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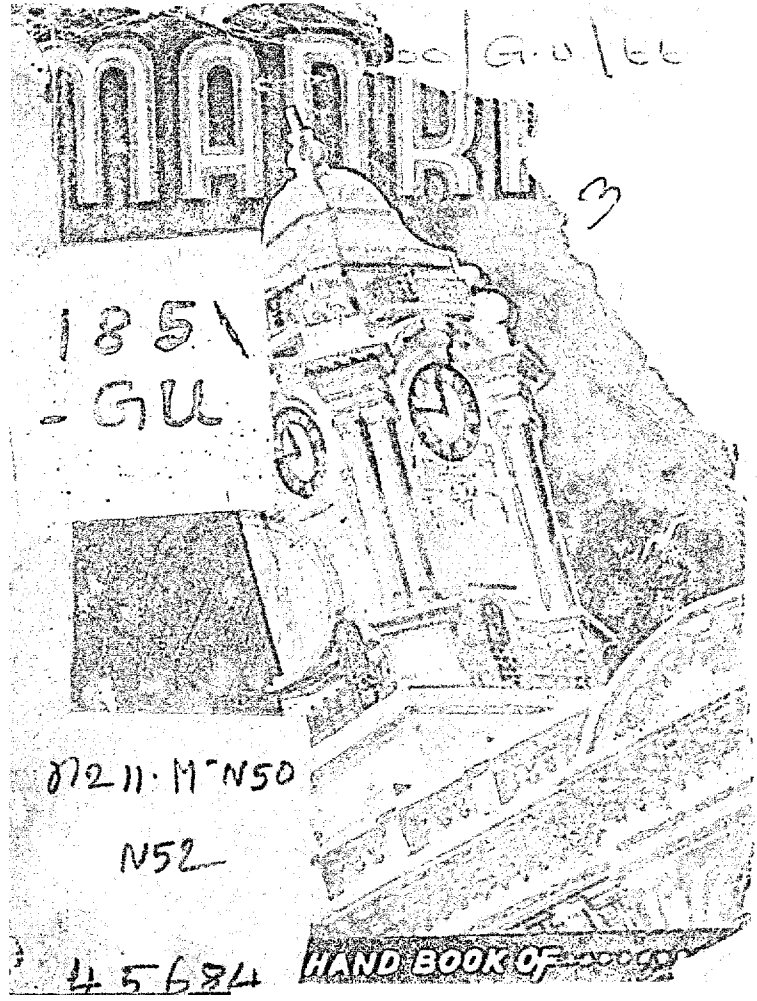
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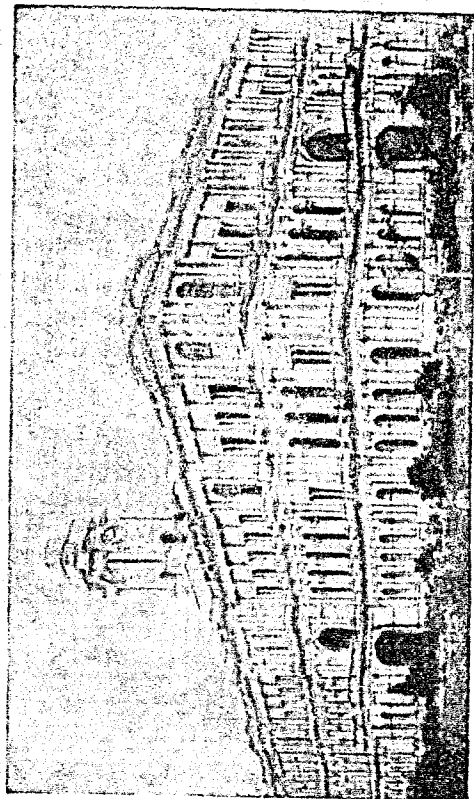
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"The picture once painted or the poem sung, it stands henceforth by itself; the artist can do no more for it. It must live or die without further help from him. But the City is never thus entirely separated from us, its builders. It remains tied to us by the invisible cord of nourishing passions. It grows with us or it dies with us. It is in a more real and personal sense a part of us, as we are of it. It becomes then the reflex of the lives and aspirations of the people who dwell in it. So when a City—its streets, its highways, its buildings, its public places, as well as its business and life—is an embodiment of ourselves.

It is this living spirit that may hearten and inspire us; that may delight and enchant us and that may also break and destroy us."

CITY OF MADRAS 1

OFFICIAL HANDBOOK

Issued by
The Corporation of Madras

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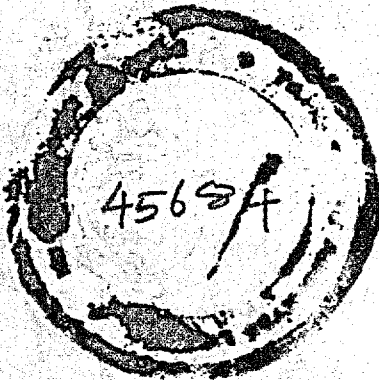


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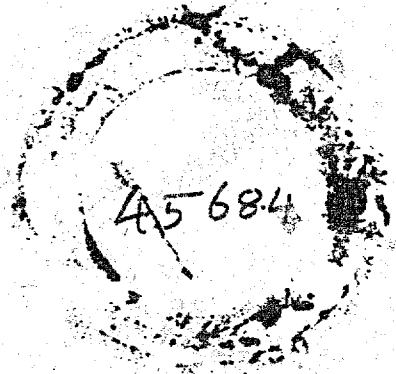
Edited by
C. VENKATA RAMA REDDY, B.A., B.L.
Secretary to Council

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DR. P. V. CHERIAN,
M.B., B.S., D.L.O., F.R.F.P.S. (GLAS.), F.R.C.S. (EDIN.),
Mayor of Madras (1949-50)

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SECTION VIII

MISCELLANEOUS

FOREWORD

I am glad that a revised edition of the Handbook of the City of Madras is published this year which happily coincides with the inauguration of the Republic of India. In recent years, the City has expanded in size and population to a considerable extent and other phenomenal developments have also taken place. As a natural corollary, it has brought in its wake a multiplicity of problems in the administration of the City. These problems are of great magnitude, but I am afraid they have not been fully realised by the public.

The Handbook attempts to give a factual and descriptive account of the efforts made by the Corporation to tackle these problems. It also seeks to convey some idea of the cultural life of the City and the advances made in various directions. Any visitor to the City will, I believe, be impressed with the advances we have made in sanitation, medical relief, road surfacing,

-TS.
- VII. SLAUGHTER HOUSES.
 - VIII. CATTLE YARDS.
 - IX. DHOBYKHANAS.
 - X. POOR-HOUSE.
 - XI. SPECIAL HOME.
 - XII. WORK HOUSE.
 - XIII. HOME FOR THE HOMELESS.
 - XIV. ORPHANAGE.
 - XV. LETHAL CHAMBER.
 - XVI. BURIAL AND BURNING GROUNDS.

education, etc. In addition, Madras City has its natural beauties—the most magnificent sea front and the best Marina in the world, and that alluring rural look characteristic of a city of garden houses, interspersed with abundance of open spaces to break the continuity of urban mass of buildings. I am sure the Handbook will furnish interesting as well as instructive information about the City, which I hope will attract tourists from other parts of India and from abroad.

P. V. Cherman.

Mayor of Madras.

RIPON BUILDINGS. }
31st January, 1950 }



SRI C. NARASIMHAM. M.A., B.L.,
Commissioner

INTRODUCTION

The official Handbook of the City Corporation was last revised in 1947 after the City limits have been extended. The revised edition proved very popular and all the copies have been sold out. The need for bringing out a fresh edition incorporating up-to-date and relevant information has, therefore, arisen.

The new Edition is comprehensive and gives useful information on all aspects of municipal administration. Readers will, I have no doubt, observe that in spite of obstacles created by inflationary conditions and unsatisfactory finances of the Corporation, much has been done to expand the City's services to its citizens. A good deal has yet to be done to provide the City with the kind of facilities and services to which the public are entitled. Whatever has been accomplished was done through a careful allocation and management of the Corporation's resources. Discrimination has

been exercised in this respect to give priority to essential projects in their appropriate order. The City Corporation has done its best with its limited financial resources and the liberal assistance which it has received from the Government both by way of grants and loans. I must, however, say that no programme that would satisfy everyone can be financed by any city, any time, anywhere. Burdensome taxation has one meaning to the person who pays and a different meaning to the individual who receives benefits far out of proportion to what he pays. All the same, the City Council looks forward to providing more amenities to the various parts of the City including the newly added areas.

The object of the Handbook is not only to guide and enlighten the visitors to the City but also to enable the citizens of Madras to appreciate the City and understand the problems involved in its administration. This object will be achieved if the citizens equip themselves with the information contained therein, take intelligent interest in all civic matters, offer constructive and helpful suggestions and draw pointed attention of

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the Administration to its defects. Without the willing co-operation of the public even the most efficient administration will not be a success.

I must acknowledge with thanks the assistance received from the Heads of Departments who have revised sections of the Handbook pertaining to their departments and to the Secretary to the Council who has edited this book with care.

C. Narasimham,
Commissioner

RIPON BUILDINGS, }
8th February, 1950.

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CITY OF MADRAS

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1950

SECTION I

HISTORY OF MADRAS

History of Madras

ABOUT THE CITY—ORIGIN AND GROWTH

- I. ABOUT THE CITY—ORIGIN AND GROWTH.
- II. THE CITY—A PANORAMA.

The Beginnings of Madras.—The beginnings of the City of Madras go back to the earliest stages of English commercial enterprise in India. The English East India Company was started in 1600. Twelve years later a Trading House or Factory was built at Surat on the West Coast under the protection of the Mughal Governor of Gujarat. On the Coromandel Coast the English first attempted a landing at Pulicat. The place is about 25 miles north of Madras and its great backwater, the Pulicat Lake, afforded a safe shelter for the shipping of those days. But the Dutch, who were then the bitter rivals of the English, had already been settled at that place and had the ear of the local Nayak. Hence the English found it impossible to ply their trade advantageously at that place. They then attempted to settle at Peddapalli or Nizampatam, which was at the mouth of a small channel of the Krishna Delta. But the climate of the place was deadly to the English merchants and this settlement had also to be abandoned after a few years of hopeless struggle.

Masulipatam was the chief port of the Muhammadan kingdom of Golconda. It was well protected from the

monsoon winds and was the chief market for diamonds and rubies for which South India was then famous, as well as for the valuable chintz and painted cloths which are even now produced in large quantities in its neighbourhood. The English, after some effort, secured the privilege of building a factory at this port. But they later abandoned their factory and crept away in a small boat to Durgarazpatnam (otherwise known as Armagaon) situated about 35 miles to the north of Pulicat. This place was a miserable port and was too poor to supply the calico cloth which the English wanted for export to Europe. But it was the only safe shelter for the English at the time and here they built a small fort and mounted a few pieces of cannon upon it. But trade did not thrive and the miserable English traders planned to go back to Masulipatam under the protection of a *Golden Firman* which the Sultan of Golconda was kind enough to give them. But Masulipatam was in the throes of a famine just then and in spite of every assurance of protection, English trade did not thrive at that place.

The English pitch upon the Site of Madras.—

With Masulipatam unprosperous and Armagaon hopeless, the English traders anxiously looked out for a new site that would be more propitious for them. Mr. Francis Day, the future founder of Madras, who was then a Member of the Masulipatam Council and the Chief of the Armagaon Factory, made a voyage of exploration in 1637 down the coast as far as Pondicherry with a view

to choose a site for a new settlement. At that time the Coromandel Coast was nominally under the Rajah of Chandragiri who was a descendant of the famous Rayas of Vijayanagar. Under the Rajah, local chiefs known as Nayaks, ruled over the different districts. One of these Nayaks had given permission to the Dutch to build a strong fort at Pulicat where they had grown to be powerful enough to deal on equal terms with the Nayaks of the neighbourhood.

Damarla Venkatapathy Nayak ruled all the coast country from Pulicat to the Portuguese settlement of San Thome now included within the City of Madras. He had his head-quarters at Wandiwash and his brother Ayyappa Nayak resided at Poonamallee, a few miles to the west of Madras, and looked after the affairs of the coast. It was probably this Ayyappa Nayak that made overtures to Day, inviting him to choose a site in the territory of his brother. The offer looked good; and Day wrote to Masulipatam for permission to inspect the proposed site and examine the possibilities of trade there. The results of his personal inspection were apparently favourable; and he wrote that the calicos woven at Madraspatnam which was the place offered by the Nayak for the site of the proposed factory were much cheaper than those at Armagaon. Day secured a Grant (copies of which endorsed by Cogan, the Chief of the Masulipatam Factory, are even now preserved) giving over to the English the village of Madras-

patnam for a period of two years and empowering them to build a fort and castle at that place. The Grant is dated August 1639.

The English Factors at Masulipatam were satisfied with the action of Mr. Day and resolved that he should proceed again to Madras and contact the Nayak until the sanction of the superior English Presidency of Bantam (in Java) could be obtained for their action.

The chief difficulty, as usual with the English in those days, was lack of money. At last, in February 1640, Day and Cogan accompanied by a few factors and writers, a garrison of about 25 European soldiers and a few other European artificers, besides a Hindu powder-maker by name Naga Battan, proceeded to Madras and started the English factory. They reached Madraspatnam on the 20th of February; and this date is important because it marks the first actual settlement of the English at the place.

Extent of their First Settlement.—The extent of land transferred to the English under the Nayak's Grant is not found specified anywhere. But it was the whole area contained within the traditional village limits of Madraspatnam. This nucleus area appears to have extended along the coast from a point a few hundred yards north of the mouth of the Cooum River, right up to a little beyond the northern end of the

present George Town. In the interior, the area included the island ground on the west and its western line ran along the present Cochrane's Canal, then known as the North River, right up to the north-western corner of the present George Town. To this area, surrounding villages were added from time to time in the customary British fashion.

In those days the Cooum River which had a winding course through the villages of Chetput, Nungambakkam and Chintadripet, had, as it still has, a common outlet to the sea along with the North River at some distance to the south of the limits of the Madraspatnam Village. The North River (or Elanbore River as it was called in those days) flowed parallel to and a mile distant from the coast along the western side of Madraspatnam Village. At the site of the present General Hospital, the river took a sharp bend to the east and, when near the sea, it again took another bend to the south; and it then flowed on for about three-fourths of a mile parallel to the shore and joined the Cooum at its mouth. The two streams formed a wide and shallow backwater at their joint outlet. At the point where the North River bent east, there was only a narrow neck of land about 300 yards in length that separated it from the Cooum as it curved towards the sea. At this point a cut was made several years after the foundation of the City, probably with the object of equalising flood levels;

and thus the Island ground was literally converted into an Island.

The site of the Fort planned by the English settlers was on the bank of sand between the North River and the sea, just in the southern end in the village of Madraspatnam and three-fourths of a mile north of the river mouth.

The Building of the Fort by Day and Cogan.—

The Fort was planned nearly square, with a bastion at each corner and the Factory House was in the centre of the Fort and was built diagonally to the square so that each face of the house opened on the gorge of a bastion. The building of the Factory House was taken up on March 1st, 1640. A portion of the structure was presumably completed by St. George's Day (23rd April) of that year and the name Fort St. George was consequently given to the Fort.

The bastions were first built and the erection of the curtain walls connecting them proceeded more slowly as funds permitted. The whole Fort took fourteen years to construct and was finished only in 1653. It measured about 100 yards by north to south and by 80 yards east to west. On its northern and southern sides buildings and streets sprang up and constituted what came to be known later as the White Town.

Indian merchants and artificers were attracted to the settlement and encouraged to build houses therein

under a promise of exemptions from import taxes for a period of thirty years. It is said that within the first year of the life of the settlement, there arose some seventy to eighty substantial houses to the north and south of the Fort while in the village of Madraspatnam nearly four hundred families of weavers had come to settle permanently.

Day had made himself personally responsible for payment of interest on the loans got for the building of the settlement. Charges of private trade were however brought against him and he was sent to England in 1641 to answer them. He successfully faced these charges and returned to the Coromandel Coast as Second-in-Council at Madras. Cogan had been meanwhile made the Agent of Madras. He remained in the settlement for more than three years during which time he nursed the Fort into some strength and the town into some measure of prosperity. He was also charged with extravagant expenditure on the fortifications and resolved in disgust to resign his position to Day and sail away. Day became his successor in the Agency in Madras but did not enjoy his position long. He also departed for England within a year of his assumption of the Agency (1644).

Day had proposed and planned the settlement and secured the Grant of the Nayak for it. Cogan had been useful from the beginning and was mainly responsible for the erection of the Fort and for the colonization

of the place. Both were taken to task by the Court of Directors of the English Company, Cogan for unauthorised expenditure and Day for private trading. The memory of neither is kept green in Madras whose foundations they helped to lay. "Neither Cogan nor Day is kept in memory by Statue, Portrait or Place-name. Not even does the Secretariat Building in the Fort, the successor of the old Factory House, bear a tablet to commemorate the achievements of the joint Founders of Madras."

The Names Madraspatnam and Chennapatnam.—We saw that Damarla Venkatapathy and his brother Ayyappa gave the English the grant of Madras. The Rajah of Chandragiri was Venkatapathy Rayalu. From this Rajah the English got a confirmation of the Nayak's Grant. Venkatapathy was succeeded by his nephew Srirangarayalu in 1642. To the new Raya, Thomas Ivy, the successor of Day in the Agency of Madras, sent Factor Greenhill on a mission which resulted in the issue of a new Grant to the English (copies of this grant are available now). It is dated October-November 1645. It confirmed the Grant of the Raya's predecessor and empowered the English to administer justice and gave them an additional piece of land known as the Narimedu (Jackal-ground) which lay to the west of the village of Madraspatnam. All these three grants, *viz.*, of Damarla Venkatapathy Nayak, King Venkatapathy and his successor Sriranga-

rayalu, were engraved on gold plates but none of them is now extant.

In Srirangaraya's Grant of 1645 the Town of Madras is expressly called "Srirangarayapatnam, My Town," and a distinction is made between the town of Madraspatnam and the new town growing round the Fort which is expressly called Srirangarayapatnam. The first Grant of Damarla Venkatapathy Nayak makes mention of the village of Madraspatnam. Both Venkatapathy and his brother Ayyappa desired that the name Chennapatnam should be given to the new Fort and settlement of the English after their father Chennappa Nayak. Srirangaraya desired that the name Srirangarayapatnam should be given to the Fort and settlement of the English in the place of Chennapatnam. The fact that the family of Damarla Venkatapathy, son of Chennappa, was disgraced by Srirangaraya, probably explains the reason why the Raya offered his own name to be given to the settlement and declared that it was a mark of his special favour.

In all the records of the times a difference is made between the original village of Madraspatnam and the new town growing round the Fort. Thus we may say that the village of Madraspatnam existed under that name prior to the English settlement of 1639-40 and the site of Chennapatnam was that of modern Fort St. George. The original village of Madraspatnam lay to the north of the site of the Fort and within a few

years of the founding of Fort St. George the new town which grew up round the Fort was commonly known to the Indians as Chennapatnam, either in deference to the wishes of Damarla Venkatapathy or because the site originally bore that name. The intervening space between the northern Madraspatnam and the southern Chennapatnam came to be built over rapidly so that the two villages became virtually one town. The English preferred to call the two united towns by the name of Madraspatnam with which they had become familiar from the first while the Indians chose to give it the name of Chennapatnam. In course of time the exact original locations of Madraspatnam and Chennapatnam came to be confused. Madras was regarded as the site of the Fort and Chennapatnam as the Indian town to the north.

Origin of the Name Madras.—The origin of the name Madraspatnam has long been a puzzle. The name Madras occurs in many forms like Maddaraspatnam, Madras Patnam, Madraspatnam, Madrapatnam, Madrazpatnam, etc. According to one version there was a village of fishermen on the site, the headman of which was a Christian named Madaresan who persuaded Day to call the settlement after his own name. But we know that the name was in use even before the English came on the scene. Other writers have derived the name from the term Madrassa (a college) and think that there might have been an old Muhammadan

College at the place ; or there might have been a Church of St. Mary (Madre de Deus) at Madras prior to 1640, probably founded by the Portuguese of San Thome which had been in existence from the previous century and the church might have given the name to the village; or there was an Indian ruler, Maddarazu, who might have been some local chief in the region in the past after whom the village might have been named Maddarazpatnam.

The Very Revd. Mgr. Teixeira, Bishop of Mylapore, has recently put forward a suggestion based on his discovery of some tombstone inscriptions that the name might well have been after Madra, a Portuguese family of the village and that the family gave their name to the place. Still another view is that Madras was so called because it produced a kind of calico cloth of the name. None of these seems to be very convincing, while the derivation of Madras from the Persian word Madrassa is somewhat fanciful. There is a curious resemblance between the names of the English Town of Madraspatnam, the southern Dutch Factory of Sadraspatnam at the mouth of the Palar river and the northern settlement of Durgarazpatnam (Armagaon).

