Sanitarium, St. Andrew's Church, the Wesleyan Chapel, the Scots' Kirk, the Roman Catholic Convent and Chapel, St. Paul's School, St. Joseph's College, and the barracks at Katāpahār, Jālāpahār and Lebong. Two gardens, Lloyd's Botanical gardens and the Victoria Pleasaunce, are open to the public.

**Army.**

The Darjeeling cantonment, which is above the town, comprises JALAPAHAR and Katāpahār. At Katāpahār are Artillery barracks which at present accommodate a battery of Field Artillery and a company of Garrison Artillery during the summer. Jālāpahār is a convalescent depôt and contains accommodation for 400 men. The LEBONG cantonment below Darjeeling is occupied by a British Infantry Regiment.

The head-quarters of the Northern Bengal Mounted Rifles are at Darjeeling; the force consists of 6 companies with head-quarters at Kurseong, Jalpaiguri, Dām-Dim, Nāgrakot, Alipur-Duars and Purnea, 3 companies of cadets and one reserve company. Its total strength (1903-1904) is 510 of all ranks.

**Jail.**

The District jail at Darjeeling has accommodation for 132 prisoners. The bakery, from which bread is supplied to the troops and to the general public, constitutes the chief industry; oil-pressing, bamboo and cane work, carpentry, boot and shoe-making are also carried on, and bees are hived.

**Education.**

The chief educational institutions are St. Paul's school for the sons of Europeans and East Indians, established at Calcutta in 1845 and removed to Darjeeling in 1864, and St. Joseph's Roman Catholic College, founded at Sunny Bank in 1888 but transferred to the present buildings at North Point in 1892. In 1903-04 there were 213 pupils at St. Joseph's college and 96 at St. Paul's school; the latter received from Government a high school grant of R1,800 and an attendance grant of R3,850. Other schools for European and Eurasian education are the Diocesan girls' school with 85 pupils which is assisted by an annual Government grant of R3,600, and the Loretto Convent school with 170 pupils. New buildings have recently been erected for the Diocesan girls' school which accommodate 100 pupils; the present constitution of the school in its relation to the Clewer Sister-



hood dates from 1895. The Darjeeling High school is open to all natives; the students numbered 280 in 1901, of whom 49 were Bhotiās and 3 Lepchās. Bhotiās and Lepchās who do not intend to read for University examinations are educated free, and are trained chiefly as explorers, interpreters and surveyors. Attached to the school is a boarding house with accommodation for 7 Bhotiās and Lepchās, which is maintained with the help of a Government grant of ₹750 a year.

The most important medical institution is the Eden Jubilee Medical Sanitarium which was opened in 1883, and provides accommodation for 86 sick and convalescent persons; it is self-supporting. A new hospital in connection with it, built at a cost of ₹20,000 and opened in 1901, contains an excellent operating theatre of the most modern type, and provides accommodation for 6 patients and 2 nurses. The Lewis Jubilee Sanitarium for natives, which was opened in 1887, contains accommodation for 99 persons; the main building and the land were given by the Mahārājā of Cooch Behār. The town also contains a dispensary with 38 beds: 7,000 patients were treated in 1903, of whom 444 were in-patients; the expenditure in that year was ₹45,000, of which ₹37,000 was spent on buildings. The income was ₹50,000, of which ₹12,000 was a special grant from Government, ₹9,000 each was contributed by local and municipal funds, and ₹16,000 by subscriptions.

risers to a height of 238 feet tapering gracefully from a diameter of 47 feet at the base to nearly 9 feet at the summit. The shaft consists of five storeys, enclosing a spiral staircase, and was crowned by a now broken cupola, which fell during an earthquake in 1803. The original purpose of the minaret was doubtless as a *muazzan's* tower, whence the call to morning and evening prayer might be heard throughout the whole city. The site chosen for the mosque was that already occupied by the iron pillar, which forms the centre ornament of the inner courtyard. Around in every direction spreads a heap of splendid ruins, the most important of which are the tomb of Altamsh and the unfinished minaret of Alā-ud-dīn, commenced in 1311.

During the reign of the Slave kings, a Queen, for the only time in its history, sat on the throne of the Muhammadan empire of Delhi. As the patriot Hungarians, in the annals of modern Europe, drew their swords for *Rea Maria Theresa*, so her subjects gave to Queen Razziya the masculine title of *Sultān*.

The Slave Dynasty retained the sovereignty till 1290, when Jalāl-ud-dīn, the Khilji, founded a new line. During the reign of his nephew and successor, Alā-ud-dīn, Delhi was twice unsuccessfully attacked by Mughal hordes, who swept into the country from Central Asia.

In 1320, the house of Tughlak succeeded to the empire; and Ghiyās-ud-dīn, its founder, erected a new capital, Tughlak-ābād, on a rocky eminence 4 miles further to the east. Remains of a massive citadel, and deserted streets or lanes still mark the spot on which this third metropolis arose; but, no human inhabitants now frequent the vast and desolate ruins. Ghiyās-ud-dīn died in 1325, and was succeeded by his son Muhammad Tughlak, who thrice attempted to remove the seat of government and the whole population from Delhi to Daulatābād (*Deogiri*) in the Deccan—more than 800 miles away. Ibn Batūta gives a graphic picture of the desolate city, with its magnificent architectural works, and its bare, unpeopled houses. Firoz Shāh Tughlak once more removed the site of Delhi to a new town, Firozābād, which appears to have occupied all the ground between the tomb of Humāyūn and the Ridge. Amid the ruins of the prince's palace, just outside the modern south gate, stands one of the famous pillars originally erected by Asoka, the great Buddhist emperor, in the 3rd century B. C. This monolith, 42 feet in height, is known as Firoz Shāh's *lāt* or pillar as it was brought by him

from Topra near Khizrābād in the District of Ambāla. It is composed of pale pink sandstone, and bears a Pāli inscription, first deciphered by Mr. Prinsep.

In December 1398, while rival claimants of the house of Tughlak fought for the remnants of the kingdom, the hordes of Timūr reached Delhi. Mahmūd Shāh II, the nominal king, fled to Gujarāt, after his army had suffered a defeat beneath the walls, and Timūr, entering the city, gave it over for five days to plunder and massacre. Dead bodies choked the streets; and when at last even the Mughal appetite for carnage was satiated, the host retired, dragging with them into slavery large numbers both of men and women. For two months Delhi remained absolutely without government; until Mahmūd Shāh recovered a miserable fragment of his former empire. In 1412, he died and his successors the Saiyid vassals of the Mughals, held Delhi, with a petty principality in the neighbourhood, until 1447, when the Lodi dynasty succeeded to the Muhammadan empire. In 1503, Sikandar II made Agra the capital of the empire, but Delhi retained much of its former importance. After his defeat of Ibrāhīm II, the last of the Lodis, at Pānipat, Bābar entered Delhi in 1526, but resided mainly at Agra. Humāyūn removed to Delhi, and built or restored the fort of Purāna Kila on the site of Indraprastha. The Afghān Sher Shāh, who drove out Humāyūn in 1540, enclosed and fortified the city with a new wall. One of his approaches, known as the Lal Darwāza or Red Gate, still stands isolated on the roadside facing the modern jail. The fortress of Salimgarh preserves the name of a son of Sher Shāh. Humāyūn's tomb forms one of the most striking architectural monuments in the neighbourhood. Akbar and Jahāngir usually resided at Agra, Lahore, or Ajmer. Shāh Jahān rebuilt the city on its present site, surrounding it with the existing fortifications and adding the title of Shāhjahānābād from his own name. He also built the Jāma Masjid, and reopened the Western Jumna Canal. From his time Delhi remained the head-quarters of the Mughal emperors. In 1736, during the reign of Muhammad Shāh, the Marāthās first appeared beneath the walls of Delhi. Two years later, Nādir Shāh entered the city in triumph and re-enacted the massacre of Timūr. For 58 days the victorious Persian plundered rich and poor alike, and left the city with a booty estimated at £9,000,000. Before the final disruption of the decaying empire in 1760, the unhappy capital was twice devastated by civil war, sacked by Ahmad

Shāh Durrani; and finally spoiled by the rapacious Marāthās. Alamgir II, the last real emperor, was murdered in 1760. Shāh Alam, who assumed the empty title, could not establish his authority in Delhi, which became the alternate prey of Afghan and Marāthās until 1771, when the latter party restored the phantom emperor to the city of his ancestors. In 1788, a Marāthā garrison permanently occupied the palace, and the king remained a prisoner in the hand of Sindhia until the British conquest. On March 14th, 1803, Lord Lake, having defeated the Marāthās, entered Delhi, and took the king under his protection. Next year, Holkar attacked the city; but Colonel, afterwards Sir David Ochterlony, first British Resident, successfully held out against overwhelming numbers for 8 days, until relieved by Lord Lake. The conquered territory was administered by the British in the name of the emperor, while the palace remained under His Majesty's jurisdiction.

The story of the Mutiny at Delhi and of the restoration of British sovereignty, belong rather to Imperial than local history. Delhi was recovered in September 1857, and remained for a while under Military Government; and it became necessary, owing to the frequent murders of European soldiers, to expel the population for a while from the city. Shortly after, the Hindu inhabitants were freely re-admitted; but the Muhammadans were still rigorously excluded, till the restoration of the city to the civil authorities, on January the 11th, 1858.

Delhi has on two occasions since the Mutiny been the scene of Imperial Assemblages; in 1877, when Queen Victoria was proclaimed Empress of India, and in 1903 to celebrate the accession of Edward VII.

The modern city of Delhi extends for over two miles along the west bank of the river Jumna, and on the other three sides is enclosed by a stone lofty wall  $3\frac{1}{2}$  miles in length built by the emperor Shāh Jahān and re-constructed by the British at the beginning of the last century. It was once entered by 14 gates, 8 on the land side and 6 leading to the river; but many of these have now been removed. Of those that remain, the principal are—on the north the Kashmir Gate, on the west the Farāsh Khāna and Ajmer gates, and on the south the Delhi Gate. The imperial palace, now known as 'the fort,' lies to the east of the city, and abuts directly on the river. It is surrounded on the other three sides by an imposing wall of red sandstone, with small round towers, and gateways on the west and south.

Modern  
Delhi.

On the north-east of the fort is the out-work of Salimgarh. At this point the East Indian Railway enters the city by a magnificent bridge across the Jumna passing over Salimgarh and through a corner of the fort to the railway station within the city walls. North-west of the fort, up to the Kashmir Gate, lies an open space in which are situated the public offices and St. James' Church. South of this and separated from it by the railway line, lies another open space devoted to the public gardens, and in the south-east corner of the city, in the quarter known as Darya Ganj, is the cantonment. The whole area thus occupied covers nearly one-half of the entire city ; it presents a comparatively open appearance, and forms a marked contrast to the south-west quarter of the town which is densely occupied by the shops and dwellings of the native population.

The architectural glories of Delhi are famous alike in Indian and European literature. It is impossible in a brief notice like the present to attempt any adequate description of them. They are described in Mr. Fergusson's *History of Indian and Eastern Architecture* (1876) in Mr. Fanshawe's *Delhi Past and Present* (1902) and in many other works. The palace of Shāh Jahān, perhaps less picturesque and more sober in tone than that of Agra, has the advantage of being built on a more uniform plan, and by the most magnificent of the royal builders of India. It forms a parallelogram, measuring 1,600 feet east and west by 3,202 feet north and south, exclusive of the gateways. Passing the deeply recessed portal, a vaulted hall is entered, rising two storeys, 375 feet long, like the nave of a gigantic Gothic cathedral—"the noblest entrance," says Mr. Fergusson, "to any existing palace." Facing this entrance is the Naubat Khāna or music hall beyond which is the great court of the palace in the middle of which stands the *Diwān-i-Am* or hall of public audience. Behind this again is a court containing the Rang Mahal or Painted Chamber. North of this central range of buildings stands the *Diwān-i-Khās* or private audience hall which forms, "If not the most beautiful, certainly the most ornamented of all Jahān's buildings." It overhangs the river and nothing can exceed the delicacy of its inlaid work or the poetry of its design. It is on the walls of this hall that the famous inscription ran, "If there is a heaven on earth, it is this—it is this !" South of the central range of buildings an area, measuring about 1,000 feet each way, was occupied, says Mr. Fergusson, by the harem and private apartments of the

palace, covering, consequently, more than twice the area of the Escorial or, in fact, of any palace in Europe.

The buildings in the native town are chiefly of brick, well-built and substantial. The smaller streets are narrow and tortuous, and in many cases end in *culsdesac*. On the other hand, no city in India has finer streets than the main thoroughfares of Delhi, 10 in number, thoroughly drained, metalled, and lighted. The principal thoroughfare, the Chāndni Chauk or Silver Street, leads eastwards from the Fort to the Lahore Gate, three quarters of a mile long by 74 feet broad. Throughout the greater part of its length, a double row of trees runs down its centre on both sides of a raised path, which has taken the place of the masonry aqueduct that in former days conducted water from the canal into the palace. A little to the south of the Chāndni Chauk is the Jāma Masjid, or great mosque, standing out boldly from a small rocky rising ground. Begun by Shāh Jahān in the fourth year of his reign and completed in the tenth it still remains one of the finest buildings of its kind in India. The front courtyard, 450 feet square, surrounded by a cloister open on both sides, is paved with granite inlaid with marble and commands a view of the whole city. The mosque itself, a splendid structure forming an oblong 261 feet in length, is approached by a magnificent flight of stone steps. Three domes of white marble rise from its roof, with two tall and graceful minarets at the corners in front. The interior of the mosque is paved throughout with white marble, and the walls and roof are lined with the same material. Two other mosques in Delhi deserve a passing notice—the Kāla Masjid or black mosque, so called from the dark colour given to it by time, and supposed to have been built by one of the early Afghān sovereigns, and the mosque of Roshan-ud-daula. Among the more modern buildings of Delhi may be mentioned the Residency, the Town Hall, a handsome building in the Chāndni Chauk containing a Darbār Hall with a good collection of pictures, a Museum and Public Library, and the Church of St James built at a cost of £10,000 by Colonel Skinner—an officer well known in the history of the East India Company. About half way down the Chāndni Chauk is a high clock-tower. North of the Chāndni Chauk lie the Queen's Gardens. Outside the city walls the Civil lines stretch away on the north as far as the historic ridge, about a mile outside the town. To the west and south-west considerable suburbs cluster beyond the walls, containing the tombs of the

imperial family. That of Humāyūn is a noble building of red sandstone with a dome of marble. It lies about  $3\frac{1}{2}$  miles from the Delhi Gate in a large garden of terraces, the whole surrounded by an embattled wall, with towers and four gateways. In the centre stands a platform about 20 feet high by 200 feet square, supported by cloisters, and ascended by four great flights of granite steps. Above rises the mausoleum, also a square, with a great dome of white marble in the centre. A mile to the westward is another burying-ground, or collection of tombs and small mosques, some of them very beautiful. The most remarkable is perhaps the little chapel in honour of a celebrated Muhammadan saint, Nizām-ud din, near whose shrine the members of the Mughal imperial family, up to the time of the Mutiny, lie buried, each in his own little enclosure, surrounded by a very elegant lattice-work of white marble.

The palaces of the nobles, which formerly gave an air of grandeur to the city, have for the most part, disappeared. Their sites are occupied by structures of less pretension, but still with some elegance of architectural design. The city is now amply supplied with water, and much attention has of late been paid to cleanliness and sanitary requirements generally.

The Delhi municipality, created in 1850, is of the first class. It has 24 members, 12 nominated and 12 elected. The Deputy Commissioner is *ex-officio* president. The average income for the 10 years ending 1902-03 was Rs. 5,57,830 and the expenditure Rs. 5,53,200. Its income for 1903-04 was Rs. 6,50,889 and expenditure Rs. 5,80,564.

The occupations and industries of Delhi are numerous, and comprise jewellery, silversmith's work, brass and copper ware, ivory carving, pottery, weaving, gold and silver embroidery, miniature painting, etc. For centuries the jewellery of Delhi has had a worldwide reputation, but it is doubtful whether the productions of the present day are equal to those of Mughal times. Ivory carving is carried on very successfully by one or two families, and within recent years some very beautiful caskets and similar articles in this material have been produced. A feature of the Delhi work is the employment of geometric open work patterns which are carried out with a very high degree of finish. The pottery of Delhi is a kind of rough porcelain and has certain artistic qualities. It is a comparatively modern art, and is in the hand of only one or two craftsmen. An important industry is gold and silver

Arts and Manufactures.

embroidery, chiefly carried on by the dealers of the Chāndnī Chauk. Although the designs are now showing signs of European influence, good oriental patterns are still obtainable and the art is in a fairly flourishing condition. The manufacture of gold and silver wire to carry on this industry is an extensive one, and employs a large number of hands. These *kandla kashān* or wire drawers pay the municipality yearly ₹25,000, in return for which the municipality supervises the melting and blending of the metal in a central workshop, and thereby gives it a guarantee of purity whose value is undisputed throughout India.

Commerce  
and trade.

Delhi possesses a very considerable trade, though the continuation of the great North-western trunk railway on the eastern bank of the river has thrown it somewhat off the modern line of traffic. It derives importance as a trade centre at present owing to the fact that grain and piece-goods are free of octroi, and it still forms the main entrepôt for commerce between Calcutta or Bombay on the one side and Rājputāna on the other. The chief imports include indigo, chemicals, cotton, silk, fibres, grain, oilseeds, *ghi*, metals, salt, horns, hides, and European piece-goods. The exports consist of the same articles in transit together with tobacco, sugar, oil, jewellery and gold or silver lacework. Beyond the borders of the Province, Delhi merchants correspond with those of Jind, Kābul, Alwar, Bikaner, Jaipur and the Doāb; while with all the Punjab towns they have extensive dealings. European finance is represented by the Bengal, National, Delhi and London, Allahabad and Upper India Banks, and several cotton merchants have agents in the city. The great trade avenue of the Chāndnī Chauk, already described, is lined with the shops and warehouses of merchants, and is one of the chief sights of interest to the visitor at Delhi.

Education.

The principal educational institution was, until 1877, the Delhi College, founded in 1792, but abolished in 1877, in order to concentrate higher education in the Punjab University at Lahore. The chief school at Delhi is now the municipal high school with 6 branch schools; other high schools are the Anglo-Arabic, the Anglo-Sanskrit, St. Stephen's Mission School, and the Shāhzāda High School, maintained chiefly for poor descendants of the Mughal royal family. All these receive grants-in-aid. The city also has a normal school which trains vernacular teachers for primary schools, a municipal industrial school, the aided middle boarding schools for girls of the Baptist and Society for the Propagation of the Gospel missions, and a school for the Yūnāni system of native medicine.

## GWALIOR.

A decayed town formerly of great historical importance situated in  $26^{\circ} 13' \text{ N.}$  and  $78^{\circ} 10' \text{ E.}$ , at the foot of the famous fort of the same name. The name Gwalior is often applied, but quite erroneously, to the capital of the Mahārāja Sindhiā's dominions, of which the correct name is Lashkar (see *infra*). Gwalior proper was never the capital of Sindhiā's dominions, of which up to 1810, when the present capital was founded, Ujjain was considered the chief town.

Gwalior was in Akbar's day the chief town of one of the Sarkārs of the Suba of Mālwa. It was famous for its stone carving industry, which still survives, the manufacture of glazed tiles and jewellery, now lost arts, and its ironware made of metal smelted locally. Until the opening of the present Agra-Bombay high road Gwalior was also important as being one of the principal stages on the great route from the Deccan, which passed by Sironj, Narwar, Gwalior, and Dholpur, to Agra.

The old city is now a desolate looking collection of half empty, dilapidated, flat-roofed stone houses, deserted mosques and ruined tombs. Its population in 1859 was 33,792 persons; in 1881, 20,000; 1891, 15,766; 1901, 16,807; males 8,589, females 8,218. Constitution, Hindus 11,634, Musalmāns 4,902, Jains 271.

As it stands, the town is entirely Muhammadan in character, no old Hindu remains being traceable. It has one good main street, and in spite of its generally wretched appearance, contains several fine buildings. The Jama Masjid (or cathedral mosque), built of a fine red sand-stone, is a good example of the later Mughal style. The main building was erected in the time of Jahāngīr (1605-1627), a new end being added in 1665. The mosque of Khandola Khān, his tomb and that of his son Nazīrī Khān, as well as several other tombs are noticeable for the good stone ornamentation with which they are decorated; much of the pierced screen work being of unusual beauty.

To the east of the town stands the mausoleum of Muhammad Ghaus, a very fine example of early Mughal architecture. It is built in the form of a square with hexagonal towers at its corners, surmounted by small domes. The body of the

building is enclosed on all sides by carved stone lattices of elaborate and delicate design, the whole being surmounted by a large dome which was originally covered with blue glazed tiles. Shaikh Muhammad Ghaus, whose body lies within, was a well known personage in the sixteenth century. He was famous for his liberality, and also notorious among Muhammad-ans, for his broad minded views regarding "Infidels." He visited Akbar at Agra in 1558, but owing to the influence at court of a rival saint, who, the historian Badauni says, showed that "spirit of jealous spite and malice which is the peculiar property of the saints of Hindustan," he was ill received and in disgust retired into seclusion at Gwalior, where he died in 1562. Near to Muhammad Ghaus's tomb is that of Tān Sen the most famous singer India has ever had. It is an open structure supported by 12 outer pillars and 4 inner. Over it there formerly grew an *Imli* tree (*Tamarindus Indica*) the leaves of which, when chewed, were popularly supposed to endow the partaker with a most melodious voice, and were, in consequence, much sought after by dancing girls.

Just beyond the fort to the north stands a tall cusped Pathān gateway. Nothing but the gate remains, a conspicuous object from a long distance. The old fort is one of the most famous in India, "the pearl in the necklace of the castles of Hind" as the author of the *Tāj-ul-Maāsir* puts it. It stands on an isolated sand-stone hill, which towers 300 feet above the old town. It is one and three quarters of a mile long and 2,800 feet across at its widest part. The walls above the scarp are about 30 feet high. As seen from the north-east its aspect is most imposing "the long line of battlements which crown the steep scarp on the east is broken only by the lofty towers and fretted domes of the noble palace of Rājā Mān Singh. . . . At the northern end where the rock has been quarried for ages, the jagged masses of the overhanging cliff seem ready to fall upon the city beneath them. . . . Midway over all, towers the giant form of a massive Hindu temple, grey with the moss of ages." The fort has figured in Indian history since the eighth century, and may have been of importance long before that, as the date of its foundation is uncertain, while from the time of its capture by Kutab-ud-

din, in 1196, until 1858, it has been continuously the centre of war and tumult.

Tradition assigns the foundation of the fort to one Sūraj Sen, who was cured of leprosy by an ascetic named Gwālīpa, who inhabited the hill on which the fort now stands, and which was called Gwalior after him.

In inscriptions relating to the fort, however, it is called Gopāgiri, Gopādri and Gopāchala (the shepherd's hill) whence the modern Gwālher, Gwāliar and Gwalior.

The first historical holders of the fort of Gwalior were the Huna adventurers Toramāna and his son Mihkula who partially overthrew the Gupta power in the sixth century. An inscription belonging to this family was found in the fort. In the ninth century it was in the hands of Rājā Bhoja of Kanauj, whose record, dated A. D. 876, is on the Chaturbhūj rock cut temple. The Kachhwāha Rājputs were the possessors in the middle of the tenth century, and they appear to have continued to hold it, either as independent rulers, or as feudatories till 1129, when they were ousted by the Parihār Rājputs.

The Parihārs held possession until 1196, when the fort was taken for Sultān Muḥammad Ghori by Kutab-ud-dīn Aibak. Mahmūd of Ghazni had commenced an assault in 1021, but had been bought off. In 1210, during the rule of Kutab-ud-dīn's son, the Parihārs recovered it, and held possession until 1232 when it was captured by Altamsh, after a severe siege lasting 11 months, when 700 prisoners were "ordered to receive punishment at the door of the royal tent." It remained a Muhammadan possession till 1398 when, in the disturbances caused by Timūr's invasion, it was seized by the Tonwāra Rājputs. Though subjected to attacks in 1404, 1416 and 1429 the Tonwāras managed to retain their hold on it up to 1518, when it was surrendered to Ibrāhīm Lodi.

During the period of Tonwāra rule Gwalior rose to great eminence, especially in the long reign of Rājā Mān Singh (1486-1517). It was in his time that the magnificent

palace with its great gate, which crowns the eastern face of the rock was built, while under the direction of his favourite Gūjari queen Mrignaina, "the fawn-eyed," Gwalior became pre-eminent as the home of music, whence all the finest musicians of India came for long after. In Akbar's day out of 57 singers and players, 30 had learned in the Gwalior school, including the famous Tān-sen. In 1526 the fort passed to Bābar. In 1542 it fell to Sher Shāh Sūr, with whom it became a favourite resort, the remaining rulers of his dynasty practically making it the capital of their dominions.

In 1558 it fell to Akbar and remained a Mughal possession until the eighteenth century. During its possession by the Muhammadans it was used as a state prison. The cells now called the Nauchauki still exist near the "Dhonda" gate, to the west of the fort. Many members of the Delhi ruling house of the day have entered the fort, few ever to leave it. Political prisoners were disposed of by being made to drink a decoction of crushed poppy heads called *pust*. "This potion," says Bernier, "is generally given to Princes confined in the fort of Gouāleor whose heads the monarch is deterred by political reasons from taking off. This drug emaciates the wretched victims, who lose their strength and intellect by slow degrees, becoming torpid and senseless, and at length die." In the confusion which followed on the battle of Pānipat in 1761, Lokendra Singh, the Jāt chief of Gohad, obtained possession of it, but was driven out by Sindhia soon after. During the Marāthā war it was taken on August 3rd, 1780, by Major Popham's brigade, a surprise assault being made by a party led by Captain Bruce, brother to the well-known traveller, who was shown the way up the rock by a dacoit. The spot where the escalade took place, is to the west of the fort near the "Urwāhi" gate, and is still called the "Faringi pahār" or "white man's hill." The fort was then handed back by us to the Rānā of Gohad, but was re-taken by Sindhia in 1784. In the troubles with Sindhia, in the beginning of the nineteenth century, the fort was taken by General White on 4th February 1804. In 1805 it was again made over to Sindhia. After the disturbances which ended in the battles of Mahārājpur and Pannīar in 1843, the fort was garrisoned by the Gwalior Contingent Force under British officers, which had

been raised in accordance with the treaty of 1844. It continued in charge of the Contingent till they rebelled in 1857. On 18th June 1858 it was taken by assault by a party of Sir Hugh Rose's force, under Lieutenants Waller and Rose the latter of whom fell in the great gateway.

It was then held by a detachment of the troops from Morar until 1885, when it was made over to Sindhia in exchange for Jhānsi.

*Archæological remains.*—The fort contains many objects of historical and antiquarian interest. The main entrance is on the eastern side where a long ramp, affording an ever extending view over the plains below, leads up through six gates to the summit of the rock. Of these gates three are worthy of special note, the lowest gate built in Muhammadan style and known as the Alamgiri-Darwāzā, erected in 1660, the gate next above it the Bādalgār-h-paur, in Hindu style of the fifteenth century, and the Hāthi-paur of the same style and period at the summit.

Just beyond the fourth or Ganesh gate is a small mosque which was built by a Musalmān governor on the site of the original shrine erected by Sūraj Sen to Gwalipa, the tutelary saint of the hill.

On approaching the next or "Lakshman" gate there is a small rock cut temple in ninth century style, hewn out of the hill side. It is dedicated to Chaturbhūj, the four armed Vishnu, and bears an inscription of Rājā Bhoja of Kanauj, dated A. D. 876, in which he is termed "Gopagiri-Swāmi" or lord of Gwalior. The last gate through which the fort is entered is a magnificent example of Hindu work, and was built by Rājā Mān Singh in the fifteenth century. It is called the Hāthi-paur or elephant gate, from the life size figure of an elephant which formerly stood just outside it.

*The Palaces.*—There are six palaces on the fort, four Hindu and two Muhammadan. The finest is that of Rājā Mān Singh, the Tonwāra chief who ruled from 1486 to 1517. Between the Lakshman and Hāthi-paur gates one passes along the magnificent façade of this palace; a wall, of hewn sand-stone blocks, three hundred feet long and 100 high, relieved along the top by an ornamental frieze of coloured tiles, and at intervals along the front by massive round towers crowned with graceful "chhatris," and connected together by a balustrade of delicately fretted stonework.

The palace is a two storeyed building 300 feet long by 160 broad with two extra storeys of "Taikhāna" (under ground rooms for use in hot weather) on its eastern face. The rooms and court-yards of this palace are richly carved, and were originally profusely ornamented with coloured tiles, of which a few still remain. The emperor Bābar who visited the fort in 1527, some 20 years after its completion, has left a graphic account of its appearance. He notes that the palaces are "singularly beautiful, but built in different patches without regular plan," and states that the façade was then covered with white stucco, and the domes plated with copper, while he shrewdly adds of the palace apartments, that, "though they have had all the ingenuity of Hindusthān bestowed on them, yet they are very uncomfortable places."

The Gūjari Mahal, situated at the south-east corner of the fort has a noble quadrangle full of fine sculpture and mouldings, and some admirable windows. It was built by Rājā Mān Singh for his favourite queen Mrignaina. Just outside the palace is a small cemetery containing the graves of Europeans who died in the fort. The remaining Hindu palaces are of less interest while the two Muhammadan edifices are poor, being built only of rubble and plaster.

*The Temples.*—There are many temples and shrines still standing on the fort, of which three are of special importance. Two stand close together upon the eastern rampart and are known to natives as the greater and lesser Sās-bahu, and are, as a rule, erroneously called Jain by Europeans. Both must have been, when complete, very beautiful examples of 11th century work. They are built on the same plan, that of a cross, and are richly ornamented with sculpture. The larger one bears an inscription which mentions its foundation in A. D. 1092, and its completion the following year by Mahipāla Deva, the Kachhwāha chief of Gwalior. The dedicatory verses show that the temple was sacred to Hari (Vishnu), which is what the sculptures would lead one to expect. The smaller temple must have been built about the same time, and was also dedicated to Vishnu.

The third temple of importance is that now called the Telī mandir or Oilman's temple. It is a curious building

as well as an imposing one. Much the loftiest building on the fort being 110 feet high, it is distinguished by its roof from all other temples in northern India. The lower portion of the building is decidedly northern in style, while the upper portion is designed mainly in the style of a southern Indian temple, its roof being of the "waggon" type met with in the Rathes of Mahābalipur, and other buildings in the Madras Presidency. It was at first a Vaishnav temple, as the flying figures of Garuda over the lintel of the original door and on the side faces show. When it was later on, in the fifteenth century, converted to Saivite uses a second and smaller door was erected, inside the other, which bears a figure of Siva's son, the elephant headed god Ganesh, upon it. It dates from the tenth or eleventh century.

*Jain remains.*—There are on the fort one small Jain temple to Pārasnāth, and the remains of another Jain temple, both of the twelfth century; but of no great interest. The only really important Jain remains are the five great collections of figures carved on the face of the rock itself, which were all executed between 1497 and 1530 during the sway of the Tonwāra dynasty. The figures are some of them colossal, one, in the group near the Urwāhi gate, being 57 feet high. The emperor Bābar notices this figure, and adds that he ordered all of them to be destroyed, but as a matter of fact only some of those most easily reached, were partially mutilated.

*Tanks.*—There are a large number of tanks on the fort. Two cut in the wall of the rock lie on the ascent between the 5th and 6th gates, and are said never to fail in their supply, an important factor in old days of long sieges, and which Tavernier remarks, "caused this place to be esteemed one of the best in India." The oldest tank is the "Sūraj kund" or tank of the sun, where a temple formerly stood. At the northern end is the Johār tank, where the Rājputs slew their women and children to save them from capture (Johār), when the fort was taken by Altamsh in 1232.

*Lashkar*.—The modern capital of Gwalior State, situated two miles south of the fort and old town of Gwalior. It is the largest and most important town in the Agency. The original capital of Sindhia's dominions was Ujjain. The foundations of this city were laid by Mahārāja Daulat Rāo Sindhia in 1810, when after wresting the district from his vassal Ambāji Ingliā, he fixed on this spot for his standing camp or "Lashkar," whence it derives its name. A year or so later a few buildings were erected, notably the old palace, now called Mahārāj-wāra. Even in 1818, however, it was little more than a great encampment as the following description by an eye witness shows: "It (Lashkar) presents the appearance of an immense village, or rather collection of villages with about a dozen chunamed (stucco) buildings, shapeless, coarse, without any air of ornament, . . . interspersed with many tents, and palls, flags and pennons, in some parts hutted lines and piles of arms, . . . in all open spaces horses picketed, strings of camels, and a few stately elephants. On the skirts of this large mass a few smaller and more regular encampments, belonging to particular Chiefs with their followers, better armed and mounted. The sounds too of neighings of horses, drums and firearms, and occasionally the piercing trump of an elephant mingled in the confusion with the hum of a population loud, busy and tumultuous, convincingly tell you that the trade here is war, the manufacture one of arms."