The First Years of Madras.—The growth of Madras in its first thirty years was all that could be desired. Very soon after the settlement was founded, a Hindu temple was constructed in the heart of the Indian village that grew up. It was dedicated to Chenna

Kesava Perumal and built on part of the grounds of the present High Court. Thus the temple was coeval with the birth of the town. In 1646 an endowment was made to it by Naga Battan, the Company's powder-maker; and two years later another endowment was made to it by Beri Timmana who is said to have assisted the English in building the settlement and who was employed as the Company's broker and merchant. It is presumed that this pagoda had twin shrines in it, dedicated to Vishnu (Chenna Kesava) and Siva (Chenna Mallesvara) even as its present-day successor is.* Besides these two Indians, we hear of Raghava Battan who was first living in the Portuguese settlement of San Thome and helped the English to get from the Nayak the site of Madras. A *cowle* (lease or grant in writing) was said to have been given to him by Cogan and Day appointing him the Kanakkupillai (Scrivener) of Madras in 1640 and it was later produced by one of his descendants in a claim that he put forward to the office.

Within a few years after the English settled at Madras, the authority of the Rajah of Chandragiri disappeared. The Rajah himself was forced to flee to Mysore and the forces of the Sultan of Golconda came to occupy the region surrounding Madras. The kingdom of Chandragiri was hemmed in on one side by the ad-

* The temple was demolished in 1757 for military purposes and a new one was built a few years later in Peddunaickenpettah near the Flower Bazaar.

vancing troops of Golconda and on the other by the forces of the Bijapur Sultan who invaded the Carnatic from the Mysore Plateau and occupied the coast between Jinji and Tanjore. Nawab Mir Jumla, who was the Prime Minister of Golconda at this time, played an important part in this conquest of the Carnatic. He was originally a famous diamond merchant and was said to be the richest subject in all India. He had in his service a number of European gunners and cannon-founders and well appreciated the advantages of European aid. The English at Madras lent him the services of their gunner and several of their best soldiers when he went to blockade San Thome in 1646. In return for this help he confirmed all the privileges that they had obtained from the previous Hindu rulers of the country and also lent them a large sum of money free of interest.

Thus the English contrived to maintain good terms with the Rajah of Chandragiri to the last and yet to preserve the friendship of the Mussalman conqueror from the first, a characteristic worship of both the rising and the setting Sun.

Early Stages of the City's Growth.—In 1652 Fort St. George was created a Presidency and its Agent came to be known as President. In those early years the Indian town was governed by three chief officials who were hereditary, *viz.*, the Adhikhari, who dispensed justice, the Kanakkupillai, who assisted the Adhikari, and the Pedda Naick, *i.e.*, the Chief Watchman who

was the head of the Talaiyaris and who kept order in the streets, arrested thieves and evil-doers and brought them to trial. Many Indians were merchants of the Company and contractors for the supply of cotton cloth that was needed for export and for the sale of the European goods of the Company. The seniors among them were termed the Company's Chief Merchants; and the agents and brokers of individual English merchants came to be later on known as Dubashes.

From time to time, factious fights rose between the right-hand and left-hand castes of the City. Such factions were much prevalent in the country round Conjeeveram. In Madras the Beri Chetties, artisans, cil-mongers, weavers and leather workers were the chief elements in the left-hand faction, while the Vellalas, the Arya Vysias (Komatis), the Vannias and the Adi-Dravidas belonged to the right-hand division. The grounds of quarrel were mostly with reference to the particular routes that the marriage and funeral processions of these castes should take, and the symbols and the trappings that should adorn their processions and pandals on occasions of festivity; and they were as ready to fall out with each other on the smallest provocation 'as Orangemen and Ribbonmen were in Ireland or the Montagues and Capulets in Verona, or the clans in Scotland.'

The earliest dispute between the castes seems to have occurred in Madras in 1652-53, which was settled

by an award wherein the name of Chennapatnam first occurs in an official document. The result of this award was that the eastern half of the Hindu town came to be generally occupied by left-hand castes and the western half by the right-hand ones.

For a long time the country round Madras was in a great turmoil on account of the rebellion of Mir Jumla against his Golconda master and also because of the general weakness of the Golconda Sultan who was finally destroyed by the Moghul Emperor Aurangzeb in 1687. During these troubled years, Madras was frequently threatened by the exactions of successive local chiefs who ruled over the Poonamallee region on behalf of the Muhammadans. The worst of them was Bala Rao who stopped the Indian traders coming to Madras, raised the customs duties they had to pay at the Great Mettah where there was a regular customs-house and thus increased the prices of grains and other provisions. On one occasion the Muslim troops entered the settlement and burnt some houses. Later, Madras had to encounter a regular siege for several months at the hands of Bala Rao and his colleague, Tupaki Krishnappa Naick. Fort St. George was reduced from the rank of a Presidency to an Agency, temporarily in 1655, owing to a fit of economy that seized the Directors of the Company at the time. However, it was restored to its Presidency status three years later; and this it has continued to enjoy ever since. The Dutch were envious

of the growing prosperity of the City and both the Dutch and the Golconda Sultan had an eye on San Thome. On one occasion the English expected that San Thome would be ceded to them by the Portuguese instead of Bombay, for whose cession negotiations were then going on.

Sir Edward Winter, Governor (1661-65), got a permanent agreement regarding the English right to Madras. Winter was a bold and bad man who imprisoned his successor in office, Fox-Croft, on the ground that the latter was of decidedly Puritanical and anti-Royalist tendencies and could be suspected of having made treasonable utterances against King Charles II. He was in enjoyment of his usurped authority for nearly three years and during all this time Fox-Croft languished in prison. Even when punishment finally came to him, he contrived to make his own terms and stayed on in Madras for a few more years after he was deposed. Fox-Croft, the unfortunate imprisoned Governor, was the first to be given the title of Governor of Fort St. George—a title which has been transmitted to a long line of distinguished successors. The title came to be given by an accident, as it were. The Company's letter constituting the Madras Agent and Council 'Our Governor and Agent and Consul in Fort St. George' and empowering them to execute judgment in all cases, civil and criminal, was occasioned by the difficulty that arose as to the jurisdiction of the Madras officials over capital

cases. This difficulty was solved by the new title and '*to modern occupants of the gubernatorial chair it is probably unknown that they owe their designation to a Madras murder.*'

San Thome.—Madras and San Thome were generally on friendly terms. The latter fell into the hands of the Sultan of Golconda in 1662 and was taken possession of by the French ten years later. But they were not to enjoy it for long. It once again went back into the hands of Golconda and the English urged the Sultan to demolish the fortifications of the place as they were afraid that the French might recover the Fort either by force or by purchase. One important consequence of the French surrender of San Thome was the withdrawal of Martin, the Captain of the French soldiers, with a few followers to Pondicherry, where he founded the famous settlement that was to have a glorious, but short-lived, prominence in the next century.

The fame of San Thome rests upon its close association with the Apostle St. Thomas, who is declared to have suffered martyrdom at St. Thomas' Mount and to have been buried originally at San Thome, that is, in Old Mylapore, part of which now lies under the encroaching sea. There is not much doubt that there existed at the place a Christian colony from the early centuries of the Christian era. It was known to the Arab travellers and geographers of the ninth and tenth centuries as Betumah, that is, the house or Church

of St. Thomas. And from this word was derived the name San Thome. To this Church it is said that King Alfred the Great of England sent some emissaries about 883 A.D. Subsequently, Persian merchants, who were Nestorian Christians, established a Church of their own at the place, built a Chapel over the tomb of St. Thomas and a monastery on the top of St. Thomas' Mount. The place was visited by Marco Polo, the famous Venetian traveller, who touched the Madras coast towards the close of the thirteenth century. But the town decayed later on; and its revival was the work of the Portuguese who settled therein in 1522. As the Portuguese were rebuilding the old Chapel, they stumbled on the grave of the Apostle, besides which they built a small church which has now grown into the San Thome Cathedral.

The Luz Church situated a mile to the west of the Cathedral is associated with an ancient tradition, that some mariners saw a light beckoning to them from that place when they were tossed about in a storm near the coast. Steering towards this guiding light, they landed safely, and following it came to the spot where the church is built. The church is thus dedicated to 'Our Lady of Light'. But it was not built in 1516 as the inscription on its base claims but only a few decades later.

St. Thomas' Mount and Little Mount.—At St. Thomas' Mount the Portuguese came across the famous Bleeding Cross, that is, a Stone Cross bearing an Old

Pehbir inscription, with some spots on it resembling blood-stains; and a church was erected at the place, the Stone Cross being built in the wall behind the Altars. The inscription is similar to that engraved round the Crosses found in some of the Syrian Christian churches on the Malabar Coast. In those days a beacon fire was lighted nightly on the Mount for the benefit of mariners. In the church itself, which is dedicated to our Lady of Expectation, there is a picture of the Holy Virgin and Child which is believed to be one of the seven portraits painted by St. Luke and brought by St. Thomas to India.

Between St. Thomas' Mount and Madras and a little to the east of the southern end of the Saidapet Bridge, is the Little Mount or Chinnamalai. This contains a cave to which St. Thomas is said to have fled when he was pursued by his persecutors. A church was built in 1551 at this place by the Portuguese. There is pointed out here a cleft in the rock where St. Thomas caused a spring of fresh water to gush forth, by hitting the stone with his staff, and the multitude who came to hear him preach quenched their thirst therein. The water was believed to have had healing properties and the church itself is dedicated to Our Lady of Health. Both the Big and Little Mounts are outside the limits of Madras City, but they have been closely associated with Madras both in the past and in the present epoch.

Mylapore.—Mylapore, a village adjacent to San Thome to its west, has always gone hand in hand with the latter and was included in its jurisdiction. It is a place of ancient importance and has long been famous as a Siva shrine. It is closely associated with Thiruvalluvar, the great author of the *Kural*, and also with the activities of the Saiva Nayanar, the great Gnanasambandar. The temple of Sri Kapalesvarar contains a sculpture depicting one of the miracles wrought by Gnanasambandar. There are bronze statues within the temple of the 63 Saiva Nayanmars, in whose honour a grand festival is conducted annually. Mylapore is also associated with one of the Vaishnavite Alvars. After the Portuguese town of San Thome came into being Mylapore was absorbed in it. When San Thome fell into the hands of the Mussalmans, a number of its rich Portuguese merchants settled in Madras. The English themselves endeavoured to get that place for a nominal rent from the Sultan of Golconda. After the latter's kingdom was annexed by the Mughal Empire in 1687, the Mughal Governor of the Carnatic threatened to develop it at the expense of Madras, frequently visited and resided in it and built a rampart round the town. The place continued under the rule of the Mussalmans with very little trade and a decaying population till 1749 when it was taken possession of by the English in the name of their protégé, Nawab Muhammad Ali Wallajah.

First Attempts at Conservancy.—The gradual growth of Madras, though interrupted from time to time, was steady and vigorous. It was when Governor Streyntsham Master was in power (1678–81) that the first serious attempt was made at the conservancy of the streets. A scavenger was appointed who was empowered to collect a house-tax and to remove the dirt and filth of the town and draw up a roll of the houses. This post was held by a civil servant of high rank. Watchmen were appointed for going round the streets in the nights. Tavern-keepers, places of entertainments and others had to be licensed. The Indian inhabitants had long fought vigorously against the tax saying that it was their privilege to be exempted from any taxation.

Master also framed rules for the better administration of justice. Two English officials were appointed as Choultry Justices to administer justice to the Indian inhabitants and their number was increased subsequently. The Governor himself began to sit as a Judge thus forming an Appellate Court.

St. Mary's Church in the Fort.—It was also in Master's time that the church of St. Mary within the Fort was built. The foundation was laid on Lady's Day in 1678 and hence the Church was named St. Mary's in honour of the Blessed Virgin. It was finished in 1680 and was consecrated on the 28th of October that year. It stands much the same as it was when built, except for

the spire and the tower which were subsequently added. It is full of mementoes of men who have helped to make Madras history; and its narrow yard is literally paved with tombs of various ages and with inscriptions in several languages. The stones were removed from the stately tombs which were erected over the graves of dead Englishmen in the old English burying-place of the settlement which lay in the present Law College compound.

The Vestry of the Church was organised at the same time and it continued to exist down to 1805. It conducted a Charity School which subsequently became the nucleus of the Male and Female Orphan Asylums. After Master's time there was a reorganisation of the Police arrangements in the so-called Black Town which had grown up close to the White Town and which occupied the site of the present northern glacis of the Fort, part of the western glacis and the grounds of the Law College and the High Court. During the Governorship of Mr. Yale (1687-92) a Mayor and Corporation were instituted in the City by a Charter of the Company under permission from King James.

Acquisition of Suburban Villages.—It was in Yale's time that the Mughul authority spread over the Carnatic. He was very anxious about the safety of Madras from Mughul injury. And he applied to the Nawab Zulfikar Khan, the Mughal General for the free Grant of the villages of Egmore, Purasawalkam and

Thondiarpet. These villages were at first rented out and were directly taken over by Government in 1720. They were known in the English records of the time as the "Three Old Towns". Triplicane was the earliest acquisition and came first into English occupation in 1668 though it was resumed a few years later by the Mussalmans. It was only in 1672 that Triplicane was definitely given over to the English for an annual rent of fifty pagodas. Including Triplicane these three villages were known as the 'Four Old Towns'. Shortly afterwards, the English petitioned for permission to occupy five other villages in the vicinity composing of Tiruvatiyoor, Kathiwakam, Nungambakkam, Vyasarpady and Sathangadu. These places were given over by a Mughal firman in 1708 and they were henceforward known as the 'Five New Towns'.

Wedged in between Egmore and Pursawalkam which had been acquired by the English, were two small villages, *viz.*, Periamet where the Mussalman authorities collected tolls, and Vepery, which were acquired by the English only in 1742; along with Vepery the Company got Perambore, Pudupakkam, Ernavore and Sadayan Kuppan together with a confirmation of the right of coining Arcot rupees and pagodas. San Thome and Mylapore continued to be under Mussalman rule till 1749 when Madras was restored to the English after three years of occupation by the French who captured it in 1746. Soon after they got back Madras,

the English contrived to occupy San Thome in the name of their new ally, Nawab Muhammad Ali who was opposed by Chanda Saheb, the ally and champion of the French.

Governor Thomas Pitt.—From the time of Governor Yale down to the outbreak of war with the French in 1746, the growth of Madras was continuous and was seen not only by the expansion of its trade and wealth but also in the steady political power of the English. Of the Governors of the period the most famous was Thomas Pitt who was originally a bold interloper and in the opinion of the Directors, a desperate fellow. Pitt was Governor for the unusually long term of 11 years—1693–1709—and his term of office proved to be the ‘Golden Age’ of Madras. He resisted the demands of the Mughal Nawab, successively acquired the five new villages and built fortified walls round the Old Black Town. It was in his time that the Island ground was embanked, drained and improved. He also provided for an accurate survey of the City with a view to the allocation of definite streets and quarters for the right and left-hand factions. Copies of his map and plan are now available. They show us that the Old Black Town was more than a mile and a half in circumference and various gates in its walls led into the suburbs of Muthialpettah to the north and Peddunaickenpettah to the west. A canal ran along the present

Broadway which separated Black Town and Muthialpettah from Peddunaickenpettah.

Weavers’ Villages—Collettpettah and Chintadripettah.—As trade increased, the number of weavers and painters had steadily to be increased. Governor Collett (1717–20) founded a new pettah near Tiruvottiyur which was called, as the inhabitants desired, after him as Collettpettah.* The inhabitants were mostly weavers and painters of cloth which the Company required for export to Europe. The present suburb of Washermanpet lying to the north of George Town grew up about the same time. The Company had in their employment a large number of washers, bleachers and painters of cloth which came from the weavers’ looms. A large open space and plenty of good water were necessary for their work. They were first settled in Peddunaickenpettah to the north; but they complained that the water of the river was not pure. They were subsequently removed to the north of the Black Town where the ground was rich in fresh springs. The place where they settled was, therefore, known as Washerman Town and its present appellation of Washermanpet is apt, as in the case of Collettpettah, to convey a wrong meaning as to its origin. The growth of these suburbs indicates a period

* The name has now been corrupted into Kaladipettah and is apt to convey a wrong meaning both as to its origin and also the character of its inhabitants.

of great prosperity in the cotton trade which was the chief investment of the Company. The Dubashes and chief merchants of the Company engaged in the supply of cotton goods to the Company rose to great prosperity. One of them by name Alangatha Pillai founded and built the Ekambareswarar Temple, and another of them, Sunkurama had a large garden in the bend of the Cooum river south of Periamet which was taken over in 1735 for a new weavers' village known as Chintadripettah. By that time Sunkurama had fallen into disgrace and was succeeded by his colleague Thambu Chetty as the chief merchant. Government resolved in October 1734 to erect a weaving town on the site of Sunkurama's garden and to permit only spinners, weavers, washers, painters and the necessary attendants of the temple to settle in the village. A cowl was granted on these terms and Bemala Audiappa Narayana helped in the peopling of the village, which grew to contain nearly two hundred and fifty families within two years after its foundation.

The Carnatic fell into confusion after 1740 when the Mahrattas invaded it. Several disputed successions to the Nawabship occurred, out of which emerged Anwaruddin Khan. During all these years the English were seriously engaged in strengthening the Fort, particularly its western walls. The Fort as it had grown up by now enclosed the houses of the White Town, but was much smaller than the present Fort. On the north the

houses of the Old Black Town encroached almost up to the very wall, the river on the west ran very much more to the east than it does now. In 1743 plans were prepared for enlarging the Fort on the west side and for diverting the course of the river further west. This diversion was not, however, immediately carried out.

French Occupation of the City and its Results.—

The French capture of Madras by Labourdonnais in 1746 is a great event in the history of the City. The French were in occupation of the City for three years till August 1749. They planned to retain it permanently. They demolished the Indian houses of Old Black Town which adjoined the north wall of the Fort and formed a glacis with the debris. The southern portion of the Old Black Town was consequently destroyed. Soon after Madras came back into English possession, the Company began plans for remodelling and strengthening the Fort. The river on the west side was diverted to its present course, and its old bed was built up and included in the Fort. The west wall was strengthened with bastions which were named after the Governor George Pigot, Major Lawrence and Nawab Muhammad Ali Wallajah. The temple of Chennakesavaperumal which stood in Old Black Town, was also demolished and compensation was given by Government and a new site was offered in China Bazaar where Manali Muthukrishna Mudaliar, the Dubash of Governor Pigot, built

the new temple now known as the Town temple. He became the first warden of this temple whose management has continued to remain in his family. Count Lally's siege of Madras (December 1758 to February 1759) the next crisis in the History of the City was successfully resisted by the English; but they abandoned Old Black Town and the suburbs which were occupied by the French; while the Fort itself was a sad wreck after the siege. Black Town was ruthlessly plundered by the enemy who also burnt the village of Chepauk to the south of the mouth of the Cooum and lying between the Island and Triplicane.

Building of the Black Town Walls.—After the siege, the Directors resolved that the Fort should be rebuilt upon the most modern plan. Hyder Ali of Mysore was growing powerful at the time. In 1767 he made an expedition to the neighbourhood of Madras, plundered San Thome and burnt several villages in the neighbourhood. Two years later, he again appeared before Madras with a formidable cavalry force. Hyder's raids threw the inhabitants into a state of panic; and the result was the erection of permanent walls to protect the New Black Town, as Muthialpettah and Peddunaickenpettah together came to be called, after the demolition of the Old Black Town. The rampart walls that were constructed covered the northern and western fronts of modern George Town and ran a course of $3\frac{1}{2}$ miles, being equipped with bastions and flanking

works at intervals. The north wall presented a slight convex front towards Tondiarpet. The west wall ran on close to the North River (Cochrane Canal). On the outer side of the walls the ground was cleared for a width of six hundred yards and afforded a field for fire. These spaces were known as Esplanades. The southern part of the Western Esplanade was converted in the middle of the nineteenth century into the People's Park, and the northern part into Salt Cotaurs. The walls had numerous gates, of which the one known as Elephant Gate still has its name preserved for the site on which it stood. Wall Tax Road also is reminiscent of those times. It was designed to have a good road running on the side of the western rampart and its cost was met by means of a tax which was imposed on the house-holders nearby. But the tax was never collected though an officer, known as the Collector of Town Wall Tax, was appointed for the purpose. It is also said that arches in the western wall were occupied by Indians who paid a rent or tax and hence arose the name of Wall Tax Road which runs for two miles and was close to the western wall. Debtor-prisoners were confined in the bastions in the north-west angle of the wall, while criminals were put in another bastion in the northern wall; and even to-day the street next to the demolished north wall, of which some remnants remain in the compound of the Royapuram Hospital,

is called the Old Jail Street. The walls were pulled down about the middle of the nineteenth century when swords had to be turned into ploughshares. The remnants of its bastions and curtains that remain on the north indicate how substantially the construction work was made. The walls were finished about 1772.