By 1829, however, the city had assumed a more settled appearance, the houses in the main street being "handsome, large and built of stone."

In 1858, during the Mutiny the Rāni of Jhānsi and Tantia Topi joined forces, and on May 30th appeared before Lashkar and called on Sindhia to assist the mutineers. Sindhia not only refused but attacked them. His army, however, mutinied and except for his Marāthā guard, went over in a body to the enemy. Sindhia protected by his Marāthās reached Agra fort in safety. He returned to Lashkar on June 20th with Sir Hugh Rose and the Resident, Major Macpherson.

The city is picturesquely situated in a horseshoe-shaped valley opening eastwards. Just below the fort are the palaces standing in a walled enclosure known as the Phul Bagh, or flower garden. The modern residence of the Chief, the Jaivilās palace, and the older Moti Mahal, now used for the State departmental offices, a Museum and other buildings, are all situated within this enclosure. Outside it, to the south are the Elgin Club for the Sardārs of the State, managed on the lines of a European club, the Victoria College, and the Jayāji Hospital. The city proper lies beyond the palaces. It is bisected by the main road leading from the Gwalior railway station, and is divided into numerous quarters. The Sarāfa or banker's quarter is the only street with any pretensions. It is formed by a fine broad road, not unlike the Chāndni Chauk at Delhi, but the houses on close inspection are seen to be in bad taste, Italian finials and balustrades being mingled with exquisite native stone work, while their thin poorly built walls are but inadequately concealed by a certain veneer of smartness.

The architecture of the city generally has little to recommend it, although Gwalior is still the centre of a stone carving industry, which has been famous for centuries, a fact only to be explained by the demoralising effect which the Marāthā inroads of the eighteenth century had on all the arts. The great Jaivilās palace, built in 1874, is constructed on the general plan of an Italian palazzo, but is unfortunately disfigured by an incongruous mingling of European and Indian styles. It contains a fine Darbār hall a hundred feet long by fifty wide and forty high.

The earlier Moti Mahal palace is a copy of the Peshwa's palace at Poona, and an example of the debased style of the eighteenth century. The modern Jayāji Hospital and Victoria College are more satisfactory buildings. The Chhatris, or cenotaphs of the Sindhias, which are situated to the south of the city, are good examples of modern Hindu architecture, especially that of the late Mahārāja.

The population was in 1881, 88,066; 1891, 88,317; 1901, 89,154; males 45,886, females 43,268. Constitution, Hindus 67,899 or 76 per cent., Jains 2,054 or 2 per cent., Parsis 7, Musalmān 18,849 or 21 per cent., Christians 208, Animists 137. The density at present is 22,288 persons per square mile, or excluding the palace area, 30,000; the density of London and Bombay is about 35,000. The principal languages spoken are Marāthī, which is employed by 35 per cent. of the population, and Urdū, by 46 per cent.

Of the population 35 per cent. are engaged in industrial, 11 per cent. in commercial, 10 per cent. in agricultural and 6 per cent. in professional occupations, the rest in miscellaneous work. The prevailing castes are Brāhmans forming 18 per cent. of the population, and Marāthās 7 per cent.; it is noticeable that of the Musalmān population 40 per cent. are Pathāns; Shaikhs 37 per cent. The people are on the whole well-to-do, many of the big merchants being men of great wealth. The principal sources of trade are banking and exchange, stone-carving, the export of building stone and grain.

There are many temples in the city, but none is of special interest.

The city is well laid out with metalled roads, and a branch of the Gwalior Light Railway runs from the railway station to the Jaivilās palace. There is a General Post Office belonging to the State Postal system in the Jaindraganj quarter of the city, and branches in other quarter. There is a combined British Post and Telegraph office at the Gwalior railway station, and at Jatinak-tāl, in the west of the city.

The city is in charge of a municipality, originally established in 1887. It consists now of 69 members, of whom 7 are officials, the rests elected. They have control of the city proper which is divided into 18 wards. The management of the lighting, conservancy, roads, markets, drainage and sanitation, and the acquirement of land for public purposes, are, in their hands. The municipal income is derived from taxes on lighting, bazars, hackney carriages and the rent of certain lands. Its total income is R72,000 a year; expenditure about R50,000, R13,000 being expended on conservancy, and R9,000 on Public Works. The city is watched by a police force of 792 men, distributed through 31 police station and out-posts. There are branch hospitals in the city connected with the Jayāji Hospital, also an asylum for the blind. There are three schools in the city connected with the Victoria College, a free Library, kept in the old Mahārāj-wara palace, besides five special schools, one for Sardār's sons, a military school, a service school, and two girls' schools.

There is a State guesthouse near the station for European, and two sarāis for native, visitors. Lashkar is reached from the Gwalior station of the Great Indian Peninsula Railway, 763 miles distant by rail from Bombay; 72 from Agra, and 32 from Jhānsi. It is 341 miles from Indore by the Agra-Bombay road.



This place is popularly termed the *Kampū* and is the cantonment for the State troops. It is situated at the south-east corner of the city, but is entirely distinct from it. It is not under the city municipality, but in charge of a special magistrate, who is responsible for the sanitation as well as the magisterial work in the same way as cantonment magistrates in British India. Population, 1891, 12,757; 1901, 13,472; males 8,226, females 5,246; the excess of males is accounted for by the military nature of the population. Constitution, Hindus 9,757, Musalmāns 3,663, Christians 47, Animists 5. It covers an area of  $1\frac{1}{4}$  square miles, having 5,337 occupied houses.

The land on which the Brigade stands was originally part of two villages, Gura-Guri and Rājpora. In 1810 Daulat Rāo Sindhia selected this site for the encampment of the troops under his immediate personal command. To this three other plots were added for the regular battalions, or *Kampū* as they were termed, under his European Generals Alexander, Jean Baptiste Filose and Jacob. By the 7th article of the treaty, entered into with the British Government in 1844, these camps were broken up, and the Alexander *Kampū* was added to the Mahārāja's to form a cantonment for the State troops which he was allowed to keep up under that treaty. Houses gradually sprang up round the lines and a few shops. In 1859, a large building was erected known as the *Kampū* Kothī, in which Mahārāja Jayāji Rāo resided from 1866, to 1874. Subsequently it was used for the military offices, and since 1900 the Military School has been located there. The chief officers of the Military department reside in Lashkar Brigade, including the Commander-in-Chief, Adjutant General and the Quarter-master-General of the State forces and their staff. The State workshop is also located here; instituted originally for military purposes, it has developed into a general workshop in which work of all kinds is carried out including repairs for the Gwalior Light Railway. In the Muharram festival an interesting ceremony takes place here. The State *Tāsiā* is placed near the Kothī, while all the State departments provide miniature working models illustrating their special work, such as model trains, bridges, irrigation works, and the like.

## HYDERABAD.

The capital of H. H. the Nizām's Dominions, lying in  $17^{\circ} 22' \text{ N.}$  and  $78^{\circ} 27' \text{ E.}$ , on the right bank of the river Mūsi, a tributary of the Kistna. It is the first city in the State, and the fourth in the whole of India in point of population. Its population (including the suburbs, Residency Bazars and the adjoining cantonments) in 1881 was 367,417; in 1891 415,039; and in 1901 448,466. Distance from Bombay 492 miles, from Madras 533 and from Calcutta 762. The city was founded by Muhammad Kuli, the fourth Kutab Shāhi king in 1589, who ruled at Golconda, six miles west of Hyderābād. It was first named Bhagnagar, but the name was afterwards changed to Hyderābād. It continued to prosper, until Aurangzeb began to interfere between the king and his discontented minister, Mir Jumla, in 1665. In 1687 Golconda was conquered and Hyderābād fell into the hands of the Mughals, when the last king of Kutab Shāhi dynasty was taken prisoner. Hyderābād remained in the possession of the Mughals, until the first Nizām proclaimed his independence, and made it his capital. The city is surrounded by a stone wall flanked with bastions, and pierced with thirteen gates and twelve *khirkis* or openings. It is built in the form of a parallelogram and is six miles in circumference and  $2\frac{1}{4}$  square miles in area. The wall was commenced by Mubariz Khān, the last Mughal *Subahdar*, and completed by the first of the Nizāms when he made the city his capital. The city has out-grown its former limits, and has been extended to the north and east. Four bridges lead to the city; *Purāna Pul* (old bridge) is the westernmost and the Oliphant Bridge the easternmost; between these two are the Afzal Bridge and Champa-Gate Bridge, the former being near the Oliphant Bridge and the latter near the *Purāna Pul*.

The most imposing building erected by the Kutab Shāhi kings is the *Chār Minār* or the four Minarets, occupying a central position in the city, with four roads radiating from its base. The minarets, 180 feet high, spring from the four abutments of the open arches facing the cardinal points. It was erected in 1591. During the occupation of the Mughals, one of the minarets was struck by lightning, and the reconstruction of a single minaret cost Rs. 60,000. M. Bussy, the French Commander, and his troops, occupied the

*Chār Minār* in 1766. The building was thoroughly renovated by Sir Salar Jang, a few years before his death.

The *Chār Kamān* (four arches) were built in 1593. These are equidistant from the *Chār Su Ka Hauz* (Cistern of four roads) from which four streets lead to the four quarters of the city, over which these have been erected. The *Chār Su Ka Hauz* is situated to the north of the *Chār Minār*. The king had a pavilion erected near the cistern, from which he used to witness the manœuvring of his troops.

The *Dar-ush-Shifa* (hospital) some 200 yards to the north-west of the *Purāna Haveli* (old palace) built by Kuli Kutab Shāh, is a large building consisting of a paved quadrangular courtyard, having chambers all around for the accommodation of the sick. A number of native physicians were maintained at the time to minister to the sick and teach medicine, but the building is now used as a barrack by some of the Irregular Troops. Opposite the entrance is a fine mosque erected at the same time as the hospital.

The *Ashur Khana* is a large building, west of Sir Sālār Jang's palace, erected by Sultān Mahammad Kuli Kutab Shāh in 1594 at a cost of Rs. 66,000. It is used for the Muharram ceremonies.

The *Purāna Pul* (old bridge), situated at the north-west corner of the city, connects it with the Karvan road, leading to Golconda. It consists of 23 arches, and is 200 yards long, 11 broad and 18 high, and was built in 1593. The river is very narrow here and the banks are steep.

The Gosha Mahal palace was erected by Abul Hasan, the last Kutab Shāhi king, a mile to the north of the city, with a large cistern and pleasure grounds for his *zanāna*. It was used until lately as a barrack, but is now a military club.

The Mecca Masjid (mosque), situated to the south-west of the *Chār Minār*, is 255 feet long, 180 broad and 75 feet high and is built entirely of stone, occupying a paved quadrangle 360 feet square. Fifteen arches support the roof, which is surmounted by two large domes, rising 100 feet above it. It can accommodate 10,000 worshippers. Abdullah Kutab Shāh commenced the building, and after his death its construction was continued by Abdul Hasan, but after his imprisonment by Aurangzeb, the latter ordered its completion. His Highness Nizām Ali Khān and all his successors are interred in the grounds of the Masjid.

The Jāma Masjid (mosque) which is near the *Chār Minār*, was built in 1598. Ruins of a Turkish bath are to

be seen in the courtyard. With the exception of the Mecca Masjid and the Gosha Mahal, all these structures were constructed by Sultan Mahammad Kuli Kutab Shāh, who is said to have spent £3,000,000 on public buildings and irrigation works. His nobles followed his example, and the number of superb mosques and palaces erected in various parts of the Dominions is greater than in any other Muham-madan kingdom in the Deccan.

There is an extensive burial ground known as Mir Mo-min's Daira which was originally consecrated as the necro-polis of the Shiah sect by Mir Momin, who came to Hyderā-bād from Karbala in the reign of Abdullah Kutab Shāh and contains his remains. But now both Shiahs and Sunnis are buried here. It is situated in the south-east corner of the city, south-west of the Mir Jumla tank. Sir Salar Jang's family burial ground lies to the south of the Daira.

Among the more recent buildings may be mentioned the *Purāni Haveli* (old palace), an extensive building in the north-eastern quarter of the city, built by the first of the Nizāms, and is still occasionally used by the present ruler.

The Nizām's Chau-Mahla palace consists of a vast series of buildings and court-yards covering an extensive space, just behind the Mecca Masjid. The palace consists of three quadrangle, with handsome open face buildings on either side, and large cisterns in the centre. All these build-ings and the reception rooms are most luxuriously and tastefully furnished and are situated in the third quadrangle, beyond which lies the *zanāna* or ladies' apartments. There are many other royal residences in addition to these, at Golconda, Surunagar, Maula Ali, Asafnagar, Lingampalli and Malakpet, but His Highness at present mostly resides at Sirdar Villa at Malakpet, near the race course.

Salar Jang's palace is situated near the Afzal Gate and consists of two portions; one containing the Baradari and *Lakkar Kot* (wooden palace) lies on the right bank of the Musi, and the other beyond the road leading to the Purāna Haveli. Both are extensive buildings covering a large space of ground.

Shams-ul-Umara's Baradari is situated in the west of the city and was built by the first Shams-ul-Umara on an extensive piece of ground.

The Falaknuma, a very fine palace, was built by the late Sir Vikar-ul-Umara on the summit of a hill in the southern suburb of the city, at a cost, it is said, of 35 lakhs.

The view of the city and suburbs from this palace is most striking and no modern building at Hyderabad equals it in point of architecture or design. It was purchased by His Highness the Nizām in 1897.

The Jahan-numa Palace and its beautiful gardens belonging to the late Sir Asman Jah, are situated north of the Falaknuma. The palace and the bungalows in the gardens contain great numbers of ingenious mechanical toys.

The suburbs of the city include those beyond the river Mūsi and those adjoining the city. The former comprise Begam Bazar, Karvan, Afzal Ganj, Mashirabad, Khairatabad, Saifabad, and Chadarghat, extending for a distance of three miles from east to west, and an average breadth of  $1\frac{1}{2}$  miles from north to south, covering a space of over five square miles. The Residency Bazars are situated to the south-east of these suburbs and to the north-east of the city. The other suburbs adjoining the city to the east and south are known as Yakutpura, Malakpet, and Jahannuma and occupy an area of four miles.

The Husain Sagar, a large sheet of water which when full extends over an area of 8 square miles, lies between Secunderabad on the north and Saifabad, a portion of Hyderabad, on the south and is the source of water-supply for the Residency and suburbs north of the Mūsi river. The tank bund is 2,500' long, and forms the road connecting the northern suburbs with Secunderabad. The bund was built by Sultān Ibrāhīm Kutab Shāh about 1575 at a cost of  $2\frac{1}{2}$  lakhs.

Mir Alam's tank, built in 1804-05, is situated to the south-west of the city, and is a magnificent sheet of water 8 miles in circumference. The bund consists of a series of 21 semi-circular retaining walls with their convex side facing the body of the water. Its total length is 1,120 yards and it was constructed by a French engineer in His Highness' service. Mir Alam, the Minister, built this, the Baradari and, other buildings, out of the prize money which fell to his share after the fall of Seringapatam. The bund alone cost 8 lakhs of rupees, and is a unique work. The city and suburbs are now amply supplied with water from these two large tanks. Water works have been constructed from them though not yet complete. However, this institution has led to considerable improvement in the sanitation; and cholera, which used to be an annual visitor, has not been known in the city for the last few years.

The buildings of the well-to-do people in the city are substantial and chiefly built of stone and brick and situated within large gardens ; while the houses of the commoner people were built of mud, but are now gradually being replaced with brick-built houses. The old streets and lanes were narrow, but have of late been widened through the exertions of the municipality. In the northern suburbs, however, the generality of the houses are of a much superior plan, mostly built in the form of bungalows situated in suitable compounds. It may safely be said that three-fourths of the old city and suburbs have been rebuilt and renovated since the ministry of the late Sir Salar Jang, to say nothing of the new buildings erected during the last half century.

There are now three colleges, several English and vernacular schools, a large Roman Catholic church, St. George's church, and many others for the other Christian denominations, situated in Chadarghat. The Public Gardens, most beautifully laid out, with two large tanks in the centre, and surrounded by a picturesque wall, lie just at the foot of the *Naubat Pahar* or the "black rock." To the south of these gardens is the Hyderabad terminal station of the Nizam's Guaranteed State Railways, a very fine building. Near the Afzal bridge are the Afzal Ganj hospital and mosque ; the former has accommodation for 78 in-patients and a large staff of surgeons and nurses is maintained. Most of the Government Secretariats and other offices are situated in Saifabad and Chadarghat, but the High Court and the Small Cause and Magistrate's Courts, the Treasury, Accountant General's and certain other offices are located in the city.

The population of the city inclusive of those living in the cantonments, the civil lines and suburbs, has considerably increased during the last 20 years. At the census of 1881 it was 367,417 ; 415,039 in 1891, and 448,466 in 1901. The Hindus numbered 243,241, the Musalmans 189,152, and the Christians 13,923. There were also 863 Sikhs, 929 Parsis, 318 Jains, and 40 others.

## JAIPUR.

Jaipur City or Jainagar, the "City of Victory," is the capital of the Jaipur State in Rājputāna and the head-quarters of the Sawai Jaipur Nizāmat. It is situated in  $26^{\circ} 55' N.$  and  $75^{\circ} 52' E.$  on the Rājputāna-Mālwa Railway and the Agra-Ajmer trunk road, being by rail 84 miles north-east of Ajmer, 158 miles west of Agra, 191 miles south-west of Delhi and 699 miles north-east of Bombay.

Jaipur is the largest city in Rājputāna, its area, including suburbs, being 3 square miles. Its population at the three censuses was : 1881, 142,578 ; 1891, 158,787 ; and 1901, 160,167. The small increase in 1901 of less than one per cent. occurred entirely in the suburbs, the population of the city proper being less by 330 than in 1891. The latter circumstance was largely due to the year 1900 having been a very unhealthy one ; 13,874 deaths occurred within the city walls, or a rate per mille of nearly 105 against an average for the previous 26 years of about 45 per mille. Cholera prevailed almost incessantly till September, claiming 2,314 victims and to the severe outbreak of malarial fever which immediately followed 7,372 persons succumbed. Hindus number 110,601 or 69 per cent. of the population, Musalmāns 40,386 or 25 per cent., and Jains 8,726 or 5 per cent.

The city takes its name from the famous Mahārājā Sawai Jai Singh II by whom it was founded in 1728. It stands on a small plain conjectured to be the bed of a dried-up lake, and is surrounded on all sides except the south by rugged hills, the summits of which are, at all important points, crowned with forts. At the end of the ridge about 500 feet above the city on the north-west is the chief defensive work, the Nahargarh or "tiger fort," the rock face of which is so scarped as to be inaccessible on the south or city side, while on the north the ridge slopes towards AMBER. A masonry crenelated wall, averaging in height 20 feet and in thickness 9 feet, encloses the whole city. In the wall are seven gateways, all built of the same pattern with two kiosks above and machicoulis over the entrance and at intervals are bastions and towers pierced for cannon, while the parapet is loop-holed for musketry. The city is remarkable for the regularity and width of its streets. Tod described it as being "as regular as Darmstadt" and "the only city in India built upon a regular plan." It is laid out in rectangular blocks and

divided by cross streets into six equal portions which are in turn intersected at regular intervals by narrower alleys. The main streets are 111 feet in width, the secondary ones 55 and the smaller 27½ feet. The Mahārājā's palace forms an imposing pile in the centre occupying, with its pleasure grounds, about one-seventh of the city area. To the north of the palace is the Tal Katōra tank, enclosed by a masonry wall and beyond it again is the Rājā Māl-ka-talao about 100 acres in area and stocked with alligators.

One of the most interesting antiquities of the State is the observatory (*jantra*). It was erected by Jai Singh II; the instruments, consisting of dials, azimuth circles, altitude pillars, etc., are of huge size and have recently been put in order under the supervision of an officer lent to the Darbār by Government. The main streets, the large public institutions, the palace and some private residences are lighted with gas at a cost of about Rs. 28,000 a year. Since 1874 good drinking water has been brought into the city from the Amān-i-Shāh river about 1½ miles west of the Chāndpōl gate. Pumping engines raise the water to a height of 109 feet where it is stored in covered reservoirs and thence delivered in the city in iron pipes under 50 feet pressure. The daily average consumption in 1903 was 407,890 gallons or about 2½ gallons per head and the annual cost of maintenance is about Rs. 40,000.

There has been a municipality since 1868; the board consists of 26 nominated members including a health officer and an engineer. All the receipts are paid into, and the entire expenditure is met from, the state treasury. The refuse of the city is removed by a light tramway drawn by buffaloes and incinerators have been erected at convenient spots. The principal arts and industries are dyeing, carving in marble, enamelling on gold, pottery and brass work. The School of Art, opened in 1868, has done much useful work; drawing, painting, sculpture, wood carving, pottery and working in gold and brass are taught and the daily average attendance in 1903-04 was 87.

For such a large place very little trade is carried on, but there is an extensive banking and exchange business and Jaipur has been described as "a sort of Lombard street to Rājputāna." Outside the city are two steam hydraulic cotton presses started in 1885. In 1903, 19,326 bales were pressed, the net revenue being Rs. 24,836, or a profit of about 11 per cent. on the capital cost of the presses.

Jaipur is amply supplied with educational institutions. Including 110 indigenous schools (*patshālas* and *maktabs*) attended by 2,472 children, there were on the 31st March 1904 no less than 141 educational institutions and the daily average attendance was about 5,000. The Mahārāja's College deserves special mention. It was started in 1845, the curriculum consisting of Urdū and Persian with the rudiments of English; it became a high school about 1865, a second grade college in 1873 and a first grade college in 1897 (the only one in Rājputāna). The daily average attendance in 1903-04 was 62 and the expenditure R 21,064. Since 1891, 61 students from the college have passed the B. A. examination and three the M. A. examination. There are two other colleges in the city, namely, the Oriental College teaching boys up to the highest standards of the Punjab University examinations in Arabic and Persian and the Sanskrit College preparing boys for the title examinations in that language. In 1903-04 the daily average attendance at the former was 25 and at the latter 63.

The city is also well supplied with medical institutions, there being three dispensaries for out-patients, two jail hospitals, a lunatic asylum, a small hospital attached to the Residency, the Lansdowne Hospital for the use of the Imperial Service Transport Corps, and the Mayo Hospital. The latter, with its recent additions, detached operating room, private and eye-wards, is one of the most complete and up-to-date hospitals in India. It has accommodation for 150 in-patients and, in 1903, 26,772 cases were treated (2,124 being those of in-patients) and 1,360 operations were performed.

The two jails are outside the city walls and have accommodation for 1,144 prisoners.

In the beautifully laid-out Rām Newās public gardens, which are 76 acres in extent and are maintained at a cost of about R17,000 a year, is the Albert Hall, a large museum of industrial art and educational models and the principal architectural feature of the place. It is named after His Majesty King Edward VII who, as Prince of Wales, laid the foundation stone on the 6th February 1876.

## JAMMU.

This town, situated in  $32^{\circ} 44' \text{ N.}$  and  $74^{\circ} 55' \text{ E.}$ , at an elevation of 1,200, is the capital of the Jammu Province, and the winter headquarters of the Mahārājā of Jammu and Kashmir. It lies high on the right bank of the river Tawī, which flows past in a narrow ravine on its way to join the Chenāb river. The city covers a space of about one square mile, densely packed with single-storeyed houses of round stones and mud with flat tops. In the upper portion of the city there are superior houses of brick and in the Mandi are the State offices and the Palaces of the Mahārājā and his brothers. The general effect of Jammu is striking, and from a distance the whitewashed temples, with their goldfoil pinnacles, suggest a splendour which is soon dispelled on nearer acquaintance. The most conspicuous of the temples is Ragnathji, but like all the other buildings in Jammu it is commonplace. The Dogras have little taste in architecture and are essentially economical and practical in their ideas of domestic comfort.

The railway, which runs to the British cantonment of Sialkot, a distance about 27 miles, starts from the left bank of the Tawī. The Tawī is spanned by a fine suspension bridge, and a good cart-road runs from the bridge as far as the Mandi. The other streets of the city are narrow and irregular, and there is nothing of striking interest and nothing which indicates prosperity and development. Of late years, the construction of water-works, the opening of the cart-road to the Mandi, the suspension bridge over the Tawī, and the railway extension from Sialkot to the banks of the Tawī have improved the condition of life in Jammu, but there has been no marked response either in population or in prosperity. In 1891 the population was 34,543. In 1901 the population was 36,130. In the palmy days of Rājā Ranjit Dev, towards the latter part of the eighteenth century, it is stated that the population was 150,000. There is nothing in the geographical position of Jammu which makes for prosperity. It lies on the edge of the Mahārājā's territories with an unfertile hinterland. Rightly speaking, it should have been the emporium for Kashmir trade, but the construction of the Kohala-Srinagar cart-road has taken the Kashmir trade away from the Jammu-Banihal route. At the present there are hopes of the development of coal to the north of Jammu, and this might bring prosperity to the

Dogra capital, and a line of railway from Jammu to Kashmir would restore to the city the important carrying and depôt business of the Kashmir trade.

Of the total population (36,130), no less than 12,014 fall under the head government; 2,820 come under the category of personal service; 8,833 persons are employed in the supply of food, fuel, forage, and building materials; and 3,715 persons are sufficient to transact the work of commerce, transport, and storage. The professional classes number 2,765, of whom 1,541 are engaged in religion.

Briefly speaking, the city of Jammu is merely the residence of the ruling family and the officials of the State. The Governor (*Hakim-i-Ala*) of the Jammu Province, with his large revenue office (*Daftar Diwani*), the Chief Judge of the Province, the Wazir-i-Wazarat of the Jammu District and his office, the Superintendent of Police, and the heads of the various other departments all live in Jammu and rarely leave it. For the absence of roads makes inspection duty troublesome and distasteful. There is a Central jail in Jammu, costing about ₹ 20,000, with a daily average strength of prisoners of 270. The high school has been fairly efficient; it educates over 600 students, of whom 500 are Hindus.

There is a State hospital at Jammu, with branch dispensaries. The hospital in 1897-98, the last year for which figures are available, had an average daily attendance of 169. The total number of surgical operations was 3,592. The chief diseases were malarial fever, rheumatic affections, diseases of the eye, ear and respiratory system, dyspepsia, diseases of the digestive system, goitre, skin diseases, and diseases of the connective tissue.

Municipal institutions do not flourish in Native States, but Jammu possesses a municipality composed of five official and twelve non-official members. The State granted ₹ 19,983 to the municipality and the municipal expenditure was ₹ 17,197. The receipts from other sources amounted to ₹ 1,411.

There is a considerable military force at Jammu and at the cantonment of Satwari, which lies on the opposite bank of the Tawi. This force numbered 3,900 in 1897-98. Of the total, 1,870 belonged to the Imperial Service Troops and 1,091 to the regular troops of the Maharaja's army.

## KARACHI.

The capital of Sind, Bombay Presidency. Karāchi is situated in  $24^{\circ} 51' \text{ N.}$  and  $67^{\circ} 4' \text{ E.}$ , at the extreme northern end of the Indus Delta, near the southern base of the Pab mountains and close to the border of Baluchistān. It is 500 miles distant from Bombay by rail, the distance in nautical miles being 480. Two routes connect the city with Lahore, by Sukkur, and by the Kotri-Rohri Railway, the distance by each being about 800 miles. Population has increased rapidly: 1872, 56,753; 1881, 73,560; 1891, 105,199; 1901, 116,663, of whom 8,019 resided in the cantonment. Muhammadans include 60,003, Hindus 18,169, Christians 6,158 and Pārsīs 1,823.

### Situation and description.

The bay of Karāchi is formed by the projecting headland of Manora Point, the extremity of a reef 10 miles in length, which supplies a natural barrier against the waters of the Arabian Sea. The opening of the bay between Manora and the opposite sanitarium of Clifton has a width of about  $3\frac{1}{2}$  miles; but the mouth is blocked by a group of rocky islets, known as the 'Oyster Rocks,' as well as by the larger island of Kiamāri, a little in the rear. The harbour stretches for 5 miles northward from Manora Head to the narrows of the Layāri river, and about the same distance from the old town of Karāchi on the eastern shore to the extreme western point. Only a small portion of this extensive area, however, is capable of accommodating large vessels. Manora Head, the first object visible to a voyager approaching Karāchi from the sea, is crowned by a lighthouse, having a fixed light 148 feet above sea-level, and visible for 20 miles around in clear weather. The point also affords room for a fort, said to have been first erected in 1797, the port and pilot establishment, the buildings in connection with the harbour improvements, and a portion of the Indo-European telegraph department. Besides a library, billiard-room, and European school, Manora possesses an English church, intended for the crews of vessels frequenting the harbour. It has recently been made a cantonment and is shortly to be constituted a military sanitarium in place of Ghizri, lately abandoned.

On the opposite side of the mouth, the island of Kiamāri forms the landing-place for all passengers and goods bound for Karāchi, and has three piers. A road running along the

Napier Mole, 3 miles long, connects the island with the town and mainland, and is traversed by the East India Tramway. The North-Western Railway also extends to Kiamāri; but instead of following the mole, it takes a more circuitous route to the south by the edge of a large lagoon, the waters of which are passed through the mole by a fine screw-pile bridge, 1,200 feet in length, erected in 1865 at a cost of about 5 lakhs, so as to allow them to flow uninterruptedly into the harbour as a means of scouring the channel. At the northern extremity of this bridge, and running in a westerly direction, stands the native jetty, built of stone at an expense of 4½ lakhs. At the end of the mole, on the mainland side, the custom-house runs right across the road, which pierces it by five arches, thus intercepting all traffic.

Two principal thoroughfares lead from the custom-house to the Karāchi cantonment, known respectively as the Bandar and the M'Leod roads at the junction of which stands the public memorial to Sir William Merewether, a handsome clock tower. The oldest portion of the town is situated along the former route, close to the harbour and contains the most thickly populated quarter in Karāchi. The municipality has widened and paved the streets, and effected other improvements which must conduce to the health of the inhabitants, who are chiefly Hindu and Muhammadan merchants. The Layāri, a river only in name, as it contains water only some three or four times a year, separates this quarter from the Layāri suburb. On the M'Leod Road are situated the court-house, the Bank of Bombay, the National Bank of India, the City Railway Station, the General Post Office, the Telegraph Office, the Mansfield Import Yard, the Chamber of Commerce, Messrs. Herman & Co.'s ironworks and three important cotton presses—the M'Leod Road presses, owned by the Sind Press Company, capable of turning out daily 350 pressed bales of cotton; the Tyābji presses, erected in 1865 at a cost of 2½ lakhs, and turning out 250 bales; and the Albert Presses, leased to the Sind Press Company, and turning out 390 bales. This quarter also contains the Edulji Dinshaw Dispensary, several schools, the Sind college, a new Hindu temple, and most of the offices belonging to European merchants. The Afghān sarāi intended for the use of caravans from Kandahār, rebuilt by the municipality in 1873 at a cost of R 20,000, covers an area of about 3 acres. Nearer to the cantonment, a number of bungalows stand on the

intervening space; while the civil lines skirt the cantonment itself to the eastward. The military quarter which is situated to the north and east of the town proper consists of three portions—the depôt lines, the artillery lines, and the European infantry lines. The depôt lines are the oldest military portion of Karachi, and were originally intended to supply accommodation to troops passing up-country from the sea or *vice versa*. Here also is the arsenal. The Government garden, distant about half a mile from cantonments, covers an area of 40 acres, neatly laid out with trees and shrubs, and contains an excellent zoological collection.

#### Buildings.

The architecture of Karachi is essentially modern and Anglo-Indian. The Anglican church of the Holy Trinity is situated just outside the cantonments. It stands in a large open space, 15 acres in extent, and consists of a heavy, ungainly Italian nave, with a disproportionately tall and ugly tower. St. Patrick's Roman Catholic School, formerly a church, is a fine stone building, capable of accommodating 40 boarders and 200 day-scholars. The European and Indo-European school, known as the Karachi Grammar School, founded in 1854, under the auspices of Sir Bartle Frere, then Commissioner of Sind, occupies a handsome stone structure in the depôt lines. The other chief modern institutions include the Presbyterian Church of St. Andrew, Christ Church and the Anglican Mission schools, the Napier Barracks, the Sind Club and post-office. The Frere Hall, a municipal building, stands on a slight elevation near Trinity Church. It was opened in a somewhat unfinished state in October 1865, up to which date 1½ lakhs had been expended upon its erection. This hall, which is a comparatively good specimen of slightly adapted Venetian Gothic, contains the Karachi General Library. Government House, the residence of the Commissioner in Sind, is situated in the civil quarter, and consists of a central building with two wings, approached by five separate carriage drives. Though commodious and comfortable in its interior arrangements, the exterior can lay no claim to architectural beauty. It was originally built by Sir Charles Napier when Governor of the province.

#### Climate and health.

The climate of Karachi, owing to the prevalence of sea-breezes during eight months of the year, is more healthy than any other in Sind. The low situation of the city, and the near neighbourhood of marsh land, render the atmosphere moist and warm; but the heat during the hottest months

cannot compare with that experienced in the interior. The mean annual temperature, calculated from data extending over nineteen years, may be stated at 77° F. The hottest weather occurs in April, May, and June, though September and October are also often close and sultry. The average annual rainfall is about 5 inches. The first case of plague occurred early in December 1896, the locality attacked being the old town quarter, and nearly 3,400 persons died in the first year. The total mortality from plague until the end of March 1904 was 19,010.

Karachi came into British possession in 1843. The town History. may be regarded as almost a creation of British rule, its extensive commerce, splendid harbour works, and numerous flourishing institutions having all sprung up since the introduction of our settled administration. Before 1725, no town whatever appears to have existed on the site; but a town named Kharak, with a considerable commerce, is mentioned as lying on the other side of the Hab river at the confluence of the river and the sea. The entrance to Kharak harbour becoming blocked with sand, a migration was made to a spot near the present head of Karachi harbour, and at that time (1729) called Karachi Kun; and in time, under Jām Daria Khān Jokia, some little trade began to centre upon the convenient harbour. Cannon brought from Muscat protected the little fort, and the name of Karachi, supposed to be a corrupt form of Kalāchi, was bestowed upon the rising village. The hopeless blocking up of Shāhbandar harbour shortly afterwards drove much of its former trade and population to Karachi.

Under the Kalhora princes, the Khān of Kalāt obtained a grant of the town, which he garrisoned from his own territory. Within the short period, 1792—1795, three Baloch armies appeared before the town; but only on the third occasion did the Tālpur chief of Hyderābād, who led the Baloch troops, gain possession by force of arms. A fort was built at Manora, at the mouth of the harbour. The Tālpur chiefs made considerable efforts to increase the trade of Karachi, so that in 1838 the town and suburbs had a population of 14,000, half of whom were Hindus. The houses were all flat-roofed, and built of mud, very few of them having more than one storey: each house had its *bādgir* or wind catcher for the purposes of ventilation. The government under the Mirs was vested in a civil and military

official, the Nawāb, who ruled despotically over the town and neighbourhood.

Commerce.

Even before the period of British rule, the commerce of Karāchi had attained to some importance, owing to the value of the river Indus as a channel of communication. Nevertheless, the sparse population of the country, combined with the shortsighted and selfish policy of its rulers, prevented it from reaching its proper development. Under the Tālpur Mīrs, all imports were subjected to a 4 per cent. and all exports to a 2½ per cent. duty. In 1809, the customs revenue amounted to R 99,000; by 1837 it had risen to R 1,74,000. In the latter year, the whole trade of the town was valued at about 40 lakhs: the following being the principal articles of trade:—Imports—English silk, broadcloth, chintz, etc., Bengal and China raw silk, slaves, dates, sugar, ivory, copper, spices and cotton. Exports—opium, *ghī*, indigo, wheat, madder, wool, raisins and salt fish. Slaves came chiefly from Muscat, and consisted of negroes or Abyssinians. Opium to the extent of 500 camel-loads came from Mārwar, and was exported to the Portuguese town of Damān. Almost all the goods imported into Sind were then consumed within the province, only R 1,50,000 worth being sent across the frontier.

In 1843-44, the first year of British rule, the trade of Karāchi, including Ketī and Sirganda, had a total value of about 12 lakhs, due to a decline in the opium trade, which had steadily fallen since 1837 when its value was estimated at 16 lakhs. The second year of British rule saw a rise to 23, the third to 35, and the fifth to 44 lakhs. By 1852-53, the total value had risen to 81 lakhs. In 1857-58, the exports nearly overtook the imports, the two standing respectively at 103 and 107 lakhs. The American civil war gave an enormous impetus to the trade of Karāchi, by the high demand for Indian cotton which it created in the European markets; and in 1863-64, the total value of the trade amounted to no less than 6 crores, *viz.*, imports 2 and exports 4 crores. The restoration of peace in America, however, brought about a lower price for cotton in the home markets, and the trade of Karāchi gradually returned to what was then considered its normal level. The total value sank to 4 crores in 1867-68, and 3½ crores in 1873-74; but by 1882-83 it had risen to 7 crores, and again in 1892-93 to 11 crores.

In 1902-03, the trade of Karāchi port, exclusive of Government stores and treasure, had increased in value to 19·3 crores, of which 5·8 represented coasting trade, namely, imports 9 crores and exports 10·3 crores. The main cause of the increase is due to the annually increasing exports of wheat and other food-grains, and oilseeds which are brought by rail from irrigated tracts of Sind and the Punjab. The following were the chief articles of foreign import, with their values, for the three ports, in 1902-03 :—Apparel, 13 lakhs; cotton piece-goods, 2 crores; cotton twist and yarn, 13 lakhs; manufactures of wool, 10 lakhs; hardware and cutlery, 10 lakhs; wines and liqueurs, 9 lakhs; spirits, 11 lakhs; metals, wrought and unwrought (chiefly copper, iron, and steel), 32 lakhs; provisions, 20 lakhs; sugar, 81 lakhs; machinery and mill-work, 7 lakhs; and treasure, 31 lakhs; total imports from foreign ports, including treasure, 5½ crores.

From the United Kingdom, Karāchi imports cotton manufactures, railway materials, liquors, coal and coke, machinery, metals, provisions, apparel, drugs, and medicines; from Bombay, cotton piece-goods and twist, treasure, metals, silk, sugar, tea, jute, spices, dyes, woollen manufactures, cocoanuts, manufactured silk, liquors, fruit, and vegetables; from the Persian Gulf, dried fruits, treasure, wool, grain, and horses; from the coast of Makrān, wool, provisions, grain, and pulses; from Calcutta, jute, grain and pulses; and from Russia, mineral oil.

The following list shows the value of the exports to foreign ports in 1902-03 :—raw cotton, 1½ crores; grain and pulses, 4 crores, of which 387 lakhs represented wheat; hides and skins, 37 lakhs; oilseeds, chiefly rape and *til*, 79 lakhs; raw wool, 70 lakhs; sugar, 6 lakhs. Total value of exports, including treasure, 8 crores.

To the United Kingdom, Karāchi exports cotton, wool, indigo, seeds, hides, skins, animal bones, tea and oils; to France, wheat, cotton, animal bones, gingelly, and rapeseed; to Bombay, Cutch, and Gujarāt, cotton, grain, *ghī*, indigo, oils, seeds, rice, wool, and horses; to Mauritius, grain and pulses; to Persia, indigo, oils, hides, skins, and piece-goods; to Madras, horses; and to China, raw cotton.

The inland trade of Karāchi includes wheat from the Punjab and the United Provinces, cotton for export from the Punjab, a large quantity of wool, dried fruits, and horses

from Kandahār and Kalāt; while, camels, bullocks, and donkeys bring in firewood, grass, *ghī*, date-leaves, hides, etc., from Las Bela and Kohistān.

Harbour and Shipping.

The harbour of Karāchi, during the period of the Tālpur Mīrs, and for the first few years after British annexation, was only capable of accommodating small native craft. Steamers and large ships anchored outside Manora Point, whence men and stores were conveyed in boats up the river, as far as the tide permitted, and then transferred into canoes, which carried them through a sea of liquid mud to a spot near the site of the existing custom-house. In process of time, however, it became apparent that the bar did not interpose so great an obstacle as was originally supposed, and that square-rigged vessels of a certain draught could cross it with safety. In 1854, under the Chief Commissionership of Sir Bartle Frere, the Napier Mole road or causeway, connecting Karāchi with the island of Kiamāri, was completed and thus offered additional inducements to ships for visiting the harbour.

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 estimated the cost of works to provide an ample width of passage with a depth of 25 feet at neap tides, at 29 lakhs of rupees. After much debate and intermissions, owing to partial failures, the principal part of the works—the Manora breakwater, 1,503 feet in length—was commenced in 1869, and completed in 1873. It affords complete shelter to the western channel over the bar during the south-west monsoon; and combined with other works, has already led to the deepening at the entrance to 20 feet at low-water spring tides. The rise and fall is about 8 feet. The other portions of these extensive works include the Kiamāri groyne or stone bank, the east pier, the screw-pile bridge on the Napier Mole, the native jetty, and the Chini creek stoppage. The total expenditure on the harbour improvements, up to December 1873, amounted to 45 lakhs of rupees.

In 1847-48, the number of vessels which entered the harbour was 891, all native craft, with a total burden of 30,509 tons. In 1902-03, 375 vessels (of which 145 were steam-vessels) entered Karāchi harbour with cargoes from foreign ports: gross tonnage, 273,150 tons. In the same year 431 vessels (of which 235 were propelled by steam)



cleared with cargoes from Karachi for foreign ports: gross tonnage, 468,391 tons. From the ports on the coasts of India and Burma 1,490 vessels entered Karachi laden with cargoes; tonnage 506,273. For the ports on the coasts of India and Burma 1,832 vessels left Karachi laden with cargoes; tonnage 392,608. The affairs of the port are managed by the Karachi Port Trust, the annual income of which is about 15 lakhs and expenditure 11 lakhs. The surplus is devoted to paying off the debt of 65 lakhs, which has now been reduced to 53 lakhs. The principal steamship lines are the British India, Hall and Anchor, Messageries Maritimes, Austrian Lloyd, and the coasting vessels of the Bombay Steam Navigation Company.

The Karachi municipality was established in September 1852 and has an income of about 12 lakhs. The chief heads of municipal revenue are: octroi (Rs. 2,47,319), tax on houses and lands (Rs. 95,920), and rents (Rs. 24,693), and the chief items of expenditure are:—cattle and collection (Rs. 57,705), water-supply and drainage (Rs. 1,48,772), conservancy (Rs. 1,57,621), hospital and dispensary (Rs. 14,735), public works (Rs. 65,368) and public instruction (Rs. 40,712). The management of the Cantonment is in the hands of a Committee, which had an average income of Rs. 7,783 and expenditure of Rs. 12,612 during the ten years ending 1901. The normal strength of the Karachi garrison is 1,300, and of the Volunteer Forces 800.

Municipality  
and Canton-  
ment.

The difficulty of water-supply long formed one of the chief drawbacks to Karachi, most of the wells being too brackish for drinking purposes. Formerly, the supply was mainly derived from wells tapping a subterranean bed of the Layari. The inhabitants of Kiamari, and the shipping in the harbour, obtained water from carts, which brought it up from camp. For the purposes of ice manufacture, water was formerly imported by rail from Kotri. A scheme for constructing an underground aqueduct, 18 miles in length, from the Malir river, at a cost of 5 lakhs was completed in 1882 and the town is now in possession of a pure water-supply. The estimated cost of this undertaking, including pipes for distributing the water to the town, Kiamari, and the cantonments, amounted to 14 lakhs of rupees.

Water-supply.

Education is carried on by the Sind College, Government High School, Anglo-vernacular schools, Government vernacular school, and several female and other minor

Education.

establishments. The Dayārām Jethmal Sind Arts College was established in 1887. It is attended by 122 scholars, some of whom are accommodated in a hostel attached to it. A law class prepares students for the first LL.B. The Nārāyan Jagannāth High School prepares students for the Matriculation and School Final Examination. It is managed by Government, and ₹ 10,000 are annually contributed from Provincial revenues. Among the special schools may be mentioned the Normal Class for the training of mistresses and the Engineering Class. Newspapers or periodicals published at Karāchi included two English (the *Sind Gazette* and the *Sind Times*) and five native (in Sindī, Gujarātī and Persian).

Hospitals.

The medical institutions afforded relief in 1902-03 to 73,150 persons, of whom 1,947 were in-door patients treated in Karāchi Civil Hospital. A sick hospital was established in 1869, in connection with the cantonments, and in 1901 a Lady Dufferin Hospital for women, built at a cost of nearly a lakh of rupees by Mr. Edalji Dinshah.

## LAHORE.

Lahore, the capital of the Punjab and of the Division and District which take their names from it, is situated in  $31^{\circ} 35' \text{ N.}$  and  $74^{\circ} 20' \text{ E.}$  on the river Rāvi, distant by rail from Calcutta 1,252 miles, from Bombay 1,280, from Karāchi 784 and from Delhi 298 miles, at the junction of the railway lines from Karāchi, Peshāwar and Calcutta. The city is the second largest in the Province, and the population, excluding that of the cantonment of MIAN MIR, was in 1881, 138,878; in 1891, 159,597; and in 1901, 186,884. The population in 1901 included 113,253 Muhammadans, 62,922 Hindus, 5,964 Sikhs and 4,199 Christians. Though legendary history attributes the founding of Lahore or Lohāwarāna to Lava, the son of Rāma, it is not probable that Lahore was founded before the first century A.D., as we neither find it mentioned in connection with Alexander, who must have crossed the Rāvi close by, nor is it described by Strabo or Pliny. On the other hand, it is possibly to be identified with the Labokla of Ptolemy, the more so that Amakatis, which is mentioned by that author as near Labokla, has been identified by Cunningham with the ruins of Ambā Kāpi about 25 miles from Lahore. The first certain historical record of Lahore is, however, that of Hiuen Tsiang, who mentions it as a large Brāhmanical city visited by him in 630 A.D. on his way to Jālandhar (Jullundur). At about this time it is possible, as stated in the *Hadigāt-ul-Akālīm* of Murtaza Husain, that the capital of the kingdom of Lahore was transferred to Siālkot, as Al Birūni speaks of Lahore as a province whose capital was Mandhukur, and it is noticeable that Al Masūdi who lived at Multān in the time of Mahmūd makes no mention of Lahore. At the end of the 10th century the kingdom of Lahore was in the hands of a line of Brāhman kings, and in 988 A.D. Jaipāl, the reigning monarch, was decisively beaten by Sabuktigin, and in despair burnt himself to death. In the invasions of Mahmūd we hear no mention of Lahore until 1022 A.D., or 13 years after Anandpāl's defeat at Waihind, when it was visited by Mahmūd on his way from Kashmir, a fact which adds to the probability that Lahore city was not at this time a place of great importance. In 1034 Lahore was seized by Nialtigin, the revolted governor of Multan. He, however, was expelled and in 1036 Lahore

was made the capital of the Ghaznivid dominions east of the Indus. A final insurrection by the Hindus at Lahore in 1043 was quelled by Maudūd, and Lahore was left in charge of Malik Ayāz whom Muhammadan tradition relates as the founder of the city. During the reign of the first eight Ghaznivid princes Lahore was governed by viceroys as the head-quarters of the province, but during the reign of Masūd II (A. D. 1097—1114) it was made the seat of government of the empire. After Masūd's death Muhammad Bahlim, governor of Lahore, rebelled against Bahrām Shah in 1119, but it was defeated, and in 1153 Khusrū Shāh again transferred the seat of government to Lahore, where it remained till 1193. The city was put to ransom by Muhammad of Ghor in 1181 and taken in 1186. From this time onwards Lahore was the centre of the opposition to the authorities at Delhi, while subject to the constant incursions of the turbulent Khokhras, who devastated the country round Lahore in 1205. On the death of Muhammad of Ghor in 1206 Kutab-ud-din Aibak was crowned at Lahore; his lieutenant Kubāchah lost the city to Taj-ud-din Ilduz in 1206, but it was recovered by Kutab-ud-din in the same year. From the death of Arām Shāh in 1211 A.D. the province of Lahore became the bone of contention between Altamsh at Delhi, Nasir-ud-din Kubāchah at Multān and Taj-ud-din Ilduz at Ghazni. The latter in 1215 took Lahore from Nasir-ud-din; but Altamsh defeated him in the following year and made himself master of the city in 1217. On the death of Altamsh in 1236 Malik Alā-ud-din Jāni of Lahore broke out in revolt and after he had been defeated and killed, Kabir Khān-i-Ayāz of Lahore likewise rebelled in 1238, but submitted on Raziyyat crossing the Ravi. Then follows a century during which Lahore lay at the mercy of incessant Mughal raids. It was taken by them in 1241 and put to ransom in 1246. The city was rebuilt by Balban in 1270, but in 1285 the Mughals returned, and Balban's son Prince Muhammad was slain in an encounter on the banks of the Rāvi, the poet Amir Khusrū being captured at the same time. Muhammad's son Kai Khusrū was appointed governor of the Punjab in his stead, but was murdered in 1287. The suburb of Mughalpurā was founded about this time by Mughal settlers, and Dūa the Chaghātī made a raid and Lahore in 1301. Under Alā-ud-din Khilji,

Ghāzi Malik, afterwards the emperor Tughlak Shāh, was in 1308 given charge of the territories of Dīpālpur and Lahore as a warden of the marches against the Mughals, an office he seems to have discharged with some success. However, the Khokhars took Lahore in 1342 and again in 1394, when it was retaken by Sārang Khān. In 1398 Lahore was taken by a detachment of Tīmūr's army and seems to have lain desolate till it was rebuilt by Mubārak Shāh in 1422.

Jasrath Khokhar attacked Lahore in the same year and again in 1431 and 1432, but without success; but in 1433 Shaikh Ali took the city, which, however, he had almost immediately to surrender. In 1441 Bahlol Khān Lodi was appointed to the fiefs of Lahore and Dīpālpur, and seized the opportunity of turning against his master Muhammad Shāh. Lahore seems to have enjoyed a period of peace under the Afghāns, but in the reign of Ibrāhīm Lodi, Daulat Khān Lodi, governor of Lahore, revolted and called in the aid of Babar. Lahore was plundered by Babar's troops in 1524, but in his final invasion in the next year he passed to the north through Siālkot. Under the Mughal dynasty was the golden period of the history of Lahore, which again became a place of royal residence and grew to be, in the language of Abul Fazl, 'the grand resort of people of all nations'; and it still retains many splendid memorials of this period. On the accession of Humāyūn, Kāmran, his younger brother, took possession of Lahore and was assigned the Punjab together with Kābul and Kandahār; and in the struggle between Humāyūn and Sher Khān, Lahore was the military head-quarters of the Mughals, and narrowly escaped destruction on their temporary defeat. Humāyūn re-entered Lahore triumphantly in 1554, being received with every expression of joy; but after Akbar had come to the throne the place was seized in 1563 by his younger brother Hakim, who, though expelled, made another assault in 1581, from which he was repelled by Akbar in person. Akbar held his court at Lahore from 1584 to 1598, where he was visited by some Portuguese missionaries, and by the Englishmen Fitch, Newberry, Leeds and Storey. He enlarged and repaired the fort and surrounded the town with a wall, portions of which still remain, built into the modern work of Ranjit Singh. Specimens of the mixed Hindu and Saracenic style adopted by Akbar survive within the fort, though largely defaced by later alterations. Under that great emperor, Lahore rapidly increased in area and population. The most thickly

inhabited portion covered the site of the existing town but long *bazars* and populous suburbs spread over the now desolate tract without the walls. On Jahāngīr's succession in 1606 Prince Khusrū seized the suburbs of Lahore and besieged the citadel, but he was quickly defeated and his followers were put to death with great barbarity. Gurū Arjan was implicated in this rebellion and died in captivity, or, as Sikh tradition has it, disappeared miraculously beneath the waters of the Rāvi, and his shrine still stands between the Mughal palace and the mausoleum of Ranjit Singh. Jahāngīr, fixed his court at Lahore in 1622 and died near there in 1627.

Jahāngīr erected the greater Khwābgāh or 'Sleeping Place,' the Moti Masjid or 'Pearl Mosque' and the tomb of Anārkali, now used as a repository of Secretariat records. The palace originally consisted of a large quadrangle

surrounded on three sides by a colonnade of red stone pillars, having their capitals intricately carved with figures of peacocks, elephants and griffins. In the centre of the fourth side overlooking the Rāvi, stood a lofty pavilion in the Mughal style, flanked by two chambers with elaborately decorated verandahs of Hindu architecture. A garden filled the interior space of the quadrangle, with a raised platform of marble mosaic; while beneath the colonnade and pavilion, underground chambers afforded cool retreats from the midday sun. The beauty of this building was largely disfigured by Sikh and European alterations, but a great deal has been recently done towards its restoration.

Jahāngīr's mausoleum at Shāhdara forms one of the chief ornaments of Lahore, though even this has suffered somewhat from depredations. The marble dome, which once rose over the tomb, was removed by Aurangzeb. The tombs of Nūr Jahān, his devoted wife, and of her brother Asāf Khān, have fared worse, having been stripped of their marble facings and coloured enamels by the Sikhs. Shāh Jahān erected a smaller palace by the side of his father's building, the beauty of which can still be discerned through the inevitable whitewash which covers the marble slabs and hides the depredations of the Sikhs. To the same emperor is due the range of buildings to the left of the Khwābgāh, with octagonal towers, the largest of which, known as the *Samman Burj*, contains the exquisite pavilion, inlaid with flowers wrought in precious stones, which derives its name of the Naulākha from its original cost of 9 *lāks*; together with the Shish Mahals, afterwards the reception-room of Ranjit Singh, and interesting as the place where Dalip Singh made over the sovereignty of the Punjab to the British Government.

Lahore was seized by Shahryār on Jahāngīr's death, but he was soon defeated, and between 1628 and 1637 Lahore enjoyed peace and prosperity under the rule of Alī Mardān Khān and of Hakim Ali-ud-dīn generally known as Wazīr Khān. The people of Lahore warmly espoused the cause of Dāra Shikoh, and supplied him with men and money on his flight westward in 1658. During the reign of Shāh Jahān Lahore must have had a circuit of some 16 or 17 miles, the portion of the city outside the walls consisting of numerous thickly inhabited suburbs connected with the city gates by long *bazars*.

The Shāhlamār Gardens and pleasure-ground, situated 4 miles east of Lahore city, were laid out in 1667 by Alī Mardān Khān, the celebrated engineer of Shāh Jahān, in imitation of the garden planned by the emperor Jahāngīr at the sources of the Jhelum river in Kashmīr. The garden consisted of seven divisions representing the seven degrees of the Paradise of Islām, of which only three are included in the present area of about 80 acres, the remainder having fallen into decay. In the centre is a reservoir bordered by an elaborately indented coping and studded with pipes for fountains. A cascade falls into it over a slope of marble corrugated in an ornamental carved diaper. During the troublous times of Ahmad Shāh the gardens were neglected, and some of the decorative works were defaced and removed. Ranjit Singh restored them; but at the same time he laid ruthless hands upon the marble pavilions of the central reservoir, using them to adorn the Rāmbāgh at Amritsar, and substituting structures of brick and whitewash in their stead.

Under Aurangzeb Lahore began to decline in population. Even before his time, the foundation of Shāhjahānābād or modern Delhi had drawn away the bulk of the classes dependent upon the court; and the constant absence of the emperor contributed still more to depress the city. Aurangzeb also constructed an embankment for three miles along the Rāvi, to prevent inundations, but with such undesirable success that the river completely altered its course, and left the town at a considerable distance. Among his other works, the Jāma Masjid or 'Great Mosque' ranks first, a stiff and somewhat ungraceful piece of architecture, which, by its poverty of detail, contrasts with the gorgeous profuseness of Agra and Delhi.

With the reign of Aurangzeb, the architectural history of Lahore may be said to close, later attempts marking only the rapid decadence of art, which culminated in the tawdry erections of the Sikhs. From the accession of Bahādur Shāh till the establishment of Ranjit Singh's authority at the beginning of the 19th century, the annals of Lahore consist of successive invasions and conquests by Nādir Shāh, Ahmad Shāh, and many less famous depredators. The magnificent city of the Mughal princes and their viceroys sank into a mere heap of ruins, containing a few scattered houses and a couple of Sikh forts within its shrunken walls; while



outside, a wide expanse of broken remains marked the site of the decaying suburbs which once surrounded the capital.

As the capital of an outlying province Lahore early felt the effects of the decay of the empire. It was threatened by Banda's insurrection, and Bahādur Shāh marched there in 1712, but died before he could effect anything. A conflict ensued outside the walls of Lahore between his son Jahāndār and Azim-ush-shān in which the latter was defeated and drowned in the Rāvi. Under Farrukh Siyar the governor of Lahore was defeated by the Sikhs, on which Abdus Samad Khān was appointed to the post, who defeated the rebels and took Banda prisoner; he was succeeded by his son Zakariya Khān, who kept the Punjab peaceful for twenty-one years (1717—1738). He however found it prudent to submit to Nādir Shāh, who accepted a ransom in lieu of plundering the city. Ahmad Shāh Abdālī occupied Lahore in 1748, and again in his second invasion after some resistance from Mir Mannu (Muīn-ul-Mulk) the new governor. Mir Mannu was succeeded by his widow, and her abduction by the Delhi *Wazīr* was the pretext for Ahmad Shāh's fourth invasion (1755). Lahore was occupied and placed under Prince Timūr, from whom however it was taken by the Sikhs under Jassa Singh. They were expelled by the Mahrattās in 1758, who installed Adina Beg as governor. He, however, died in a few months and the Mahratta power was broken by Ahmad's victory at Panipat in 1761, while the Sikhs who again besieged Lahore were defeated in his sixth invasion at the battle of Ghulaghāra, Kābuli Mal being left as governor of Lahore. The Sikh cavalry, however, ravaged the country round, and after Ahmad's seventh invasion Kābuli Mal was ejected and the Sikhs again became masters of Lahore. For the 30 years following Ahmad Shāh's final departure (1767—1797) the Sikhs ruled in Lahore unmolested, till in 1797 Shāh Zamān appeared before the city and put it to ransom. The next year he appeared again, and on this occasion Ranjīt Singh received from him on his retirement a formal grant of the chieftainship of Lahore. The rise of Ranjīt Singh's empire

made Lahore once more the centre of a flourishing, though ephemeral, kingdom. The great Mahārāja stripped the Muhammadan tombs of their ornaments, which he sent to decorate the temple at Amritsar; but he restored the Shālāmār gardens, erected a really beautiful *bārādari* in the space between the palace and the Jāma Masjid, and also built a number of minor erections in the very worst taste. His mausoleum, a mixed work of Hindu and Muhammadan architecture, forms one of the latest specimens of Sikh workmanship. The collapse of the Lahore kingdom under Ranjit Singh's successors forms a chapter of imperial history. In December 1846 the Council of Regency was established, and the British Resident became the real central authority at Lahore. On 29th March 1849, on the conclusion of the second Sikh war, the young Mahārāja Dalip Singh resigned the government to the British.

In 1849 the environs still remained a mere expanse of crumbling ruins and the houses of the first European residents clustered around the old cantonment, on a strip of alluvial lowland, south of the town, running parallel to a former bed of the Rāvi. Gradually, however, the station spread eastward; and now a new town covers a large part of the area once given over to ruins and jungle, while every year sees fresh additions to the renovated capital.

The modern city of Lahore covers an area of about one square mile. It was formerly surrounded by a brick wall, rising to a height of 30 feet, and strengthened by a moat and other defences. But the moat has been filled in, and the wall razed, and a garden now occupies the site of the trench and wall and encircles the city on every side except the north. Though built upon an alluvial plain, the *debris* of ages has raised the present town to a position upon a considerable mound. A metalled road runs round the outer side of the rampart, and gives access to the city by 13 gates. The citadel or fort rises upon a slight but commanding eminence at the north-eastern angle, and abuts northward on the old river bed, while the esplanade stretches over an open space to the south and east.

Within the city, narrow and tortuous streets, ending in *culdesacs*, and lined by tall houses, give Lahore a mean and gloomy appearance; but the magnificent buildings of the Mughal period serve to relieve the general dullness of its domestic architecture. On the north-eastern side especially, the mosque of Aurangzeb, with its plain white marble domes

and simple minarets, the mausoleum of Ranjit Singh, with its rounded roof and projecting balconies, and the desecrated facade of the Mughal palace, stand side by side in front of an open grassy plain exhibiting one of the grandest *coups d'œil* to be seen in India.

The European quarter or civil station lies on the south and east of the city. The older part known as Anārkali lies to the south, and originally contained a cantonment, abandoned in 1851-52 on account of its unhealthiness. Anārkali is connected with the city by a fine road known as the Old Mall, and contains the Secretariat Buildings, District Court-house, Punjab University, Town Hall, Museum, Mayo and Lady Aitchison Hospitals, and many other public buildings and a fine public garden. To the east is the Railway colony grouped about the station in the quarter known as the Naulākha, while to the south-east the new mall stretches out for a distance of three miles to Government House and the Lawrence and Montgomery Halls. This road is the backbone of the newer residential quarters, the Cathedral of the diocese and the Chief Court are on this road, besides sundry Government offices and most of the European shops. A large public garden surrounds the Lawrence and Montgomery Halls, and contains a zoological garden which has a good collection of water fowl. The village of Mozang on the south-east of the city is now almost surrounded on three sides by European residences. Beyond Government House on the way to Mian Mir is the Aitchison Chiefs' College.

The municipality, created in 1867, is of the 1st class. It has 30 members, 16 nominated, 4 *ex-officio*, and 20 elected. The president is elected by the members from among themselves. The average income for the 10 years ending 1902-03 was Rs. 5,28,648 and the expenditure Rs. 5,07,980; the chief sources of income were octroi (Rs. 3,57,937) and taxes other than house and land tax (Rs. 9,745); while the main items of outlay were conservancy (Rs. 64,840), education (Rs. 10,038) and hospitals and dispensaries (Rs. 19,327), water-supply and drainage (Rs. 81,425) and administration (Rs. 62,502), public safety (Rs. 74,861) and public works (Rs. 52,510). The income and expenditure for 1903-04 were Rs. 6,41,203 and Rs. 6,07,775 respectively.

A system of water-works was opened in 1881. The supply is drawn from five wells and pumped into service reservoirs and over a high pressure stand-pipe direct into the supply

system. The city, civil station, railway colony, and the village of Mozang are supplied by this system, and the estimated daily supply is 10 gallons per head of population. A drainage system was completed in 1883 whereby the whole sewage of the city is discharged into the Rāvi.

Most of the decorative arts for which Lahore was once famous have greatly declined or vanished altogether. The silk-workers of Lahore who once were famous for superior silks of Bokhāra thread now only turn out inferior and coarse materials, though the trade in these is flourishing enough. The mystery of gold and silver wire drawing has entirely disappeared, and so has the production of glass, enamel and arms, and but little gold embroidery is now done. On the other hand, trades of a useful character have largely increased, among which may be mentioned the manufacture of vegetable oils, candles and soap, sulphuric and nitric acids, and printing, lithography and book-binding. The leather trade is an important one, and a large quantity of saddlery and shoes is annually turned out. Cotton fabrics are largely made, and a great deal of printing on coarse cotton stuffs is done. Good woollen blankets are made, and fine *pashmīna* woollen stuffs. There is a large output of wooden furniture, decorated as well as plain. A large quantity of bricks and tiles are burnt. Lahore is moreover an important centre for the collection of agricultural produce, and 10 cotton cleaning and pressing mills prepare cotton for export. Of other factories the only important ones are the Punjab Oil and Flour Mills established in 1881, which turn out large quantities of castor and other vegetable oils, as well as supplying large quantities of flour, two mills for spinning cotton, and the North-Western Railway Workshops. The Punjab Banking Company has its head-quarters at Lahore, with a branch at Miān Mir, and the Alliance Bank of Simla, Commercial Bank of India and National Bank of India also have branches in the city.

As the head-quarters of the Local Government, Lahore naturally contains the principal educational institutions of the Province. These comprise the Punjab University with five colleges—the Government, Forman Christian, Dayānand Anglo-Vedic, Islāmīa, and Oriental also the Medical and Law Colleges and the Central Training College. The city possesses 11 high schools—the Central Model High School, the Aitchison Chiefs' College, and the Dayānand, Madrassat-ul-Musalīmīn and Sanātān Dharm Sābha schools, the Mission,



Victoria and Oriental schools and three schools for Europeans. It also has three middle schools for Europeans and the Khālśa middle school for Sikhs. Its girls' schools include two high schools (one for Europeans) and three middle schools (two for Europeans). Technical and special education are provided by the Mayo school of Art, the Medical, Railway, Technical and Veterinary Schools, the Hindu Technical Institute and Government Normal School. Classes are also held in Yūnāni and Vedic medicine. Printing presses are numerous and produce 20 English and 66 vernacular periodicals, of which the most important are the *Civil and Military Gazette*, the *Tribune* and the *Observer*.