Final Formation of the Fort.—About the same time the work of remodelling the Fort was also finished. Many of the private inhabitants who lived within it were compelled to sell their houses, and barracks for British troops were built on their sites. The Fort in its enlarged shape was completed in 1783 when Lord Macartney was Governor. This enlarged Fort stands perfect to-day as a typical example of the ideal fortress of the eighteenth century. It is the last of the four phases of growth which the settlement has passed through. It began as the small castle of Cogan and Day which was enclosed in a square of bastioned walls. In the next stage the White Town inhabited by English, Portuguese and Armenian merchants which grew round the nucleus came to be protected by walls. This survived almost up to the date of French capture of Madras in 1746. The filling up of the old bed of the North River, the extension of the west front of the Fort and the consequent increase in its area formed the third stage. The last stage was completed in 1783 when the outer walls were totally rebuilt and provided with ample out-works, glacis, ravelins and lunettes.

It was in this epoch also that most of the buildings and barracks in the western portion of the Fort were erected. The Palace Street, so called because Nawab Wallajah first planned to have a palace erected for himself in that street, the Arsenal, the Hanover Square and the Western Barracks were all constructed about this time. The streets in the eastern side of the Fort were also altered. Lord Pigot who was twice Governor of Madras, distinguished himself by strengthening the fortifications and defending it successfully against Lally. The weakness of his successors led to his reappointment for a second time as Governor. But he quarrelled violently with his colleagues, was imprisoned by them and died in confinement. He was buried in a nameless grave in St. Mary's Church in the Fort.

Modern George Town comes into Shape.—In the time of Governor Macartney (1781-85) Black Town assumed the shape that it now has. There was a low-lying region between Muthialpettah and Peddunaickenpettah along which ran a drainage channel. This channel was filled up and the waste land on both its sides was raised; and gradually houses came to be built over the whole area. The main north and south street which traverses this area known as Popham's Broadway is commemorative of the efforts of Mr. Popham who reclaimed all this region. It was also now that the inhabitants of Peddunaickenpettah living in the south

and south-east portions of it were removed elsewhere as their houses were considered to be dangerously near the Fort. The ground which was somewhat elevated was cleared and was converted into an Esplanade of the Fort and is now occupied by the Ordnance Lines. The removal of these houses, accounts for the present curiously broken outline of Peddunaickenpettah on its south-east side and for the abrupt termination of some of its north and south streets.

Mr. Popham also submitted a plan for the establishment of a regular police force for Madras and for the building of direct and cross drains in every street. He also advocated measures for the naming and lighting of streets, for the regular registration of births and deaths and for the licensing of liquor, arrack and toddy shops. A Board of Police assisted by a Kotwal was subsequently formed. The Kotwal was to be the officer of the markets under the Superintendent of Police. For long, there was difficulty about the collecting of quit rent and scavenger's duty and it was held that the Company had no power to impose these taxes. A Parliamentary Act of 1792 finally gave the Company the power to levy municipal taxes in the City and it was resolved to order an assessment of five per cent to be collected from the inhabitants on the estimated annual rents of the houses. It was now that the Town cleaning duties were entrusted to the Officers known

as Surveyors and Collectors, under whom conservancy work was to be done by contract.

II. THE CITY—A PANORAMA

Physical Features.—Madras is the Capital of the Presidency and the largest town in extent in India. With the recent extensions, the area of Greater Madras is 49.74 sq. miles. The site is almost a dead level and the highest point is only twenty-two feet above the mean sea level.

Nature of Soil.—Over a large part of the City the surface soil is mostly alluvial varying in depth, but here and there particularly towards the western and southern ends it becomes rather gravelly. The Coastal areas and the banks of the Cooum and Adyar are saline and sandy. The sub-soil is generally of black clay of varying stiffness at different depths.

With the characteristic hydrological conditions common to deltaic sea coasts, the sub-soil water level is fairly high for a major part of the year, reaching in some localities almost the ground level during the rainy weather. Excepting in a few areas, the sub-soil water is generally indifferent in quality and rather saline.

Climate.—Situated on the east coast of India in Latitude 13° 4' N, Longitude 80° 15' E, Madras has a warm moist climate which can be classified as the "tropical maritime monsoon" type. The place

is affected by both the Southwest and Northeast monsoons, the latter giving the major part of the annual rainfall. The year can be divided broadly into two seasons—(i) Summer—April to September—which includes the Southwest monsoon period—June to September (ii) Transition period and winter (October to March) which includes the Northeast monsoon period—October to January. During April–May and October–November which are the cyclonic storm seasons in the Bay of Bengal, cyclonic storms which occasionally form there, move west or northwest and occasionally affect the weather over Madras causing strong winds and heavy rain, sometimes causing floods. Two other important features of the climate of Madras are the thunderstorms which occur mainly during April to October and the pronounced sea breeze during the same period.

Temperature.—The month of May is the hottest, with a mean temperature (*i.e.*, half the sum of mean daily maximum and minimum) of 91° F, mean daily maximum temperature of 101° F and mean monthly highest temperature of 107° F and January is the coolest month with a mean temperature of 76° F, mean daily minimum temperature of 67° F and mean monthly lowest temperature of 63° F. The annual range of monthly mean temperature is 15° F while the annual extreme range of temperature (*i.e.*, difference between the highest and lowest temperatures recorded in a year)

is 44° F. The mean daily range of temperature is least (14° to 15° F) in the moist season—October to December—and is greatest (18° to 20° F) in the comparatively dry season—January to June. The highest maximum temperature ever recorded was 113° F on the 21st May 1910 and the lowest minimum temperature 57° F on the 11th December 1895 and 29th January 1905. The maximum temperature of the day occurs generally between 1 and 2 P.M. but in the hot weather months it may occur round about midday, just before the sea breeze sets in. The minimum temperature of the day usually occurs just before sunrise.

Humidity.—Mean relative humidity is high throughout the year and varies between about 65 per cent in May–July to about 80 per cent in October–December. June is the month with the least relative humidity. Relative humidity generally increases sharply by about 20 to 30 per cent with the onset of the sea breeze and continues high as long as the sea breeze lasts.

Rainfall.—The mean annual rainfall is 50 inches and the mean number of rainy days (*i.e.*, days with 10 cents or more of rain) is 57. About $\frac{2}{3}$ of the annual rainfall (*i.e.*, about 33 inches) occur during the Northeast monsoon period—October to January. The rainiest months are October and November, which together get 26 inches of rain with about 22 rainy days. June to September, which is the season of the South-

west monsoon with rains over the greater part of India, get only about 15 inches with about 25 rainy days. The least rainy months are February to April. The rainfall for each month or for the whole year is by no means constant from year to year. An idea of its variability can be had from the fact that the wettest month, November, has recorded a rainfall of 43 inches in the year 1918 but only 0.20 inches in the year 1904. The highest annual rainfall recorded was 84 inches in 1943 and the heaviest fall in 24 hours was 10 inches on the 10th December 1901.

Prevailing Winds : Sea Breeze.—One of the chief climatic features of Madras is the well marked sea breeze during April to October, which provides some welcome relief in an otherwise uniformly warm and moist climate. During this period when the prevailing wind in the morning is westerly, the sea breeze sets in as a gusty ESE to SSE wind of an average speed of about 10 m.p.h. at about midday in April and as the season progresses it sets in at a later hour, till in October it sets in at about 2 P.M. During November to March the prevailing seasonal wind is from NE to E which is from the direction of the sea and therefore there is no change of wind during the day as in the summer season.

Thunderstorms and Cyclonic Storms.—Thunder storms occur in the months May to October but their frequency is maximum in July to October. They occur generally towards the evening after 4 P.M. during

May to August. During the other months they occur late in the night or in early morning. Some of the thunderstorms are accompanied by severe squalls in which the wind speed may reach 50 to 60 miles per hour. April-May and October-November are the months in which Madras is exposed to the danger of cyclonic storms which form in the Bay of Bengal and move west or northwest towards the east coast. A number of cyclones have hit the city in the past, the maximum wind speed recorded during one of such storms being 64 m.p.h. On the average, one cyclonic storm or depression may affect the city in a year. It is of interest to note that during the 50 years 1891 to 1940, 30 cyclonic storms from the Bay of Bengal crossed coast within 150 miles of Madras. Between 1915 and 1945 high floods have occurred in the Madras City and neighbourhood on four occasions. The last occasion that a flood occurred was in October 1943 in connection with a cyclonic storm.

A Statement of climatic normals of Madras based on data up to 1940 is appended.

CLIMATOLOGICAL

(Based on data

Months	Air Temperature					Relative Humidity (%)
	Mean 0800 hrs.	Mean Daily		Mean of		24 hrs. Mean (%)
				High-est	Low-est	
	Dry Bulb	Max.	Min.	Max.	Min.	
	F	F	F	F		
January ...	74	85	68	87	63	74
February ...	75	87	68	91	63	74
March ...	80	89	72	95	67	75
April ...	85	92	77	98	73	76
May ...	88	98	81	107	76	70
June ...	87	99	81	106	75	65
July ...	84	95	79	102	74	68
August ...	82	94	77	100	73	72
September ...	82	93	77	99	73	73
October ...	81	89	75	96	71	80
November ...	77	85	72	89	66	78
December ...	75	84	69	86	64	76
Means or totals ...	81	91	75	—	—	73
Extreme values ...	—	—	—	113	57	—
No. of years of observations	50	60	60	60	60	20

Note.—Regarding prevailing wind directions (When there are two shown separated by a comma, eg. S. SW.).

TABLE FOR MADRAS

up to 1940)

Rain			Wind			Remarks
Mean Monthly Total	Mean Number of	Heaviest Rainfall in 24 hrs.	Mean daily velocity	Prevailing wind directions		
Inches	Rainy days	Inches	M. P. H.	6800 hrs. I. S. T.	1700 hrs. I. S. T.	
1.41	1.7	8.38	11	N.W.	N.E.	
0.41	0.7	4.85	9	W., N.W.	E., S.E.	
0.29	0.4	2.54	10	S.W.	S.E.	
0.61	0.9	3.29	11	S., S.W.	S.E.	
1.03	1.1	5.22	12	S., S.W.	S.E.	
1.86	3.7	2.32	12	W., S.W.	S.E., S.	
3.60	6.8	4.58	11	W., S.W.	S.E.	
4.58	7.9	3.09	11	S.W., W.	S.E.	
4.68	7.0	3.95	10	S.W., W.	S.E.	
12.04	10.7	9.20	9	W., N.W.	E., S.E.	
13.96	11.1	9.30	12	N.W.	N.E.	
5.45	5.4	10.30	13	N.W.	N.E.	
49.92	57.4	—	11	—	—	
—	—	10.30	—	—	—	
60	60	60	15	19	5	

prevailing wind directions more or less equally frequent, they are

Population.—According to the census of 1941 the population of the City was 7,77,481 comprising of:—

Hindus :—

<i>Scheduled castes</i>	...	1,03,338	} 6,21,049
<i>Others</i>	...	5,17,711	
<i>Muslims</i>	...	95,702	
<i>Indian Christians</i>	...	45,760	
<i>Jains</i>	...	1,828	
<i>Sikhs</i>	...	66	
<i>Others</i>	...	13,076	

The number of houses was 87,888.

The following divisions recorded the highest population :—

Mirsahebpet Division	(35th)	34,234
Choolai Division	(19th)	32,651
Korukkupet Division	(5th)	31,874
Sanjeevaroyanpet Division	(4th)	31,162

The highest densities were recorded in the following divisions according to the census of 1931 (The figures for 1941 are not available) :—

Amman Koil Division	(9th)	} 150-200 per acre
Kothaval Bazaar Division	(10th)	
Peddunaickenpet Division	(13th)	
Sowcarpet Division	(12th)	} 100-150 per acre
Park Town	(15th)	

These densities are expected to be even higher now as the present population of the City which is estimated to have exceeded a million is more than $1\frac{1}{2}$ times the 1931 population.

The chief Muslim areas of the City are the Amir Mahal, Chepauk and Mirsahebpet Divisions. The Christians are prominent in Royapuram and the Anglo-Indians in Vepery. The other divisions are chiefly populated by Hindus. The chief languages spoken are Tamil and Telugu.

Rivers.—The City is cut almost into two halves by the Cooum with its serpentine course and numerous bridges. About three miles to the South of the Cooum is the Adyar river opening out into the sea. The mouths of both these rivers are closed by Sand Bars for the greater part of the year and except during rainy months form salt lagoons.

The Buckingham Canal, otherwise known as East Coast canal, is a series of connected channels more or less parallel to the sea, connecting the Krishna River in the North with the neighbourhood of Pondicherry in the South. Within the City, running south through the undeveloped areas of Tondiarpet to the west of the M. & S. M. Railway North-East line and the Tiruvotthiyur High Road, it proceeds further South along the Western outskirts of George Town closely to the west and east of the Railway, crossing it north of the Basin Bridge railway junction and south of the Elephant

Gate Road ; and then crossing the S. I. Ry. line, joins the new canal (part of Cooum) south-west of the General Hospital. The Cooum River serves as the link between this reach and the next one commencing near the University Buildings. From here the canal passes south between the built up areas of Triplicane till it crosses the Edward Elliot Road and then taking a westerly and south westerly course, cuts through the dense areas of Mylapore for a considerable length, finally joining the Adyar River south of Greenway's Road. Further south the Canal passes through Kottur, Palipattu, Kalikkunram and Tiruvanmiyur villages. The mouths of the Canal at its junctions with the Cooum near the University Buildings and on both flanks of Adyar are provided with locks to negotiate the water levels of the Canal and the tidal levels of the two rivers.

It mainly functions as a navigation canal for bringing into the City grains, salt, fish, firewood, chunam shells, charcoal etc. Earlier when the Railway transport had not sufficiently developed, many travelled by boats which usually covered about 25 miles per day on this canal.

The only other channel worth mentioning in the City is the Otteri Nullah which commencing from the village Mullam passes eastwards upto Purasawalkam and then taking a northerly and north easterly course passes between the Buckingham and Carnatic Mills finally

emptying itself into Buckingham canal north of the Basin Bridge Railway junction. This canal carries only the surface drainage from the areas in the vicinity of its course.

Landmarks.—Fort St. George is the centre from which the City has expanded towards the north, the south and the west. It has three principal gateways open to the public. There is the sea-gate on the east leading to the Beach Road which runs from the north-eastern corner of George Town along the shore, and taking in the Marina, extends upto San Thome. The other two gates are on the western front of the Fort and open respectively into the Mount Road and the Poonamallee High Road. The three main roads *i.e.*, The Great Southern Trunk Road or the Mount Road, the Western Trunk Road or the Poonamallee High Road and the Great Northern Trunk Road diverging from the Fort Area may be regarded as the axial highways of the City.

The Fort.—The Fort Area stretches for nearly a mile from the High Court Park on the north, down almost to the mouth of the Cooum on the south. We saw how the Fort had come into its present shape by the last quarter of the eighteenth century and how in the piping days of peace that followed, the outer battlements were demolished and the moat, except for a small stretch on the west front was filled up. Even the coast batteries—built as out-defence for the Fort—one at Royapuram

known as Clive Battery (in memory of Governor Clive), the second opposite the Law Courts and the third near the mouth of the Cooum—have been neglected, the middle one having been pulled down in its entirety to give room to the expanding needs of the Port and the Railway.

The Legislative Assembly Building.—Set over the old sea gate of the Fort with its double entrance, is the Legislative Assembly building, which is faced with the historic black-stone pillars of which mention has been made already. Its central hall, in which the Legislative Assembly meetings are held, is a large and handsome apartment paved with black and white stone, and having wooden galleries at the east and west ends for visitors, and wooden wainscoting. In it there is a bust of the Rt. Hon. Mr. Edwin Montagu, the main author of the Montford Scheme of Reforms of 1919.

At the door of the hall is a brass wall-tablet that states that the historic pillars on the facade were built into the structure at the desire of Sir Arthur Lawley, Governor (1906-11), in whose time the old Banqueting Hall which stood on this site was demolished, to give place to this.

The Flagstaff.—The flagstaff of the Fort, said to be the highest in India, stands on the massive redan of the Sea Gates. Unfortunately the Sea Gates have been superseded by two modern park gates of wrought iron erected in honour of the Assembly Chamber; but they

stand apart from the fortifications and appear incongruous in their present surroundings.

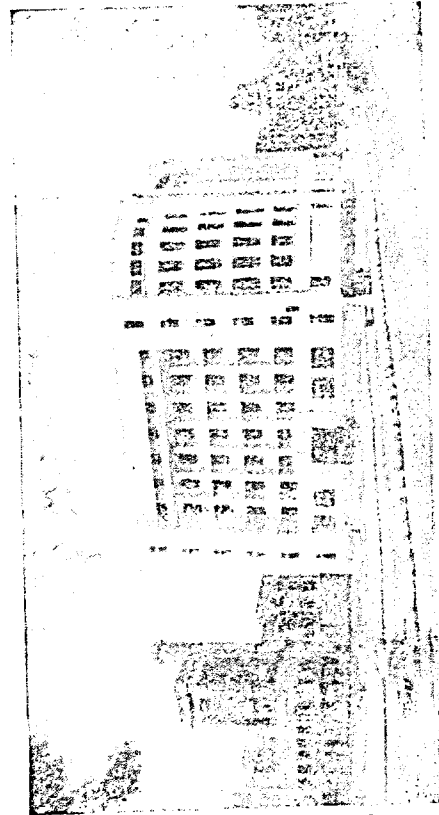
The Officers' Mess.—To the north of the Legislative Assembly Chamber which contains also the offices of the Ministers of the Government, is situated the Officers' Mess which was used for a long time as the Madras Exchange and on whose roof a lighthouse was erected as early as 1795.

Within the Fort Area, are streets and cross-roads lined with buildings and barracks which recalls to us memories of the growth of the English power in South India and conjure up before our vision the shades of Clive and Lawrence, Sir Eyre Coote and Sir Thomas Munro and other makers of British power in this part of the country.

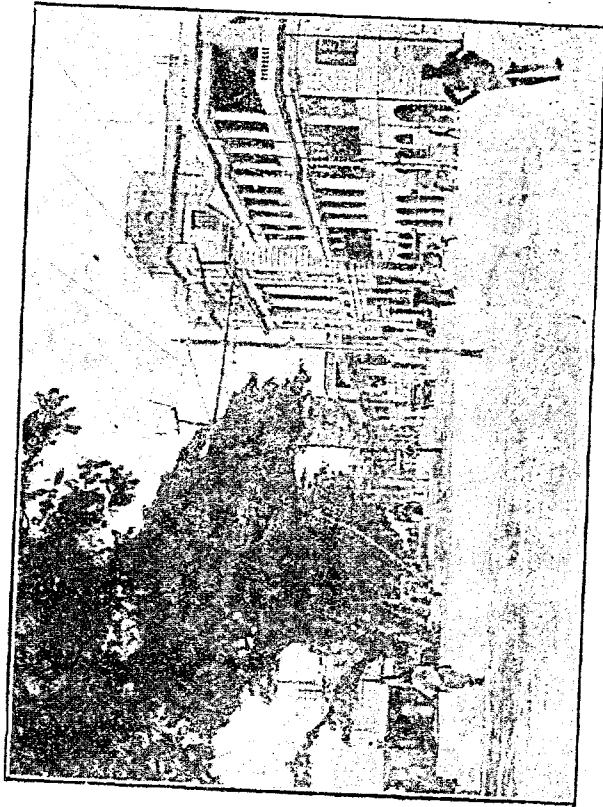
The Secretariat and St. Mary's Church.—The Secretariat Buildings fronting westward are adjacent to the Legislative Assembly and are the historic successors of the earliest factory house built by Cogan and Day. The central portion of the building dates back to the end of the seventeenth century. A new wing has been added on the north in 1946. To the west of the Secretariat is an open ground, part of which was formerly enclosed within what was known as the Fort Square and which served as the parade ground. To the south is St. Mary's Church which was built by Governor Streynsham Master and consecrated for divine service in 1680. The vicissitudes through which it has passed were

noticed in the previous section as well as the origin of the closely-set grave stones, covering its yard. The interior of the Church is whitewashed, but much of the wall space is covered with handsome marble tablets of great historic interest. It contains, among others, a tablet erected to the memory of the famous missionary Schwartz who attained great reputation in Tanjore and to whom the Rajah of Tanjore confided the care of his son Serfoji as well as the regency of his kingdom. There is a floor tablet in the Church to the memory of Sir Thomas Munro, Governor (1820-27) who died in July 1827 and of whom there is a fine equestrian statue mounted on a lofty pedestal in the middle of the Island Ground on the Mount Road. In one of the corners of the Church is a statue of General Conway, popularly known as 'the Soldier's Friend' whose gardens at Kilpauk were purchased by Government and utilised for the Female Orphanage and Asylum. To the right of the chancel is a plain gravestone inscribed 'In Memoriam' which marks the resting place of Lord Pigot who was twice Governor of Madras and successfully defended the fort at the time of Lally's siege. Pigot was closely associated with the re-building of the Fort but his end was miserable.