Lahore is the head-quarters of the Anglican Diocese of that name. The Cathedral of the Resurrection, a fine building in the decorated early English style, was consecrated in 1887. There is also a Railway Church in Naulākha. The Church Missionary Society has a theological training school at Lahore. The city is also the head-quarters of the Roman Catholic diocese of Lahore and contains the Pro-Cathedral. The American Presbyterian Mission has a church, and several native churches exist in the city. Missions are conducted by the Church Missionary Society and the Methodist Episcopal Mission. Lahore is the head-quarters of Punjab Freemasonry and contains two lodges.

The principal public buildings have already been referred to in the general description of the city and station. Lahore is the head-quarters of the Punjab Light Horse and of the 1st Punjab Volunteer Rifles. The chief medical institutions are the Mayo and Lady Aitchison Hospitals, besides the Medical College above mentioned.

## LUCKNOW.

Municipality, cantonment, and former capital of the Province of Oudh, situated in  $26^{\circ} 52' \text{ N.}$  and  $80^{\circ} 56' \text{ E.}$  on the banks of the Gumtī. It lies at the junction of several branches of the Oudh and Rohilkhand Railway with metre-gauge lines connecting the railway systems of Rājputāna and north Bengal, and is the centre from which radiate important roads to the surrounding districts. Distance by rail to Calcutta 666 miles, and to Bombay 885 miles. Lucknow is the largest city in the United Provinces, and the fourth largest in British India. Population is, however, decreasing: 1869, 284,779; 1881, 261,303; 1891, 273,028; 1901, 264,049. In 1901 Lucknow contained 154,167 Hindus, 101,556 Musalmāns, and 7,247 Christians, of whom 5097 were Europeans or Eurasians. The population within municipal limits was 240,649, while that of cantonments was 23,400.

### History.

The oldest part of Lucknow is the high ground within the Machchhī Bhawan fort, which is known to Hindus as the Lakshman Tilā, from the tradition that a city was founded here by Lakshmana, brother of Rāma Chandra of Ajodhyā. Nothing is known of the early history of the town; but after the Muhammadan conquest of India it was occupied by Shaikhs and Pathāns. The former became of some importance and built a fort, and according to one account the place derives its name Lakhnau from Likhna, the name of the architect of the fort. In the 15th century one of the Shaikhs was celebrated for his piety and assumed the name of Shāh Mīnā. His tomb is still visited by pilgrims, who offer pieces of cloth, and it is specially resorted to when a man has a case pending in court. In 1526 Lucknow was occupied by Humāyūn, who abandoned it; but it was again taken by Bābar in 1528. A few years later Humāyūn defeated Mahmūd, brother of the last Lodi king near here. Under the Suri kings, Lucknow began to rise into importance, and in the reign of Akbar it was the chief town of a *sarkar*. Its growth, however, like that of so many of the great modern cities of India, was most rapid in the 18th and 19th centuries. It rose to greatness as the capital of the young dynasty which established itself in Oudh during the decay of the

Mughal empire, and spread its rule, not only over the modern Province, but also through the neighbouring tracts now included in Rohilkhand, the Gorakhpur and Benares Divisions, and the Allahābād Division north of the Ganges. Saadat Khān, the first Nawāb, had a residence at Lucknow, but lived there seldom. His son-in-law, Safdar Jang, built a fort at Jalālābād, three miles south of the city, to keep in check the Rājputs of BAISWARA, and also commenced the stone bridge over the Guntī. He rebuilt the old stronghold of Lakshman Tilā, which was henceforward known as the Machchhī Bhawan or fish palace, from the fish which he was entitled to bear on his standard. Shujā-ud-daula, the third Nawāb, resided chiefly at Fyzābād, and under the reigns of the first three Nawābs Lucknow increased in size, but received few architectural embellishments of an ornamental kind. With Asaf-ud-daula, the fourth Nawāb, a new political situation developed. He lived the contented and servile ally of the English; but the grandeur of Lucknow dates from his reign and the works he constructed did not degenerate into the mere personal extravagances of his successors. He built bridges and mosques, as well as the great Imāmbāra, the chief architectural glory of Lucknow, in which he lies buried, the adjacent mosque, the Rūmī Darwāza or Turkish gate, and the magnificent palace which afterwards became the Residency. Outside the city lies the palace of Bibiāpur, built by Asaf-ud-daula as a country-house and hunting-lodge. Numerous other handsome edifices in various parts of the town attest the greatness of the same Nawāb, whose memory is still preserved in popular rhymes as the embodiment of liberality and magnificence. The Lucknow court had now reached its highest splendour. The dominions of the Nawāb extended over a wider area than at any earlier or later period. All the wealth of the state was devoted to the personal aggrandizement of its ruler and the accumulation of those materials which minister to oriental pomp. The burden on the people was crushing, and when the English traveller, Tennant, passed through it, he found almost everywhere a plundered and desolate country. Saadat Ali Khān, half-brother to Asaf-ud-daula, ceded a large territory to the British in return for their protection, and thenceforward the Nawāb and his successors, the kings of Oudh, degenerated into a mere *faintant* dynasty of pleasure-seekers, whose works no longer partook

of any national or utilitarian character, but ministered solely to the gratification of the sovereign. In the place of mosques, wells, forts or bridges, palace after palace sprang up in succession, each more ungraceful and extravagant than the last. At the same time European influence began to make itself felt in the architecture, which grew gradually more and more debased from reign to reign. Awkward imitations of Corinthian columns supported Musalman domes, while false venetian blinds and stucco marble replaced the solid brickwork of the earlier period. Palaces were erected for the kings, for their wives, and for their concubines, and hardly less palatial buildings sprang up to house the royal menageries. Saadat Ali Khān set the fashion by erecting the Farhat Bakhsh or giver of delight, the chief royal residence till the last king, Wajid Ali Shāh, built the Kaisar Bāgh. He also built the portion of Lucknow which extends east of the Machchhi Bhawan, besides numerous small palaces, including the Dilkushā. In his time Lucknow reached very nearly its present size.

Ghāzi-ud-dīn  
Haidar.

Ghāzi-ud-dīn Haidar, son of Saadat Ali Khān (1814), was the first of his line who bore the title of king. He built for his wives the two palaces called the great and lesser Chhattar Manzils (umbrella or dome palace), and also erected fine mausoleums to his father and mother, and the Shāh Najaf, in which he himself was buried. Other memorials of this king are the Moti Mahal, the Mubārak Manzil, and the Shāh Manzil, where the wild-beast fights took place, for which Lucknow was famous. He attempted to dig a canal for irrigation from the Ganges, but it proved a complete failure.

Nasir-ud-dīn  
Haidar.

Nasir-ud-dīn Haidar, son of the last-named monarch (1827), founded the Tārāwālī Kothī or "observatory," under the superintendence of Colonel Wilcox, his astronomer royal. It contained several excellent instruments. On the death of Colonel Wilcox, in 1847, the establishment was dismissed and the instruments disappeared during the Mutiny. The building was the headquarters of the Fyzābād Maulvi, Ahmad-ullah Shāh, during the rebellion, and the insurgent council frequently held its meetings here. It is now occupied as a bank. Nasir-ud-dīn also built a great *karbala* in Iradatnagar, under which he lies buried.

Muhammad  
Ali Shāh.

Muhammad Ali Shāh, uncle of Nasir-ud-dīn Haidar (1837), raised his own monument, the Husainabad Imambara, a tawdry building in which the degeneration of architectural

taste is distinctly marked. A magnificent stone tank standing close to the road from the Chhattar Manzil to Husainabad dates from this reign, and near it stands an unfinished building, called the Sat Khanda or seven-storeyed tower, though only the fourth storey was completed. Muhammad Ali Shāh also erected a mosque close to his mausoleum; but its courtyard and the buildings attached were never completed, and the mosque itself stood unfinished for many years.

Amjad Ali Shāh, the fourth king (1842), built his own mausoleum in Hazratganj, and laid down an iron bridge across the Guntī. This bridge was brought out from England by Ghāzī-ud-dīn Haidar, who, however, died before it arrived. His son, Nasir-ud-dīn Haidar, directed that it should be put up opposite the Residency; but the operations for sinking wells to receive the piers proved unsuccessful, and the work was thus delayed till the accession of Amjad Ali Shāh.

Wājid Ali Shāh, the last king of Oudh (1847—56), bears the whole opprobrium for the erection of the Kaisar Bāgh, the largest, gaudiest, and most debased of all the Lucknow palaces. It was commenced in 1848 and finished in 1850 at a cost of 80 lakhs. Only the rear portion is now standing.

For a year after the annexation of Oudh the work of inaugurating the new administration was busily carried on under General Outram, the last Resident, and Mr. C. C. Jackson of the Civil Service. A couple of months before the outbreak at Meerut, Sir Henry Lawrence (20th March, 1857) had assumed the Chief Commissionership. The garrison at Lucknow then consisted of the 32nd British Regiment, a weak company of European artillery, the 7th Regiment native light cavalry, and the 13th, 48th, and 71st Regiments of native infantry. In or near the city were also quartered two regiments of irregular local infantry, together with one regiment of military police, one of Oudh irregular cavalry, and two batteries of native artillery. The town thus contained nearly ten Indian soldiers to every European, or 7,000 to 750. Symptoms of disaffection occurred as early as the month of April, when the house of the surgeon to the 48th was burned down in revenge for a supposed insult to caste. Sir Henry Lawrence immediately took steps to meet the danger by fortifying the Residency and accumulating stores. On the 30th of April the men of the 7th Oudh Irregulars refused to bite their cartridges on the ground that they had been greased with cow's fat. They were induced with some difficulty to return

to their lines. On May 3rd Sir Henry Lawrence resolved to deprive the mutinous regiment of its arms, a step which was not effected without serious delay.

On May 12th Sir Henry held a *darbār*, and made an impressive speech in Hindustāni, in which he called upon the people to uphold the British Government, as most tolerant to Hindus and Muhammadans alike. Two days earlier the massacre at Meerut had taken place, and a telegram brought word of the event on the morning after the *darbār*. On the 19th Sir Henry Lawrence received the supreme military command in Oudh. He immediately fortified the Residency and the Machchhi Bhawan, bringing the ladies and children into the former building. On the night of the 30th May the expected insurrection broke out at Lucknow. The men of the 71st, with a few from the other regiments, began to burn the bungalows of their officers and to murder the inmates. Prompt action was taken, and early next morning the European force attacked, dispersed, and followed up for 10 miles the retreating mutineers, who were joined during the action by the 7th Cavalry. The rebels fled towards Sitāpur. Although Lucknow thus remained in the hands of the British, by the 12th of June every post in Oudh had fallen into the power of the mutineers. The Chief Commissioner still held the cantonments (then situated north of the Gumti) and the two fortified posts at the beginning of June; but the symptoms of disaffection in the city and among the remaining native troops were unmistakable. In the midst of such a crisis, Sir Henry Lawrence's health unhappily gave way. He delegated his authority to a council of five, presided over by Mr. Gubbins, the Financial Commissioner; but shortly after recovered sufficiently to resume the command. On the 11th June, however, the military police and native cavalry broke into open revolt, followed on the succeeding morning by the native infantry. On the 20th of June news of the fall of Cawnpore arrived; and on the 29th, the enemy, 7,000 strong, advanced upon Chinbat, a village on the Fyzābād road, 8 miles from the Residency. Sir Henry Lawrence marched out and gave the enemy battle at that spot. The result proved disastrous to our arms through the treachery of the Oudh artillery, and a retreat became necessary. The troops fell back on Lucknow, abandoned the Machchhi Bhawan, and concentrated all their strength upon the Residency. The siege of the enclosure began upon 1st July. On the 2nd, as Sir Henry Lawrence lay on his bed, a shell entered the room, burst, and wounded



him severely. He lingered till the morning of the 4th, and then died in great agony. Major Banks succeeded to the civil command, while the military authority devolved upon Brigadier Inglis. On 20th July the enemy made an unsuccessful assault. Next day Major Banks was shot, and the sole command was undertaken by Inglis. On the 10th of August the mutineers attempted a second assault, which was again unsuccessful. The third assault took place on the 18th; but the enemy were losing heart as they found the small garrison so well able to withstand them, and the repulse proved comparatively easy.

Meanwhile the British within were dwindling away and **First relief.** eagerly expecting reinforcements from Cawnpore. On September 5th news of the relieving force under Outram and Havelock reached the garrison by a faithful native messenger. On 22nd September the relief arrived at the Alambagh, a walled garden on the Cawnpore road held by the enemy in force. Havelock stormed the Alambagh, and on the 25th fought his way against continuous opposition through the eastern outskirts of the city. On the 26th he arrived at the gate of the Residency enclosure, and was welcomed by the gallant defenders within. General Neill fell during the action outside the walls. The sufferings of the besieged had been very great; but even after the first relief it became clear that Lucknow could only be temporarily defended till the arrival of further reinforcements should allow the garrison to cut its way out. Outram, who had now reassumed the command which he generously yielded to Havelock during the relief, accordingly fortified an enlarged area of the town, bringing many important outworks within the limits of defence; and the siege began once more till a second relieving party could set the besieged at liberty. Night and day the enemy kept up a continual firing against our position, while Outram retaliated by frequent sorties.

Throughout October the garrison maintained its gallant **Final relief.** defence, and a small party shut up in the Alambagh and cut off unexpectedly from the main body also contrived to hold good its dangerous post. Meanwhile Sir Colin Campbell's force had advanced from Cawnpore, and arrived at the Alambagh on the 10th of November. From the day of his landing at Calcutta, Sir Colin had never ceased in his endeavours to collect an army to relieve Lucknow, by gathering together the liberated Delhi field force and the fresh reinforcements

from England. On the 12th the main body threw itself into the Alambagh, after a smart skirmish with the rebels. Sir Colin next occupied the Dilkusha palace, east of the town, and then moved against the Martinière which the enemy had fortified with guns of position. After carrying the post he forded the canal and on the 16th attacked the Sikandra Bagh the chief rebel stronghold. The mutineers, driven to bay, fought desperately for their fortress; but before evening the whole place was in the hands of the British. As soon as Sir Colin Campbell reached the Moti Mahal, on the outskirts of the city proper, General Havelock came out from the Residency to meet him, and the second relief was successfully accomplished.

**Evacuation.**

Even now, however, it remained impossible to hold Lucknow, and Sir Colin Campbell determined, before undertaking any further offensive operations, to return to Cawnpore with his army, escorting the civilians, ladies, and children rescued from their long imprisonment in the Residency, with the view of forwarding them to Calcutta. On the morning of the 20th November, the troops received orders to march for the Alambagh; and the Residency, the scene of so long and stirring a defence, was abandoned for a while to the rebel army. Before the final departure, Sir Henry Havelock died from an attack of dysentery. He was buried in the Alambagh, without any monument, a cross on a neighbouring tree alone marking for the time his last resting-place. Sir James Outram, with 3,500 men, held the Alambagh until the Commander-in-Chief could return to recapture the capital. The rebels used the interval for the fortification of their stronghold to the utmost extent of their knowledge and power. They surrounded the greater part of the city, for a circuit of 20 miles, with an external line of defences, extending from the Gumti to the canal. An earthen parapet lay behind the canal: a second line of earthworks connected the Moti Mahal, the Mess-house, and the Imambāra; while the Kaisar Bagh constituted the rebel citadel. Stockade works and parapets closed every street; and loopholes in all the houses afforded an opportunity for defending the passage inch by inch. The computed strength of the insurgents amounted to 30,000 sepoys, together with 50,000 volunteers; and they possessed 100 pieces of ordnance, guns and mortars.

**Recovery.**

On the 2nd March, 1858, Sir Colin Campbell found himself free enough in the rear to march once more upon

Lucknow. He first occupied the Dilkushā, and posted guns to command the Martinière. On the 5th Brigadier Franks arrived with 6,000 men, half of them Gurkhas, sent by the Rājā of Nepāl. Outram's forces then crossed the Gumti, and advanced from the direction of Fyzābād, while the main body attacked from the south-east. After a week's hard fighting, from 9th to the 15th March, the rebels were completely defeated, and their posts captured one by one. Most of the insurgents, however, escaped. As soon as it became clear that Lucknow had been permanently recovered, and that the enemy as a combined body had ceased to exist, Sir Colin Campbell broke up the British Oudh army, and the work of reorganization began. On the 18th October, 1858, the Governor-General and Lady Canning visited Lucknow in state, and found the city already recovering from the devastation to which it had been subjected. Lucknow remained the capital of a separate administration till 1877, when the post of Chief Commissioner was united with that of Lieutenant-Governor of the North-Western Provinces.

The city of Lucknow covers a vast area lying south of the Gumti, with suburbs extending across the river. The large cantonment forms an irregular quadrilateral adjoining the south-east corner of the city. Up to the Mutiny, bazars reached to the river almost throughout the whole of its course on the northern boundary of the city, but a space has gradually been cleared, with an average breadth of about half a mile. Most of the buildings already mentioned lie in this clearing, and within the last few years have been enclosed in verdant lawns which have justly earned for Lucknow its description as the City of Parks. On the extreme west lies the unfinished mosque of Muhammad Ali Shāh, known as the Jāma Masjid. It was intended to rival the great mosque at Delhi, but is only remarkable for its size and gaudy colour decoration, which has recently been renewed. The Husainābād buildings erected by the same king consist of two enclosures at right angles. One of these is lined with shops and contains the tomb of Muhammad Ali Shāh's daughter, a poor model of the Taj at Agra. The other is laid out as a garden, adorned with stone water channels, fountains, and badly-executed statuary, and contains the Imāmbāra in which Muhammad Ali was buried. The buildings are richly endowed, the surplus income being devoted to charity. East of Husainābād, and extending to the Rūmī

Darwāza, is a beautiful garden, called the Victoria Park, which was laid out in 1887, and encloses the Sāt Khanda, the house first occupied by Asaf-ud-daula when he transferred his government to Lucknow, the large tank built by Muhammad Ali Shāh, and a *bāradārī* constructed by the same king, which contains a series of portraits of the Nawābs and kings of Oudh. Close to the tank is a clock-tower of Moorish design, 221 feet in height and 20 feet square, which was built between 1880 and 1887, and contains a chime of bells. On the eastern border of the Park lies the finest group of buildings in Lucknow, including the Rūmī Darwāza, the great Imāmbāra and a mosque, all of which were built by Asaf-ud-daula. The first of these is a massive gateway popularly believed to be an imitation of the gate at Constantinople, from which the Sublime Porte derives its name. It leads into the Machchhī Bhawan on which are situated the other buildings. The great Imāmbāra consists of a single immense hall, 162 feet long and 54 feet wide. On either side are verandahs 27 feet wide, and at the ends are octagonal apartments 53 feet in diameter. The whole building is covered by a roof of bricks set in concrete several feet thick, which stands without the thrust entailed by vaulting. No wood is used anywhere in the construction, which is built on very deep foundations. A plain slab marks the resting-place of the founder. In the same enclosure stands the beautiful mosque raised by the Nawāb. The Machchhī Bhawan also contains the mound known as the Lakshman Tilā now surmounted by a mosque built by Aurangzeb, and a fine school-house has recently been erected south-east of the Imāmbāra. The mound occupied by the ruins of the Residency lies at a distance of half a mile south-east of the Machchhī Bhawan and is separated from the Guntī by a road and open ground. At the time of the Mutiny bazars were situated close to the low wall surrounding it, but these have been cleared away. The shattered walls of the main block of buildings in which Sir Henry Lawrence received his fatal wound, Dr. Fayer's house where he died, the noble banqueting hall, used during the siege as a hospital, the cellar where the women and children took refuge, and several other buildings are still standing, while high above all the topmost tower still rears its battered sides. Further decay has been prevented by carefully executed repairs, and the grounds have been levelled and turfed. In one corner, under the shade of many cypresses, are the tombs or cenotaphs of some 2,000 Europeans who perished during the Mutiny.

The palaces of Saadat Ali Khān and Ghazī-ud-dīn Haidar lie east of the Residency and adjoin each other. Only portions remain of the vast Farhat Bakhsh. The part of this building which overlooks the river was constructed by General Claude Martin and sold by him to Saadat Ali Khān. It is now joined to the larger Chhattar Manzil built by his successors, and the whole building is used as a club. Other portions of the Farhat Bakhsh are the Lāl Bāradārī and the Gulistān-i-Iram, which are now the Provincial Museum. The former building was the throne-room of the Oudh kings, and in it a serious disturbance took place in 1837, when an attempt was made to prevent the accession of Muhammad Ali Shāh. A fine court for the Judicial Commissioner of Oudh has recently been completed opposite this building and contains a chamber used for meetings of the Provincial Legislative Council. A short distance to the south of these buildings are the stately tombs of Saadat Ali Khān and his wife, and behind them are the Canning College and the large quadrangle forming the Kaisar Bāgh. The latter has already commenced to decay and one side has been removed. The other sides have been allotted to the *talukdārs* of Oudh as residences. East of these buildings lie the Tārāwālī Kothī, the Khurshed Manzil, called after the wife of Saadat Ali Khān who commenced it, the Motī Mahal, which also includes the Mubārak Manzil, and the Shāh Manzil or arena, and the Shāh Najaf, where Ghazī-ud-dīn Haidar is buried. A large horticultural garden then intervenes, on the east of which is the Sikandra Bāgh, where fierce fighting took place on the second relief. Another large public garden, called the Wingfield Park after a Chief Commissioner, lies on the east of the city, and south-east of this is situated the Martinière College. This bizarre erection was built by General Martin as his own residence during the time of Asaf-ud-daula, and resembles a colossal Italian villa on an exaggerated scale. The founder's bones were buried within the Martinière to prevent its confiscation by the Nawāb, but were dug up and scattered during the Mutiny. The Dilkushā palace is situated in cantonments.

Viewed from a distance, Lucknow presents a picture of unusual magnificence and architectural splendour which fades on nearer view into the ordinary aspect of a crowded oriental town. Some of the most striking buildings, which look like marble in the moonlight, are disclosed by the disillusionising

Improvements.

sun to be degraded examples of stucco and brick. Flying buttresses to support nothing but one another, copper domes gilt from top to bottom, burnished umbrellas, and balustrades of burnt clay form frequent features in the tawdry architecture which renders the distant aspect of Lucknow so bright and sparkling. Immediately after the Mutiny a wide glacis was cleared round the Machchhi Bhawan, and three wide military roads, radiating from this point as a centre, were cut right through the heart of the native quarter. The city itself contains shops of the ordinary style and a few larger private residences. The civil station adjoins the eastern side of the city and contains a fine thoroughfare lined with the shops of European tradesmen, called Hazratganj, at the end of which lies the Lucknow residence of the Lieutenant-Governor.

#### Officials.

Lucknow is the headquarters of the principal court in Oudh, the Inspectors-General of Civil Hospitals and of Jails, the Postmaster-General in the United Provinces, the Conservator of Forests in the Oudh Circle, the Commissioner of the Lucknow Division, an Executive Engineer, a Superintendent of Railway Police, and an Inspector of Schools. The Church Missionary Society, the American Methodist Mission, the Wesleyan and the Zanāna Bible and Medical Missions have important stations here. There are 10 hospitals and dispensaries for both sexes, besides 3 female hospitals. The magnificent hospital founded by the late Mahārājā of BALRAMPUR and added to by the present Mahārājā is exceptionally well fitted.

#### Municipality.

The city has been administered as a municipality since 1862, and a special Act was passed to regulate it in 1864, which remained in force till 1873, since which date it has been under the ordinary municipal law of the United Provinces. During the 10 years ending in 1901 the average income and expenditure were 5·2 lakhs, including a loan from Government of 13·2 lakhs to meet the cost of a water-supply from the Guntī. In 1903-04 the total income was 5·3 lakhs, chiefly derived from octroi yielding 3·6 lakhs, sale of water Rs. 38,000, water-rate Rs. 26,000, and conservancy receipts Rs. 22,000. The expenditure of 5·6 lakhs included items of 1·3 lakhs for conservancy, Rs. 76,000 repayment of loans and interest, Rs. 67,000 public safety, Rs. 50,000 maintenance of water-works, and Rs. 45,000 administration and collection. A drainage scheme is now

under construction and a scheme for electric tramways has been sanctioned.

The cantonment is the largest in the United Provinces, Cantonment and is garrisoned by British and native regiments of both cavalry and infantry and by garrison and field artillery. The cantonment fund had an average income and expenditure of Rs. 53,000 in the 10 years ending 1901, and in 1903-04 the income was Rs. 78,000 and the expenditure Rs. 74,000. Lucknow is also the headquarters of the Oudh and Rohilkhand Railway Volunteer Rifles, the Lucknow Volunteer Rifles, and the Oudh squadron of Light Horse.

The city is more noted for its manufactures than for Commerce. general trade; but its industries have suffered from the alterations brought about by British rule. Under the prodigal waste and lavish display of its latest kings Lucknow was a centre for the production of rich fabrics and costly jewellery.\* The kings have departed, and their descendants and those of the nobles of the court who still inhabit the city live on pensions which are fast becoming sub-divided to a vanishing point. Cotton fabrics are still manufactured of all grades, from the coarsest cloth to the finest muslin, and cotton prints are made. An important industry connected with cotton is the famous *chikan* or embroidery in silk or cotton on muslin. The work affords employment to many women and children of good family who are now impoverished, and very good tasteful articles are produced. Lucknow is also celebrated for embroidery with gold and silver thread, but the demand for this is decreasing. The silver work has some reputation and is largely sold to European visitors, while *bidri* or damascening of silver on other metals has also been revived within recent years. The brass and copper industry is still of importance, and vessels for use by Muhammadans are especially made. Wood-carving is still carried on, and there is a little carving in ivory. The potters of Lucknow produce various kinds of art-ware, some of which are distinctly good; while the clay modellers are pre-eminent in the whole of India. Their models of fruit and vegetables have a large sale among natives and are exported to Calcutta and Bombay, and clay figures representing various types of native life are wonderfully artistic. Minor products are tobacco, shoes, and perfumes.

\* See W. Hoey, *Monograph on Trades and Manufactures*, 1880.

There are also some large industries worked on European lines. Two railway workshops employed 3,400 hands in 1903, while four large printing presses employed 930, a large paper mill 526, an iron foundry 200, a brewery 156, and an ice and flour mill 84.

#### Education.

Lucknow is important as an educational centre. The chief institution is the Canning College, founded in 1864 and partly supported by the *talukdārs*, which contained 336 students in 1904, of whom 47 were in the Oriental department and 78 were studying law. There is also a school for the sons of the *talukdārs* and gentry, called the Colvin School. The Reid Christian College, which contains a business department and is managed by the American Methodist Mission, several other mission schools, a normal school, the Jubilee High School, and a number of schools which are under native management are also to be mentioned. The secondary schools contain nearly 2,000 pupils, and there are 5 primary schools with about 150. Lucknow possesses more facilities for female education than any other city in the United Provinces. It contains a high school for girls maintained by the American Mission with 150 pupils, of whom 18 were reading in college classes in 1904, while 600 girls are taught in a number of primary schools. The chief school for Europeans and Eurasians is the Martinière, which contains nearly 300 boys. It is partly supported by the endowments bequeathed by General Martin; but the fees amount to more than half a lakh annually. A girls' school was founded in 1866. It is situated in the Khurshed Manzil and contains 75 pupils. Lucknow is also a centre of literary activity and five English and 18 vernacular newspapers and periodicals are published there. The former include an Anglo-Indian paper called the *Indian Daily Telegraph*, and the *Advocate*, which is the leading organ of native public opinion in the United Provinces and is also published in a vernacular edition. The Newal Kishore Press is one of the most important publishing houses in India for Hindustāni literature.

(M. R. Gubbins *Mutinies in Oudh*, 1858; McLeod Innes *Lucknow and Oudh in the Mutiny*, 1902.)

## MADRAS.

**MADRAS CITY**, the capital of the Madras Presidency and Descriptive.  
the third largest town in the Indian Empire, is built in a straggling fashion on a strip of land nine miles long, from two to four wide and 27 square miles in extent on the shore of the Bay of Bengal in  $13^{\circ} 4' \text{ N.}$  and  $80^{\circ} 15' \text{ E.}$

The site is low-lying and almost dead level, its highest point being only 22 feet above the sea, and it is intersected by two languid streams, the Cooum and the Adyar, of which the former enters the sea immediately south of Fort St. George, in the centre of the town, and the latter near the southern boundary of the city. Neither of them carries enough water to keep the mouth open, and except in the rains they both form salt lagoons separated from the sea by narrow ridges of sand.

Strangers to the town find it difficult to realise that they are in a place as populous as Manchester. Approached from the sea, little of Madras is visible except the first row of its houses; the railways naturally enter it by way of its least crowded parts; and its European quarter is anything but typically urban in appearance. Most of the roads in this part of the town run between avenues and are flanked by frequent groves of palms and other trees; the shops in the principal thoroughfare, the wide Mount Road,—though many of them are imposing erections—often stand back from the street with gardens in front of them; the better European residences are built in the midst of 'compounds' which almost attain the dignity of parks; and ricefields frequently wind in and out between these in an almost aggressively rural fashion. Even in the most thickly-peopled native quarters, such as Black Town and Triplicane, there is little of the crowding found in many other Indian cities, and houses of more than one storey are the exception rather than the rule.

The reason for all this lies in the fact that in Madras, if we except the sea on the east, there are none of the natural obstacles to lateral extension such as hem in Calcutta and Bombay; land is consequently cheap, and though the population of the town is only two-thirds of that of Bombay and only three-fifths of that of Calcutta, it has spread itself over

an area five square miles larger than that occupied by the former city and only three square miles less than that covered by the latter. Though large parts of it are strictly urban in their characteristics, the city as a whole is, in fact, rather a fortuitous collection of villages separated from the surrounding country by an arbitrary boundary line than a town in the usual sense of the word.

For municipal and statistical purposes it is divided into twenty 'Divisions,' but in popular usage the different portions of the town are referred to by the names of the villages within the original limits of which they stand. Some of these villages (Nangambaukam is an instance) are rural hamlets to this day, showing no sign of urban influence beyond the municipal lamp posts and dustbins with which their streets are dotted.

The  
Native  
quarters.

The commercial centre of the city is the native quarter called Black Town, which lies immediately behind the harbour and the two or three streets of European banks and mercantile offices which there face the sea, and is more thickly populated than any other part of it. Triplicane, the chief Muhammadan quarter, and Purasavakam and Vepery, where the greater part of the Eurasians reside, come next in density. All these lie in the middle of the town, but they are separated from one another by ample open spaces which will never be built over. Chief of these is 'the Island,' the city's principal parade and recreation ground, which is surrounded by the two arms of the Cooum and forms part of an extensive fire zone which the military authorities have reserved round the Fort. Next in importance comes the People's Park, begun in 1859 during Sir Charles Trevelyan's governorship and consisting of ornamental grounds containing a considerable zoological collection. The Napier Park, lying between the Mount Road and Chintadripetta, and the Robinson Park, north of Black Town, are also due to the initiative of Governors of the Presidency, namely, Lord Napier (1866—72) and Sir William Robinson (1875). Next to the Napier Park come the extensive grounds of Government House and the open space round the group of public buildings which face the sea south of the Cooum. All these serve as lungs to the crowded centre of the town. Of the surrounding fringe the most thickly peopled area is that north of Black Town, and its population will probably continue to rapidly increase, as it lies handy to the busy part of the city.

The principal European quarters are in the west and south of the fringe, in Egmore, Chetpat, Kilpauk, Nangambaukam, Teynampet and the strip of land on the north bank of the Adyar river. Here are the fine houses built by the merchant princes and the servants of John Company at the end of the eighteenth and the beginning of the nineteenth centuries, in the bad old days when the pagoda-tree still flourished, many of which—Brodie Castle, Doveton House, Gambier's Gardens and others—still bear the names of the authors of their being. All of these are built of brick cased with shell-lime plaster and are designed on very generous lines. The zenanas attached to some of them bear witness to the social customs of the period when they were built. Modern residences are planned on a more lowly scale and employ red brick.