A beautiful oil painting of the 'Lord's Final Supper' which hangs above the Communion Table is supposed to be the work of a pupil of the great Raphael, the chalice having been painted by Raphael himself. The Church Registers are of considerable value to the student



PARRY'S CORNER WITH "DARE HOUSE"



FIRST LINE BEACH

of Madras history and date from the time of its first consecration. The silver plate is also historic and part of it was presented by Governor Yale. Among the interesting records are the entry of the baptism of three children of Job Charnock, the founder of Calcutta, and the marriage of Clive, the victor of Plassey in 1753, to Margaret Maskeleyne, a Madras resident.

The Accountant-General's Office.—The Accountant-General's Office to the west of St. Mary's Church had an interesting growth. It was originally the residence of an Armenian merchant and was leased out by Clive and others. It was finally acquired by the Company after the Armenians were evicted from the Fort, and served as the Admiralty House as well as a place of entertainment.

The other buildings in the Fort worth noticing are the Arsenal and the King's Barracks both of which were built in the latter part of the eighteenth century.

George Town.—We have in the Northern Esplanade, a great block of red buildings known collectively as the High Court; but they house, besides the High Court, the Small Causes Courts and the City Civil Court. The western portion is separated from the eastern block by a road-way which is arched over with a passage. It serves to accommodate one of the Court rooms while the ground floor is occupied by the Printing Press of the High Court and the wings are taken up by Advocates' Chambers. All the Court rooms in the buildings—

a few additional Court rooms were added on the east front a few years ago—are ornated and flagged with white and black square stones and lighted through beautiful stained-glass arches, besides being adorned with fine stucco-panels on the walls. In the middle of the buildings rises the Lighthouse Tower to a height of 160 ft. above the sea level. The lighthouse was built to take the place of the old dismantled one which stands in the north of the High Court Park—a handsome stone-faced Doric column which did service for more than half a century. In the crypt on the first floor under the Lighthouse Tower, is a good-sized statue in marble of Sir T. Muthuswami Iyer, the first and one of the ablest of Indian Judges in the Presidency whose honoured memory was perpetuated in this fashion by an admiring public. The sculptor, Mr. Wade, had nothing to work on except a faded photograph of the Judge and a few hints that his colleagues gave him about his appearance, but the likeness is remarkably good.

Adjacent to the northern compound wall of the High Court are two statues, one on either side of it. The statue outside is that of Dr. Miller, the great Missionary Educationist of South India looking across the street on the buildings of his College* which he helped so much to prosper. The other, erected inside the compound, is that of Sir V. Bashyam Iyengar who was perhaps the keenest of the Indian lawyers of his generation.

* The Christian College, now at Tambaram.

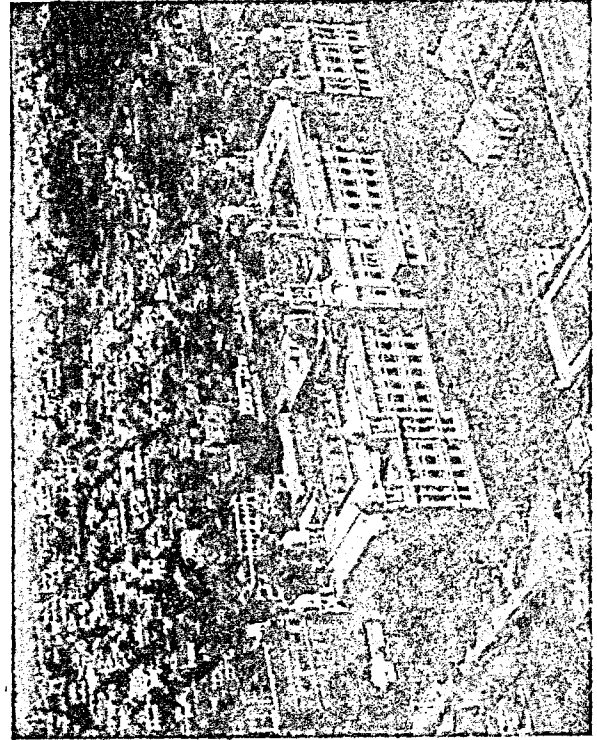
To the south of the High Court buildings has risen a new structure for the accommodation of the Small Causes Courts which has relieved the congestion of space in the buildings. A short distance to the west, is yet another block of red brick picked out in stone, built as the High Court in the Indo-Saracenic style. This is the Law College, a proper adjunct of the Court buildings to which it forms an appropriate counterpart. The gateway faces north-west and the building is irregular in outline; but the gate is flanked by two cupola-crowned minarets and the courtyard within has an ornamental fountain which, with the foliage grown round it, gives it a decidedly 'Mauresque' appearance. The Law College was built on the site of the old English burial-ground in the Old Black Town. Its playgrounds even now contain a couple of tomb-stones of the seventeenth century fitted in a tall pointed building of quaint design as well as a large square, stone-vault of the Powney family, well known as merchants of the eighteenth century. The Law College and the High Court form a fitting side setting to the wide boulevard of the Esplanade.

The western Esplanade connecting the Broadway with Sir T. Muthuswami Iyer Road contains the Head Offices of the Burmah-Shell Company and the United India Life Assurance Company, two notable buildings in the modern Architectural style. A statue of the Maharaja of Travancore has been recently installed by the Public of Madras opposite the mofussil

Bus Stand, in recognition of the services rendered by him to the Harijan Community, by throwing open to them all the temples in his State.

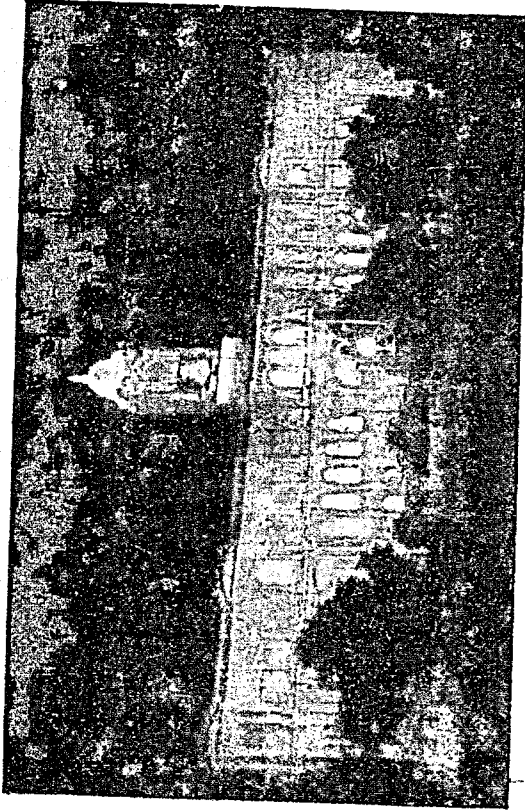
The southern base of George Town on the east side is the Esplanade flanked by the High Court and Law College Buildings and the Madras Telephone Company on one side and by the half Gothic structures and spires of the old Christian College Buildings and on the other the notable Y.M.C.A. buildings which are built in the Jaipur-Jaina style faced entirely with sandstone. On this side is the imposing new Parry's Buildings the "Dare House", at the junction of the Esplanade with the North Beach Road more popularly known as Parry's Corner.

The Esplanade Road known as the China Bazaar Road, renamed as Netaji Subhas Chandra Bose Road has its western projection running up to the neighbourhood of Elephant Gate. The classic edifice known as Pachappa's Hall, built in 1850 similar in design to the Athenian Temple of Theseus, which along with its supplementary buildings accommodated till recently the well known College of the same name, stands at the point of the Esplanade Road where it narrows into the busy parts of the town. A little distance down this road lie the crowded Flower Bazaar and the Town Temple which flank the Subhas Chandra Bose Road. It is crowded with bazaars and is one of the most congested thoroughfares of the City. It may be said to be



AERIAL VIEW OF PARK TOWN WITH M. & S. M. RY. OFFICE BUILDINGS IN THE FOREGROUND

RUON BUILDINGS—FLOOD LIT

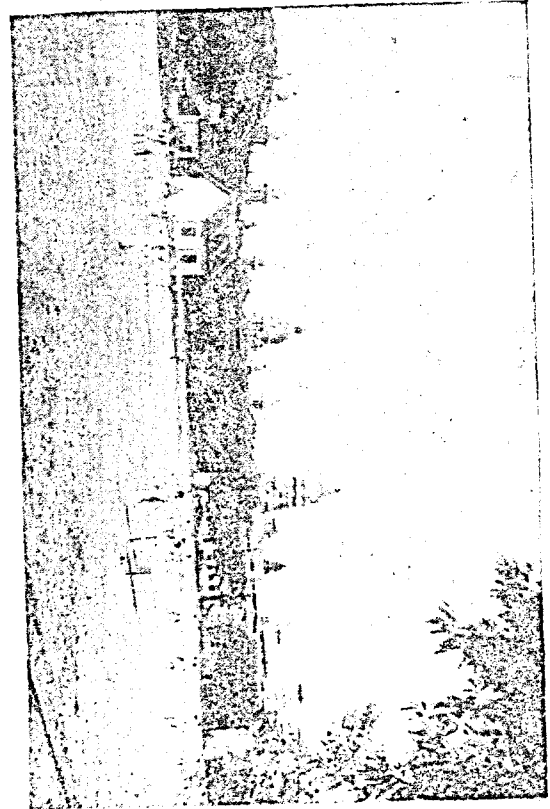


roughly the dividing line between the northern and southern portions of George Town. The most important north to south arterial streets of George Town are, the First Line Beach extending from Parry's Corner to the Customs House and beyond. It originally stood close to the Beach and is lined by a series of imposing structures like the Imperial Bank and the General Post Office buildings. West of this First Line Beach, is the Second Line Beach which branches into two streets. Thambu Chetty Street, called after a merchant of that name in the eighteenth century, Armenian Street which indicates that a prosperous colony of Armenians originally lived in the settlement, and Broadway, reclaimed from waste land by Stephen Porham about a hundred and fifty years ago. The southern ends of the former streets and practically the entire length of Broadway are occupied by business firms. The Head Quarters of the Y.M.I.A. is located close to the Oriental Buildings in Armenian Street. A beautiful life size statue of Dr. Mrs. Annie Besant, the founder of the institution, adorns this Building named after the late Mr. G. K. Gokhale.

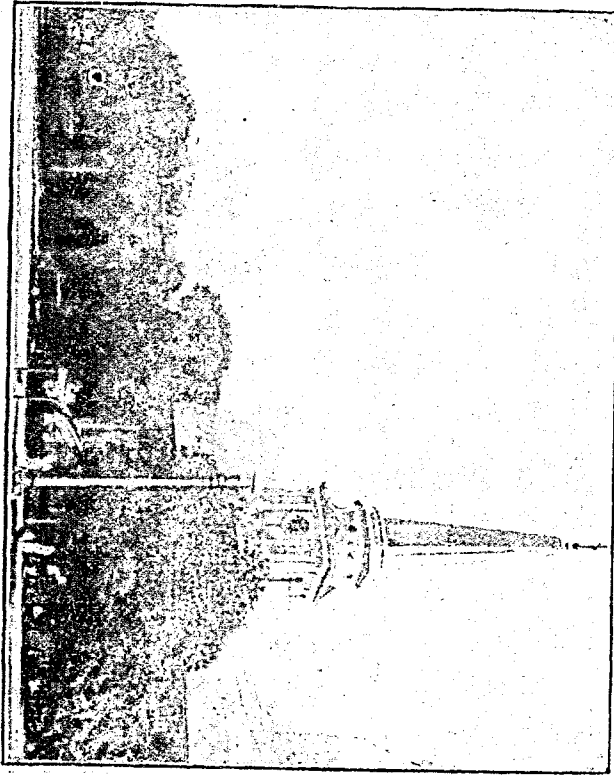
In the Armenian Street near the Esplanade entrance are two churches of historic interest. The southern one is the Armenian Church built about 1772 on the site of the Old Armenian cemetery. The date 1712 borne on its facade does not refer to the date of the construction of the present Church and probably indicates, the date of the original small chapel built in the cemetery. The

verandahs running round the Church as well as the courtyard are paved with grave-stones of the members of the once flourishing Armenian community. There is a picture in the Church, of Shawmier Sultan, an Armenian merchant of the eighteenth century who was the owner of the present Accountant-General's Office in the Fort. The belfry is distinct and stands apart from the Church, close to the Armenian Church. On the north is the Roman Catholic Cathedral which has over its gateway the date 1642. As in the case of the Armenian Church, this date is not the date of construction of the present Cathedral, but is only a public record of the first establishment of the Capuchin Mission in Madras. A French Capuchin Priest, Father Ephraim, began his ministrations to the Catholic residents of the Fort even within a year after the foundation of the settlement and in 1675 the Mission obtained permission to erect a Church in the Fort itself. This Church was demolished on account of military exigencies during the Anglo-French wars about the middle of the eighteenth century; and in its place the present Church was built on the site of the burial ground of the mission. In 1772, the present Cathedral was built. The mission came under the control of a Vicar Apostolic from 1835, raised to an Archbishopric later on. The Church has a broad nave and an interesting sanctuary. The picture of Crucifixion and of Mary Magdalene in the Church is supposed to be one of the finest oil-paintings in India. There

High Court Buildings (Distant view)



ST. MARY'S CHURCH, FORT ST. GEORGE



is a chapel attached to the Cathedral named after Moorat, a wealthy Armenian merchant at the beginning of the last century who was the owner of the Pantheon Gardens and numerous other buildings, and left charitable benefactions known as the Moorat Fund.

The offices of the Madras Corporation, before they were removed into the stately Ripon Buildings in the People's Park were located in Errabalu Chetty Street, one of the transverses of Muthialpettah. A continuation of the above street into West George Town is known after Audiappa Naick, a former merchant, and the great produce and vegetable market of the City known as the KOTHAWAL CHAVADY is situated in this street. This market is exclusively owned by the Kannika Parameswari Devasthanam.

In Muthialpettah, *i.e.*, George Town to the east of Broadway, are the two old Hindu temples of Katchaleswarar Pagoda built about 1725 by the prominent merchants of the left-hand group and the Malleswaran Pagoda at the northern end of Thambu Chetty Street. In Peddunaickenpettah, *i.e.*, the town to the west of Broadway, stand the old Town Temple dedicated to Chennakesava the patron deity of the place, which was shifted to its present site about the middle of the eighteenth century, the Ekambareswarar Pagoda in Mint Street which was built toward the close of the seventeenth century by Alangatha Pillai, a chief merchant of the Company, and the Kandaswami Temple, which

is sacred to the Beri Chetty merchants of the locality. Besides these, there are several other temples distributed in the various parts of the town and two Jain shrines built in Mint Street by Marwaris who are of that religious persuasion and mosques erected in localities where the Muslim population has congregated.

Broadway is still the dividing line between the two parts of George Town, Muthialpettah and Peddunaickenpettah noted above, even as the canal which ran along its course was in former days. The Netaji Subhas Chandra Bose Road is at right angles to the well-known Mint Street, so-called after the Mint which was once located in the buildings at its northern extremity, and which runs right through to the southern end of George Town abutting on the General Hospital Road.

Mint Street is in the heart of the City and is crowded with a colony of numerous Gujarati and Marwari merchants and money-lenders, after whom, the middle part of the street (with the neighbourhood) has been named Sowcarpet. Smaller parallels to Mint Street are Govindappa Naick Street, Godown Street whose name is indicative and where the bulk of dealers in cloth reside, Devaraja Mudali Street and Nyniappa Naicken Street, all full of small traders and very busy traffic.

Ebrahim Sahib Street, and Old Jail Street form the northernmost Roads of George Town. On the

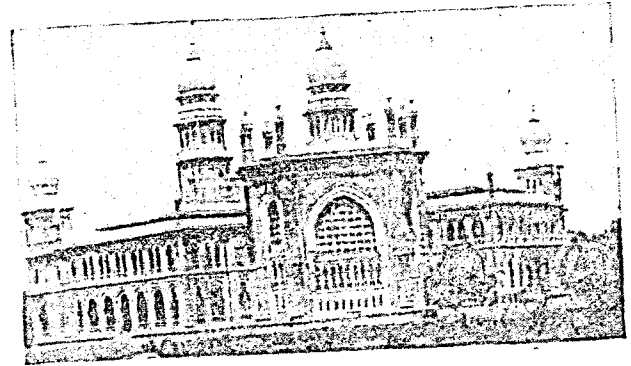
southern side of the latter are located the School of Technology and the P. W. D. Workshops, while to the north stand the Government Stanley Hospital and Rajah Sir Ramaswami Mudaliar's Lying-in Hospital. The Stanley Medical College and the Poor House founded by the Old Venkatagiri Rajahs are located adjacently east of the Monegar Choultry Road which is only an extension of Broadway.

George Town which is divided for municipal purposes into several divisions, has been the oldest element in the City's composition. How it has grown into its present shape, has been detailed in the previous section. It is very overcrowded and some of its lanes and slums are very congested. It has been cut off from possibility of expansion on the south by the Esplanade and on the west by the Railway Line and the Buckingham Canal which have at the same time created difficulties in the way of adequate surface drainage.

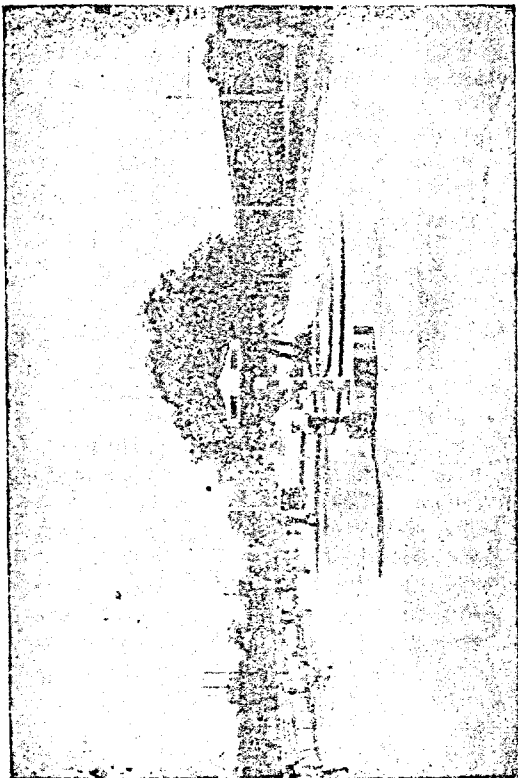
The traveller, who arrives by train either through Saidapet or Perambur, sees very little of the City proper; and in fact any one coming from Calcutta to Madras and arriving at the Central Railway Station does not see anything of the City except the evil smelling Buckingham Canal and the Mills. It is said that in olden days, before the growth of the foreshore, Madras presented a vista of stately buildings fronting the sea with the Fort and its structures. There is now the group of the Law Courts Buildings; but the fair view of this part

of Madras has been marred by the protruding cranes, oil-tank installations and other appurtenances of the rapidly growing Port. The huge oil tanks situated near the Royapuram Beach are the northern landmark of the City. The spire of the San Thome Cathedral forms the landmark on the south.

The Northern Regions.—In North George Town and in the suburb of Royapuram, there are several interesting and old Churches of which the most ancient is the Portuguese Church in the locality. The relics of the Black Town wall on the north have been already noticed. The northern suburbs of Royapuram and Tondiarpettah were once favourite residential quarters of the richer classes of Indians, but have lost much of their popularity. The main north-to-south roads of North Madras are the continuations of Mint Street and Broadway. The former leads on straight to Tiruvotthiyur just outside the municipal limits of the City, which is a famous Saiva centre and has become important owing to its association with the well-known ascetic, Pattinathu Pillaiyar whose samadhi can still be seen within the town. Saint Sundara, one of the noted Saiva Nayanars, is also associated with the temple which was greatly encouraged by the Chola kings of the country. The presiding deity is Thiagaraja. The north-east railway line runs almost parallel to the Tiruvotthiyur High Road and along the line, railway extension works have resulted in these villages becoming important.