These quarters of the town are served by handsome thorough-fares. Chief among them is the Mount Road, running from the Walajah gate of the Fort across the Island, past Government House, the Madras Club, St. George's Cathedral, and the Horticultural Gardens, thence beside the bank of the Long Tank, over the Adyar by the Marmalong Bridge (built in 1726 by Petrus Usan, the most notable of the Armenians of old Madras) to the Governor's country residence at Guindy and the cantonment of Saint Thomas' Mount nine miles from the Fort. Nearly parallel to it, the shorter Mowbray's Road, with its fine banian avenue, leads to the Adyar Club—built by Mowbray, the first Accountant-General—and at St. George's Cathedral it is crossed by the Cathedral Road and the Nangambaukam High Road. The latter of these runs up to the once fashionable quarter on the Poonamallee Road, while the former leads eastwards to the Marina, a broad esplanade, built in the governorship of Sir M. E. Grand Duff,<sup>1</sup> which runs along the sea front from the High Court to the suburb of St. Thomé and has the makings of one of the finest thoroughfares in India.

The public buildings of Madras are more than usually handsome, but this again is a fact which the stranger is not likely to immediately perceive, for they are scattered

<sup>1</sup> Of it he wrote, "we have greatly benefited Madras by . . . turning the rather dismal beach of five years ago into one of the most beautiful promenades in the world. From old Sicilian recollections, I gave in 1884 to our new creation the name of the Marina; and I was not a little amused when walking there last winter with the Italian general Saletta, he suddenly said to me 'on se dirait a Palermo.'"

about in a manner which robs them of all collective effect. The Post and Telegraph office and the new Bank of Madras building had naturally to be near the harbour and the mercantile centre of the city, and so had the High Court and its appendage the Law College. The Fort, the zone reserved round it, and the Cooum have, however, prevented the erection of other public buildings near these facing the sea, so that the next collection of them is over a mile away on the Marina south of the Cooum mouth. This group consists of the Senate House, the beautiful office of the Board of Revenue (formerly the palace of the Nawābs of Arcot) and the Presidency College. Hidden in various isolated sites throughout the city are many other fine buildings—Government House, the Banqueting Hall (built by Lord Clive in 1802 and containing portraits of many Governors of Madras), the Museum and Connemara Library (the nucleus of which was the old Pantheon), St. George's Cathedral (Ionic in style and finished with the polished plaster work which resembles marble), the Memorial Hall (erected by public subscription to commemorate the exemption of Madras from the horrors of the Mutiny) and others—which seen singly fail to arouse enthusiasm, but grouped together or more favourably situated would make an impressive collection.

The earlier public buildings—the Banqueting Hall and the Cathedral are instances—were built of brick cased with plaster moulded into detail copied from the Italian and other European schools. Since the introduction of granite from Cuddapah and North Arcot in 1864, local architecture has, however, been slowly working towards an adaptation of the Hindu Saracenic, and the High Court, the Law College and the Bank of Madras are built in this style in red brick and grey granite. The latest building material is the beautiful brown stone from Nellore, close-grained yet easily worked of which the Young Men's Christian Association building on the Esplanade is made.

The chief statues of Madras are those of Her Majesty the late Queen-Empress, near the Senate House; of the King-Emperor, opposite the Mount Road entrance to Government House; of Lord Cornwallis, in the Fort square; of Sir Thomas Munro, by Chantrey, on the Island; of General Neill, of Mutiny fame, opposite the Madras Club; of Justice Sir Muttuswāmi Ayyar, in the High Court; and of the Rev. Dr. Miller, on the Esplanade, opposite the Christian College.

Statues.

The churches of Madras deserve more space than can be accorded them. The foundation stone of the Luz Church bears the date 1516 and the oldest European inscription in India. St. Thomé Cathedral contains a series of memorials to Portuguese pioneers which begins in 1557. St. Mary's church in the Fort was consecrated in 1680, is the oldest Protestant place of worship in India, and contains the graves of Governor Nicholas Morse, a great great-grandson of Oliver Cromwell and the man who capitulated to La Bourdonnais in 1746; of Lord Pigot, who defended the Fort against Lally in 1759 and was afterwards deposed and imprisoned by his own council; of the famous Swartz, missionary and statesman; of Sir Thomas Munro, who died of cholera while on a farewell tour in his beloved Ceded Districts in 1827, and of many others who have made Madras history. The Roman Catholic Cathedral in Armenian Street was erected in 1775 by the Capuchins, and about the same time the Armenians, then a wealthy and influential community, built their church in the same street. St. Mark's, Black Town, was consecrated in 1804, St. George's Cathedral in 1815, and St. Andrew's (the Scotch Kirk) in 1821. The two last were designed by the Civil Architect, Major De Haviland, R.E.

The principal Hindu temples are those dedicated to Vishnu and Siva respectively at Triplicane and Mylapore and the chief mosque that in Triplicane.

The climate of Madras has been described with considerable accuracy as "three months hot and nine months hotter." The cooler months are never cold, the mean temperature of December and January being 76°, but the heat in the summer does not approach that of upper India, the mean for May and June being the moderate figure of 90°. The mean for the year is 83°. The average annual rainfall, based on figures for 85 years, is 49 inches, of which 29½ inches are received during the north-east monsoon from October to December and another 15 inches from June to September in the south-west monsoon. The heaviest recorded fall during the last 85 years was 88 inches in 1827 and the smallest 18 inches in 1832, the year before the Guntūr famine.

Like other places on the Bay of Bengal, Madras is liable to frequent and severe cyclones. In October 1687 a storm raged for five days, and drove ashore two ships lying in the roads. In 1721 another storm swept four ships from their moorings and wrecked one of them. On October 3rd, 1746,

when La Bourdonnais' fleet was in the roads after the capture of the town, a cyclone sank three of his ships and two prizes, while four others either lost or cut away their masts and 1,200 men were drowned. In 1782 over 100 native craft which had come to Madras with rice to feed the thousands who had flocked into the town to escape Haidar's horsemen were wrecked and a terrible famine followed. Other cyclones occurred in 1811, 1818, 1820, 1836, 1843 and 1846. In the first of these 90 country vessels went down at their anchors and the surf broke in nine fathoms of water four miles from the shore. In the last, the Observatory anemometer broke at a registered pressure of 40 lbs. to the square foot and one of the massive masonry pillars on the Elphinstone Bridge was blown over. In 1853, 1858, 1863, 1864 and 1865 yet other cyclones visited the place. The most destructive of all happened in May 1872. The wind pressure was 53 lbs. to the square foot. The shipping in the roads did not receive sufficient notice to put out to sea, and between 6 and 11 A.M. nine English vessels, with an aggregate tonnage of 6,700 tons, and 20 native craft were driven ashore, though owing to the use of the rocket apparatus only nineteen lives were lost. In 1874 another cyclone visited Madras, but this time the ships put to sea in time and escaped. The last was in 1881 and, as narrated below, did great damage to the harbour.

#### History.

Madras was founded in 1639 in the reign of Charles I. Masulipatam, the Company's then head-quarters on the Coromandel Coast, was hampered by the unfriendliness of the officials of the kingdom of Golconda, within which it lay, and by its distance from the native weaving and dyeing centres. These were further south in the territories of the dying kingdom of Vijayanagar, the representative of which lived at Chandragiri and ruled through 'Naiks' with local authority. In August 1639 Francis Day, chief of the subordinate factory at Armagon, south of Masulipatam, obtained from one of these a lease of the revenues of 'Madraspattam' and permission to build a fort 'in or about' it. This fort was begun in anticipation of the Directors' sanction by Day and Andrew Cogan, the Agent on the Coromandel coast, in March 1640 and was named Fort St. George, after England's patron saint. In honour of the local Naik's father Chennappa, the settlement, as distinct from the town of Madras itself, was

called Chennappapatam, but the natives now apply the name Chennapattanam to the whole town. The Portuguese at St. Thomé, whose prosperity was already waning, had invited Day to settle there, but he preferred an independent position.<sup>1</sup> By the autumn of 1640, 300 or 400 families of weavers and others, attracted by an exemption from taxes for 30 years, had settled round the Fort, which when finished consisted of a 'tower or house' enclosed by a rectangular wall 400 yards long by 100 yards wide with bastions at the four corners.

In 1641 the place became the Company's head-quarters on the Coromandel coast, in 1653 it was made independent of Bantam, and in 1658 Bantam and the stations in Bengal were put under its orders. The old records still in the Fort vividly describe the simple existence of the factors of those early days—the common mess at which the Governor presided, the prayers which every one had to attend, and the penalties prescribed for swearing, drinking more than half a pint of brandy at a sitting or getting over the Fort wall—and detail the many trials they had to undergo—the irrepressible 'interlopers,' the ubiquitous pirates, and the hungry native potentates with their never-ending demands for more *douceurs*.

The Fort was frequently threatened. In 1672 the French took St. Thomé and fortified Triplicane; the Dutch drove them out in 1674; in 1687 Aurangzeb became aggressive; his general Daud Khan blocked the place from St. Thomé in 1702; and in 1739 the Marāthās were hovering round. At each successive scare something was done to put the Fort, and the wall which had been built round Black Town, into better order, but, though these spasmodic efforts resulted in Day and Cogan's Fort being improved out of recognition, the Directors always grudged expenditure on fortification, the place remained wretchedly weak, and when in 1746, during the first war between the Company and the French, Dupleix's lieutenant La Bourdonnais attacked<sup>2</sup> it, Governor Morse meekly capitulated at once and he and his council were carried off to Pondicherry.

<sup>1</sup> Law and order were moreover at a discount there. One of the early letters to the Directors says "Had wee imbraced their proffer to reside in that cittee, you must have sought out for such servants to doe your business as were both stick free and shot free and such as could digest poison, for this is their dayly practice in St. Thoma, and no Justice."

<sup>2</sup> This attack, and the later siege by Lally, referred to below, are graphically described by Orme.

manual labour is in the greatest demand, such as Perambūr and the area round the harbour, this latter figure is even less than this.

#### Religions.

Owing to the presence in the town of the Prince of Arcot and his following and of a large number of Europeans and Eurasians, the proportion of Musalmāns and Christians in it is considerably higher than usual, there being 113 Musalmāns and 80 Christians in every 1,000 of the population against 64 and 27 in the Presidency as a whole. In 1901 there were 4,228 Europeans and 11,218 Eurasians in Madras, but the Armenians, who in the old days formed a considerable community, numbered only 28. There were only 63 Pārsis and only 11 Jews.

The town is the head-quarters of the Church of England Bishop of the diocese, of the Roman Catholic Archbishop of Madras and Bishop of Mylapore, of the Church of Scotland, and of many Christian Missions and Societies, among which may be specified the Societies for the Propagation of the Gospel and for the Promotion of Christian Knowledge, the Church Missionary Society, the Wesleyan Mission, the London Mission, and the Madras Bible Society.

#### Vernaculars and castes.

The vernacular of the city is Tamil, which is spoken by nearly three times as many people as any other tongue. Next in importance come Telugu, which is the language of as many as a fifth of the population. It follows that the Tamil and Telugu castes largely predominate in the town. Of the former the Paraiyans (labourers, 63,000), Vellālas (63,000) and Pallis (52,000) are the most numerous and of the latter the Balijās (merchants, 48,000). The next most numerous caste, the oil presser Vāniyans, is nearly 20,000 strong. Brāhmans are more than usually numerous, forming some 6 per cent. of the Hindu population. Most of the Musalmāns return themselves as Sheikhs by tribe. There is a sprinkling of foreign castes, but none of them are numerous.

#### Occupations.

In their occupations the people naturally present a complete contrast to the Presidency as a whole, less than 4 per cent. of them being employed in callings connected with pasture and agriculture, as compared with 71 per cent. in the rest of the Province, while the numbers gaining their livelihood from service under Government, personal and domestic service, the supply of food and drink, commerce and the learned and artistic professions are proportionately much

larger than elsewhere. The number of persons of independent means is also unusually high.

Births and deaths are registered with more accuracy in Madras than anywhere else in the Presidency, and consequently the rates of both are apparently much higher than in other urban areas. On an average of recent statistics they were 41.9 and 40.5 per mille, respectively, against 34.6 and 30.5, respectively, in all urban areas throughout the Presidency. The great majority of the deaths are returned, as usual, under the vague headings of 'fevers' and 'other causes.' Up to date (1904) plague has not visited the city. Cholera is frequently imported from the neighbouring villages outside the town, over which the municipality has no sanitary control.

The town cannot boast that it is healthy to native life, though to Europeans it is salubrious enough. The tanks to the west of it, and the rice-fields within its limits which are irrigated from these, keep the sub-soil water at an unpleasantly high level, and moreover the drainage system of the town has hitherto been inadequate to remove the large quantities of water brought into it every day by the municipal water-works. The soil is accordingly much water-logged. Considerable quantities of sewage also at present flow into the Cooum owing to the inadequacy of the existing drainage arrangements. The new drainage scheme referred to below, is expected to do much to cure these defects. The recently erected Moore Market has been of service in improving the food-supply.

Besides the educational and medical institutions referred to (under those heads) below, Madras possesses a large number of scientific, charitable and social institutions and societies. Chief among those devoted to science are the Observatory and the Museum. The Observatory was the first ever established by Europeans in the East. Its nucleus was a collection of instruments made by a scientific member of the Madras Council, William Petrie, and bequeathed by him to the public service when he left India in 1789. The present building was erected in 1792; Sir Charles Oakeley, who was keenly interested in such matters, being then President in Council. John Goldingham was the first astronomer, holding the post till 1830, and he and his successors—notably T. G. Taylor, F.R.S. (1830-1848),

Fort St. David then became the head-quarters of the Company and continued as such until 1752. The French retained Fort St. George until 1749, when it was given back under the treaty of Aix la Chapelle, and during those three years they pulled down the native and Armenian part of Black Town, which then clustered close under the north wall, and made a glacis out of the débris. But in other ways they left the Fort in an even worse condition than they found it and when the Company regained possession they set themselves seriously to improve it, turning the north arm of the Cooum away from the south wall of the Fort and building, on the ground so obtained and on the west, a series of new bastions and works which practically constituted a new Fort enclosing the old one. <sup>1</sup>These changes enabled Pigot to resist Lally's attack successfully in 1759. The result of this siege, which followed on the second outbreak of war between the English and the French, was of the utmost moment, for the French had already captured Fort St. David and several others of the English settlements and the fall of the Company's headquarters would have been attended with disastrous consequences. The struggle lasted from the 14th December 1758 to the 16th February following and was most obstinately contested on both sides. The chief line of attack was along the shore north of the Fort, Lally's principal battery being near the present High Court. The place was saved by the appearance of an English fleet in the roads, the French retreating as soon as it arrived.

The greater part of the Fort as it stands to-day, including its northern half and the Secretariat buildings, was either restored or constructed between 1763 and the end of the century. With the exception of Haidar Ali's threatening approach in 1769 and again in 1780—on which latter occasion he ravaged the country up to the very gates of the Fort—Madras has been free from outside attack since Lally's siege.

Beyond the limits of the Fort and Black Town the Company had little authority in its earlier days. Tondiarpet, Purasavākam and Egmore were granted to it in 1693, Veysarpādi, Nangambaukam, Tiruvottiur and Ennore in 1708, and Vepery, Perambūr and Pudupākam in 1742. Possession of these and other tracts, including St. Thomé, which had been occupied in 1749 to prevent the

<sup>1</sup> A minute description of these improvements is given in Orme ii, 402—405.

French getting a footing there, was confirmed by a farmān of the Mughal Emperor in 1765. These villages were usually leased out, and though some of them boasted outposts with guns, they were too weak to be seriously defended when attacks occurred.

South-west of the Fort, stretching as far as Mylapore and the Long Tank, where now lies the most prominent part of the town, was an open and treeless expanse called the Choultry Plain, and at the time of Lally's attack the Governor's garden-house on the Cooum bank, where Government House stands now, was apparently the only European residence on that side of the Fort. European Madras as it now appears was most of it built at the end of the eighteenth and the beginning of the nineteenth centuries.

The population of Madras in 1871 was 397,552; in 1881, Population. 405,848; in 1891, 452,518; and in 1901, 509,346. It is increasing more rapidly than that of ordinary rural areas and the census statistics of birth-place show that this is largely due to immigration from the neighbouring Districts of Chingleput and North Arcot. Between 1891 and 1901 the total percentage of increase was 12·6, but in parts of the town it was much higher than this. The number of people in Perambūr and Veysarpādi, for example, owing mainly to the establishment of two cotton mills, the Madras Railway Workshops, and the quarters and bazar of a Native Regiment in or near that locality, has more than doubled in the last thirty years, and the inhabitants of the houses, between Parry's corner and Messrs. Arbuthnot's office have doubled in numbers even during the last decade. Emigration statistics show that large numbers of persons left Madras for other countries by sea, but only a small proportion of these were natives of the town itself, the majority coming to the port from inland Districts.

The density of the population is greater than that of any other of the large cities of the Presidency, and the average number of persons living in each occupied house is nine against six in the other towns having over 50,000 inhabitants, while in the heart of Black Town it is as high as thirteen. The city is also increasing in strictly urban characteristics. The proportion of the inhabitants who are in the useful ages, between 20 and 40, is as high as one-third of the total, and the percentage of women to men continues to decrease and is now only 98. In the parts in which hard

Captain W. S. Jacob of the Bombay Engineers (1849-1859) and N. R. Pogson (1861-1891)—have done much special work of permanent value in astronomical annals. The Observatory contains among its instruments a large equatorial and an efficient transit circle. The Meteorological department in connection with it was established in 1867, and was brought under the Government of India department in 1874. In 1899 the Madras Observatory was transferred to the Government of India, the astronomer became the Director of the Observatories at Kodaikanal and Madras and the latter institution was put under the immediate charge of a Superintendent, who is also the Meteorological Reporter to Government. Its work is now chiefly confined to meridian observations for determining the time, and the maintenance of the time service, which is effected by the daily transmission to the Central Telegraph office at Madras, and thence automatically throughout India, of a signal marking the moment at which Madras mean standard time is 4 P.M. Special observations are also made for the issue of storm warnings and the daily weather report for the Presidency is compiled from telegraphic information received from the various recording stations.

The Museum was founded in 1851. Its original nucleus was a collection of geological specimens presented by the Madras Literary Society and the duplicates of the articles sent to the Great Exhibition of 1851 in Hyde Park. In 1855 subordinate museums were established in five different Districts, but they were not successful, and in 1861 all but that at Rājahmundry were closed and many of the articles in them were transferred to Madras. In 1855 a Zoological garden was connected with the Madras Museum, but this was transferred to the People's Park in 1863. In recent years, under Mr. Thurston's care, the Museum has been very greatly developed. The policy adopted has been to render it a popular illustrated guide, as it were, to the natural history (animal, vegetable and mineral), arts, archaeology, ethnology and economic resources of the Presidency, and that it is appreciated by the public is sufficiently shown by the fact that it is annually visited by more than 400,000 persons. Among the most valuable objects in the archaeological section are the sculptured marbles from the railing of the Buddhist stūpa at Amaravati in the Kistna District, the date of which is about the end of the second century A. D., and a fragment which is supposed to be part of one of Buddha's bones, as it

was found (at Bhattiprolu in the same district) in a rock-crystal casket enclosed in an outer stone case inscribed with the statement that it was made to contain relics of Buddha. The collection of arms and armour from the arsenal in the Fort and the Tanjore palace, the prehistoric antiquities, and the numismatic collection, which is specially rich in coins of the various native dynasties of South India and of the various European Companies which have held sway there, are others of the more notable possessions of the institution. Attached to the Museum is the Connemara Public Library, which was opened in 1896, contains more than 10,000 standard works, and is used by about 14,000 persons annually; and a theatre, capable of seating 400, provided with a stage adapted for lectures, conferences and charitable entertainments by amateurs.

Of the charitable institutions in Madras two of the oldest are the Friend-in-Need Society and the Monegar Choultry, which were founded in 1807 and 1808 respectively. Both are supported by public subscriptions and grants from Government. The former devotes itself to the relief of destitute Europeans and Eurasians and the suppression of mendicancy among them. The latter affords shelter, food and clothing to the native poor and infirm irrespective of caste or creed, and relieves some 50,000 cases annually. Besides these, Government contributes to the upkeep of two civil and one military orphan asylums, a foundling asylum, the Triplicane Langarkhāna, or poorhouse, and other charitable institutions.

Among other societies, Madras has a Literary Society which possesses a library of over 45,000 volumes; a Fine Art Society which holds an annual exhibition and in other ways encourages Art; an Agri-Horticultural Society which manages the ornamental gardens opposite the Cathedral and holds an annual flower show; a Musical Association and an Amateur Dramatic Society; a Gymkhana Club, clubs for cricket, boating and racing, and the two favourite resorts of Madras Society, the Madras Club and the Adyar Club. The Madras Club was founded in 1831. Up to then the usual meeting place had been Lord Cornwallis' Cenotaph on the Mount Road, or (for the younger members of the King's and Company's services) the Tavern of the Exchange (now the British Infantry mess) in the Fort.

The chief indigenous arts of Madras are silk and cotton-weaving, silver work and embroidery. Raw silk is obtained Arts.

from Bangalore, Calcutta and Bombay, mixed with cotton and woven into native cloths which are sold locally and also exported to Ceylon, Burma, the west coast of the Presidency and even Natal. The cotton cloths made are of the ordinary coarse variety. The silver work and embroidery employ but few hands, but the former is less known than it deserves to be, while the latter is usually in excellent taste and consists of silk, gold or silver thread, or green beetle wings procured from Cuddapah, worked on satin or muslin. The School of Arts gives instruction in a number of other directions, such as wood-carving in the Dravidian style, brass and copper repoussé work, lacquer-work, and carpet-weaving, but none of these arts has as yet taken root outside its walls.

Manufactures.

The city has hardly any notable manufactures. Until very recently tanning was an important industry. The factories are just outside the town in the Chingleput District which in 1900 possessed 97 of them with an outturn worth 32 lakhs. The industry is now seriously threatened by the superior speed and cheapness of the American process of chrome tanning.

The Buckingham, the Carnatic and two other mills, all established between 1874 and 1883, spin yarn and weave cotton cloths of various descriptions. Their total capital is 27 lakhs, they possess 1,700 looms and 117,000 spindles and they employ a daily average of over 7,000 men, women and children. Some cement and tile works employ 350 hands and produce an annual outturn worth over 1½ lakhs. There are nine iron foundries and four cigar factories, one of which makes 12 million cheroots annually. A new industry is the manufacture of aluminium utensils.

Commerce and trade ; sea-borne trade.

Although Madras has no natural harbour, it ranks fifth among the ports of India in the value of its trade and fourth in the tonnage of vessels which enter and clear at it. But if the averages for the last two quinquennia are compared, it will be found that its foreign trade has remained practically stationary. Fifteen or twenty years ago this was always greater than that of Karachi and frequently in excess of that of Rangoon, but during the last five years it has always been less than that of Rangoon and has twice been smaller than that of Karachi.

Including the coasting trade, but excluding Government stores and treasure, the average annual value of the total external import trade of the port in recent years was 688



lakhs, and of the export trade 570 lakhs, making a total of 12 crores and 53 lakhs, or £8,360,000. It is the only port in the Presidency at which imports have exceeded exports. Of the imports 523 lakhs, and of the exports 504 lakhs were from and to foreign countries and the remainder was carried coastwise from and to Indian ports. An annual average of 1,300 vessels, having a tonnage of 2,293,000, enter and clear the port in cargo and in ballast. Of these an average of 1,050 with a tonnage of 1,725,000 are coasting traders. Over 40 per cent. of the total sea-borne trade of the Presidency is conducted from the port. Over 70 per cent. of the imports and nearly 60 per cent. of the exports are respectively brought from and sent to the United Kingdom.

By far the largest item in the foreign imports is European piece-goods, twist and yarn. Next come iron and steel, machinery and railway plant, and kerosine oil. Of the foreign exports, hides and skins are the most important item, and they are followed after a long interval by Indian piece-goods, indigo and raw cotton. The native traders in the town are chiefly Tamil Chettis and Telugu Komatis and Balijs. Foreigners, such as Pārsis, Gujarātis, Bhātias, and Boras, take a share, but are few in numbers.

The serious disadvantage of the absence of any natural harbour at a port where the surf is continual has been met by the construction of a screw-pile pier and a harbour of masonry. The pier was completed in 1862. The harbour was begun in 1876 and by September 1881 was nearly completed. It consisted of two parallel masonry breakwaters, each 500 yards distant from the pier, running out at right angles to the shore for 1,200 yards into  $7\frac{1}{2}$  fathoms of water and then bending towards one another so as to leave an entrance in the centre of the east side 550 feet wide. The space thus enclosed was calculated to hold nine steamers of from 3,000 to 7,000 tons. On the 12th November 1881 a cyclone struck it which, besides minor damages, washed away half a mile of the breakwaters, threw the two top courses of concrete blocks into the harbour, hurled over two of the Titan cranes used on the works, lowered and spread out the rubble base of the breakwaters and washed away  $1\frac{1}{2}$  miles of construction railway.

In 1883, a committee of English experts reported on the best method of completing work, and in 1884 operations were recommenced. The harbour was completed in 1896 on

practically the original design, except that the width of the entrance was reduced to 500 feet. The total cost from first to last was some 126 lakhs. Since then, however, it has silted up considerably and after much discussion in India and England it has now been decided to close the existing entrance on the east, which is rapidly shallowing, and to open another at the north-east corner. It has also been suggested that, in the large accretion of sand which the construction of the harbour has occasioned on the coast to the south of it, a dry dock should be excavated in which ships could be unladen direct on to wharves, instead of into boats and lighters as at present. By Act II of 1886 the harbour is vested in the Harbour Trust Board, the average income of which during the last five years was  $7\frac{1}{2}$  lakhs, mainly derived from harbour dues. The harbour light is on the main tower of the High Court building and is a double flash white light visible 20 miles in clear weather.

Rail-borne  
trade.

The rail-borne trade of the city amounts to 740,000 tons, of which 344,000 tons are imports and the remainder exports. The imports from places within the Presidency are nearly treble those from outside it, but the exports go in about equal quantities to places within and without the Province.

Of the external imports, more than half come from the Nizām's Dominions, largely in the shape of coal from the Singareni mines. Nearly all the external exports are sent to Mysore State. They consist chiefly of coal and coke brought to Madras by sea from Bengal and sent to Kolār for use on the gold-fields, while grain and pulse, metals and kerosine oil, are also important items.

The chief internal imports are grain and pulse, which come largely from Ganjam, Vizagapatam, Godāvari and the three Districts—Nellore, Chingleput and North Arcot—adjoining the city; stone, lime and wood, imported mainly from these same three Districts; dyes and tans, from these three Districts and the Deccan; oilseeds, and hides and skins.

The internal exports consist chiefly of salt, sent mainly to the inland Districts in the South; grain and pulse, despatched largely to the three adjoining Districts; metals, most of which are sent south; coal and coke; kerosine oil and European piece-goods.

The whole of this trade is carried by two railways, the Madras and the South Indian systems. The former is on the

Means of  
communication.

standard gauge and has three sections. Of these, the North-east line, starting from the Royapuram terminus, connects Madras with Calcutta; the North-west line, from the Central station, leads to Bombay; and the South-west line from the same terminus goes to the west coast Districts. The South Indian Railway, a metre-gauge line with its terminus in Egmore, runs to Tuticorin, whence steamers ply to Colombo and so place Madras in communication with the ocean liners which touch at that port. The Madras and South Indian Railways have a joint station on the Beach opposite the harbour, for the convenience of the shipping and the North-east line of the former is being carried into the Central station.

The British India Company's steamers sail periodically from Madras to Calcutta, Bombay, Rangoon and the Straits.

The Buckingham Canal provides cheap transit to and from places along the coast between the Kistna District north of the town and the South Arcot District south of it. A cheap and speedy service of electric trams is in operation in the more crowded parts of the City and the Municipality maintains 187 miles of metalled roads. There is a telephone exchange and an hourly postal delivery throughout the town.

The revenue of Madras is administered by a Collector, who is something of a pluralist, being also Collector of Sea-Customs, Protector of Emigrants under the Emigration Act XXI of 1883, and Superintendent of Stamps and Stationery for the Presidency. Revenue administration.

In the early days of Fort St. George revenue was raised not only from the rents of the villages and 'gardens' round the Fort but also by taxes on tobacco, betel, wine and country spirit, by land and sea-customs, by scavenging fees and by 'quit-rents' on houses.<sup>1</sup> The main part of these was collected by an officer known as the 'Land Customer.' In 1730, the total revenue amounted to about £30,000. After the Chingleput District came into the Company's possession in 1763, the management of the villages, which were then known as the 'Home Farms,' was made over to the Collector of that District; but in 1870 the Collector of Madras, as the Land Customer was by that time called, was made responsible

<sup>1</sup> "Nine fanams for every great house, six fanams for every small house and three fanams for every little round house."

for the revenues of the City, and he continues in charge of all of them except those from Salt and Abkari. The agricultural land in the town is held on the ordinary ryotwari tenure, but the old quit-rents on house property, which are still collected, are peculiar to the city. The chief items of general revenue in the town (in thousands of rupees) are from land revenue 97, quit-rents 65, stamps 4,64, excise 11,89 and income-tax 5,45. Besides these there are large receipts under other heads, such as customs, which owe their importance to the fact that the city is the chief port and the capital of the Presidency, but these can hardly be considered to form part of its revenue as a District.

Civil and  
Criminal  
justice.

In the early days of old Madras both civil and criminal justice were administered by the 'Choultry Justices,' who consisted of the Land Customer, the Mint-master and the Paymaster and sat twice a week at the Choultry. From 1678 the Governor and his Council sat on Wednesdays and Saturdays in the chapel in the Fort to hear the more serious civil and criminal cases, while the Choultry Justices continued to dispose of petty matters. In 1687 the newly appointed Mayor and Aldermen were constituted a Court of Record which replaced the Choultry Justices and in the same year a Court of Admiralty with a Judge from England, the forerunner of the present High Court, was established under charter. In 1726 the Governor and his Council were appointed as a Court of Quarter Sessions for the trial of all offences except treason and were also empowered to hear civil appeals from the Mayor's Court. A Supreme Court was established in 1801 with a Chief Justice and two barrister Judges and the following year the Sadr Adalat and the Faujdari Adalat, consisting of the Governor and Council, were respectively made the courts of appeal in civil and criminal cases arising outside Madras. In 1862 these were combined with the Supreme Court to constitute the present High Court.

Civil Justice is now administered by the three judges of the Court of Small Causes, by the City Civil Court and by the High Court. The first of these had its origin in a Court of Requests founded in 1753 and originally possessing jurisdiction only up to R 20. It now tries cases up to R 2,000 in value. The City Civil Court was constituted by Act VII of 1892 and has power to hear suits up to R 2,000 in value except those which are cognisable by the Small Cause Court.

Criminal Justice is administered by four full-power magistrates called Presidency Magistrates, session cases arising within the city being heard by the High Court.

The internal administration of the city is in the hands of the Municipal Commissioners, who consist of a President paid from municipal funds and appointed by Government and a body of honorary Commissioners partly elected by the rate-payers and partly appointed by the Government. The President is assisted in his executive work by an Engineer, a Health Officer, and a Revenue Officer, all of whom are also appointed by Government. A special Act, which has recently been remodelled, governs the operations of the Commission.

The first organised effort towards municipal government in Madras was made in 1688 when, under the orders of Josiah Child, Governor of the Company, who had taken the idea from Dutch institutions in India, a Mayor and Corporation consisting of twelve Aldermen and 28 Burgesses, with a Recorder, were established by charter. On the 29th September 1688 the Aldermen in robes of scarlet serge and the Burgesses in white china silk met in state in the fort to hear the charter read and take the oaths. Their only income at first was from certain petty dues on measuring grain and weighing goods which the Government assigned to them. The records show that a scavenging tax was imposed and that roads and bridges were repaired out of the proceeds of an impost called the Town Conicopillay's duty, but it is not clear that the proceeds of these were administered by the Corporation and as the natives strenuously resisted all new taxation that body apparently had no considerable revenue. Municipal Government proper began with the passing of an Act in England in 1792 which legalised the collection of assessments on houses and lands in the three Presidency Towns for expenditure upon their "good order and government." From that time forward a succession of Acts has gradually improved the municipal machinery and the Commission now has an average annual revenue, excluding receipts from loans, of some thirteen lakhs. The chief items in this are the house and land taxes, which together bring in nearly five lakhs, and the water tax, which produces nearly two lakhs more. The largest item on the expenditure side is sanitation, while drainage, roads and water-supply follow next. The Commissioners have been continually hampered in their undertakings by the straitness of their means. The



and Washermanpet and (7) Royapuram. From these wells it will be forced under pressure into a high-level cast-iron main which will be nine miles long and will traverse the whole length of the city from Mylapore in the south to the sewage farm in the north. The whole scheme is estimated to cost 40 lakhs.