LAW COLLEGE, ESPLANADE



SIR T. MUTHUSWAMI IYER ROAD NEAR FORT STATION

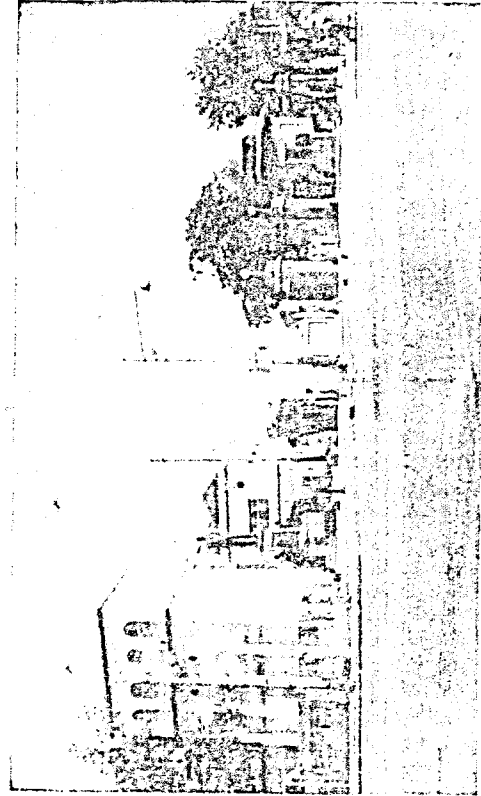
It may be mentioned here that the western areas of Tondiarpet together with Vyasarpadi, Perambur and the villages of Erukkancheri and Kadungayur which are outside the limits of Greater Madras are before long likely to become prominent Industrial areas of the City.

The Great Northern Trunk Road called the Erukkancheri High Road in this reach, runs through the Vyasarpadi area. Chief among the institutions in the Tondiarpet area are the American Rainey Hospital for Women and the Infectious Diseases Hospital of the Corporation. The Burma Oil Company and Caltex Installations are located close to the Tondiarpet Railway Station.

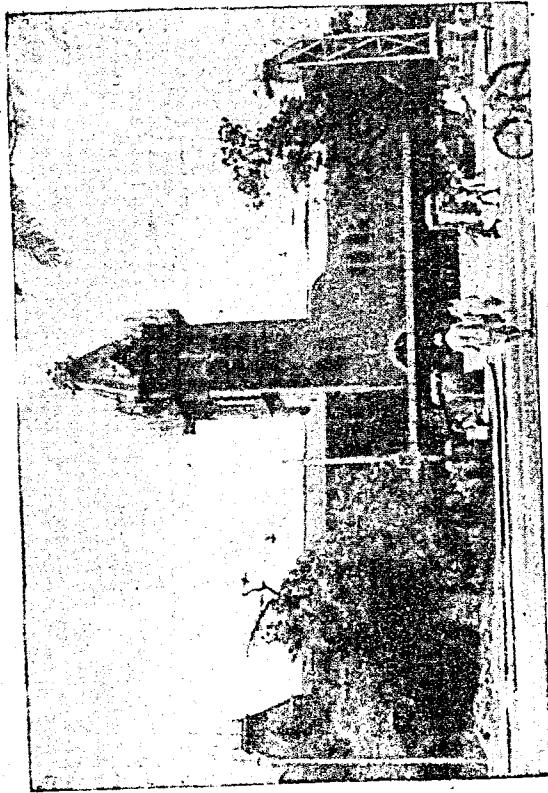
The Western Regions.—From the St. George's Gate on the west of the Fort the Poonamallee High Road may be said to begin, though in its first stage it is called the General Hospital Road, being flanked on the south by the long stretching compounds of the Medical College and the General Hospital. On the north side, after the stretch of the Fort Esplanade is traversed, we come to the southern end of Mint Street, flanked on the one side by the Memorial Hall building constructed out of public subscriptions as a thanks-offering for the Presidency having been delivered from the horrors of the Mutiny. The Hall is used for public meetings and the main building is flanked on the sides by the offices of the Christian Literature Society and the British and Foreign Bible Society.

The General Hospital can be traced back to the nucleus of the Company's foundation started in 1665. It came to be located in Black Town about the middle of the eighteenth century and in its present compound a few years later. A statue of the late Dr. S. Rangachari, the most popular physician and surgeon of his time has been erected by the public at the main gate of the General Hospital in appreciation of his great professional talents. Opposite the main entrance to the Hospital grounds is situated the Central Railway Station which is the terminus of all trains going west, north-west and north and is a handsome structure with small side towers and a central imposing clock tower. To the east of the station and occupying the whole frontage from the Wall-Tax Road to Mint Street, lies the stately structure faced with stone and turreted with quaint cupolas all round which accommodates the offices of the Madras and Southern Mahratta Railway. This is one of the architectural monuments of the City.

Passing along the road by the General Hospital Bridge spanning Cochrane's Canal, we come to a line of imposing buildings fringing the southern edge of the People's Park. The first of these is the Moore Market named after Sir George Moore, a former popular President of the Corporation who took great interest in its foundation in the place of the congested and insanitary market that existed in Broadway which has since been converted into a park. The structure is quadrangu-



ENTRANCE TO THE GENERAL HOSPITAL



CENTRAL RAILWAY STATION

lar in shape, with an open space in the centre laid out as a garden and with arcades all round. The market is a great convenience to the middle and upper classes of the population and is well ventilated and kept in a clean condition. To the east and north of the Market are the supplementary structures called Hawker's stalls, allotted to the vendors of worn-out and second-hand goods, who formerly vended their wares in what was known as the Guzili Bazaar near the Memorial Hall.

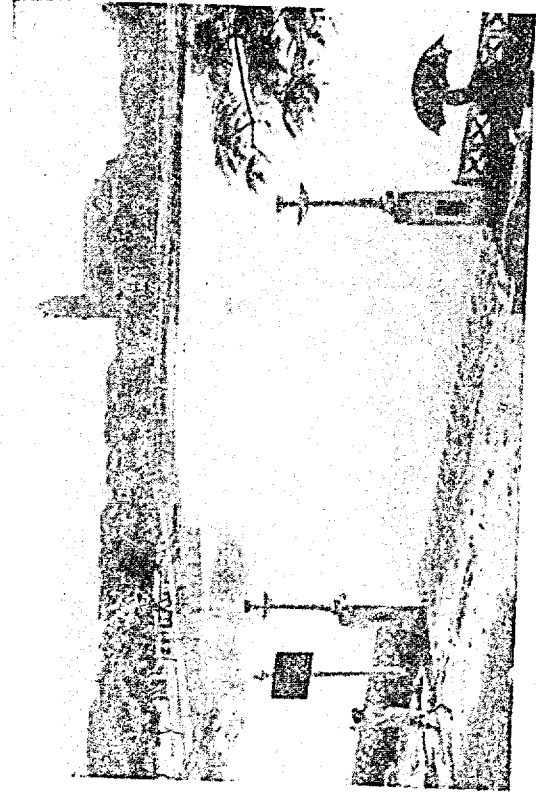
Adjacent to the Moore Market is the Victoria Public Hall, which owes its origin to the initiative of Sir A. T. Arundel, a former President of the Municipality who later became a Member of the Viceroy's Council and to the munificence of a former Maharajah of Vizianagaram; it was completed in 1887, in time for Queen Victoria's Golden Jubilee. The style is that of Mr. Chisholm who designed so many other buildings in Madras. The Hall is managed by a body of Trustees and is used for public and private meetings, lectures, theatrical and other performances, etc. Its ground floor is tenanted by the Chennapuri Andhra Maha Sabha. A memorial to Sir Charles Trevelyan, one of the late Governors of Madras, to whom the City owes the People's Park, has been constructed in this compound.

Ripon Buildings, which house the offices of the Corporation of Madras, are situated next to the Victoria Public Hall. Built of brick and chunam with comparatively little stone, and surmounted by a graceful

clock tower, these buildings were declared open in 1913 by Lord Hardinge, the then Viceroy.

These new buildings are suited to the dignity and the ancient lineage of the Madras Corporation, the offices of which were confined till 1913 in very narrow premises in one of the transverse streets in Eastern George Town. At the entrance hall to the buildings, a statue of Mr. Conran Smith, one of the former Commissioners, has been erected by the staff of the Corporation in recognition of his services to the Corporation. To the front of the buildings there are statues of Sir P. Thyagaraya Chetty and Sri P. M. Sivagnanam Mudaliar, two of the former Presidents of the Corporation. The third statue is that of Lord Ripon, a former Governor of Madras. This statue was originally installed at the Round Tana on Mount Road, and recently shifted to the compound of the Ripon Buildings, to be more in keeping with the name of the building.

All these three buildings have been built well away from the margin of the road and with clear open spaces all round. Behind these, lies the People's Park, a large open space in the City which contains ornamental ponds, a good nursery of plants, a fairly representative collection of animals in the Corporation Zoo and a small well-laid-out flower-garden known as 'My Ladye's Garden' where the Corporation holds the annual flower show. In it is also located the South Indian Athletic



TANK IN THE PEOPLES PARK WITH VICTORIA PUBLIC HALL
IN THE BACKGROUND

Association founded for the promotion and organisation of different branches of sports among Indians and Europeans. It has certainly succeeded in fostering a keen interest in sports among its members, and it has been running with a fair amount of success, an annual Carnival or Fair during the Christmas season and thus contributing to the holiday enjoyment of the citizens and of the numerous visitors during that season.

Behind the Moore Market and adjacent to the South Indian Athletic Association is situated the "Ashok Vihar Health and Recreation Centre," the first of its kind in India.

In the undeveloped middle portion of the Park a modern sports stadium to accommodate about 35,000 persons has been constructed and the open areas surrounding it are being developed into a well designed layout of beautiful parks and roads.

On the other side of the Poonamallee High Road, there is the Choultry built by Rajah Sir Ramaswami Mudaliar, a merchant prince of a former generation, and beside it is the Siddique Choultry for the accommodation of Muslims built by the late Nawab C. Abdul Hakeem Saheb, a leading leather merchant and a great philanthropist. Behind these, lies the South Indian Railway line flanked by the tall grim walls of the Penitentiary. Poonamallee High Road leads on from the Ripon Buildings situated near the Perlamettah of old Madras, straight west, on to the Shenoy Nagar,

a housing colony sponsored and built by the Corporation in Aminjikarai just beyond the former western toll-gate of the City and near to the building of the Orphan Asylum. It is lined in its course by the old Gun Carriage Factory which is now utilised for an unimilitary purpose, by the Quaint Gothic School of Arts building, and by the Scotch Kirk. It then leads on through the residential suburbs of Egmore and Kilpauk and is lined on either side by spacious bungalows with deep verandahs.

The chief suburbs in the west of George Town are Perambur, Choolai, Purasawalkam and Vepery. The Mill area is situated in the wedge between Perambur, Vepery and Basin Bridge and the north-western corner of George Town. Originally all this area was a low-lying swamp but a portion of it has been reclaimed and properly drained by the authorities of the Buckingham and Carnatic Mills which were started about 1880—about seventy years ago. Both were founded by Binny and Company which itself is an old Madras firm started by John Binny, an eighteenth century supercargo on an East Indiaman. These Mills employ more than ten thousand hands and have set an example to Indian industry in the conditions of employment that they offer to their workmen. Round the Mills have grown regular lines of workmen's cottages equipped and supplemented with proper open spaces and recreation centres and a few good elementary schools for the benefit of the workmen's children. Near here, in

Pulianthope High Road, is located the Corporation Tuberculosis Clinic.

Vepery and the adjacent Purasawalkam were originally popular as residential quarters for Europeans and Anglo-Indians and even to-day, the former is inhabited by a large number of Anglo-Indians. There are several Churches in this region and the most interesting of these is St. Matthias' Church.

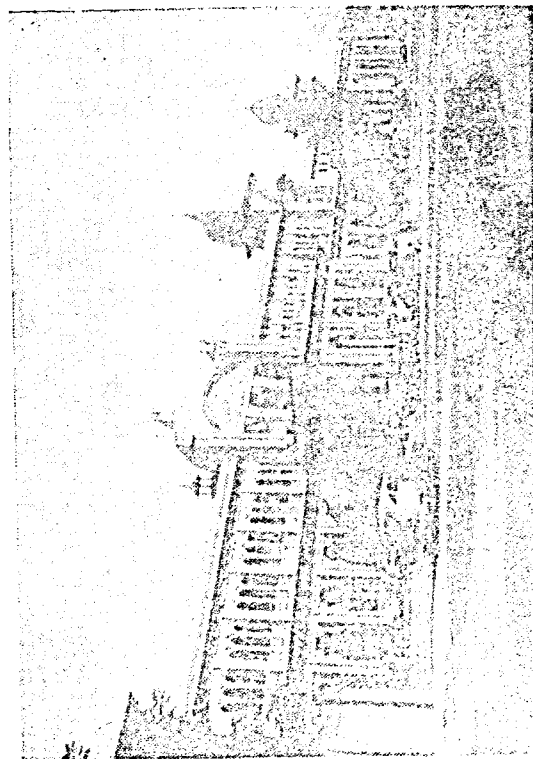
The main roads traversing these suburbs are the Choolai High Road projecting itself through Hunter's Road and going down to Kilpauk and the Road which leads from the People's Park through Periamet to Vepery. Transverse north to south streets are furnished by the Sydenham's Road skirting the People's Park on the west, Rundall's Road leading from the Madras Electric Tramway offices by the side of Poonamallee High Road into Vepery and Ritherden Road. Kilpauk is still a favourite residential quarter of Europeans but contains a good proportion of bungalows of Indians who have come in the last three or four decades to appreciate the advantages of living in garden-houses.

There is yet another weaving and spinning Mill at Choolai close to the Salt Cottans Goods Shed of the M. & S. M. Ry. The extensive workshops of the M. & S. M. Ry. at Ayanavaram and the huge railway colonies have also come within the City limits. In Konnur High Road, is situated the Thiruvatteeswarar Tuberculosis Hospital, a gift by the late Sri T. P.

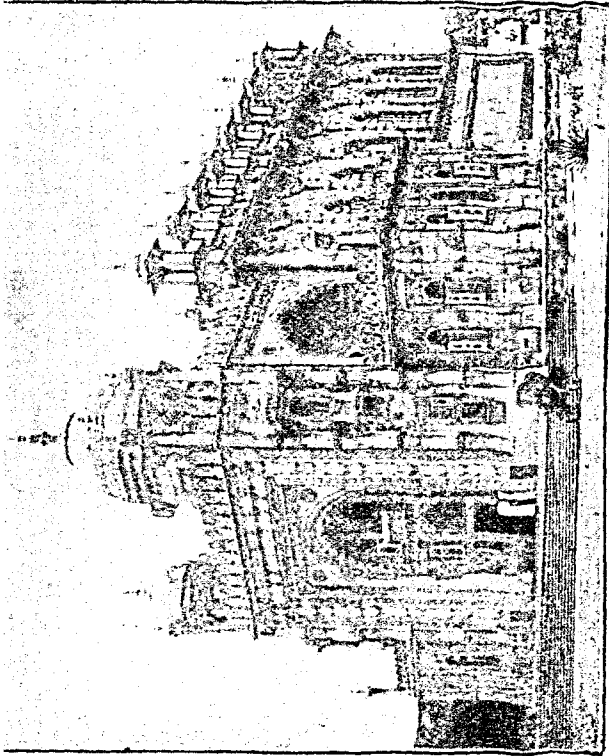
Ramaswamy Pillai, run and managed by the Corporation. The Head Works of the City Water supply are located at Kilpauk.

The South-West Regions.—To the south of the Poonamallee High Road lie the suburbs of Chintadripet and Egmore, while the Spur Tank is wedged in between the latter and Chetput. In Chintadripet, there is nothing much of historical or architectural interest except perhaps its origin which has been detailed in the previous section. Skirting the Cooum on its southerly course, is the Napier Park, named after a former Governor. In Egmore, the chief buildings worth a visit are St. Andrew's Kirk to the north of the South Indian Railway Station which, with its perfect proportions and graceful spire, strikes the eye most attractively. The Kirk is of solid masonry and no timber has been used except for windows and doors. The interior is a fine circular hall surmounted by a dome and the exterior is Ionic and the entrance to the Church is on the west, being supported by a colonnade with fine pillars of the Ionic order. To the north of the Kirk and now separated from it by a road which is designed to carry an overbridge over the South Indian Railway line, is the School of Arts originally started in 1855 and serving as a combined Arts and Industrial School.

The Egmore Railway Station itself was recently rebuilt in the Indo-Saracenic style so freely adopted in Madras, of which the Senate House and the Imperial



EGMORE RAILWAY STATION



VICTORIA TECHNICAL INSTITUTE, EGMORE

Bank buildings are the other most prominent examples. It stands on the property of the Civil Orphan Asylums and faces south, where there are two fine porticos.

On the Pantheon Road (so called because it skirted the old property known as the Pantheon) are situated the Government Hospital for Women and Children, one of the largest of its kind in India, the Central Museum and the Victoria Technical Institute. The Museum is a collection of buildings in an extensive compound, the nucleus of which was known in former days as Pantheon (or Assembly Rooms) wherein Madras society disported itself at the end of the eighteenth century. The old Pantheon has been extended and improved beyond recognition now. It came into Government possession in 1821 and was used as a Land Customs Office and as the Collector's Cutchery. It was later converted into the Museum, to which besides an additional building, the Connemara Public Library and the New Theatre have been added.

The Museum contains departments of Natural History, Comparative Anatomy, Systematic and Economic Botany, Mineralogy and Geology, Industrial Arts, Ethnology, Antiquities and Archaeology. The Ethnological, Industrial and Arts departments as well as the magnificent collection of old arms and implements of war which were removed from the arsenal in the Fort, are housed in the new building to the south of the Connemara Library. This building was originally

intended to accommodate the Victoria Technical Institute founded in commemoration of the great Queen's Jubilee of 1887 but was subsequently handed over to the Museum for the accommodation of its overflowing galleries, while a new and fine structure was built in the adjacent compound for the Institute. These connected buildings of the Museum were constructed in the time of Lord Connemara (Governor, 1886-90) when the noble Library was built according to the design of Mr. Irwin in the Indo-Saracenic style which he much favoured, it was found that there were no books to put into its magnificent alcoves fitted with fine book-cases. Accordingly, the surplus of the Government Secretariat Library was transferred to it as well as the latter's old collection of early Madras Newspapers. The Library has been since steadily added to and facilities have been recently made for lending books to accredited individuals. Till recently, the buildings, accommodated in one wing, the collection of the Madras University Library which has since been housed in the magnificent structure constructed to the north of the Senate House on the Marina.

Before the University Library was formed, the Connemara Library housed, like the hospitable host that it has been, the large and valuable Library of the venerable Madras Literary Society which was started in 1818 and was first located in the Old College Hall and now has got a fine habitation of its own in that compound itself.

The theatre adjacent to the new galleries of the Museum, was first designed as a lecture hall, a rostrum projecting from the stage. It is under the control of the Superintendent of the Museum and can be used for amateur concerts and dramatic entertainments with his permission.

The Victoria Technical Institute is a fine building in which the Mughal style of Northern India is adapted to Madras requirements. It is faced with a pink-coloured sandstone characteristic of Mughal buildings. Its fine gateways resemble that of Akbar's dream-palace at Fatehpur Sikri; and the large hall has a marble floor and a fine ceiling with relief ornament in chunam. Its foundation-stone was laid by His late Majesty King-Emperor George V on the occasion of his visit to Madras as Prince of Wales. The exhibits include historical muslins and printed calicos, fine Madras embroideries, silk scarves, jewellery, brass, copper, ivory and woodwork, rugs, carpets and lacquer work—all being products of the indigenous arts and crafts of the Country.

The Pantheon Road leads on through Anderson Bridge across the Cooum to Nungambakkam which is a principal residential suburb for Europeans and whose Indian village is now becoming increasingly popular. The Old College on the banks of the Cooum was originally so named because, in it was located the College of Fort St. George for the training of Junior Civilians.

The Madras Dramatic Society and the Madras Literary Society used to find a habitation here, but it is now used as the offices of the Director of Public Instruction and of connected educational authorities.

Adjacent to the Old College are the buildings of the Madras Literary Society and the residential institution for women known as the Women's Christian College. On the other bank of the river is the Spur Tank Road and on this is situated the Government Tuberculosis Institute. In between the Spur Tank Road and the South Indian Railway Line, a colony of up-to-date garden houses has sprung up. At the junction of the Spur Tank Road with Egmore High Road is situated the Presidency Training School for Girls. In another part of Nungambakkam a Jesuit institution known as the Loyola College has risen to great prominence and covers a very large area filled with its numerous hostels, residential quarters for professors, and playgrounds.