**Other  
sanitary  
measures.**

Besides the outlay on the water supply and drainage schemes, the Commissioners spend an average of  $3\frac{1}{4}$  lakhs, or over one-fifth of their income, on other sanitary measures. The chief recent improvements have been the construction of Moore Market, so called after the late President of the municipality, at a cost of  $2\frac{3}{4}$  lakhs, the erection of two cinerators for the destruction of the town rubbish, and the cutting of a number of new streets and lanes through the most crowded and insanitary parts of the town. The more notable of these latter are the street from the Wālājā Road to Pycroft's Road in Triplicane, and that from Waller's Road to the Napier Park.

**Troops and  
volunteers.**

Some few troops are always stationed in Madras itself—in the Fort and elsewhere—and there are others at Saint Thomas' Mount, Poonamallee and Pallāvaram on the outskirts of the city. In addition, there are three corps of Volunteer Rifles—the Madras Volunteer Guards, the South Indian Railway Volunteer Rifles and the Madras Railway Volunteers—and also the Madras Artillery Volunteers.

**Police.**

The police arrangements in old Madras were as primitive as those for the administration of justice. Outside the Fort an hereditary official known as the Pedda Naik ('big peon') was appointed who, in return for the grant of certain rice-fields rent free and petty duties on rice fish, oil, and betel and nut, was required to keep up a certain staff of peons (originally twenty were found enough, but the numbers were afterwards increased) and either to detect all crimes committed or make good the losses of those who were robbed. He was also required to provide the Governor when called upon with a body-guard of 150 peons. On State occasions he used to ride at the head of his peons in the processions accompanied by 'our country music' as the old papers call it, the precursor, apparently, of the Governor's Band. In 1858 the police throughout the Presidency, the force in Madras included, was entirely re-organised and placed under Sir William (then Mr.) Robinson, the first Inspector-General of Police. The force in Madras consisted in 1902 of a Commissioner of Police, with a Deputy and two Assistant Commissioners, sixteen Inspectors

and 1,324 subordinate officers and constables, of whom four were mounted and 44 marine police. There were 22 police stations.

The Penitentiary in Madras ranks as a Central Jail, but Jails, unlike most of such institutions it is used for the detention of prisoners sentenced to short terms, there being no subsidiary jails in the city. It has accommodation for 1,046 prisoners, including 59 in the hospital and 42 in the observation cells. The total average population in 1902 was 986. The principal industry on which the convicts are employed is composing, printing and binding forms and books for the Government Press, and the section of the jail in which this work is done is treated as a branch of the Press. On an average 250 convicts were daily employed in this manner. Next in importance comes the manufacture of cotton goods, such as tent-cloth, rope, tape and bedding for the various departments of Government, especially the army. In this work a daily average of 175 men were employed. Boot and sandal making for the police, jail and other departments and the expressing of gingelly oil occupy between them some 80 men daily. The net profit on all the manufactures in 1902 was Rs. 63,000, which was considerably larger than that earned in any other Central Jail. Within the Penitentiary is the only Government work-house which has been established in this Presidency under the Vagrancy Acts. Civil debtors are usually confined in a portion of the Central and District Jails, but in Madras the Civil Jail is in Popham's Broadway at some distance from the Penitentiary. Including its hospital, it will hold 81 persons. In 1902 the total average number of persons confined in it was 28. There is also a Criminal Leper Ward in Royapuram with accommodation for 23 persons.

The first educational effort in the early days of Fort St. George was the despatch by the Directors of a 'school-master' who arrived in 1678. In 1715 the European inhabitants convened a public meeting and resolved to establish a free school for Protestant European and Eurasian children. 'St. Mary's Charity School' was the result, and it survived till 1872, when it was amalgamated with the Civil Orphan Asylums. The first attempt to educate the natives was made by the Christian Missions, and in 1717 the Danish Missionaries at Tranquebar, of whom the chief was

straggling nature of the city involves a larger expenditure on many items than is easily met from the receipts, and improvements of any magnitude have had to be paid for from loans, the interest on, and repayment of, which form a heavy charge on the revenues.

Water-supply.

The most important of the Commissioners' undertakings have been the water-supply and drainage of the city. Madras is supplied with water from a reservoir called the Red Hills Lake which is fed from another reservoir known as the Chelavaram tank, which in its turn is filled by a channel from the Korttalaiyar river. This lake is seven miles from the city and the water is brought from it by an open channel and eventually led into pipes and distributed throughout the town. The scheme was begun in 1868 and finished in 1872, and was carried out under the supervision of the then Municipal Engineer, Mr. Standish Lee. On the 20th November 1884 a cyclone burst the bank of the Red Hills Lake and the breach rapidly widened until it was nearly a mile in length, and the lake was practically emptied. For ten days, until the breach was temporarily repaired, Madras was dependent upon the small Trevelyan reservoir and the old Seven Wells supply for its water. The Red Hills lake has a capacity of some 100 millions of cubic yards, but as it lies low, the head of the supply channel being only 35.75 feet above M. S. L., only a portion of this can be drawn off at a level which will command the town and when the water in the lake falls below a certain height the supply has to be maintained by pumping. The average annual quantity of water supplied to the city is 415 millions of cubic feet; but owing to the want of pressure due to the low situation of the lake, the amount available is insufficient for the needs of the people in about one-third of the area of the town. To remedy this it is proposed, when funds are available, to introduce a new scheme under which Red Hills water will be pumped to the top of a ridge near the lake which is 90 feet above M.S.L. and taken thence to the town in pipes under the pressure resulting from this elevation. The capital cost of the existing works was 24½ lakhs, of which 21 lakhs were met from loans and the remainder from revenue and grants from Government. Up to 1902, 10½ lakhs had been invested in Government securities towards a sinking fund for the repayment of this sum. The average annual cost of the maintenance of the scheme is Rs. 1,16,000.

Parts of the town have been systematically drained for Drainage. many years. Black Town, its most thickly populated quarter, is served by a complete system which was begun in 1882 and was prepared by the then Municipal Engineer, Mr. J. A. Jones. This consists of open U-shaped drains at the side of the streets which empty themselves into three parallel sewers. These discharge into a main sewer which leads to a well in Royapuram whence the sewage is pumped through an iron main for  $1\frac{1}{2}$  miles and thereafter taken by an open masonry channel about half a mile further to a sewage farm of about 78 acres north of the city. Here it is utilized for growing hay, which is largely bought by the Commissariat Department and brings in a considerable revenue. This scheme cost  $10\frac{3}{4}$  lakhs, and the amount was raised by a special loan. Up to 1902,  $3\frac{1}{4}$  lakhs had been invested in Government securities towards its repayment. The average cost of maintenance of the scheme is Rs. 67,000.

Besides Black Town, certain other smaller localities have been drained on the same system by leading the sewage into wells and pumping it on to sewage farms. There are four of these pumping stations. One in D'Mellow's Road serves Purasavākam, Chulai, Vepery and Egmore; another, in the Napier Park, Chintadripetta and North Triplicane; a third at Kistnampet, South Triplicane and Kistnampet; and the fourth, at Mylapore, deals with the sewage of Mylapore and St. Thomé. The total area of the four farms is 65 acres. The cost of maintenance of the four systems aggregates Rs. 37,000. These farms are, however, too small to deal with all the sewage pumped and are, moreover, situated unpleasantly near to human habitations.

A new scheme for the drainage of the entire city (except Black Town) has accordingly been drawn up and is now (1904) in progress. This will do away with these isolated farms and will take the whole sewage of the town to a large farm beyond its northern outskirts. The essentials of the scheme were planned by an expert from England, but the details have been modified by the present Engineer to the municipality. The house drains will discharge into syphon traps fixed in the street and the sewage will be led, by pipes laid at self-cleansing gradients, to seven different wells serving the following seven quarters of the town:—(1) Mylapore, (2) Kistnampet and South Triplicane, (3) North Triplicane, Chintadripetta and Pudupet, (4) Egmore, (5) Purasavākam, Chulai and part of Perambūr, (6) Tondiarpet

the famous Ziegenbalg, obtained leave from the Government to establish two schools "one for Portuguese in the English town and another for Malabars (Tamils) in the Black Town." Their labours in this and other stations received substantial support from the English Society for Promoting Christian Knowledge.

Madras is now the educational centre of the Presidency. Besides the University, which is purely an examining body, conferring degrees in Arts, Law, Medicine, Engineering, Teaching and Sanitary Science, the town contained on the 31st March 1903 ten arts colleges, three professional colleges, 93 secondary and 423 primary schools and also 21 technical and training schools. Of the ten arts colleges, three—the Presidency College, the Madras Christian College and Pachaiyappa's College—are first-grade institutions giving instruction up to the B. A. degree. The first of these is managed and financed by Government, while the other two are aided with grants.

The three professional colleges are the Law College, the Medical College and the College of Engineering. Most of the lectures in the Law College were originally given by specially selected barristers and vakils of the High Court in the early mornings and late afternoons when the Court was not sitting, but from 1902 it has been made a whole-time college with a permanent staff of a Principal and three professors. The Medical College has also recently been re-organised in important directions. In Saidapet just outside the limits of the town, are also the Teacher's College and the College of Agriculture. A very noticeable point in connection with all these special colleges is the high proportion of Brāhmāns among the students in them. Games and athletics are greatly encouraged at all the colleges and large schools in Madras.

Of the training schools one is specially maintained for training schoolmasters belonging to the Panchamas, or depressed castes, for work in the schools kept up for those classes. The special institutions include schools or classes of medicine, engineering, telegraphy, printing, drawing and dressmaking, two commercial schools, three industrial schools, four schools of music or singing, the Anjumān and the School of Arts. The Anjumān was established in 1885 to ameliorate the condition of the Musalmān poor of both sexes and though intended chiefly as a technical school provides

also for the general education of its pupils. It has a show room for its productions in the Mount Road. The School of Arts was started by Dr. Hunter as a private concern in 1850 and was taken over by Government in 1855. It consists of two branches, one in which drawing, designing, modelling and engraving are taught and another in which instruction is given in wood-carving, carpet-weaving, metal-work and painting. All the students are required to attend the classes in the former. For some time special attention was paid in the school to the capabilities of aluminium as a material for household and other utensils, and one result of this has been the establishment of an independent private industry in the manufacture of such articles from this metal.

The total number of pupils under instruction in the city in 1880-81 was 23,650 ; in 1890-91, 34,948 ; in 1900-01, 42,348 ; and in 1902-03, 44,953. Of these last, 11,377 were girls. It far surpasses all the other districts in the literacy of its people. Of the males in it 36 per cent., and of the females 9 per cent. can read and write, while in the Presidency as a whole the corresponding figures are 12 and less than one. Fourteen per cent. of its inhabitants can read and write English against less than 1 per cent. in the Province generally.

Of the girls in the upper stages of the schools and in the colleges the majority are Europeans, Eurasians and Native Christians. Of the 45 women who have up to the present passed the F. A. Examination, 34 were Europeans, 7 Native Christians and 4 Brahmans. In 1901 6 European and 2 Native Christian ladies passed the B. A. examination and one Native Christian lady obtained the M. A. degree. Of late years efforts have been made to remove students in the town from the unwholesome associations of native hotels by providing them with properly regulated hostels or boarding houses. There are four of these attached to the Teachers' College, another is connected with the Panchama Training school already referred to and a sixth, the Victoria Hostel, stands behind the Presidency College in Chepauk. This is the largest of them all, but it is far too small to hold the many applicants for admission. Of the 12½ lakhs which were spent upon all the educational institutions in the city in 1903, some 38 per cent. was devoted to the colleges, 34 per cent. to secondary schools, 20 per cent. to training and special schools and 8 per cent. to primary

## MANDALAY.

### General description.

Head-quarters of the District and Division of the same name in Upper Burma, and capital of the Burmese kingdom from 1858 to 1885. The city occupies part of a plain, here about 8 miles wide, on the east bank of the Irrawaddy between the river and the Shan hills, the dead level of which is broken only by an eminence 954 feet in height. To the south-west of this hill, a mile and-a-half from the river, are the moat and walls of the old city, nearly 6 miles in circumference. The cantonments include the hill with the old city and space to the north and east of it, in all about six square miles. West and south of the cantonments is the present native city, which stretches to the river on the west and the walls of the old fort of Amarapura on the south. The entire area of the municipality and cantonments is 25 square miles, but this includes large unoccupied spaces at the four corners. Religious buildings are scattered over the town, covering with their precincts two square miles. The European quarter is on the south of the fort and the business quarter on the west. Masonry buildings are general in the latter, but over the rest of the town the houses are sometimes of wood, more commonly of bamboo. Paddy-fields occupy the country near the river to the north and south, and towards the south-east, where the royal gardens of Mindon once were, is a stretch of land now given over to the St. John's Leper Asylum and to paddy cultivation. As the city lies below flood level it is protected by an embankment, which runs all round the municipality and cantonments and is in some places doubled. A canal, called the Shwetachaung, gives water connection with Madaya on the north. Along the river bank are some back-waters cut off by the embankments and gradually filling up.

### History.

Mandalay city dates only from the accession of King Mindon, who is said to have been induced by a dream to abandon for it the old capital of Amarapura, immediately to the south of the present municipal limits. The practice of founding a new city in each reign was quite in accordance with Burmese custom. The hardship to the people entailed by this practice is less than it might seem. They were only allowed to build houses of bamboo and thatch, and, apart from the walls of the palace and religious buildings, their cities were practically huge caravanserais, which must have



become exceedingly insanitary after a few years. The walls and moat of the new city and the palace were constructed with paid labour between February 1857 and May 1858. Jars full of oil, buried in masonry pits at each of the four corners, are said to have taken the place of the human sacrifices which had once been customary. The whole area to be occupied, both within and without the walls, was laid out in square blocks separated by broad roads along most of which tamarind and other shade trees were planted. Many of these blocks were occupied in the centre by a high official, whose retainers dwelt along the edges.

King Mindon's reign was peaceful except for an attempt at rebellion by his son the Myingun Prince, who in 1866 killed the heir-apparent and after some resistance fled to Rangoon. Mindon was succeeded in 1878 by his son Thibaw, the history of whose reign is one of palace intrigue varied by massacre. About a year after his accession some eighty of his kin, men, women and children, were murdered in the palace precincts and their bodies thrown into a trench. In 1884 there was a further massacre of some 200 persons suspected of being concerned in a plot on behalf of the Myingun Prince. In 1885 came the rupture with the British; an expeditionary force was despatched into Upper Burma and towards the end of November of the same year General Prendergast's flotilla appeared off Mandalay. No resistance was offered, and the king received Colonel Sladen in a summer-house in the palace gardens and formally surrendered himself. For some months dacoities and robberies were frequent, but the town was eventually reduced to order. About a tenth of the urban area was burnt down during the hot weather of 1886, and in August an abnormally high flood burst an embankment built by king Mindon and caused some loss of property. In 1887 a municipal Committee was formed and the metalling of the main roads taken in hand, a telephone system was introduced, and a town survey partly carried out. Before the introduction of municipal government the stockade round the palace and the bamboo houses in the old city, now called Fort Dufferin, were removed, compensation being paid for the sites, and new land being given out to the expropriated.

The old city now forms part of cantonments, and is known as Fort Dufferin. The walls form a perfect square with a side a mile and a quarter long. They are built of brick and provided with battlements, the total height

Place of interest.  
The Fort and Palace.

News papers  
and periodicals.

education. Of the total expenditure 36 per cent. was met from general revenues, 32 per cent. from fees and 22 per cent. from endowments.

Madras has four daily newspapers. Of these, two, the *Madras Mail* and the *Madras Times*, are edited by English men and have a circulation of between 3,000 and 4,000 copies, and the two others, the *Hindu* and the *Madras Standard*, possess a circulation of some 2,000 copies, and are edited by natives. In addition there are ten weekly papers and 31 papers and magazines published bi-weekly, monthly or quarterly. Of these as many as fourteen are devoted to religious subjects. Others represent Law, Education and Social Reform, the Planters, the Eurasians and the Muham-madans, while three of them, the *Christian College Magazine*, the *Madras Review* and the *Indian Review* are magazines of repute which deal with current and literary topics. The latest arrival is the *Indian Ladies' Magazine*, written for native ladies and edited by one of them.

Medical.

Madras possesses nine hospitals and five dispensaries. Of the former, five, namely, the General, Maternity, Ophthalmic, Leper, and Voluntary Venereal (Women's) Hospitals are maintained from Provincial Funds, one, the Royapettah Hospital, by the municipality, and three, namely, the Victoria Caste and Gosha Hospital for Women, Rājā Sir Rāmaswāmi Mudaliyār's Maternity Hospital and the Native Infirmary attached to the Monegar Choultry are supported by private subscriptions aided by grants. Of the five dispensaries, one is kept up by Government, two by the municipality and the other two by public subscriptions and grants. The General and Maternity Hospitals are exceptionally well found and well managed.

The number of beds available in all these institutions taken together is 1,865, of which 473 are in the General Hospital. In 1902 an aggregate of 19,000 in-patients (7,000 at the General Hospital) and 2,34,000 out-patients (61,000 at the General Hospital) were treated in them, and 18,000 operations (6,000 at the General Hospital) were performed. The total expenditure was Rs. 4,34,000, of which Rs. 3,44,000, or 79 per cent. was met by Government, and Rs. 26,000 by the municipality. The main items were establishment (Rs. 1,65,000), 'miscellaneous charges' (Rs. 1,02,000) and diet (Rs. 96,000).



The Lunatic Asylum in Kilpauk, which is in many ways a model institution, had an average daily population of 305 males and 99 females in 1902. Of the 113 admissions in that year 22 were Europeans or Eurasians and the remainder natives. The cost of its upkeep was Rs. 95,000, of which Rs. 33,000 were spent on establishment and Rs. 28,000 on diet of patients.

Vaccination is compulsory in the town and is attended to with more than usual care, the number of successful operations in 1902-03 being 53 per mille of the population against an average for all municipalities of 50 per mille.

Further information regarding Madras City will be found in the *Madras Manual of Administration* (Government Press, Madras, 1885), Talboys Wheeler's *Madras in the Olden Time* (Higginbotham, Madras, 1861), Mrs. Penny's *Fort St. George* (Swan Sonnenschein, 1900), Mr. Leighton's *Vicissitudes of Fort. St. George* (Combridge, Madras, 1902), Mr. Foster's *Founding of Fort St. George* (Eyre and Spottiswoode, 1902) and Colonel Love's *List of pictures in Government House, Madras* (Government Press, Madras, 1903).

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being 29 feet. Picturesque watch-houses with many-storied roofs rise above them at regular intervals, thirteen on each side, the largest over the gates, which are twelve in number. Outside the walls is a strip of grass land and beyond this the moat, over 200 feet across and bridged opposite the central gate on each side and also opposite the gates on the south-west and north-east.

Exactly in the centre of the square, with roads converging on it from the four main gates, is a platform 11 feet high, 1,000 feet long, and about half as wide, on which the palace is built. It was surrounded in the Burmese king's time by a brick wall and stockade 20,000 feet square, but these have since been removed. Within this space, north and south of the palace, are shady pleasure gardens with lakes and grottoes. The garden on the south contains the summer-house where king Thibaw surrendered himself. On the east is the bell-tower where the watches were sounded, and north of it the glittering tomb of king Mindon, covered with glass mosaic. Opposite the bell-tower, on the south side of the road, is another tower enshrining a tooth of Buddha, and further south a small monastery of glass mosaic on the site of an older one where Thibaw was living in retreat with shaven head and yellow robe, in accordance with Burmese custom, when he was suddenly called to the throne.

The principal throne-room, surmounted by a nine-roofed spire 200 feet high, is near the east end of the platform. In front of it is an open hall 285 feet long. Its golden roof is supported by gilded teak pillars, some of them 60 feet high. The building was repaired, and the gilding renewed, at a cost of over a lakh of rupees after Lord Elgin's visit in 1898. The throne is raised 6 feet 4 inches above the floor of the building. It is approached through a gate of gilded iron open-work from a flight of steps at the back. To the west is another throne-room in which foreign representatives were received. The room behind it contained between 20 and 30 figures of solid gold, each about two feet high, representing the kings and queens of Alaungpaya's dynasty. Offerings were made to these as in Chinese ancestor-worship. Next in line to the west is the hall of the body-guard; a waiting-room for readers and others, with the pages' quarters to the north of it; another throne-room used for royal marriages; and a lofty room with an open verandah on two sides used by king Mindon as a sleeping-chamber. Thibaw's queens slept in the last room of the series when not in the royal

apartments to the south. The last king and his favourite queen usually slept in a small masonry building near the southern entrance-hall. On the west of this are sitting-rooms with the usual gilded pillars and roof, and south of them a room from which plays were witnessed, the performers being below the platform under a large iron pavilion. To the east of the entrance hall is a masonry building with a tank (now filled in) where the king and queen amused themselves at the annual water-festival by watching the pages and maids-of-honour throw water at each other. On the north of this is the king's treasure-chamber and a room where he held informal leveés, and on the east a building of masonry, the council-chamber where the ministers held their secret deliberations. The *Hludtaw*, where they met in public for judicial and other business, was to the east of the platform and has been pulled down. Close to the council-chamber is a watch tower, 78 feet high exclusive of its decorative roof, from which a fine view is obtainable. On the north side of the platform is a gilded entrance hall similar to that on the south. Both contained thrones, which have been removed. To the west of this hall are the large apartments occupied by Sin-byumashin ("Lady of the White Elephant") mother of Thibaw's three queens, and here the neglected Supayagyi, by right the chief queen, was obliged to live in practical confinement. Most of the buildings in the western half of the platform have been demolished, but the beautiful Lily Throne-room, where the wives of officials were received in state twice a year by the king and queen, remains. The building is of the same character as most of those on the platform.

The most important Buddhist shrine in Mandalay is the Payagyi or Arakan Pagoda, four miles from the palace and two south of the Zegyo bazar. Its terraced road, of gilded stucco, is of recent construction, the original roof having been burnt in 1884. The building was erected to hold the great brass image of Buddha brought from Arakan by king Bodawpapa after his victorious campaign in 1784. It is said to have been cast by king Sandathuriya of Arakan, who ascended the throne in A. D. 146. The Gautama is seated on a pedestal seven feet high, and measures 12 feet 7 inches from the platform to the tip of the *magaik*, or tiara, on his head. The image was dragged over the mountains by Burmese soldiers, and was accompanied by numerous captives of war, who afterwards settled in Mandalay. Long galleries approach the building from each side, partly decorated with

paintings; most of them represent the future life, but some, on the north side, are descriptive of the bringing of the Buddha from Arakan. The galleries are lined with stalls on which gongs, marionettes, and the usual bazar goods are displayed, and are thronged in the cold weather, especially during a festival, with a gay crowd of many races. In the court on the north-east is a stone inscription recording the manner in which the image was brought from Arakan. To the south-east is a large tank filled with turtles, and in the north-west court are two colossal bronze images of good execution, but now dilapidated, also brought from Arakan. Their navels are bright and worn owing to a superstition that rubbing them with the finger will keep off stomach-ache. On the south-west are 575 stone inscriptions, Burmese, Pali and Talaing, the originals of which, now disappeared, were collected by king Bodawpaya and copied by his orders. On the east bank of the Shwetachaung canal, a little to the south of the Zegyo bazar, is the Setkyathiha pagoda, built in 1884 over a brass image even larger than that from Arakan. It was cast by order of king Bagyidaw in 1824, and followed the Court from Ava to Amarapura and Mandalay. Close to it on the east is a small pagoda built on the site of her old home by Shinbome, a famous beauty who was the wife of five successive kings. The building contains some wooden images representing the queen and her maids of honour.

Across the Shwetachaung is the Eindawya pagoda, built in 1847 by king Pagan on the site of a summer-house used by him when a prince; whence the name, meaning "royal house-site." It is kept in good repair and richly gilded. Being on a spacious platform, from which it rises to a height of 114 feet, it is seen to better advantage than the other pagodas in Mandalay. It has several shrines with graceful carvings in the modern style. On the west side is the Mahuya Payā, or "corundum" image, of black stone, brought by an emissary of king Bagyidaw from Gaya in 1833.

To the west of the Fort, between the roads leading from the two gates on that side, is the Shwekyimyin pagoda, built in 1852 over an older one said to have been erected in 1104 A.D., and containing several images of great sanctity in addition to the great brazen Buddha for which it was built. One of these, the Shwelinbin, represents Gautama standing in royal robes, and has been moved from one capital to another since it was placed in a pagoda of the same name by



king Narapatisithu of Pagan (1107 to 1204 A.D.) This, with the Shwekungyaok and others of which stories of miracle are told, was found in the palace at the annexation and removed to this shrine by the British. The Anyathihadaw, which is kept in a vault near the great image, has been so plastered with gold-leaf by devotees that it is now a mere shapeless lump.

Close by to the north is the Payani or Red Pagoda, so named from the colour of one of its predecessors, built on the site of a shrine erected in A.D. 1092. It is interesting chiefly on account of the presence of the Naungdaw and Nyidaw images dating from the time of Nawrata (1010-1052 A.D.) which were stolen from Mandalay Hill in the troubles following the annexation and, after the mass of gold with which they were covered had been removed, thrown into the valley, where they were found by a monk and regilded by the towns people. Here also is the Sadaungbye image, before which a party to a civil suit could challenge the other side to swear to the truth of his statements.

The Yadanamizu pagoda is beyond the Shwetachaung on the north side of C. Road, three-fourths of a mile from the south-west gate. It was built in 1478 by king Maha Thiha-thura, and is said to have retained its original shape. On the north side is a carved pavilion erected in 1868 and sheltering an image of Gautama.

On the north side of the Fort, in an unfinished building at the foot of Mandalay Hill, is a Buddha 25 feet high hewn out of a single block of Sagyin marble at the beginning of king Mindon's reign. To the east of it is the Sandamani pagoda, containing an iron image of similar features cast by king Bodawpaya. The royal pensioners here feast the public out of their slender incomes at the annual festival on the first two days of Thadingyut (October).

Further east is the Kuthodaw, the most splendid monument of king Mindon consisting of a pagoda 100 feet high surrounded by 729 others, in each of which in a marble slab inscribed with a part of the Buddhist scriptures in Burmese and Pali. Great care was taken to collate the various manuscripts so as to arrive at the most correct version, and the whole stands as a complete official record of the sacred writings.

South of the Kuthodaw are the walls of a vast monastery built by the same king and called the Atumashi, or "Incomparable." These and a forest of blackened pillars are all

that is left of the building, which was burnt in 1892. Just to the east of it is the Shwegyaung, or Golden Monastery, built by Mindon's chief queen after his death with the materials of the house in the palace where he died. The interior is a blaze of gold.

Just outside the east gate of the Fort is the Taiktaw, a large monastery surrounded by others, all finely carved, which served as the residence of the Thathanabaing, or head of the Buddhist Church, from 1859 to the annexation. The Myadaung monastery, situated on A road, a mile to the south-west of the Fort, is also profusely carved and gilded, though the gilding on the outside is now nearly worn off through exposure to the weather. The builder was Thibaw's favorite queen Supayalat. The Salin monastery, near the race course to the north of the Fort, contains what is probably the finest carving in Burma. It was built in 1873 by the Salin Princess.

On the highest point of Mandalay Hill is a pagoda which once contained the Naungdaw and Nyidaw images, now at the Shewkyimyin shrine. A little lower, at the south end of the ridge, stood, until it was burnt in 1889, a great wooden image called the Shweyattaw, erected by king Mindon on the foundation of Mandalay. It represented Buddha pointing to the palace as the future site of the capital, in accordance with a legend which relates that when Gautama visited Mandalay Hill, his abode in former states of existence, a *biluma*, or ogress, having nothing else to offer him, cut off one of her breasts and laid it at his feet. As a reward for her devotion, he promised that she would in a future existence be king of a country of which the capital would be at Mandalay. Preparations are being made (October 1904) to erect a new figure to replace that burnt.

An interesting morning may be spent on the top of the hill with a good glass. The whole of Mandalay lies at one's feet, and every building of consequence may be identified. At first sight the town seems buried in trees, but the tops at least of all religious buildings are visible. Conspicuous to the south-east are the Kuthodaw and the walls of the Incomparable Monastery. Far beyond them in the south at the edge of a cultivated plain, the white pagodas on Kyaukse hill may be seen, backed by the Shan plateau. Maymyo lies due east, hidden by several ranges of hills. On the north a conical hill marks the marble quarries of Sagyin, and far beyond are the mountains of the Ruby Mines District. West,



across the broad Irrawaddy, the huge mass of brick-work erected by king Bodawpaya at Mingun may be seen, with innumerable white pagodas dotted over the hills southward to Sagaing. On the east bank, opposite Sagaing, the pagodas of the old city of Ava, and further to the left Amarapura, rise above the trees.

Half a mile to the west of the south-west corner of the Fort is the main bazar, called the Zegyo. The buildings of this huge mart, which covered twelve acres, were erected under king Mindon and utterly destroyed by fire in 1897. They have since been replaced by a masonry bazar, costing eight lakhs where almost everything obtainable in Mandalay may be bought. The bazar sellers are mostly women, and unmarried Burmese girls of all classes may be seen displaying their good looks as well as their wares, and sharpening their wits in competition with natives of India against whom they can hold their own much better than their menfolk. The bright dresses of both sellers and buyers, and the still more brilliant colouring of the silk-stalls, the laughter and *badinage* and the freedom of manner of the women, devoid of forwardness and combined with a modesty well able to protect itself, make of the principal market of Burma a scene as attractive as any in the East.

Within the city walls are barracks and officers' quarters for one British and two Native infantry regiments. The jail is in the north-west corner and near it Government House overlooks the moat from the north wall. To the north of the Fort, skirting Mandalay hill, are the Burma Sappers' lines and quarters for a Native mountain battery. To the south, outside the walls, lie the court houses, municipal office, and circuit-house, and further west the hospital, the dāk bungalow, and the railway station. On the west, in the business quarter of the town, are the post and telegraph offices and the main bazar. There are twelve markets besides the Zegyo, within municipal limits, and seventeen police-stations and out-posts.

Of European religious buildings the chief is the Roman Catholic Cathedral, situated in the business quarter. It was completed in 1898, the entire cost being borne by a wealthy Burmese convert. The Society for the Propagation of the Gospel has a church and school, built by king Mindon, across the Shwetachaung in the west, the English Wesleyan Mission on the south of the Fort, and the American Baptists a mile to the south-west. The St. Joseph's Orphanage,

Public  
Buildings.

opened in 1904, gives free board and teaching to 150 Chinese boys. It is supported by subscriptions from the Chinese community and by grants from Government and the municipality. The St. John's Leper Asylum, a Roman Catholic institution, was built in 1902 at a cost of three lakhs through the energy of the late Father Wehinger, who had worked for the lepers of Burma for over ten years. It contains seven wards accommodating 50 patients each and in November 1904 had 323 inmates. The institution is maintained at a cost of Rs4,000 a year. Expenses are met by a Government grant of about Rs6,000 a year, contributions from municipal and other local funds amounting to over Rs10,000, and Rs9,000 in private subscriptions collected in the Province. A little to the west are the wards of the Mission to Lepers in the East, of which the local Superintendent is at present a Wesleyan Missionary. In November 1904 there were 138 inmates in this Asylum, besides 11 untainted children of lepers kept separately. The maintenance costs Rs15,000 yearly, defrayed from a Government grant of Rs3,300, municipal and local fund contributions amounting to Rs4,000, the Mission fund, Rs2,200, and subscriptions in Burma, Rs6,000. The Mission has been at work in Mandalay since 1890. The town contains over a hundred Buddhist monasteries and schools and several mosques.

#### Population.

The population of the city in 1901 was 183,816, a decrease of 4,999 since the first census taken in 1891. Of this number 166,154 persons were living within municipal limits and 17,662 in cantonments. Half of the decrease was in cantonments and was due mainly to the reduction of the garrison. The falling-off in the town was a little over one per cent. Of the people living within municipal limits 91 per cent. were returned as speaking Burmese,  $4\frac{1}{2}$  per cent. Hindustāni, less than one per cent. English, and  $3\frac{1}{2}$  per cent. other languages, mostly Indian. A large proportion, however, of the Burmese-speaking people have Indian blood in them. While the number speaking Indian languages cannot exceed 8 per cent. of the whole, those returning themselves as Muhammadan or Hindu in religion are no less than 13 per cent. of the total population. And it appears probable that at least 5 per cent. of the Burmese-speaking people must be partly Indian in race. The proportion is possibly greater, for there are many Buddhists of mixed descent. The Chinese in the District numbered 1,365 males and 211 females in 1901 and probably nearly all these were



enumerated in Mandalay City. This would give a proportion of one per cent. The former, however, would include many half Burmans, sons of Chinamen by Burmese mothers usually wearing the pig-tail. The city has several settlements of Manipuris and Hindus from Manipur, Assam, and Arakan, brought as captives after the invasions of those countries, and now called indiscriminately Ponnas. They are all of Hindu religion, and do not as a rule inter-marry with Burmans, but their women wear Burmese dress. Of the 9,000 enumerated in the District in 1901 the bulk were residents of the city. The Christians number 2,470, or  $1\frac{1}{2}$  per cent. of the population of the city. Roman Catholic missionaries have been established in Upper Burma since the eighteenth century; the Society for the Propagation of the Gospel has had a school in Mandalay from the time of king Mindon; and the American Baptists and English Wesleyans also have churches and schools. Of the cantonment population nearly two-thirds were returned as Burmese.