From the eastern end of the Anderson Bridge a road known as the Commander-in-Chief's Road (so named from its vicinity to the Old Commander-in-Chief's residence which is now the Victoria Buildings) leads on to Mount Road across a bridge (the Commander-in-Chief's Bridge) over the Cooum.

Enclosed between the Pantheon Road, Marshall's Road and the river Cooum, are the villages of Pudur and Komaleswaranpet, the latter being a neat little residential area with a few fine houses. The bridge over

the Cooum leading from Komaleswaranpet to Mount Road is known as the Harris Bridge named after one of the former Governors of the Presidency.

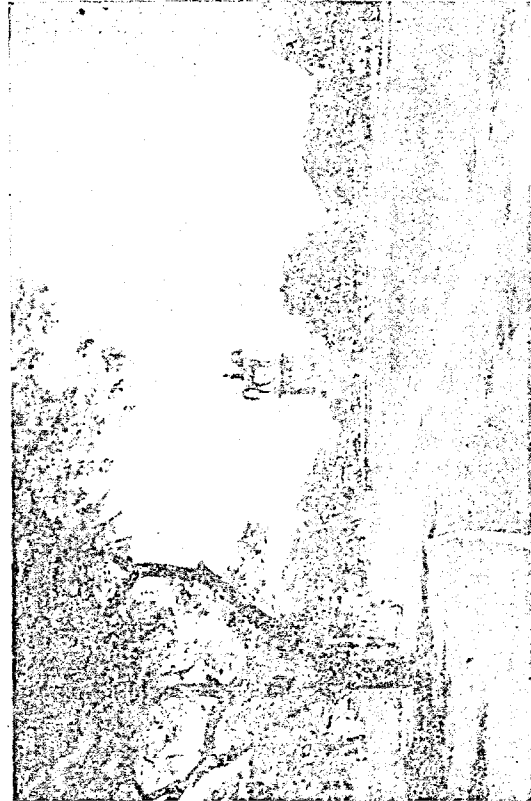
Pudur lies to the south-west of the Harris Road leading from the bridge to the Pantheon Road. It is a congested quarter but on the outskirts of it is located the Government Ophthalmic Hospital originally founded in 1819 and now enjoying a reputation as one of the best hospitals of its kind in the world. West of it is the Police Maidan where police parades are held. A new building has recently risen on the Commander-in-Chief's Road by the side of the Cooum for locating the Masonic Lodges of the City.

Taking our stand once again in the Fort, we can proceed from the Wallajah Gate (so known because of the Wallajah Bastion by its side) across the Island, by a fine road with a treble row of trees on either side. This is the first stage of the famous Mount Road and cuts the Island Ground into two halves. The Island is one of the most important playgrounds of the City. We saw how very early in the history of Madras it was converted into an Island by the cutting of a connecting canal between the Cooum and the North Rivers. The Island was in former times the chief parade ground of the troops in the Fort and in the eighteenth century there stood a powder factory in it. On the western side of the Island are the Government Bus transport offices and a number of cemeteries, including the one called

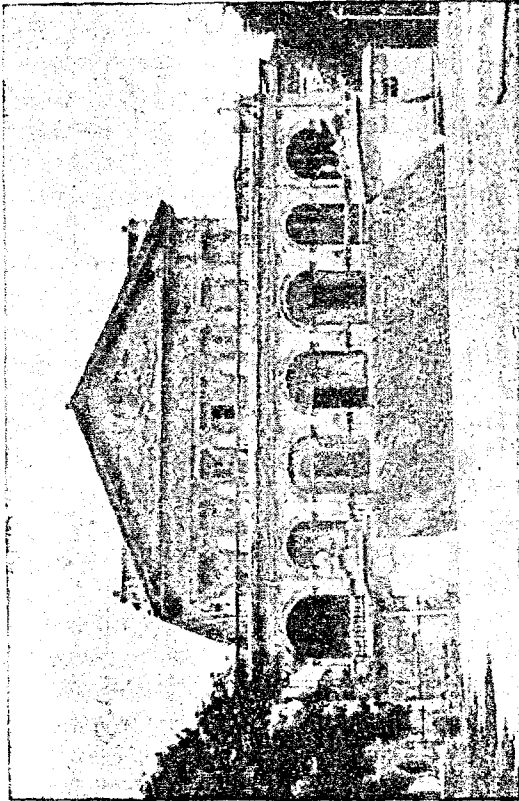
St. Mary's cemetery containing tombs of some well-known persons. The eastern half of the Island is practically under the control of the Madras Gymkhana Club and contains excellent golf-links. It formerly served as the race course and as a Polo ground. Three statues adorn the Island Ground and the Mount Road in this reach ; the famous statue of Sir Thomas Munro on horseback erected on a high pedestal several feet above ground, Justice Bodam's statue at the junction of this road and the Bodyguard Road and that of Lord Willingdon, former Governor of Bombay and Madras and later the Viceroy of India, at the mouth of the road leading to the Gymkhana Club.

Crossing from the Island over the Willingdon Bridge, we come to that portion of the Mount Road which has been more developed and beautified than any other part of the City. The Government House stands at the very entrance to this portion of the road in a spacious park that extends down to Chepauk on one side and to the Wallajah Road on the other. It is a huge dwelling house, built on the plan of the eighteenth century Madras residences. Its acquisition and subsequent extensions were noted in the previous section, as well as the famous Banqueting Hall built in 1802 and used for official levees and receptions.

The Banqueting Hall is a memorial of the English victory at Seringapatam. Its imposing interior is used for all state ceremonies. A fine statue of Emperor



ISLAND ROAD WITH SIR THOMAS MUNRO'S STATUE



RAJAJI HALL (Banqueting Hall)

Edward VII stands at the main entrance to the Government House.

The whole Government House estate including the Banqueting Hall* has been handed over to the Government of Madras in January 1947. The Government House is now used to lodge the Legislators and the other bungalows are occupied by the Ministers and their Parliamentary Secretaries.

Number of excellent paintings that adorned the walls of the Government House, Mount Road, have been removed therefrom and are now housed in the Government House at Guindy. Among them are Coronation pictures of King George III and Queen Charlotte painted about 1761 and a painting of Major Lawrence and Nawab Wallajah represented as walking side by side in the Island of Srirangam witnessing the surrender of French troops in 1752. There is another picture of Nawab Wallajah in the collection, and one of Lord Cornwallis, Governor-General, who personally conducted the war against Tipu Sultan in 1791-92 and who is depicted as standing at the entrance to his tent within which is seen the title of the treaty that was concluded by him with Tipu. On Cornwallis's return from his victorious campaign, the citizens of Madras entertained him and resolved to have his statue

* Renamed as "Rajaji Hall" in honour of the first Indian Governor-General of Free India.

erected. It is this statue that is now seen in the southern end of the Connemara Public Library.

The picture of the Marquess of Wellesley, Governor-General (1798-1805), who came down to Madras to supervise the last war with Tipu in 1799 is also in this Collection. Another noteworthy painting is that of Sir Eyre Coote who assisted Clive in the Battle of Plassey and later destroyed French power at Wandiwash and captured Pondicherry and in the crisis of the great war with Hyder won the victory of Porto Novo and saved Madras. He died in 1783 at Fort St. George and his body was first buried in the Fort Church. A three-quarter length portrait of Lord Clive and one of Sir Arthur Wellesley (later Duke of Wellington) who spent some time in Madras in 1798 may be also seen in the collection.

Numerous paintings of Ex-Governors of Madras find a place in the collection ; among them are the following :—

Sir William Meadows (1790-92) who took part in the Third Mysore War ; Sir George Barlow who was Governor-General and later Madras Governor (1807-12) ; Lord William Bentinck who also occupied both these offices ; the famous Sir Thomas Munro who spent nearly half a century in South India and left his impress upon every department of the administration ; the Marquess of Tweeddale, Governor (1842-48) in whose time the Government Maternity Hospital was established and the old

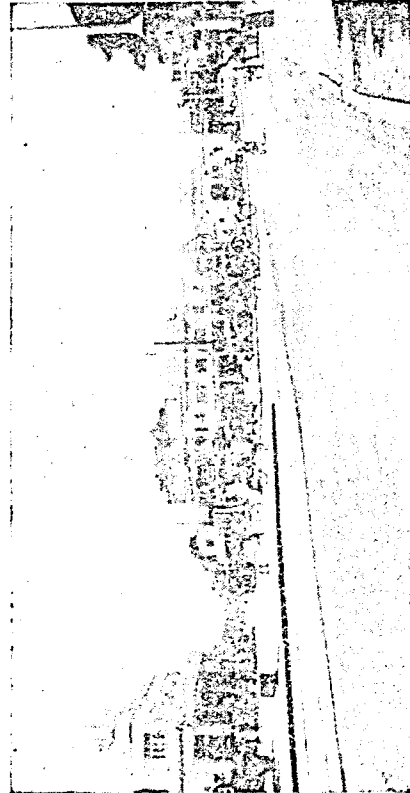
Lighthouse built. Lord Harris, Governor (1854-59) ; Mr. Morehead, Provincial Governor in 1860 ; Sir Charles Trevelyan, Governor (1859-60) who opened the People's Park ; Lord Napier (1866-72) ; Lord Hobart, Governor (1872-75), who opened the Madras Water Works ; his namesake, Lord Hobart, who was Governor in the previous century ; Sir M. E. Grant-Duff, Governor (1881-86) who was a son of the famous historian of the Marathas and displayed great intellectual attainments and in whose time the Marina was constructed ; the Duke of Buckingham and Chandos (1875-80) who commenced the excavation of the Buckingham Canal as a sort of relief work during the great famine of 1876-77 and constructed the Government House at Ootacamund ; Lord Connemara, Governor (1886-90) who started the Public Library bearing his name ; Lord Wenlock in whose time the High Court buildings were constructed ; Sir Arthur Havelock (1886-1900) ; Lord Amptill ; Sir Arthur Lawley and Lord Pentland.

In the Government House collection were included several pictures which originally belonged to the Nawabs of the Carnatic besides one of Shuja-ud-dowlah, the Nawab Vizier of Oudh (1755-1775). There were representations of Nawab Wallajah's sons and successors among these. Some of these pictures were originally hung in the Exchange in the Fort, in the Old Town Hall of the Corporation, in the Fort and in the Old College Hall, Nungambakkam. A portrait of Queen Victoria in the collection was one of three pictures sent out to

the three Presidencies by the Secretary of State in 1862 to mark the transfer of the Government from the East India Company to the Crown.

Mount Road skirting Government House contained once the premises of the famous and reputed firm of Messrs. Oakes & Company with a record of nearly a century and which was absorbed by Messrs. Spencer & Co., Ltd. The premises which housed the showrooms and factory of the Furnishing Department of Messrs. Spencer & Co., Ltd., were purchased by Messrs. Simpson & Co., Ltd., a reputed Motor firm in South India and remodelled to house their factory and show rooms. Next to the Simpson & Co., Ltd., are the new and stately cement concrete buildings—the Kasturi Buildings—which now house the National Press and the office of the "Hindu", a well-established and leading English Daily in the country. To the south of the Kasturi Buildings are the new premises of "The Mail" another leading and well established English Daily and the firm of jewellers known as Messrs. P. Orr & Sons, which was started in 1889 and whose premises form a distinct ornament to Mount Road having been designed by Mr. Chisholm. The building has a handsome clock tower surmounting it; the clock being connected with the Madras Observatory and to which the correct time is signalled hourly.

Near the junction of Mount Road and Wallajah Road, which is a most busy centre and where the first



ROUND THANA, MOUNT ROAD

mile of Mount Road ends, are the commodious premises of Messrs. Bosotto Bros., a leading catering firm of Madras, the Elphinstone Cinema and on the other side of the Road, the fine buildings which once housed the National Press and the office of the "Hindu". Down south on Mount Road and opposite to the Bosottos are the Sri Ram Buildings, and the imposing and elegant premises which some years back housed the famous firm of Messrs. Whiteaway, Laidlaw & Co., and which during the War years has been named Victory House. The latter's frontage has a fine mosaic stone-paved arcade which is unique in Madras. Going further down Mount Road, we pass Christ Church and the adjacent spacious premises of the Cosmopolitan Club, to the Kardyl Buildings which form an imposing and handsome monumental pile occupying an excellent site. The building has three facades and the longest one faces Mount Road. The main facade on the north, in the angle between Mount Road and General Patter's Road, is flanked by two elegant towers on either side standing a hundred feet high and crowned by an ornamental pediment. The business carried on in these buildings by Messrs. W. E. Smith & Co., as Chemists and Druggists has since been absorbed by the giant firm of Messrs. Spencer & Co. Opposite to the Kardyl Buildings were the Lawrence Asylum Press, now used as a branch press of the Government and the premises of Messrs. Higginbothams a long standing book-selling and publishing concern. The founder of the firm

Higginbotham who was for some time the Librarian of the Wesleyan Book Depository started the business in 1844. He was compared in South India to Longmans of Paternoster Row, London.

Down the road, new and elegant structures have been rising up almost every season, contributing to greater dignity of appearance presented by the locality, the finest of which are the spacious headquarters premises of Messrs. Spencer & Co., built in what is called the Modern Gothic Style with the facade broken up into three gables, the ends being surmounted with turrets which add to the general effect. The spacious compound of the Government Muhammadan College* the main building of which is an old garden-house, the neighbouring Connemara and Spencer's Hotels and the fine avenue entrance-road leading to the Madras Club, are among the other attractive features of this locality. Beyond Spencer's premises, Mount Road becomes more a residential quarter broken by patches of crowded tenements which do not fit in with the uniform stately appearance of the Road. At the junction of the Mount Road and Cathedral Road is St. George's Cathedral, built in the second decade of the last century in order to provide a new Anglican Church for the residents of the garden-houses of the Choultry Plain. The Church is an impressive building with a spire 140 ft. high; and the nave and aisles are

* Now known as Madras Government Arts College.

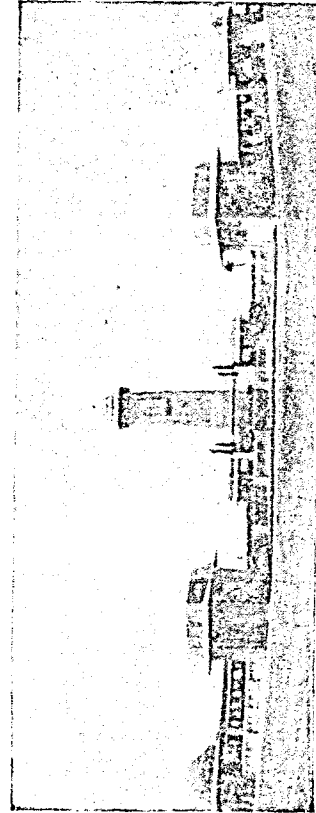
supported by fine Ionic columns of brick and chunam. It contains some fine monuments of which may be noticed those to the memory of Dr. Anderson, a Physician-General who maintained a large Botanic Garden in Nungambakkam, of Bishop Heber who did much for the promotion of the Christian faith and who later died at Trichinopoly and of Dr. Corrie, the first Anglican Bishop of Madras. Adjacent is the grave-yard, an interesting feature about it being that part of its encircling railing is made up of musket-barrels, bayonets, spikes etc., which were taken at the capture of Seringapatam in 1799.

To the west of the Cathedral on the other side of the road are situated the Gardens of the Agri-Horticultural Society started in 1835. They cover twenty-two acres and contain numerous fine flower beds, tanks gay with lotuses of different colours, glass-houses, lawns and groves. The Society holds an Annual Flower Show in February and its nursery garden is on the opposite side on Edward Elliotts Road where seeds, growing plants and flowers may be bought. Further on is the famous Cenotaph of Cornwallis. Opposite to the Agri-Horticultural Gardens and at the junction of Mount Road and the Nungambakkam High Road, are located the Gemini Studios, one of the premier film studios in South India.

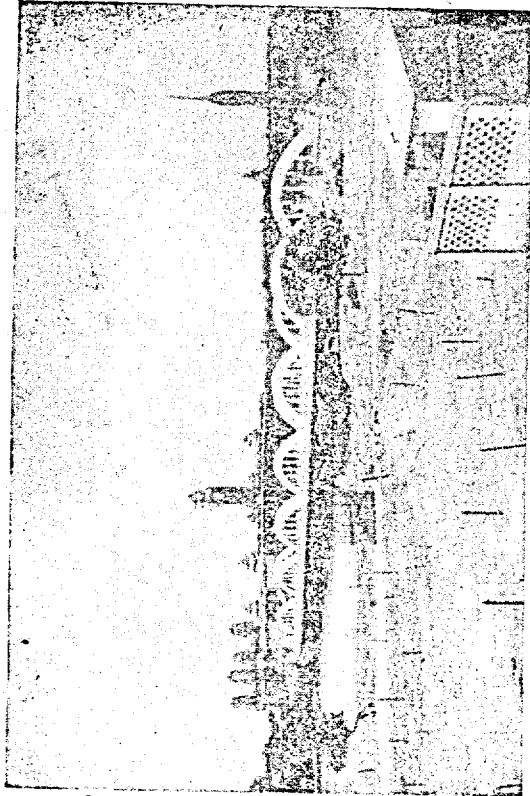
A large portion of the long tank which lay on the right behind an earthen embankment was acquired

by the Corporation of Madras in 1923 as the first practical step towards expanding the City. This area occupying about 2 sq. miles, lying to the south of Nungambakkam and to the west of Mount Road and extending up to the Railway lines near Saidapet is named 'Theagaroyanagar' after the late Sir P. T. Thegaroya Chettiar, one of the eminent Presidents of the City Corporation. With its proximity to the S.I.Ry. line and a regular and efficient bus service connecting it with important parts of the City, it has developed into a popular and fashionable residential locality. There is a well-laid out Park named "Panagal Park" after the late Rajah of Panagal, who was the Prime Minister of the province under the pre-1935 Government of India Act. The important roads that converge on the Panagal Park from Mount Road are Diwan Bahadur Sir Gopathy Narayanaswami Chetti Road, Sir Theagaroya Road and Diwan Bahadur Venkatanarayana Road. All the residential houses are constructed on modern lines with open spaces all round, by citizens who no longer cared to live in the other congested parts of the City. This addition to the City has to some extent relieved congestion but not to the extent that is necessary and desirable.

The new areas to the west of the S.I.Ry. line with the exception of Saidapet and Kodambakkam and Saligramam villages are mostly undeveloped.



VICTORY MEMORIAL, MARINA



NAPIER BRIDGE WITH UNIVERSITY BUILDINGS IN THE
BACKGROUND

A little lower down along Mount Road to the left is the former Military Grass Farm. Passing the Madras Kennels, the office of the Collector of Chingleput and the Teachers' College, Saidapet, the Mount Road crosses the Adyar River by the historic Marmalong Bridge and continues further southwest crossing the S. I. Ry. line by an overbridge north of the Guindy Railway Station and new city limits at Kathipara south of it. Immediately to the south of the Marmalong Bridge is a statue of the late Emperor King George V.

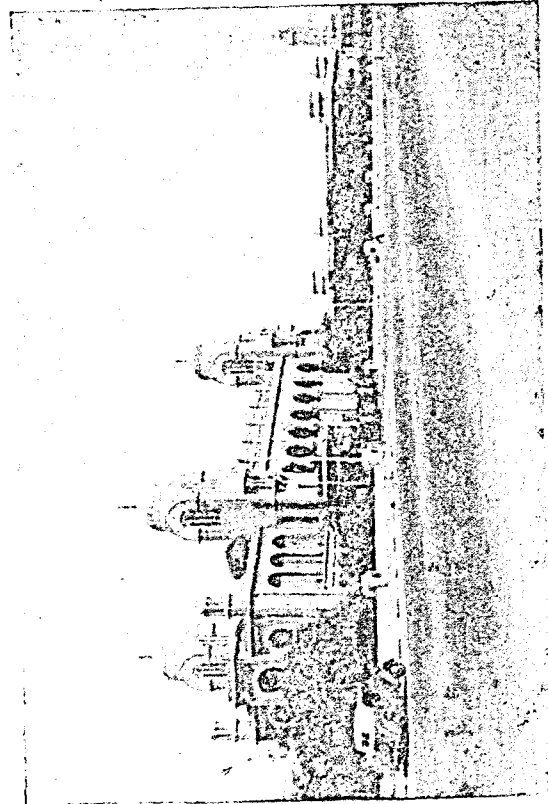
The Southern Regions.—Taking our stand once again at the Fort and proceeding south along the Marina the first landmark is the Victory Memorial located on the Marina between Fort St. George and the Napier Bridge* at the point called Cupid's Bow. This was the outcome of the labours of an influential committee of the citizens of Madras formed with the object of commemorating Victory of the allied armies in the war of 1914-18. In 1936 the Victory Memorial Committee handed over to the Corporation of Madras the Memorial along with an endowment of Rs. 50,000 for the proper maintenance thereof. It is now under the care of the Corporation. Memorial services on Armistice Day† are held here.