The census returns show the number of persons engaged in the distribution of food-stuffs and stimulants to have been about 31,000 in 1901. Unskilled labourers and their dependents numbered eighteen thousand, religious devotees (monks, etc.) eleven, and Government servants, including the military, nine thousand. Eight thousand persons were connected with agriculture and nine thousand with personal services of various kinds. Of the industries cotton-weaving comes first with 11,000. Tailors and sempstresses with their dependents numbered 10,000. Next come sawyers, carters, and workers or dealers in the precious metals, each with 7,000, sandal-makers with 6,000, and silk-weavers with 5,000. Tanners and lacquerers, and blacksmiths, account for over 2,000 each.

The arts and crafts of Mandalay include nearly every-  
thing that the Burmese race is capable of producing. The use  
of machinery is almost unknown, and with the exception of  
Messrs. Dyer and Company's brewery and a few rice and  
timber mills almost all the industries are carried on in the  
home. Among the arts may be included hammered silver-  
work, wood-carving, iron-work, painting, and a kind of  
embroidery called *shwekyido*, of gold and silver thread and  
spangles. The silver-work now consists mostly of bowls  
with figures in relief. It is of unequal merit, but good work  
can be got if demanded. The wood-carving, though the  
most national of all the arts practised, is in its decadence.  
The work of the old craftsmen was intended for the open air,

Arts and  
Manufac-  
tures.

where it was exposed to the elements and needed to be effective at a distance. The best work still shows its origin in its bold free lines and vigour of execution. The iron work chiefly consists of *tis* intended to ornament the tops of pagodas. The *shwekyido* work is the most characteristic of all. It is extremely gorgeous and effective, being most in demand for the palls at the cremation of monks and for the dresses of royal personages on the stage; but it does not last well, nor does it lend itself to fine detail. Equally rich in effect is a rough kind of gold lacquer interspersed with coloured glass, a favourite material for monastic furniture. The ordinary lacquer work is inferior to that of Pagan and is used mostly for platters, the designs on which are effective but wanting in variety. The material used is not lac but *thitsi*, the gum of the *Melonarrhoea usitatissima*. The patterns of the silk *pasos* and *tameins*, including the beautiful *acheik* or interwoven work, are constantly varying and the fashions change as quickly as in any European capital. The making of brass and marble images of Buddha can hardly be called an art, as there is no variation in the type. Brass-work is moulded by the *cire-perdue* process. The figure is modelled in wax and encased in a shell of clay. It is next subjected to an intense heat, which expels the wax. The molten brass is then poured in and takes the place of the wax. A pure white marble is obtained from Sagyin, 20 miles to the north, and the images, sometimes of great size, are sent all over Burma. Among the minor industries of the city may be mentioned the making of gongs, circular or three-cornered, and the preparation of sacred writings with ornamental lettering on brass or lacquer.

#### Municipality.

A municipal committee was formed in Mandalay in 1887 and has five official and twelve elected members, the latter representing the European, Burmese, Muhammadan, Hindu and Chinese communities. The principal sources of revenue are the house and land tax, which has risen steadily from ₹1,57,000 in 1888-9 to ₹2,37,000 in 1903-4; and markets, which yielded ₹1,43,000 in the first year, ₹2,69,000 in 1902-3, and ₹2,12,000 in 1903-4. Of this amount the Zegyo bazar contributed ₹1,50,000 in 1902-3 and ₹1,20,000 in 1903-4, the falling-off in the latter year being due to a fire in 1903. Slaughter-houses yielded ₹27,000 in 1898-9 and ₹44,000 in 1903-4. Other sources of income are the cart-tax and toll, which has increased in the last five years from ₹23,000 to ₹31,000, and the hackney-carriage tax

which has fallen off from R11,000 to R9,000. The principal item of expenditure is conservancy, which cost R84,000 in 1899-00 and R1,12,000 in 1903-4. Against these figures must be placed respectively R9,000 and R14,000 received as fees. Roads are a varying item of expenditure. The average for the past five years is R1,30,000, besides R26,000 for establishment. The maintenance of the hospital costs about R65,000 yearly, the fees received being about R5,000. An amount of R50,000 a year is devoted to education. There is no municipal school, but the Education department divides the grant among mission and other schools. The lighting of the town costs R43,000, which amount is just covered by a tax levied for the purpose. The expenditure on general administration rose from R28,000 in 1899-00 to R36,000 in 1903-4, and that on collection of taxes from fifteen to nineteen thousand. The town survey costs about R16,000 a year, and the fire-brigade R20,000. Vaccination and registration of births and deaths each absorb about R4,000 of the municipal income. Other items are a sum of R20,000 payable annually to Government to defray the cost of the embankment surrounding the town, and grants of R10,000 to the cantonment fund and R10,800 to the Leper Asylums. The only municipal taxes levied are a land-tax rated according to the kind of building and an additional 25 per cent. for lighting. The total incidence is R1-8-4 or about 2s. per head. Income-tax is levied by Government, but not *thathameda*, so that persons with incomes of less than R1,000 are more lightly taxed than in the villages outside municipal limits. The mileage of roads within the municipality is 117, of which, however, only 51 are metalled. An electric tramway, opened in 1904, runs along 12 miles of road, and it is proposed to light the town, or part or it, by electricity, in place of oil. Both conservancy and water-supply are capable of great improvement. Night-soil is removed by carts, and only when the house-owner chooses to pay a fee. In the business quarter, however, a tax has been sanctioned. The water-supply is from the moat and river and from wells. A scheme to sink new wells at a cost of 3½ lakhs is under consideration. The average death-rate for the town in the five years ending 1903-4 was 38.2, and the birth-rate 40.72 per thousand. The hospital which was built in 1891 had 2,392 in-patients in 1903-4, and medicines were dispensed in over 17,000 cases. In addition to the hospital there is a dispensary near the Zegyo bazar at which a somewhat larger number of cases were attended to.

**Cantonments.**

The cantonment fund is administered by a committee composed of the commanding officer, the cantonment magistrate, and others. Grants-in-aid from the military and the municipality, amounting to ₹54,000 a year, constitute its chief source of income. These are supplemented by house, conservancy and other taxes, yielding in all about ₹16,000, a sum of ₹7,000 from markets, and other collections amounting to about ₹4,000. The chief recurring items of expenditure are conservancy, ₹31,000, police, ₹17,000, and hospitals, ₹8,000. There are 26 miles of metalled roads, within cantonment limits, maintained from Imperial funds.

**Education.**

There are eight secondary and three primary Anglo-vernacular schools in the town. Of these the principal are St. Peters' High School and St. Joseph's (Roman Catholic), the American Baptist Mission High and European Schools, the Society for the Propagation of the Gospel's Royal School and the High School of the European Wesleyan Mission. There is also a survey school and a normal school for teachers.

## MYSORE.

The dynastic capital of the Mysore State and residence of the Mahārāja. Also headquarters of Mysore District and taluk. Situated in  $12^{\circ} 18' \text{ N.}$ ,  $76^{\circ} 42' \text{ E.}$ , at the base of the Chāmundi hill, 86 miles from Bangalore by rail. Population 68,111 in 1901, and 74,048 in 1891, the decrease being due to plague. It covers an area of  $7\frac{1}{2}$  square miles, and is divided into 7 muhallas or municipal wards, namely, the Fort, Lashkar, Devarāj, Krisbñarāj, Mandi, Chāmarāj, and Nazarābād. The original city is built in a valley formed by two ridges running north and south. In recent years it has been completely transformed by extensions to the north and west, and the erection of many fine public buildings, but the old parts are very crowded and insanitary. A special Board of Trustees for improvements has now (1903) been formed, and it promises to become in course of time a very handsome city. But even in the past important sanitary measures have been carried out. In 1886 a complete system of drainage was provided for the Fort, and the precincts of the Palace were opened out and improved. One of the most beneficial undertakings was the filling in of the portentous great drain known as Pūrnaiyas's Nullah, originally excavated in the time of that minister with the object of bringing the water of the sacred CAUVERY into Mysore. This purpose it did not fulfil, and simply remained as a very deep and big noisome sewer. Its place has now been taken by a fine wide road, called after the Gaikwar of Baroda the Sayāji Rāo road, flanked on either side by ranges of two-storeyed shops of picturesque design, called the Lansdowne Bazars. At the same time a pure water-supply was provided by the formation of the Kukarhalli reservoir towards the high ground on the west, from which water was laid on to all parts of the city in iron mains. This has since been supplemented by a high level reservoir, the water in which is drawn from the Cauvery river itself near Anandūr, and forced up with the aid of turbines erected there. The new quarter called (after the late Mahārāja) Chāmarājapura more than doubled the area of the city. Conspicuous on the high ground to the west are the public offices surmounted by a dome, standing in the

## PESHAWAR.

City, municipality and cantonment in the North-West Frontier Province, headquarters of the Peshāwar District and tahsil, and capital of the Province ( $34^{\circ} 1' \text{ N.}$  and  $71^{\circ} 35' \text{ E.}$ ). Population (1901) 95,147, including 68,352 Muhammadans, 18,552 Hindus, 5,144 Sikhs, and 3,063 Christians. Of the total population 21,804 live in cantonments. Peshāwar is situated in a small plain near the left bank of the Bārā stream,  $13\frac{1}{2}$  miles south-east of the junction of the Swāt and Kābul rivers, and  $10\frac{1}{2}$  miles from Jamrūd fort near the entrance of the Khyber Pass. Distant by rail from Calcutta 1,552 miles, and from Bombay 1,579 miles, by road from Kābul 190 miles. It is the terminus both of the Grand Trunk road and of the broad-gauge North-Western Railway, though branch lines run from it to Dargai and Jamrūd. Peshāwar was in the time of Fa Hian the capital of the Gandhāra Province, and is historically important at all later periods. It was famous during the early centuries of the Christian era as containing the begging pot of Buddha, and the holy *pipal* tree whose branches are said to have given shade to the Master, and the enormous *stūpa* of Kanishka. Buddhist remains still mark its early greatness. The name is not improbably derived from Purushāwara or Purushapura, the seat of a king named Purush, and the present form Peshāwar is referred to the emperor Akbar, whose fondness for innovation is said to have led him to change the name, of whose meaning he was ignorant, to Peshāwar, the 'Frontier Town.' In 1552, Humāyūn found the fortress in ruins, but had it repaired and entrusted it to a Cossack governor, who successfully defended it against the Afghāns under Khān Kajū. The town appears to have been refounded by Balgram, a contemporary of Akbar, and was much enlarged by General Avitabile, its governor under the Sikhs. It became the headquarters of a District and Division in 1849, and the capital of the Government of the North-West Frontier Province in 1901. The modern city has but slight architectural pretensions, the houses being chiefly built of small bricks or mud, held together by a wooden framework. It is surrounded by a mud wall, built



by General Avitabile which is gradually being rebuilt of brick. The city is entered by 16 gates. The main street, entered from the Kābul gate (re-erected as a memorial to Sir Herbert Edwardes), is a broad roadway 50 feet in width, consisting of two double rows of shops, the upper rooms of which are generally let out as lodgings; the street is well paved, and at busy times presents a very picturesque sight. The remainder of the city proper consists of octagons, squares, markets, with narrow and irregular streets and lanes. A masonry canal runs through the centre of the city, which is, however, only used to carry off drain-water and sewage. Drinking water is brought down in pipes from the water-works, for which the municipal committee pays a yearly rental. Wells are only used in the hot weather to supply colder water than the pipes afford. The sanitary and conservancy arrangements are described as very good, and all the drains are paved. There are now very few old houses of architectural importance, most of them having been destroyed at the time of the capture of the city by the Sikhs from the Durrānīs. Several handsome mosques ornament the city; and there is a large building known as the Gor Khattrī, once a Buddhist monastery, and then rebuilt into a Hindu temple which is now used as the tahsīl. Just without the wall, on the north-western side, a quadrilateral fort the Bāla Hisār, crowns a small eminence, completely dominating the city. Its walls of sun-dried brick rise to a height of 92 feet above the ground, with a *fausse-braye* of 30 feet; bastions stand at each corner and on three of the faces, while an armament of guns and mortars is mounted above.

South-west of the city, stretching from just outside the walls, are the suburbs of Bhāna Mārī and Dherī Bāghbānān, where there are gardens noted for their fruit, producing quinces, pomegranates, plums, limes, peaches, and apples in abundance. These gardens form a favourite pleasure-ground of the people; north of the city is another public pleasure-ground, the Bāgh Shāhī, or old royal gardens. Two miles west of the city lie the cantonments, where most of the civil offices are also situated.

The cantonments were occupied by British troops soon after annexation in 1848-49. The garrison has been much reduced and consists at present of one battery, R. F. A., two regiments of British and three of native infantry, one regiment of native cavalry and one company each of sappers and miners, bearer corps, and army hospital native corps.

wooded grounds of Gordon Park. Other prominent buildings in the vicinity are the Victoria Jubilee Institute, the Mahārāja's College, and the Law Courts. In 1897 the old Palace in the Fort was partially destroyed by fire, and this has given occasion for the erection of a new Palace, on the same spot, of more modern design, constructed of durable and less combustible materials. The opportunity has been availed of for introducing some of the handsome porphyries and other ornamental stones found in Mysore, and stone carvings on the lines of the famous ancient sculptured temples of the State are being used. Altogether, the new Palace now approaching completion bids fair to be a building notable for its architecture and decorative features. The Fort, which is the original nucleus of the city, is quadrangular, three of the sides being about 450 yards in length, and the remaining or south side somewhat longer. The Palace, in the interior, was crowded round with houses, principally occupied by retainers. But open spaces have now been formed, and farther improvements will follow the completion of the new Palace.

Mysore itself (properly Mahisūr, buffalo town) is no doubt a place of great antiquity, as it gave its name to the country as Mahisa-mandala in the time of Asoka in the 3rd century B.C., and appears as Mahishmati in the *Mahābhārata*. Maisūr-nād is mentioned in inscriptions of the 11th and 12th century. The original fort is said to have been built in 1524. But the modern town, even before the extensive rebuilding of recent years, could not to any extent boast of great age. Though Mysore was the ancestral capital of the State, it was superseded by SERINGAPATAM, which was the seat of the Court from 1610 till the downfall of Tipū Sultan in 1799. The latter ruler had demolished the fort, and conveyed the stones to a neighbouring site called Nazarābād, where he intended to erect a new fort. On the restoration of the Hindu Rāj in 1799, the stones were taken back and the fort rebuilt. It was then also that the recently destroyed Palace was erected, and the Court removed to Mysore. So that not many standing remains can claim to be older than about a hundred years. Interesting buildings of that period are the house occupied by Colonel Wellesley (the future Duke of Wellington), and the Residency (now called Government House) erected in 1805 in the time of Sir John Malcolm by de Haviland. This has lately been much altered and extended. The

municipal board is composed of 20 members. The Deputy Commissioner is President, with 5 other *ex-officio* and 4 nominated members appointed by Government, and 10 elected members. The privilege of election was granted in 1892. The principal heads of municipal receipts and expenditure are (1900-01) :—

Receipts.		Expenditure.	
	R		R
Octroi . . . . .	62,399	Head office charges . . . . .	9,052
Tax on houses and buildings.	11,279	Collection . . . . .	12,374
Licenses for liquor shops, etc.	7,812	Conservancy . . . . .	29,903
Carriage tax . . . . .	583	Registration of births and deaths.	749
Tax on animals . . . . .	1,154	Lighting . . . . .	7,658
Tolls and Ferries . . . . .	20,587	Public Works . . . . .	35,062
Mohatarfa (on shops, looms, oil-mills, and carts).	4,857	Charitable grants . . . . .	5,702
Rents from markets, etc.	6,614	Education . . . . .	8,632
Fire . . . . .	168	Miscellaneous . . . . .	15,024
Miscellaneous . . . . .	17,156	Plague preventive charges.	3,748
Payments for municipal services.	7,183	Loan . . . . .	21,315
Grant-in-aid (loan) . . . . .	21,345		
<b>Total . . . . .</b>	<b>1,61,167</b>	<b>Total . . . . .</b>	<b>1,49,219</b>

The garrison forms part of the Peshāwar Military Division of the Northern Command, the head-quarters of which are situated here.

The municipality, founded in 1867, is of the second class, and is composed of 20 members, 14 nominated and 6 *ex-officio*. The Deputy Commissioner is *ex-officio* president. The average annual income for the 10 years ending 1902-03 was ₹2,21,000, and the expenditure ₹2,16,000. Octroi (₹1,63,000) is the chief source of income. The principal items of expenditure are conservancy (₹24,000), education (₹3,000), hospitals and dispensaries (₹18,000), public safety (₹44,000) and administration (₹28,000) and its income and expenditure for 1903-04, were ₹2,83,437 and 2,94,353 respectively. The average receipts and expenditure of cantonment funds in the 10 years ending 1902-03, were ₹52,904 and 52,529 respectively.

The main trade of the District passes through the city of Peshāwar. The commerce of Peshāwar, though of a varied and not uninteresting nature, is less extensive and less valuable than might perhaps have been expected. Its position points to importance as an entrepôt for trade with Central Asia, but results in this respect are far from satisfactory, and having no manufactures of its own, the city can look for little development of its commerce from any other source. The principal foreign markets having dealings with Peshāwar are Kābul and Bokhāra. From the former place, raw silk, worsted, cochineal, jalap, assafœtida, saffron, resin, simples, and fruits, both fresh and dried, are imported, principally for re-exportation to the Punjab and Hindustan, whence are received in return English piece-goods, cambrics, silk, indigo, sugar and spices. Bokhāra supplies gold sequins, gold and silver thread and lace, principally for re-exportation to Kashmīr, whence the return trade is principally in shawls. Iron from Bajaur, and skin-coats (*poshtīns*) are the only remaining items of importance coming from beyond the border. The items of return trade are those already mentioned, with the addition of salt and tea, the former from Kohāt, the latter purchased for the most part in the markets of Amritsar and Lahore. The transactions of the Peshāwar market, however, are as nothing when compared with the stream of through traffic from the direction of Kābul and Bokhāra which passes on, not stopping at Peshāwar, into the Punjab and northern India.



The city possesses an unaided Arts College attached to the Mission high school, four high schools, namely, the municipal and Edwardes' Mission anglo-vernacular high schools, and 2 unaided anglo-vernacular high schools. There is also a civil hospital. Another local institution is the Martin Lecture Hall and Institute, with its reading room and library, also maintained by the Peshāwar Mission.

## QUETTA.

Quetta (*Kwatah*, generally known as Shāl or Shālкот) is the capital of the Baluchistān Agency and head-quarters station of the Quetta-Pishin District. It lies in  $30^{\circ} 10' N.$  and  $67^{\circ} 1' E.$  at the northern end of the tahsil of the same name, and is now one of the most desirable stations in northern India. Quetta is connected with India by the North-Western Railway and is 727 miles from Lahore and 536 from Karāchi. It was first occupied by the British during the first Afghan war from 1839 to 1842. In 1840 an assault was made on it by the Kākars, and it was unsuccessfully invested by the Brāhuis. The present occupation dates from 1876. The place consists of a cantonment covering about 15 square miles on the north and the civil town on the south, which are separated by the Habib Nallah. Population has risen from 18,802 (1891) to 24,584 (1901). It consists of 3,678 Christians, mainly the European garrison, 10,399 Muhammadans, and 8,678 Hindus. The majority of the remainder are Sikhs. The ordinary garrison comprises 3 mountain batteries, 2 companies of garrison artillery, 2 British and 3 native infantry regiments, 1 regiment of native cavalry, 1 company of sappers and miners and 2 companies of volunteers (1904). The police force employed in the cantonment and town numbers 180.

Municipal taxes have been levied since 1878, but the present municipal system dates from 1896. The revenue during 1903-1904 was 2·2 lakhs and the expenditure 2·1 lakhs. The income is chiefly derived from octroi. The committee has taken loans from Government of which the unpaid balance on March 31st, 1904, amounted to Rs 1,100. Half of the net octroi receipts collected by the committee is paid to the cantonment fund. The receipts of this fund, from which the maintenance of the cantonment is provided, were 1·1 lakhs during 1903-1904 and the expenditure 1·3 lakhs. Much attention has been paid to sanitation and the prevention of enteric fever, which was, at one time, common. A piped supply of water for the cantonment, civil station and railway was constructed in 1891 at a cost of about 7½ lakhs, and an additional supply has since been provided for the cantonment at a cost of more than 3½ lakhs. The civil station and town lie somewhat low



and nearly 1½ lakhs have been expended in providing a system of street drainage for them. The principal buildings are the Residency, the Sandeman Memorial Hall, St. Mary's Church and the Roman Catholic Church. The civil hospital is well equipped and the town also possesses a female dispensary, two mission hospitals, a high school, a girls' school and a European school. A mill for grinding flour and pressing wool and chopped straw has existed since 1887. The Indian Staff College is now in course of erection (1904). A feature of the station is the gymkhana ground, with its fine turfed polo and cricket grounds. The trade of Quetta is continually expanding. Imports by rail have increased from 39,200 tons in 1893 to 56,224 in 1903 and exports from 5,120 tons to 13,829 tons.

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rising was speedily quelled by Mintasa-gyi or Bodaw-payā, the Burmese monarch.

About this period the English obtained leave to establish a factory in Rangoon and the British colours were hoisted over it. In 1794 difference arose in Arakan and Chittagong between the East India Company and the Burmese Government and Colonel Symes was sent on an embassy to Ava, one of the results of his mission being the appointment of a British Resident at Rangoon in 1798. Symes thus describes Rangoon as he saw it:—"It stretches along the bank of the river about a mile and is not more than a third of a mile in breadth. The city or *myo* is a square surrounded by a high stockade and on the north side it is further strengthened by an indifferent fosse, across which a wooden bridge is thrown. In this face there are two gates, in each of the others only one. On the south side, towards the north, there are a number of huts and three wharves with cranes for landing goods. A battery of 12 cannon (six and nine pounders) raised on the bank commands the river, but the guns and carriages are in such a wretched condition that they could do but little execution. The streets of the town are narrow and much inferior to those of Pegu, but clean and well paved. The houses are raised on posts from the ground. All the officers of the Government, the most opulent merchants and persons of consideration live within the fort; shipwrights and persons of inferior rank inhabit the suburbs." During the first Anglo-Burmese war (1825) Rangoon was taken by the British and held. During the early part of the campaign strenuous efforts were made by the Burmans to re-capture it, but it was held (though not without heavy losses from sickness, as well as casualties in action) till 1827, when it was evacuated in accordance with the terms of the treaty of Yandabo. In 840 the appearance of Rangoon was described as suggestive of meanness and poverty. In 1841 king Kon-baung-min, better known as Prince Tharrawaddy, ordered the town and stockade to be removed about a mile and a quarter inland to the site of Ok-ka-la-ba and to be called by that name. The royal orders was to a certain extent obeyed, the principal buildings and Government offices were placed in the new town and were there when the British force landed and captured Rangoon in April 1852 on the outbreak of the second Burmese war. From this time onwards the place has remained in possession of the British, its history being one



of phenomenal development, but, with one or two exceptions (such for instance as a riot that occurred in June 1893) devoid of incident. The principal pagodas of the town are the Shwedagôn to the north-east of the cantonment, said to contain the relics of no less than four Buddhas, *viz.*, the water-strainer of Krakuchandha, the staff of Kasyapa, the bathing robe of Konagamana and eight hairs of Gautama; the Sule pagoda, a more ancient but less pretentious shrine in the centre of the business quarter; and the Botataung pagoda on the river face in the south-east of the town.

Rangoon is famous for its carvers in wood and ivory and for the beauty of its silver work, which mostly takes the shape of embossed bowls. An art exhibition is held annually and is no doubt helping to stimulate an interest in art among native workers. Many beautiful specimens of wood carving are to be found in the shrine of the Shwedagôn pagoda.

The factories of the town are for the most part concerned with the production of the three principal exports—rice, timber and oil. Of rice-mills (where the paddy brought from the surrounding rural areas is husked and otherwise prepared for the market) there were in 1902 twenty-eight and of saw-mills eighteen. There is one petroleum refinery, but that a large one which deals with practically the whole of the produce of the earth oil wells of the dry zone of Upper Burma. The total of factories in 1902 was 67.

About five-sixths of the maritime trade of Burma passes through the port of Rangoon and a history of the commerce of the Province is very little more than the history of the progress of that single port. Since Rangoon became an integral part of His Majesty's dominions, its trade has increased by leaps and bounds. In 1856-57 its value aggregated a crore only. By 1881-82 this figure had risen to 11 crores and by 1891-92 to 19 crores. In 1901-02, in spite of a more stringent tariff than in the past it had mounted up to close on 26 crores, while 1902-03 showed a further advance of nearly two crores on the figures for the previous year. Under practically all the main import and export heads the growth has been steady. Imports of cotton piece-goods, which in 1881-82 were valued at 6½ lakhs, were valued at nearly fifteen lakhs in 1901-02. Provisions have risen from 3 to 11 lakhs in value within the same twenty-year period, coal from one to 3½ lakhs, tobacco from 2 to 4 lakhs, spices from 2½ to 4½ lakhs. Among exports the development has been even more

Arts and  
ManufacturesCommerce  
and Trade.

## RANGOON.

### Description.

The capital of Burma and headquarters of the Local Government, situated in  $16^{\circ} 46'$  N. and  $96^{\circ} 13'$  E. on both sides of the Hlaing or Rangoon river at its point of junction with the Pegū and Pazūndaung streams, twenty-one miles from the sea. The greater part of the city, *i.e.*, the town proper with its main suburbs of Kemmendine and Pazūndaung lies along the left or northern bank of the river, which at this point, after a southerly course through level paddy stretches and down the city's western skirts, turns towards the east for a mile or so before bending southwards to the Gulf of Martaban. Behind the array of wharves and warehouses that line the northern bank rise the buildings of the mercantile and business areas of the town and thence the ground slopes upwards through a well wooded cantonment to the foot of the slight eminence from which the great golden Shwedagon pagoda looks down upon the town and harbour. On the south bank of the Rangoon river are the suburbs of Dallā, Kamākasit and Kanaungto, a narrow strip of dockyard premises and native huts on the fringe of a vast expanse of typical delta paddy land. These mark the southern limit of the town. To the west the boundary is the western bank of the Hlaing; to the east the Pazūndaung and Pegū streams hem the city in; to the north the municipal boundary runs through the slightly undulating wooded country into which the European quarter is gradually spreading.

### Population.

The population of the town at each of the last four censuses was as follows: 1872,—98,745; 1881,—134,176; 1891,—180,324; 1901,—234,881. After the three Presidency towns and the cities of Hyderabad and Lucknow, Rangoon is the most populous city in British India. Its rate of growth is, as the census figures show, considerable, the actual increase between 1891 and 1901 (54,557) being very little less than that of Madras, a city of more than double its inhabitants, while that between 1872 and 1901 (136,136) is exceeded only by that of Calcutta among all Indian cities. Practically the whole increase in this decade is due to immigration from India. The number of immigrants from India resident in the city was 65,910 in 1891 and 117,713 in 1901 (of whom only about 16 per cent. were women). Nearly two-

thirds of these foreigners had come from Madras, and about one-fifth from Bengal. The Chinese colony has increased from 8,029 in 1891 to 10,118 in 1901. Of the 1901 population 83,631 or more than one-third were Buddhists, but the Hindu aggregate (82,994) was almost as large. The Musalmāns totalled 43,012 and the Christians 16,930, of whom about one-half were Europeans and Eurasians. The Society for the propagation of the Gospel and the American Baptist Mission labour in the town. The Wesleyans, the Presbyterians and other Protestant denominations are represented, and there is a large Roman Catholic Mission.

Rangoon has been the administrative head-quarters of the Province ever since the second Burmese war added the Province of Pegū to the Indian Empire. It was never, however, a royal capital and its importance as a mercantile centre is of comparatively recent development.

History.

According to Talaing tradition the first village on the site of modern Rangoon was founded about 585 B. C. by two brothers, Pu and Ta Paw, who had received some of Gautama's hair from the Buddha himself and acting on his instructions enshrined them in the famous Shwedagon pagoda. Pun-na-ri-ka, who reigned in Pegū from 746 to 761 A. D., is said to have refounded the town and called it Aramana and it was not till later that it regained its name of Dagōn. The Talaing records relate how it was occupied by the Burmese in 1413; how Bya-na-kin the son of Raza-dirit was appointed its governor; and how Shin-tsaw-bu, his sister, in whose memory a national festival is celebrated each year, built herself a palace here in 1460. After this, however, the town gradually sank into a collection of huts. Dallā, now an unimportant suburb on the right bank of the Hlaing and Syriam on the opposite side of the Pegū river are repeatedly noticed, but of Dagon little or nothing is said.

In the wars between the sovereigns of Burma and Pegū, Dagon frequently changed hands; and when in 1763 Alaung-payā (or Alompra) drove out the Talaing garrison of Ava (then the Burmese capital) and eventually conquered the Talaing dominions he came down to Dagōn and repaired the great pagoda. Alaung-payā for the most part rebuilt the town, gave it the name of Yan Kon (lit. the end of the war) or Rangoon, which it has ever since borne, and made it the seat of a vice-royalty. Until 1790 it was the scene of incessant struggles between the Burmese and Peguans. In that year the place was captured by the latter but the

marked. The staple produce of the country is rice. The value of exports in this single commodity amounted in 1901-02 to 9½ crores, against 6 crores in 1891-92 and 3½ crores in 1881-82. Next in importance comes teak timber, with a growth in value from 22 lakhs in 1881-82 to 91 lakhs in 1901-02 and next oil, which has risen from two lakhs in the former year to 81 in the latter. Cutch is the only important export commodity that has shown a falling off of recent years.

The following shows the actual figures of imports and exports for the three years selected and for 1902-03 :—

—	1881-82.	1891-92.	1901-02.	1902-03.
	Rs.	Rs.	Rs.	Rs.
Imports	5,05,00,560	9,02,87,895	11,16,68,862	11,54,96,950
Exports	4,73,42,340	9,00,82,192	14,66,17,278	17,13,42,799
Total	9,78,42,900	18,03,70,087	25,82,86,140	28,68,39,749

During the same period the customs revenue rose from Rs. 44,35,100 in 1881-82 to Rs. 60,32,670 in 1891-92 and finally to Rs. 91,10,270 in 1901-02. Owing to the increasing employment of vessels of large burthen the number of ocean-going steamers entering Rangoon has not risen to an extent proportionate to the growth in trade and tonnage, the figures for 1881-82 being 931 vessels with an aggregate capacity of 654,627 tons while those for 1901-02 were 1,305 vessels with a capacity of 1,738,190. Rangoon has now entered upon an era of prosperity which shows no immediate prospect of waning. The port is administered by a Port Trust constituted under the Rangoon Port Commissioners' Act, 1879, which sees to the buoying and lighting of the river and provides and maintains wharf and godown accommodation. The receipts and expenditure of the trust in 1902-03 aggregated fifteen and fourteen lakhs respectively. Rangoon is the terminus of all the lines of railway in the Province. Starting from Phayre Street station the lines to Prome and Bassein pass westwards between the municipality



and the cantonment and thence northwards through the suburb of Kemmendine. There are frequent locals along this section of the railway and several stations within the limits of the city. The main line to Mandalay and Upper Burma runs generally eastwards from the terminus through the suburb of Pazūndaung and, skirting the mills that line the Pazūndaung creek, passes north-eastwards into the Hanthawaddy District. There are 80 miles of roads within city limits, of which about 60 are metalled. A steam tramway runs east and west through the heart of the business quarter as well as northwards as far as the Shwedagôn pagoda. It will probably be electrified shortly. There is an earth railway on the eastern side of the town which is being used for bringing in the earth required for the reclamation of the low-lying swampy area near the banks of the river.