* Or more popularly known as Iron Bridge which has since been built anew with cement concrete.

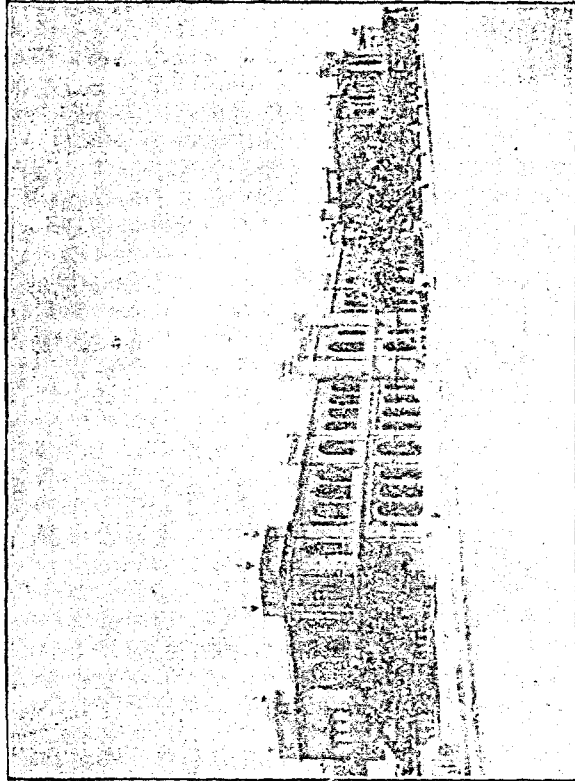
† 11th of November each year.

A statue near the Victory Memorial buildings was recently erected to perpetuate the reign and name of the late King-Emperor George V.

Skirting the Marina which begins from the imposing Napier Bridge on its west, there comes first the stately University Buildings, in which is housed the University Library. To the east of the University buildings and facing the Marina is the recently erected statue of Sir A. Lakshmanaswamy Mudaliar, the renowned gynecologist and obstetrician, and the present Vice-Chancellor of the University of Madras. The Senate House which comes next, was finished in 1879. It is built in the Indo-Saracenic style according to the design of Mr. Chisholm. Its great hall is raised on a basement floor. The Syndicate room on the north is ascended by a fine double teakwood staircase and is adorned with a number of paintings of several persons connected with the growth of the University of Madras, like Dr. Miller who was its Vice-Chancellor for some time. To the south of the Senate House is a beautiful bronze statue of Queen Victoria under a canopy which was donated by Raja Gajapathy Rau as a Jubilee memorial in 1887. In the garden to the east of the Senate House facing the Marina, are bronze statues of Mr. V. Krishnaswami Iyer, an eminent lawyer and politician who rose to be a member of the Executive Council, and the great Mr. G. K. Gokhale. On the northern side facing the new University Buildings, there is a statue



SENATE HOUSE MARINA



PUBLIC WORKS DEPARTMENT SECRETARIAT, MARINA

of the late Dr. Sir S. Subramania Iyer, the first Indian Vice-Chancellor of the University of Madras.

The Chepauk Palace is now used for accommodating the offices of the Board of Revenue, the Public Works Department and some other newly created war-time departments. The tower between the northern and southern blocks of the Palace was erected by Mr. Chisholm. The portion occupied by the Board of Revenue which contains the Durbar Hall of the Nawabs is the most distinctive piece of Moorish architecture in the City and, in the opinion of some, is the finest building in Madras. To the rear of the Senate House and the Chepauk Palace runs the Buckingham Canal which, in fact, cuts up the whole of the Chepauk Park into two halves. The garden of the Government House runs up close to the canal; and on the southern side is the finely laid out ground of the Madras Cricket Club which has got a comfortable pavilion. To the south of the P. W. D. buildings are the grounds of the Presidency College which is a handsome and imposing structure built in the sixteenth century Italian Renaissance style and surmounted by a curious central dome (reconstructed recently) underneath which is a fine marble statue of Mr. E. B. Powell, one of its former Principals and a pioneer of western education in the country. The Presidency College building has been recently extended by the construction of costly up-to-date laboratories. The college is considered to be one

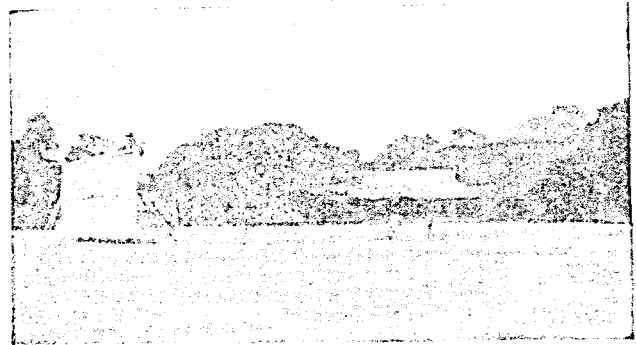
of the leading model educational institutions in the country. Within the Presidency College Compound and facing the Marina is the recently erected statue of late Mahamahopadyaya Swaminatha Iyer, the renowned Tamil Scholar and one-time Tamil Pandit of the College.

On the opposite side of the Marina and facing the Presidency College are the popular Corporation Swimming Pool and the Marina Canteen.

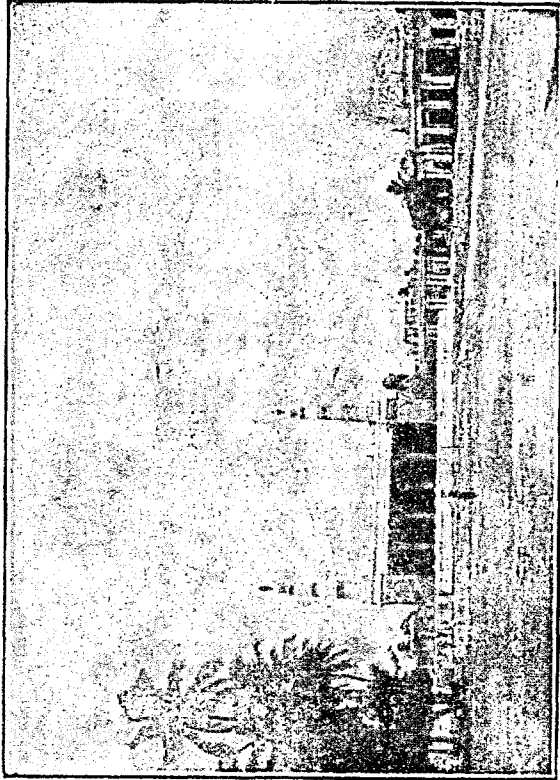
To the west of the Presidency College but separated from its grounds by the Buckingham Canal, is the Victoria Students' Hostel originally built with the assistance of Government to provide a home for students attending the numerous colleges in the southern portion of the City. Part of the Hostel Blocks is dedicated to the memory of Professor P. Ranganatha Mudaliar, an educationist of great reputation of the last century. To the west of the Hostel is the Victoria Caste and Goshia Hospital for Women and Children.* The block of buildings in the Chepauk Park including the Presidency College occupies the area from the Wallajah Road to the head of the Pycroft's Road, which is the main thoroughfare running west through the heart of Triplicane.

Triplicane is a rather crowded suburb and owes its fame and popularity to its ancient Sri Parthasarathy

* Recently renamed as Kasturba Hospital for Women and Children.



M. C. C. PAVILION, CHEPAUK



BIG MOSQUE, TRIPPLICANE

Temple. The temple has a tank in front of it, faced with fine stone steps. It contains some particularly fine carvings and images of which the most notable ones are the representation of Sri Krishna with his consort Rukmani and his brothers Balarama and Satyaki located in the inner shrine. The figure of Sri Parthasarathy, *i.e.*, Sri Krishna, is scarred with arrow wounds that he received in the epic battle of the *Mahabharata* when he helped Arjuna and drove his chariot. Tirumangai Alwar, one of the twelve Vaishnava saints whose date is ascribed to the eighth century, sang of this temple as having been founded by a Pallava monarch. It was later on endowed by Chola and Pandya kings; but their inscriptions were misplaced and scattered in the course of its renovation in Vijayanagara times. From internal evidence it appears that the temple was restored by a pious citizen in 1564 A.D. There are fragments of tombstones in Roman characters which are found near the "Garba-griha" (sanctum sanctorum) where the image of the deity is installed. Their presence in this place is unaccountable.

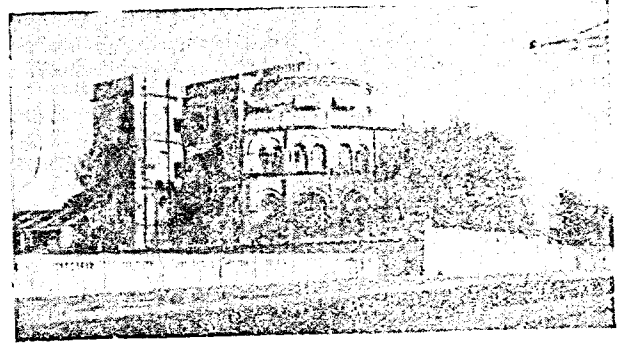
There is also a big Mosque in Triplicane the biggest in the city with a spacious open space to which all the Muslims come to pray on all important days.

To the south of Pycroft's Road are situated the playgrounds of the Presidency College and the pavilion which is the provincial headquarters of the Boy Scouts movement standing in what is known as Lady Wen-

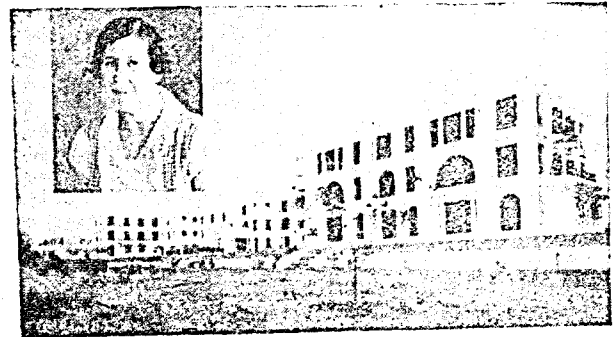
lock's Park. After an open stretch, dotted with ruined sepulchres behind which is a fisherman's Kuppam, we come to the peculiar structure known as the Ice House which is now used as a home for widows and whose vaults were originally intended for the storage of natural ice brought by sea.

Close by it on the west has risen the Government College for the training of women teachers, named after Lady Willingdon, who was once Vicereine of India. Again there is a stretch of ground marked by a fishing village till we come to the gleaming group of buildings known as the Queen Mary's College for Women. Main roads, parallel to the Pycroft's Road, start west from Ice House and from the northern and southern bounds of the Queen Mary's College compound and they are respectively known as the Ice House Road which has been renamed 'Dr. Besant Road' by the City Council, which forms the southern limit of Triplicane town, Lloyds Road which runs on and meets Mount Road near the Cathedral and Edward Elliot's Road which runs on through the Cathedral Road to Nungambakkam.

To the south of Edward Elliot's Road, we have, facing the Marina, the offices of the Inspector-General of Police, a little to the south of which the Marina ends. The road continuing it, is known as the San Thome High Road being an old street that ran north to south through the San Thome Fort of the seventeenth century.

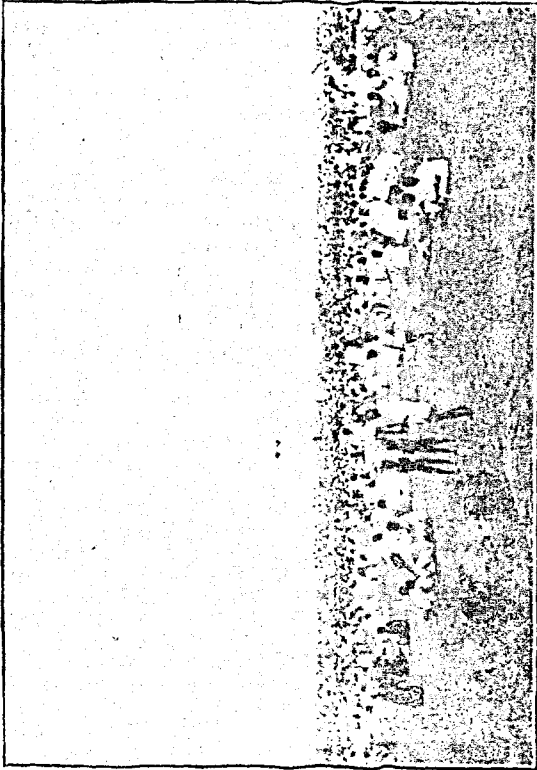


WIDOWS HOME, MARINA



QUEEN MARY'S COLLEGE, MARINA

TRIPPLICANE BEACH



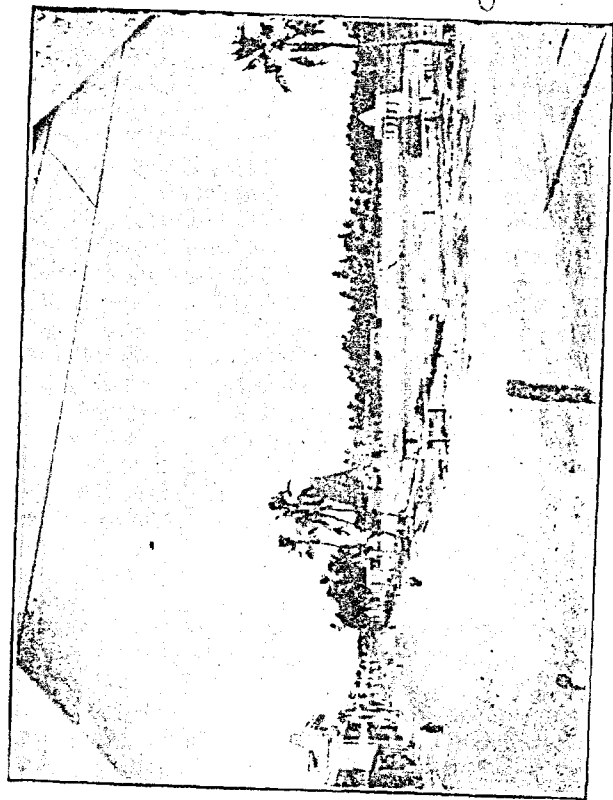
The most important object of interest to the visitor in the locality is the San Thome Cathedral. The nucleus of the Church is said to have existed from very early times. It was at first under the control of Nestorian Christians from Persia and came into Portuguese possession when they settled at the place in 1552. It was when the Portuguese were re-building the old Chapel, that they stumbled upon the grave of Apostle Thomas and then they built a small church which became a Cathedral on the creation of a separate bishopric for San Thome by the Pope in 1606. This Church was subsequently enlarged, but was demolished to give place to the present Gothic Cathedral which was built in 1893. About the same time the Apostle's grave was beautified and its fosse was faced with marble in order to enable pilgrims to have access to the bottom of the grave and celebrate Mass over it. The Cathedral has a very long and high nave and a transept and sanctuary beyond. The transept is adorned with stained glass windows and in the sanctuary there is a large three-panelled window of stained glass in which St. Thomas is represented as placing his finger on the wound on Christ's side. The ceiling is vaulted and groined and a lot of beautiful relief work adorns the arches. The tower carries a high steeple and contains three storeys. There are several churches worthy of note and of some historical interest in San Thome, among which mention may be made of the Rosary Church, built in 1635, the Luz Church which is of a

much earlier date and is situated about a mile to the west and the Churches of St. Lazarus and Madre de Deus towards the south.

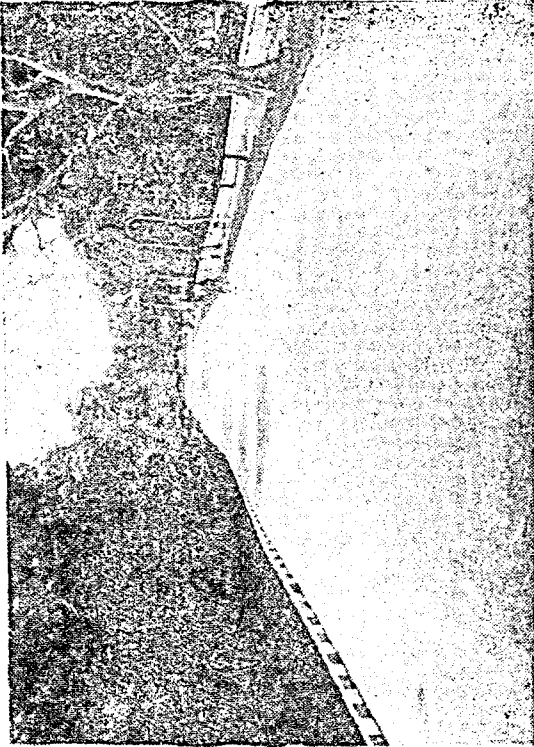
To the west of San Thome and practically continuous with it is the town of Mylapore centred round the ancient Temple of Sri Kapaleswarar.

The legend of the origin of the place is that Goddess Parvati took the form of a peacock and worshipped Lord Siva in order to obtain deliverance; it is commemorated in a beautiful sculpture in the north *prakara* (corridor) of the temple. Another interesting representation is in a shrine in the west courtyard of a miracle performed by Saint Gnanasambanda who restored out of her bones a cremated Chetty girl to life by chanting a lyric in praise of the God. There are fine bronze statues of the sixty-three traditional Saiva *Nayanars* in whose honour a grand festival is conducted annually. A few yards to the north side of the Kapaleswarar Temple is a shrine dedicated to Tiruvalluvar, the author of the famous *Kural* who spent his last days at this place. There is also preserved in the temple a metal image of this personage. The memory is likewise preserved within the temple of the Tamil poetess *Aravay*, noted for her pithy sayings of wisdom; she is supposed to have been raised to heaven by God Ganesa.

Mylapore is an important place in Vaishnava, Saiva and Jain traditions and the Vaishnava Saint Peyalwar is connected in popular tradition with a sacred well



SRI KAPALESWARAR TEMPLE AND TANK, MYLAPORE



CATHEDRAL ROAD REFORMED BY COLD-MIX PROCESS

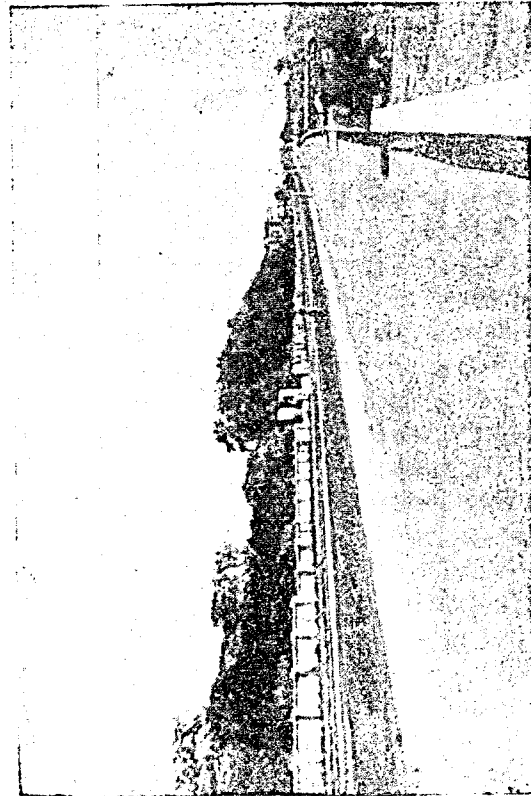
in the place. It is the favourite residential quarter of wealthy persons including a number of high officials and advocates. The beautiful Car Streets running round the temple and the ornamental tank to the west of it are lined with substantial houses, while the Luz Road leading from the Cutcherry Street to the Luz Church and beyond to Mowbray's Road, is lined with fine bungalow-residences.

San Thome stretches southwards over swamps and open spaces interspersed with large garden-houses to the Adyar River which is crossed by the Elphinstone Bridge. On the southern side of the Adyar is situated the International Headquarters of the Theosophical Society covering 266 acres of land extending along the river to the sea. There are more than sixty buildings and the gardens contain many rare and imported trees and plants, pleasant walks and fine views, making it one of the most beautiful park-like estates in South India. The great Banyan Tree in the Society is said to be one of the three largest in the world, measuring from North to South 200 ft. and from East to West 160 ft. The Society's Great Hall with symbols on the walls depicting the Great Religions of the World; the shrines of the various Religions built on the grounds of the estate and the famous Adyar Library attract thousands of visitors all the year round. Towards the west and south-west of the Theosophical Society is the Gandhi Nagar Lay-out located in the place formerly called Elliots Gardens. It is a garden city modelled

on the modern neighbourhood unit plan and built by the Madras Co-operative House Construction Society.