Rangoon city consists of the municipality, the cantonment and the port. For the purposes of judicial and general administration it is a District of Lower Burma and is in charge of a Deputy Commissioner who is District Magistrate and who is assisted by a Cantonment Magistrate, two Subdivisional Magistrates and other officials. The President of the municipality is Deputy Commissioner of Town Lands in the District. The Chief Court sits in Rangoon. It is a Court of Sessions for the trial of Sessions cases in the city and hears appeals from the Court of the District Magistrate. There is a Bench of Honorary Magistrates consisting of twenty-three members. On the civil side the Chief Court disposes of original civil cases of the value of Rs. 2,000 and upwards and of civil appeals. Petty civil cases are disposed of in the Small Cause Court in which two judges sit. There is a good deal of crime in the town. The Indo-Burman community is addicted to theft, and acts of violence are not uncommon, while the proximity of the port appears to make the temptation to smuggle irresistible to certain classes.

The administration of the Rangoon Town Lands is at present carried on under the provisions of the Burma Town and Village Lands Act of 1898. Since 1890 the Town Lands have been controlled by the Deputy Commissioner (who is at the same time President of the Rangoon municipality) under the control of the Commissioner of Pegu and the Financial Commissioner. For revenue purposes the whole area comprising Town Lands is divided into eight circles. The average

revenue collections in the District amounts approximately to Rs. 10,348 ; the whole of this sum being credited to Imperial funds.

The ground rents together with premia and the sale proceeds derived from lands and building sites averaging annually Rs. 3,03,717, are credited to the Land Sale and Rent fund ; a portion of this sum is credited to the Town Lands Reclamation fund ; the net balance being transferred annually to the Rangoon municipality to be expended on works of utility. All cultivated land is assessed to revenue at a fixed rate per acre irrespective of the crops (mostly garden produce) cultivated. The rates vary from Rs. 2 to Rs. 3 per acre.

Other sources of non-municipal revenue within city limits besides customs and land rate are excise and income-tax. The former brought in about 14½ lakhs and the latter (which has been in force in Rangoon since 1888) nearly 5 lakhs in 1900-01.

The Rangoon municipality comprises an approximate area of 33 square miles with a population (inclusive of the residents of the port) of 221,160 persons. It was constituted on the 31st July 1874. The committee consists of 25 members, of whom 19 are elected by the rate-payers and 6 are nominated by Government.

There are various taxes, levied at a percentage on the annual value of lands and buildings within municipal limits, namely :—the 8 per cent. tax for “ general purposes,” the 7 per cent. scavenging tax, the 4 per cent. water tax and the 1 per cent. lighting tax. Scavenging tax is charged at the rate of 4 per cent. in areas not served by the municipal drainage system. As is the case elsewhere, bazars are a fruitful source of municipal income in Rangoon.

During the 10 years 1890—1900 the average ordinary income of the Rangoon municipality (that is excluding special loans) was Rs. 17,10,000 and the average ordinary expenditure was Rs. 15,01,000. In 1902-1903 the ordinary income was Rs. 24,62,704 (the principal sources being Rs. 6,16,000 from the general house and land tax, Rs. 3,98,000 from conservancy, Rs. 2,84,000 from markets and slaughter-houses and Rs. 2,41,000 from water-rate). The gross income in 1902-03 was Rs. 64,79,858, including a loan of Rs. 33,38,000 for public works purposes. The expenditure during that year was Rs. 52,26,434 ; and included a capital outlay of Rs. 10,17,000 on water supply, and a re-payment of a loan



of Rs. 6,42,000 ; Rs. 3,39,000 was spent on conservancy, Rs. 2,47,000 on hospitals and dispensaries, and Rs. 5,30,000 on roads.

The cantonment area lies to the north of the city. It formerly comprised the bulk of the European residential quarter, but building operations have now been extended further afield outside its limits—mainly in the direction of what is known as the Royal Lake, an artificial stretch of water lying to the north east of the town—and the cantonment boundary itself is now being curtailed. The population of the cantonment at the 1901 census was 13,721. There is a cantonment fund administered by the cantonment committee. Its income in 1901-02 was Rs. 69,654 (including Rs. 15,000 from a house tax, Rs. 13,500 from conservancy and Rs. 12,000 from land. The expenditure in that year amounted to Rs. 66,065, the principal items being conservancy (Rs. 29,000), police (Rs. 9 500) and (roads Rs. 9,500).

The town is at present lit with oil lamps, but electric lighting will probably be introduced within the municipal area at an early date.

The drainage of the town consists of gravitating sewers which receive the sewage from house connections and carry them to ejectors. These discharge their contents automatically into a sealed sewer main, through which all the night soil and sullage water of the town is forced into an outfall near the mouth of the river and immediately to the south-west of Monkey Point Battery to the east of the town. This system has been in use since 1889 most successfully. The water-supply for the town is at present from an artificial lake about 5 miles from the town called the Victoria Lake, the collected rain water from which is carried by a main pipe to the town and supplies it with low pressure for about 12 hours per day. Water is also pumped up to a high level reservoir on the Shwedagon pagoda platform about 100 feet above Rangoon ; whence it is supplied to the town by gravitation. This arrangement has provided drinking water to the town for the past 20 years but the supply being at present insufficient a large reservoir lake is being constructed at Hlawga about ten miles beyond the Victoria lake, which when completed is calculated to supply all requirements for an indefinite period.

The city contains several handsome buildings. Among the most conspicuous are the new Government House to the north-west of the cantonment area, the Secretariat Buildings

to the east of the business quarter and the District Court buildings facing the river in the centre of the town. The new Roman Catholic cathedral which is approaching completion promises to be a very handsome structure. The Jubilee Hall at a corner of the brigade parade ground in the neighbourhood of the cantonment is one of the more recent additions to the architecture of the town. It is used for public meetings and for recreation purposes. The Town Hall in which the municipal offices are located adjoins the Sule Pagoda in the business quarter. The Rangoon College buildings, the General Hospital and the Anglican Cathedral are grouped together and merit notice. A new Hospital and a Chief Court building will be constructed shortly. There are several public squares and gardens and a picturesque park (Dalhousie Park) surrounding the Royal Lake referred to above.

The town is garrisoned by British and native infantry and by two companies of Royal artillery. There are three volunteer corps. Previous to June 1899 the Rangoon police were under the orders of the Inspector-General of Police, Burma, but on the 15th June 1899, a Commissioner was appointed for Rangoon and the police were placed directly under his charge.

For police purposes the town is divided into three subdivisions, each in charge of a Superintendent of Police. There are 10 police stations and 10 outposts. The total strength of the force under the orders of the Commissioner of Police and the Superintendents is, 14 Inspectors, nine head constables, 57 sergeants and 727 native constables besides 17 European constables and one European sergeant.

Rangoon has a large central jail, with accommodation for 2,518 native and 80 European prisoners, which is in charge of a whole-time Superintendent who is an officer of the Indian Medical Service. The principal industries carried on in the Rangoon jail are carpentry, wood-carving, coach-building, weaving, wheat grinding, and printing. A considerable portion of the printing work of Government is carried out by the Jail Branch of the Government Press.

#### Education.

The following are the chief educational institutions of Rangoon:—The Rangoon College and Collegiate School, established in 1874, administered by the educational Syndicate from 1886 to 1903 and placed in the latter year under the direct control of Government; The Diocesan Boys'



School, founded in 1864 for the education of Europeans; The Baptist College, opened in 1872 as a secondary school, and in 1884 affiliated with the Calcutta University; St. John's College S. P. G., founded in 1864, and affiliated as a high school to the Calcutta University; St. John's Convent School for girls started in 1861; The Lutheran Mission School for Tamil children opened in 1878 and St. Paul's (Roman Catholic boys) school opened in 1861.

There were registered in 1903-04, 29 secondary schools, 110 primary schools, 206 elementary (private) schools, 37 training schools and "special" schools. The number of pupils in registered schools and in the two collegiate establishments was 8,031 in 1891; 13,514 in 1901; and 17,166 in 1903-04 (including 4,123 females). The expenditure on education in the year 1903-04 was borne as follows: Provincial funds Rs. 90,800; municipal funds Rs. 71,500 fees, Rs. 2,04,800, and subscriptions Rs. 11,600.

The chief epidemic and contagious diseases prevalent in the town are small-pox, cholera and enteric fever. Small-pox appears to be introduced annually from the Districts, where it is always rife. Cholera is endemic along the banks of the river and creeks, and is, no doubt, closely related to an impure drinking water supply. Enteric fever occurs sporadically throughout the town and suburbs. It is probably due to defective drainage and defective water-connections.

The most important medical institutions in the city are the Rangoon General Hospital and the Dufferin Hospital, a new and handsome building recently erected in the north-west corner of the town. In connection with the General Hospital there is a contagious diseases hospital and an out-door dispensary at Pazūndaung. There is a lunatic asylum which is situated close to the Central jail and is in charge of the junior civil surgeon of Rangoon and a leper asylum outside the town.

## SIMLA.

Municipal town and administrative head-quarters of the Simla District, Punjab, chief sanitarium and summer capital of British India. Situated on a transverse spur of the Central Himālayan system in  $31^{\circ}6' N.$  and  $77^{\circ}10' E.$  Mean elevation above sea-level 7,084 feet. Distant by rail from Calcutta 1,176 miles, from Bombay 1,112 miles, and from Karāchi 947 miles; from Kālka, at the foot of the hills, by cart road, 58 miles. The population of the town (excluding Jutogh and Kasumpti) was in 1881, 12,305; in 1891, 13,034, and in 1901, 13,960 as enumerated in February or March when it was at its lowest. At a municipal census taken in 1904 the population of the station was returned at 34,501. Of the population enumerated in 1901, Hindus numbered 8,568, Muhammadans 3,545, Sikhs 346, Christians 1,471, and Jains and Zoroastrains 35.

A tract of land, including part of the hill now crowned by the station, was retained by the British Government at the close of the Gurkha war in 1815-16. Lieutenant Ross, Assistant Political Agent for the Hill States, erected the first residence, a thatched wooden cottage, in 1819. Three years afterwards, his successor, Lieutenant Kennedy, built a permanent house. Officers from Ambāla and neighbouring stations quickly followed the example, and in 1826 the new settlement had acquired a name. A year later, Lord Amherst, the Governor-General, after completing his progress through the North-West, on the conclusion of the successful Bharatpur campaign, spent the summer at Simla. From that date the sanitarium rose rapidly into favour with the European population of northern India. Year after year, irregularly at first, but as a matter of course after a few seasons, the seat of Government was transferred for a few weeks in every summer from the heat of Calcutta to the cool climate of the Himālayas. Successive Governors-General resorted with increasing regularity to Simla during the hot weather. Situated in the recently annexed Punjab, it formed an advantageous spot for receiving the great Chiefs of northern and western India, numbers of whom annually come to Simla to pay their respects to the Viceroy. It also presented greater conveniences as a starting point for the Governor-



General's cold weather tour than Calcutta. At first only a small staff of officials accompanied the Governor-General to Simla; but since the administration of Lord Lawrence (1864) Simla has, except in 1874, the year of famine in Bengal, been the summer capital of the Government of India, with its secretariats and head-quarters establishments.

Simla was the regular head-quarters of the Commander-in-Chief before it was that of the Governor-General, and now several of the Army Head-quarter Offices remain in Simla all the year round. The Punjab Government first came to Simla in 1871, and except for a three years' sojourn at Murree from 1873 to 1875 has had its summer head-quarters at Simla ever since.

Under these circumstances, the station has grown with extraordinary rapidity. From 30 houses in 1830 it increased to upwards of 100 in 1841 and 290 in 1866. In February 1881 the number of occupied houses was 1,141 and in March 1901 1,847 (including Kasumpti). At present, the bungalows extend over the whole length of a considerable ridge, which runs east and west in a crescent shape, with its concave side pointing southward. The extreme ends of the station lie at a distance of 6 miles from one another. Eastward, the ridge culminates in the peak of Jakho, over 8,000 feet in height, and nearly 1,000 feet above the average elevation of the station. Woods of *deodār*, oak and rhododendron clothe its sides, while a tolerably level road, 5 miles long, runs round its base. Another grassy height, known as Prospect Hill, of inferior elevation to Jakho, and devoid of timber, closes the western extremity of the crescent. The houses cluster thickest upon the southern slopes of Jakho, and of two other hills lying near the western end, one of which, known as Observatory Hill, is crowned by Viceregal Lodge. The church stands at the western base of Jakho, below which, on the south side of the hill, the native *bazar* cuts off one end of the station from the other. The eastern portion bears the name of Chota Simla while the most western extremity is known as Boileauganj. A beautiful northern spur, running at right-angles to the main ridge, and still clothed with oak and old rhododendron trees, has acquired the complimentary designation of Elysium. Three and-a-half miles from the western end, two batteries of artillery occupy the detached hill of Jutogh. The exquisite scenery of the neighbourhood is typical of the Himalayas.

Simla besides being the summer head-quarters of the Governments of India and of the Punjab and of the various Departments of Army Head-quarters is the head-quarters of the Deputy Conservator of Forests, Simla Division, and the Executive Engineer, Simla Division, as well as of the ordinary District staff, and the summer head-quarters of the Commissioner of the Delhi Division. A battalion of Volunteers, the 2nd Punjab (Simla) Rifles, is stationed here. There are four churches of the Church of England:—Christ Church (the Station Church) opened in 1844, a Chapel of Ease at Boileau-ganj, a Chapel attached to Bishop Cotton School, and a Native Church in the *bazār*. There are also a Roman Catholic Cathedral and two Convents, and an Undenominational Church following the Presbyterian form of worship. The Church Missionary Society, Society for the Propagation of the Gospel Zanāna Mission and Baptist Mission have branches in the town. There are two Masonic Lodges. There is also at Simla the United Service Institution of India, and a large club entitled the United Service Club.

The Government offices are for the most part accommodated in large blocks of buildings, and there is a Town Hall which contains a theatre, reading room and ball room. Annandale, the Simla cricket ground and race-course, has recently been greatly enlarged. The municipality, created in 1850, is of the 1st class. It has 10 members, 4 nominated and 6 elected, and the Deputy Commissioner of Simla is *ex-officio* president. The average income for the 10 years ending 1902-03 was Rs. 4,16,382, the chief source being taxes, and the expenditure Rs. 4,14,314. Its income and expenditure were in 1903-04 Rs. 5,46,684 and Rs. 5,36,122 respectively. Water is supplied to the station by a system of water-works constructed at the cost of about 6 lakhs and supposed to be capable of supplying a minimum of 300,000 gallons a day. The supply is not, however, sufficient for the rapidly growing needs of the town. There is a drainage system which is now being extended at the cost of nearly 6 lakhs. The consolidated municipal debt amounts to about 12 lakhs.

The commerce of Simla consists chiefly in the supply of necessities to the summer visitors and their dependants, but Simla is also an *entrepôt* for the trade with China and Tibet. There are a large number of European shops, and four English Banks. The chief exports of the town are beer and spirits, there being two breweries and one distillery.



The chief educational institutions are Bishop Cotton School, a public school for European boys founded by Bishop Cotton in 1866 in thanksgiving for the deliverance of the British in India during the Mutiny of 1857; the Auckland High School for girls; the Christ Church Day School for boys and girls; two Convent Schools and a convent Orphanage the Mayo Orphanage for European and Eurasian orphan girls; and a municipal high school. The two chief medical institutions are the Ripon and Walker Hospitals, the latter founded in 1902 through the munificence of Sir James Walker, C.I.E., as a hospital for Europeans.

## TRICHINOPOLY.

The head-quarters of the District and tāluk of the same name in the Madras Presidency, situated on the right bank of the Cauvery river in  $10^{\circ} 49' N.$  and  $78^{\circ} 42' E.$ , distant from Madras 195 miles by road and 250 miles by the South Indian Railway. It is the third most populous town in the Presidency. It once held the second place, but at the census of 1901 Madura outstripped it, although in the decade ending with that year its inhabitants increased by as much as 16 per cent. Out of the total population of 104,721, 76,927 are Hindus, 14,512 Christians and 13,259 Musalmāns. In 1891 its inhabitants numbered 90,609; in 1881, 84,449; and in 1871, 76,530. The fact that it is an important railway junction and head-quarters has had much to do with its rapid growth.

Trichinopoly is a very ancient town. Popular legend carries its history back beyond the days of the Rāmāyana. Later, the capital of the Chola kingdom was once at Uraiūr, a suburb of the town which is identified with the *Ῥοφθουρα* mentioned by the Greek geographer Ptolemy (about A. D. 130). In the local purāna or history (*Sevvandi-purānam*) there is a story of the destruction of Uraiūr by a shower of sand. There was a flower garden, says the tale, on the Trichinopoly Rock in which the sage Sāramuni raised *sevvandi* (chrysanthemum) flowers for the worship of Siva. A gardener stole some of the flowers and presented them to the Chola king Parāntaka daily. When the theft was discovered and the gardener was arraigned before the king, the latter excused him. Siva was very wrath thereat and turned his face towards Uraiūr and rained sand on it. The king and queen fled and as they ran she fell in the river but he was buried in the storm of sand. The queen was washed ashore and protected by a Brāhman. She gave birth to a son who was afterwards called to the throne. He was identified as the rightful heir by an elephant and was consequently called Karikāla. It has been surmised that this account has reference to a Pāndyan invasion. The king Parāntaka is probably Parāntaka II, whose son was Aditya II, *alias* Karikāla and who reigned in the 10th century.

Inscriptions have been found in the Srīrangam and Jambukeswaram temples which show that as late as the 15th and 16th centuries descendants of the Chola dynasty reigned

at Uraiyūr as vassals of the kings of Vijayanagar. In the 13th century, the Hoysala dynasty appears to have held sway here for a time, with its provincial capital at Samayapuram. The Musalmāns succeeded in the 14th century, and then the Vijayanagar dynasty. During the rule of the Naiks of Madura, Trichinopoly was an important place and was for some time their capital. The founder of the dynasty, Viswanātha Naik, is supposed to have fortified the town and constructed the Teppakulam reservoir. One of his successors, Chokka Naik, erected the building known as the Nawāb's palace, obtaining the necessary materials by demolishing portions of the famous Tirumala Naik's palace at Madura. The building is also known as Mangammāl's palace after the Naik queen of that name.

In the wars of the Carnatic, Trichinopoly was frequently the scene of hostilities between the English and the French. After the country was ceded to the Company it continued for many years to be an important military station. Troops were first stationed within the Fort, next at Uraiyūr, and subsequently in the present cantonment. The cantonment was formerly garrisoned by European and Native regiments, but in 1878, when the fourth Afghān war broke out, the whole of the European contingent was removed and the garrison subsequently reduced to two regiments of Native Infantry. It at present consists of one regiment and a part of another.

The Fort is rectangular, measuring about a mile by half a mile, and was originally surrounded by ramparts and a ditch, but the walls have now been levelled and the ditch filled in. The streets in this part of the town are narrow but fairly regularly laid out.

Trichinopoly was constituted a municipality in 1866. The municipal limits include the Cantonment and the Fort as well as several other revenue villages. The municipal council consists of 24 members of whom eight are elected and 15 nominated by Government, one of the latter being a military officer to represent the Cantonment. The Divisional officer is *ex-officio* a councillor. The average income is about Rs. 1,50,000, and latterly the expenditure has exceeded the receipts in consequence of the outlay incurred from borrowed money on the water-supply scheme. These water-works cost about eight lakhs of rupees and loans were raised to the amount of Rs. 3,89,500. The supply is derived from wells and filter beds laid in the bed of

the Cauvery nearly a mile above the town, and the water is pumped up by steam and conducted into the town by pipes. The introduction of the supply has had a marked effect on the public health and has practically exterminated cholera, which was formerly the scourge of the place. The works are, however, liable to severe damage when the Cauvery is in flood, sometimes necessitating a return to the old tainted sources of supply. The problem of rendering them strong enough to resist floods is still under consideration ; meanwhile the necessity for continued repairs is a severe drain on municipal revenues.

The most interesting object in the town is the famous Rock. It lies within the fort and rises sheer from the plain to a height of 273 feet above the level of the streets at its foot. The ascent is by a covered stone staircase, the entrance to which is on the south side. On each side of the gateway are stone figures of elephants, and the passage itself is lined with pillars with carved capitals. At the head of the first flight of steps, a street runs completely round the rock, by the side of which houses have been built. It is used for religious processions, and is connected with the street round the foot of the rock on the eastern side. From the street opens a hall, on the left of which is a small shrine to Ganesh. A second series of steps leads out of this hall through an exit ornamented with statues of *dwārapālakas* (gate-keepers) on each side. On ascending these, a second landing is reached on each side of which is a large hundred pillared *mantapam* or hall, that on the left being used twice a year for the reception of the idol belonging to the main temple. More steps lead to a third landing, to the left of which is a small room for the temple records and in front of which is a shrine to Ganesh. The ascent now turns sharply to the left and then to the right terminating on a fourth landing, giving access to the main temple. None but caste Hindus may enter this, but a view of a portion of the antechamber can be obtained from the landing. The steps now emerge into the open air, passing on the left a chamber hewn out of the rock and covered with Sanskrit inscriptions. This chamber was used as a magazine by the British during the siege. It has recently been opened out. The carvings have a Buddhistic air and are probably not later than the fifth or sixth century A.D. Two short flights lead to a building to which the temple deity is taken once a year and to a platform on the shoulder of the rock whence the top is reached by a final series of steps which are cut in the face of the rock. On

the top is a small temple dedicated to Ganesh, whose shrine is surrounded by a gallery from which a fine view of the fort, the town, the Cauvery, Srirangam, and the adjacent country is obtained. At a corner of this gallery, overlooking the great temple, is a narrow door leading on to a small platform from which a good view is obtained of the 'kalasam' or golden covering over the central shrine of the temple. Beneath can be seen, sculptured in relief on the surface of the rock, two foot-prints which Hindus believe to have been made by Vibhishana, the brother of Ravana and the ally of Rāma. The Musalmāns, however, claim the foot-prints as those of the saint Nādir Shāh Aliya, who took up his residence on the rock but was ejected therefrom by the god of the place.

At the foot of the rock, on the north-eastern side, is a row of low buildings with semi-circular arched roofs, said to be old bomb-proof barracks, and further on—more to the east—a portion of the former outworks of the fort, the line of the walls being indicated by the open space surrounding the town. A representation of the rock is sculptured on a tablet to Major Lawrence in Westminster Abbey. The deity in the main temple on the rock is called 'Mātrubūtheswara' in Sanskrit and 'Tāyumānavar' in Tamil from his having assumed the guise of a mother to attend on a helpless woman in child-bed, her mother having been detained by floods on the other side of the Cauvery. When the floods subsided the mother came across, and the woman and her husband were much puzzled as to who her double could have been. Siva then appeared in his real form and blessed them. This curious legend, as well as that of Sāramuni, are painted panoramically on an inner wall of the temple.

Near the foot of the rock is the Teppakulam, a large masonry tank or reservoir with a small but graceful manta-pan in the centre. Overlooking it at the south-west corner is the main guard gate, a substantial piece of masonry, from the top of which is the best view of the rock as a whole. Distinguished visitors to the town are entertained by being taken to this point to see the great rock and the tank all outlined with thousands of lamps—an impressive scene. The place was similarly illuminated at the two jubilees of Her Majesty the late Queen-Empress and on Coronation Day.

The Nawāb's palace, a part of which is now used as a Town Hall and part as public offices, is situated close to the rock. The portion used as the Town Hall was formerly the audience hall and is a fine building of plain and massive

architecture, surmounted by an octagonal dome, and surrounded with colonnades. These last are perhaps, however, rather too squat to make an effective base for the dome.

In front of the Nawāb's palace is the Coronation garden with the Wenlock Fountain within.

Overlooking the Teppakulam at its south-east corner is a house which was once the residence of Clive, but is now occupied by St. Joseph's College. To the north-west of the rock is Christ Church which was founded by the famous Missionary Swartz. His house is also close by. Near the fort railway-station is what is known as Chanda Sāhib's tomb. It is in the Nādir Shāh mosque, wherein are buried the remains of Nādir Shāh, Aliya, a saint who is reputed to have come here from Constantinople in the days of old, and of one of his disciples, a lady. The railings round the tomb are of pierced metal work of a curious design. The building appears to have been constructed from the materials of Hindu temples, the head of a *lingam* (for example) having been converted into a lamp-post. The entrance hall to the mosque is clearly an old Hindu *mantapam* left almost in its original state. Chanda Sāhib built the dome over the edifice and his remains are interred close to the building while the remains of his rival Muhammad Ali and of the members of his family are in the verandah and in a room attached thereto. There are Persian inscriptions on the walls of this building and of the mosque.

Besides the water-supply, the municipal council has built a market in the fort and a hospital to the south of it. In front of the market are a clock tower, the Diamond Jubilee Park and the arch erected in commemoration of the visit of the present King-Emperor when Prince of Wales. The hospital has an endowment of Rs. 12,000 raised by public subscription in 1863 and also receives an annual grant of Rs. 4,500 from the District board. It has a maternity ward, a ward for caste patients and a dispensing room for women and children under charge of a lady apothecary trained by the Countess of Dufferin's Fund Committee.

Trichinopoly is one of the great educational centres of the south of the Presidency. It contains two first-grade colleges maintained respectively by the Roman Catholic Jesuit Mission and by the Protestant Society for the Propagation of the Gospel. The former, known as St. Joseph's College, was originally established at Negapatam in 1844 and was removed to Trichinopoly in 1883. The present building



was opened in 1886. The college Cathedral, a very fine, edifice, has been recently completed. Attached to the institution is a large boarding-house for native Catholic students as well as lodgings for Brāhman and caste Hindus and hostels within the college compound. The S. P. G. College, which is a development of various schools founded by Swartz, was raised to a first-grade college in 1883. There is a hostel for Hindu students upon the college premises and hard by is another bearing the name of Bishop Caldwell and intended mainly for Christian students from Tinnevely. The proselytizing activity of the Jesuit mission led to the establishment by the Hindu community in 1886 of the National high school in the interests of the Hindu community.

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## UDAIPUR.

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Udaipur city, the capital of the Mewār or Udaipur State in Rājputānā, takes its name from Rānā Udai Singh II who founded it in or about 1559. It lies in  $25^{\circ} 35' \text{ N.}$  and  $73^{\circ} 43' \text{ E.}$  being, by railway, 67 miles west by south-west of Chitor, 458 miles south-west of Delhi and 697 miles north of Bombay. The city is the fifth largest in Rājputānā and has a population of 45,976 (against 38,214 in 1881 and 46,693 in 1891). Hindus number 29,157 or over 63 per cent of the inhabitants, Musalmāns 9,585 or over 20 per cent, Jains 4,520 or nearly 10 per cent and "others" 2,714. The picturesque situation of Udaipur forms its principal charm. The city stands on a low ridge, the summit of which is crowned by the Mahārānā's palace, and to the west it clusters round the bank of a beautiful piece of water known as the Pichola lake. The view from the embankment across to the dark background of wooded hills, which close in round the western sides of this lake and supply the water, is as fine as anything in India. The palace is an imposing pile of buildings running north and south and covering a space about 1,500 feet long by about 800 feet at its widest part. Fergusson has described it as "the largest in Rājputānā and in outline and size a good deal resembling Windsor; but its details are bad and, when closely examined, it will not bear comparison with many other residences of Rājput princes." But though the palace has been added to by almost every Chief since 1571, when the oldest portion, the *Raiangan* or royal courtyard, is said to have been built, the want of plan and mixture of architecture do not spoil the general effect. It is this very diversity that is so attractive. The Pichola lake is said to have been constructed by a Banjāra at the end of the 14th century and its embankment was raised by Rānā Udai Singh II. It is about  $2\frac{1}{2}$  miles long by  $1\frac{1}{2}$  broad and has an area of over one square mile. In the middle of the lake stand the two island-palaces, the Jagamandir and the Jagniwās, the former built by Rānā Jagat Singh I in the first half of the 17th century and the latter by Jagat Singh II about 100 years later. The Jagamandir is noted as the asylum of

Prince Khurram, afterwards the emperor Shāh Jahān, while in revolt against his father, Jahāngīr. The little palace then built for him consists of a round tower of yellow sandstone lined inside with marble slabs, three storeys in height and crowned by a handsome dome. The upper apartment is circular, about 21 feet in diameter, and Fergusson thought it the prettiest room he knew in India. "Its floor is inlaid with black and white marbles, the walls are ornamented with niches and decorated with arabesques of different coloured stones (in the same style as the Taj at Agra, though the patterns are Hindu), and the dome is exquisitely beautiful in form." Other objects of interest on this island are the little mosque and the throne sculptured from a single block of serpentine. The Jagniwās is about 800 feet from the shore and consists of a collection of small apartments, courts and gardens. The latter are filled with orange, mango and other fruit trees, forming a perfect roof of evergreen foliage, broken only occasionally by a tall palm or cypress and varied by the broad-leaved plantain. Of these two islands Fergusson writes that the only objects in Europe that can be compared with them "are the Borromean islands in the Lago Maggiore, but I need scarcely say their Indian rivals lose nothing by the comparison—they are as superior to them as the Duomo at Milan is to Buckingham Palace. Indeed, I know of nothing that will bear comparison with them anywhere." Another fine lake, connected by a small canal with, and lying to the north of, the Pichola, is the Fateh Sāgar constructed by, and named after, the present Mahārānā. It is about  $1\frac{1}{2}$  miles long by one mile broad and its embankment, 280 feet long, is named after His Royal Highness the Duke of Connaught who laid the foundation stone in 1889. Among other objects of interest are the Sajjan Niwās gardens, well laid out and kept up; the Victoria Hall, a handsome building used as a library, reading room and museum, in front of which stands a statue of Her late Majesty; and the cenotaphs of the Chiefs of Mewār in the old village of Ahar. The manufactures of Udaipur city are unimportant and consist mainly of embroidery, cotton cloths stamped in gold and silver, and swords and daggers. The central jail has accommodation for 458 prisoners and is usually overcrowded, the daily average strength having been 481 in 1901, 672 in 1902 and 526 in 1903. There are altogether ten schools at Udaipur, namely, 5 maintained by the State and 5 by the United Free Church Mission; the daily average attendance during 1903-04 was

926. Of these schools, 3 are for girls. The only notable institution is the Mahārānā's high school, in which English, Sanskrit, Persian, etc., are taught. It is affiliated to the Allahabad University and, since 1888, 60 students have passed the middle and 47 the entrance examination of that University. Its average daily attendance is 443. There are altogether 4 hospitals and one dispensary at Udaipur and of the former, one is maintained by the mission and one by Government. They have accommodation for 128 in-patients and in 1903, 114,792 cases (1,276 being those of in-patients) were treated and 3,298 operations performed. The Lansdowne hospital (opened in July 1894) and the Shepherd Mission hospital (opened in December 1886) are both excellent institutions and deservedly popular. The Walter hospital for females (opened in May 1888) is also deserving of notice as it is a fine building containing 24 beds. Of places of interest in the vicinity of Udaipur may be mentioned Eklingji situated in a narrow defile 12 miles to the north. Here in the eighth century Bāpā Rāwal constructed a temple to Mahādeo who is worshipped under the epithet of Ekling—that is, with one *lingam* or phallus. The original building was destroyed by the Muhammadans, but was rebuilt in the fifteenth century. The temple is of unusual design, having a double-storeyed porch and sanctuary, the former covered by a flat pyramidal roof composed of many hundred circular knobs and the latter roofed by a lofty tower of more than ordinary elaboration. Inside the temple is a four-faced image of Mahādeo made of black marble. Since Bāpā Rāwal's time, the chief of Mewār has been Diwān or vice-regent of Eklingji and as such, when he visits the temple, supersedes the high priest in his duties and performs the ceremonies. There is a picturesque lake in the vicinity and there are numerous other temples, that built by Miran Bai, the wife of Bhoj Raj, son of Sangram Singh, in the sixteenth century being of singular elegance. Close to Eklingji is Nāgdā or Nāgahridā, one of the most ancient places in Mewār. Here the Mahārānā's ancestors ruled for seven generations till the time of Bāpā. The principal temples are the Sās Bahu said to be as old as the eleventh century; they are two in number and are dedicated to Vishnu. They are most beautifully carved and adorned with artistic figures and sculpture in the very best taste; indeed, the one to the south has been described as "a perfect gem



of its kind and not surpassed by any old building in Mewār, not excepting Baroli." The Jain temple known as Adbudji's is remarkable only for the great size of the images it contains, the largest, that of Sāntināth, being  $6\frac{1}{2}$  feet by 4 feet.

[The quotations from Mr. Fergusson are taken from his Picturesque illustrations of ancient architecture, 1848.]

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