From San Thome to Fort St. George runs the broad Marina along the sea front for more than two miles. Sir M. E. Grant-Duff, Governor (1881-86) who constructed it, gave it, from old Sicilian recollections, the name of the *Marina*. The resemblance was brought home to him, when, as he was walking along the fine promenade with an Italian visitor General Saletta the latter suddenly said to him, '*On se dirait a Palerme*'. This is the favourite evening resort of hundreds of men, women and children to escape the stuffy atmosphere of congested residential houses.

Coming back to the Mount Road the visitor is led down the Cathedral Road which at the corner of Sullivan's Gardens, joins Mowbray's Road. This fine shaded avenue is—or at least was till recently—one of the most beautiful roads of Madras shaded by umbrageous trees for the greater part of its length. It runs south and separates Teynampet from Mylapore and the Luz and continues on to the famous Mowbray's Gardens now used as the Adyar Club, which is a fine house situated in the midst of a park bounded on the south by the Adyar River. The park is rhomboidal in shape and the house is built near the crossing of the diagonal lines. A peculiar feature is that a small dome rises above the central hall with open sides above the roof which acts

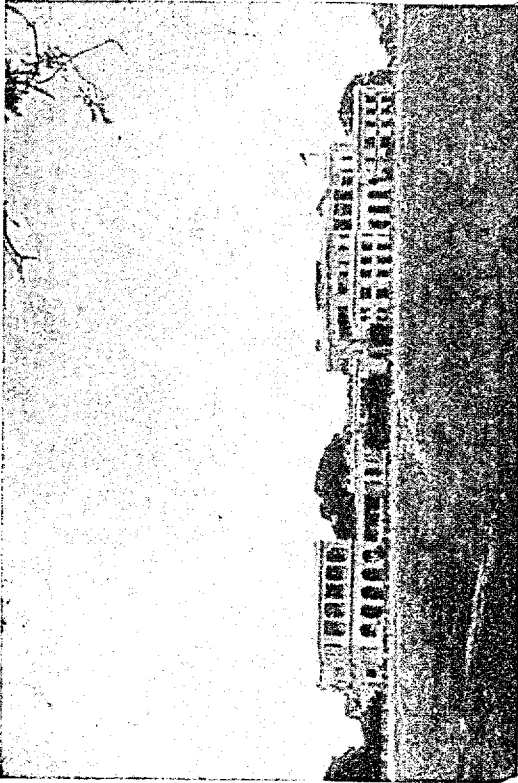


MARINA

as a ventilator and gives a distinctive appearance to the building.

All along the banks of the Adyar are situated fine old garden houses of which the most ancient and spacious is Brodie Castle, built on the bank of what is known as Quibble Island—'It being no better than a quibble to call it an island.'

The Beach south of the Theosophical Society is called the Elliot's Beach, a favourite resort of bathers. Starting here and running due west joining Mount Road is the Elliot's Beach Road. To the north of this road are the extensive grounds of the College of Engineering and the College of Technology of recent origin and to the south is the large estate of the Government House, Guindy, which is now the residential headquarters of H. E. the Governor.



GOVERNMENT HOUSE, GUINDY

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CITY OF MADRAS

OFFICIAL HANDBOOK

1950

SECTION II

EVOLUTION OF CIVIC ADMINISTRATION

I. INAUGURATION OF THE CORPORATION

One of the most important events during the Governorship of Yale was the institution of a Mayor and Corporation for the City of Madras. The importance of the creation of a Corporation for Madras, which is the earliest of its kind in British India, has not been sufficiently stressed by historians. The originator of the scheme was Sir Josiah Child, the masterful and imperious Governor of the Court of Directors, who had already made the fire and vigour of his pen felt by the Madras Council.

The idea of a Municipal Government of Madras was taken by Child from the Dutch Government in the East Indies. In the general letter to Madras dated the 28th September 1687, Child detailed a plan for the formation of a Corporation composed of Englishmen mixed with a few Indians for good measure and equipped with a regular Mayor, Aldermen and Burgesses, a Recorder and a Town Clerk and armed with power to decide petty cases and to levy rates upon the inhabitants for the building of schools, of a town hall and a jail.

Child was particular that the Court of Aldermen should be composed of three English Freemen, three Portuguese and seven Moors and Hindus and that the Mayor, Aldermen and Burgesses should, before they entered upon their offices, take an oath to be true and

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- I. INAUGURATION OF THE CORPORATION.
 - II. EVOLUTION OF MUNICIPAL ADMINISTRATION.
 - III. CONSTITUTION OF THE COUNCIL AND THE CORPORATION AUTHORITIES.

faithful to the English King and to the Company ; and that the three English Aldermen should always be servants of the Company. Conservancy and Public Health were not thought of in those glamorous days.

In this elaborate letter Child invited the Madras Governor and Council to offer their own suggestions to his draft scheme. But yet within three months of his first letter, he and the Deputy President of the Company had an audience with King James II, and it was decided at this audience to send out a ready drawn Charter under the Company's seal for the formation of the Madras Corporation ; and along with this Charter, which was issued by the Company on the 30th December 1687 were sent out the Maces and the Sword together with orders that the Corporation should be immediately started. " Our Town of Fort St. George commonly called the Christian town and City of Madrassapatam upon the coast of Coromandel in the East Indies and all the territories, thereunto belonging, not exceeding the distance of ten miles from Fort St. George to be a Corporation under us by the Name and Title of the Mayor, Aldermen and Burgesses of the Town of Fort St. George and the City of Madrassapatam " was the heading of the Charter. There were to be twelve Aldermen and sixty Burgesses. Mr. Nathaniel Higginson, Second in Council, was nominated the first Mayor. Three other English members of the Council, three Portuguese merchants, three Jewish merchants—there was a fair

sized Jewish colony in Madras at that time—and three Hindus were nominated Aldermen in the Charter itself. These latter were Chinna Venkataadri, the younger brother of Beri Timmana, whom he succeeded in the office of Chief Merchant, Mooda Verona who was also Chief Merchant for some time and Alangatha Pillai who was the builder of the Ekambareswarar Temple in Mint Street. A new Mayor was to be elected on the 29th of September every year ; and the Charter itself was to come into force from the 29th September 1688. The Mayor and Aldermen were to be a Court of Record and the Mayor and the three Aldermen were to be Justices of Peace. The Judge of the Supreme Court of Judicature that was created was to be the Recorder of the Corporation and a Town Clerk who was also to be a Notary was to be elected.

On the appointed date, 29th September 1688, the Corporation was inaugurated with all due solemnity, the Mayor and others taking their respective oaths. After lunch, towards three in the afternoon the whole Corporation marched in their several robes, the Aldermen in scarlet serge gowns, and the Burgesses in white China Silk, with the Mace carried before the Mayor in procession to the Town Hall.*

* Inauguration Day of the Corporation was, for the first time celebrated in a fitting manner in 1944, during the Mayoralty of Dr. Syed Niyamathulla, on 29th September—the day and month on which the Corporation was first inaugurated under the Royal Charter.

Mr. Higginson served only six months as Mayor and resigned. He was succeeded in his office by Mr. Littleton. The Corporation soon complained that they had no revenues or funds for carrying out the works expected of them, such as the construction of a Town Hall, School house, etc. The Council gave them the right to collect the existing petty taxes of paddy toll, measuring and weigher's duty and brokerage paid by the Town brokers. But these sources of revenue were applied to other objects than those which the Corporation specified and there arose a quarrel between the Governor and the Mayor's Court. Governor Yale had meanwhile quarrelled with several of his Councillors, some of whom were Aldermen and he proposed to withdraw these taxes from the purview of the Corporation. These differences were supplemented by other causes of quarrel between the Governor and the Mayor's Court. Under the Charter there was a right of appeal from the Mayor's Court to the Court of Admiralty. But since the latter Court became extinct in 1689, the Mayor's Court held that its own decisions were final. Yale objected to this and the quarrel was made the bitterer on this account.

In 1692 the Company complained that there were, as early as 1690, as many as eight English Aldermen in the Corporation and desired that the body of Aldermen should be composed of the heads of several castes like the Armenians, the Hebrews, the Portuguese, the Hindus and the Moors.

Corporation Reorganised (1727).—In July 1727 the Corporation was reorganised. It was to be composed of the Mayor and nine Aldermen, of whom seven were to be Britishers. They were to form a Court of Record and were authorised to try all civil cases. The Sheriff was to execute the processes of the Mayor's Court. The next great stage in the growth of the Corporation came in 1753. Shortly after, Madras came once again to be the seat of the Presidency.

II. EVOLUTION OF MUNICIPAL ADMINISTRATION

Municipality.—A Parliamentary Act of 1792 finally gave the Company the power to levy municipal taxes in the City and it was resolved to order an assessment of 5 per cent to be collected from the inhabitants, on the estimated annual rents of the houses. It was now that the town-cleaning duties were entrusted to the officers known as Surveyors and Collectors, under whom conservancy work was to be done by contract. Municipal administration proper, proceeded thus from the Parliamentary Act of 1792 containing a clause, making provision for the good order and administration of the towns of Madras, Bombay and Calcutta. This empowered Justices of the Peace to make arrangements for the care of the streets, to collect the assessment and to license the sale of spirituous liquors. This is the commencement of the Madras Municipality proper, differing

from the Mayor and the Corporation who were almost purely judicial functionaries. A subsequent Act of 1836 of the Government of India, imposed the condition that the Municipal assessment should have the approval of the Governor-in-Council. A subsequent Act of 1841 sought to give a greater latitude of action and a reality of Local Self-Government to the City. According to this rate-payers of particular sections of the City were empowered with the assessment, collection and management of the rates of their own divisions. In 1856 another Act passed for the conservancy and improvement of the Presidency Cities, abolished the Bench of Justices and appointed three Commissioners who formed a body corporate with the title of Municipal Commissioners. The Act also provided for increasing maximum tax on houses and land from five to seven and a half per cent and also for a tax on all carriages and carriage animals. The Madras Act IX of 1863 empowered the addition of three Honorary Members selected from among the inhabitants of the City to aid the three Commissioners. Power was now given to tax trades and professions and to collect tolls on carriages, carts and animals on their entering the Municipal limits. The Madras Act IX of 1867 introduced a radical alteration in the constitution of the Municipality. It divided the City into eight wards, each of which was represented by four Commissioners nominated by Government from among the residents. There was an Executive Officer who presided over the

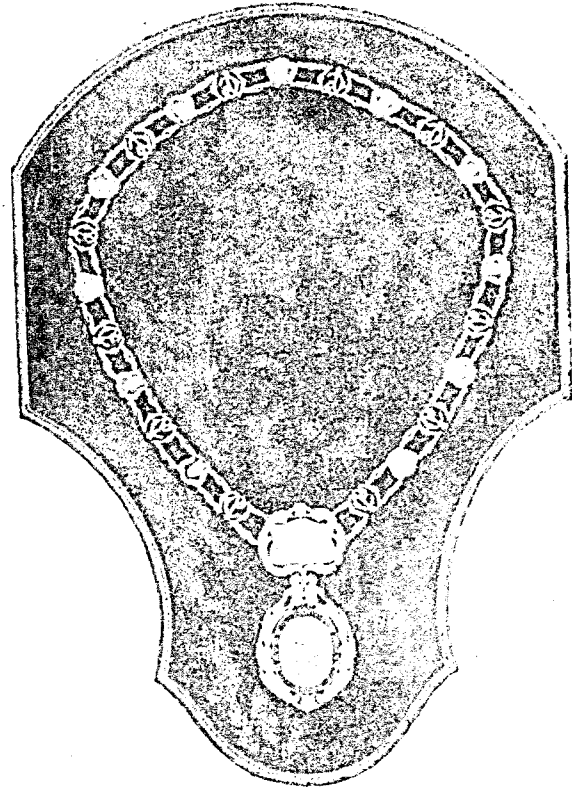
Council of the Commissioners, and the Commissioners in Council were empowered to modify and pass the annual budget. This Act arranged for the systematic registration of births and deaths and defined the purposes on which Municipal funds might be spent. But it excluded from the purview of the Municipality the maintenance of the Police. This Act was superseded by Act V of 1878 which provided that sixteen out of the thirty-two Commissioners should be elected by the rate-payers. Provision was made for the appointment of a Special Sanitary Officer; and in order to raise additional income for meeting expenditure on drainage, it was provided that a water tax not exceeding four per cent and a lighting tax not exceeding two per cent should be added to the existing house and land tax.

The Municipal Law of the City was revised by another Act of 1884 regulating drainage and providing for the prevention of infectious and dangerous diseases. A supplementary Act of 1892 created the posts of the Revenue Officer, the Health Officer and the Engineer. The next important Act was that of 1904. It raised the number of Commissioners from thirty-two to thirty-six and allowed the Madras Chamber of Commerce and other bodies to elect eight Commissioners. It provided for the election of a Standing Committee, converted the water tax into a water and drainage tax and raised it from four to six and a half per cent. Act IV of 1919 divided the City into thirty divisions, raised the number of Commissioners, now designated as Councillors, from

thirty-six to fifty and increased the number of elected Councillors from twenty to thirty, one Councillor for each division. It raised the number of Standing Committees from one to four, converted the President into the Commissioner and vested him with executive powers; it also extended to women the franchise and the right to stand as candidates at Municipal elections. It also empowered the Corporation to levy all taxes without the sanction of the Government, as laid down in Act VII of 1904. The Madras City Municipal Amendment Act of 1933 changed the designation of the President into that of Mayor.

In order to symbolise the high standing, dignity, impartiality and freedom from party influences or associations of the first Citizen of the City, the Council at its meeting held on the 12th April 1933 resolved that the Mayor should have two sets of gowns, one for ordinary wear during Council meetings and another for special and ceremonial occasions.

At the time the Mayor attends the Council meetings he wears the ordinary gown made of black silk or material, with gold lace border one inch broad and white bands. On special and ceremonial occasions he wears a gown made of velvet or other similar material of Fushi shade with a gold lace border two inches broad. The head-dress for the Mayor is a lace turban of the Hindu or Muslim type or a three-cornered hat of black velvet with gold braid cloth over it or a tarboosh.



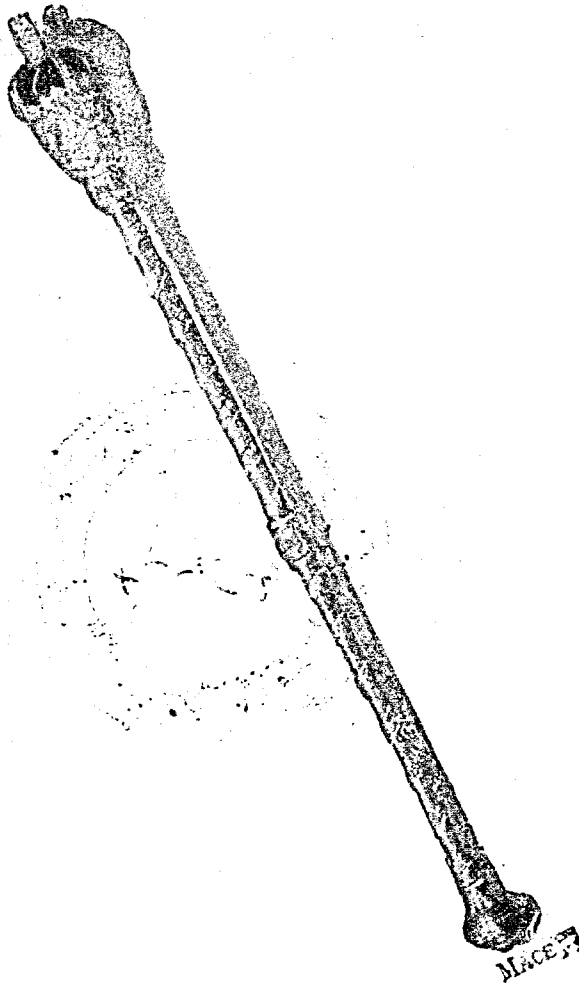
MAYORAL CHAIN

A gold chain with a badge is provided for the Mayor to be worn by him on special and ceremonial occasions. The crest of the Corporation with the words "Mayor of Madras" is in the badge and in the centre of the chain there is a block of the Ripon Buildings (the buildings where the offices of the Madras Corporation are located) embossed with the words "Ripon Buildings, Corporation of Madras."

A Mace with the crest of the Corporation is also provided. An ornamental special chair with a canopy serves as the Mayor's chair.

The Madras City Municipal Amendment Act of 1936 which came into force on 21st April 1936 divided the City into forty divisions, raised the number of Councillors from fifty to sixty, provided for election of five Aldermen of whom one should be a woman. Provision for the appointment of Special Councillors not exceeding three at a time by the Local Government was made. Provision for the election of a Deputy Mayor from among the Councillors was also made. The Act raised the number of Standing Committees from four to six and also provided for the formation of a Committee for dealing with Taxation Appeals. It also authorised the levy of a graded tax on properties and the levy of a tax on Advertisements in addition to the taxes authorised in the original Act.

Other changes introduced by the Amended Act are of considerable importance, both in the way of improv-



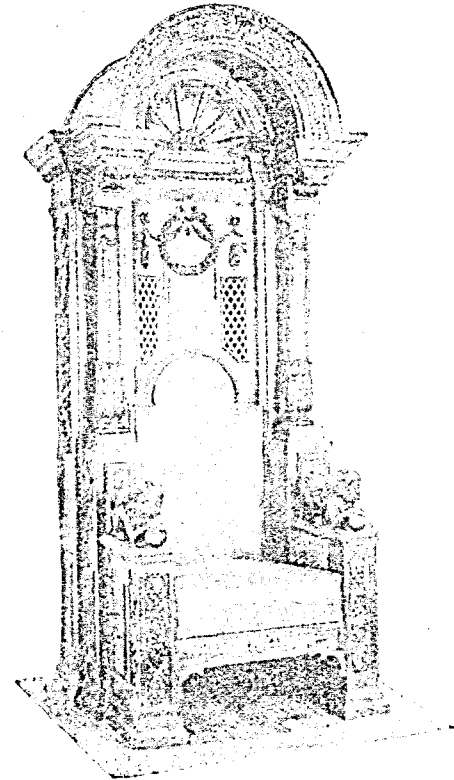
ing the amenities of the City and its general sanitation. Special provisions have been incorporated in the Act with a view to enable the Corporation to exercise necessary and effective control over owners of slum areas of the City for the purpose of ensuring the sanitation of cheris and the provision of necessary amenities thereto. The Commissioner and the Standing Committees are empowered for effectively dealing with insanitary cheris and hutting grounds which are the root causes for heavy mortality rates in the City. The Amended Act provides for the appointment by the Council of an Electrical Engineer, a Water Works Engineer, and an Educational Officer who will also be Heads of Departments working under the Commissioner along with the other Heads of Departments under the original Act.

Madras Act No. VI of 1947 further amended the Madras City Municipal Act of 1919 by dividing the City into fifty territorial divisions, increasing the strength of the Council to eighty-five and reserving seats in the Council for certain communities and for women.

III. CONSTITUTION OF THE COUNCIL AND CORPORATION AUTHORITIES

The Municipal Authorities charged with the civic administration of the City under the provisions of the Madras City Municipal Act, are :—

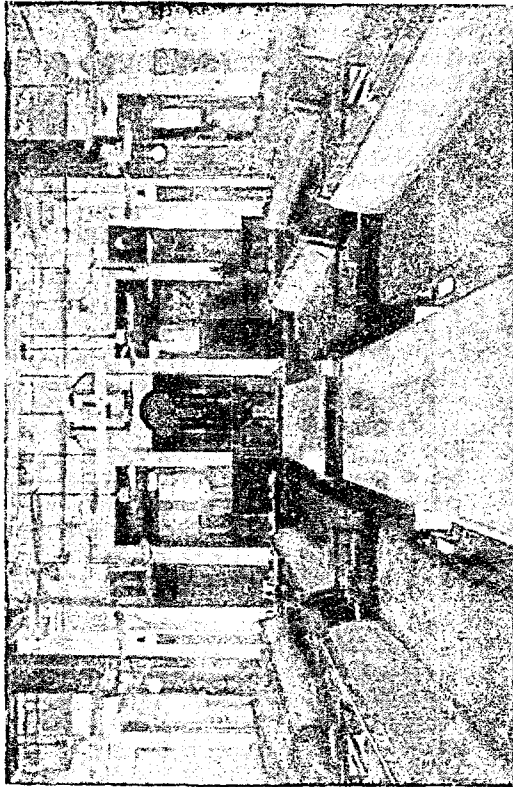
(1) A Council.



MAYORAL CHAIR

- (2) Standing Committees of the Council, and
- (3) A Commissioner.

The Council consists of eighty-five members of whom fifty are elected to general seats, five to seats specially reserved for members of the Scheduled Castes, four to seats specially reserved for Muslims, two to seats specially reserved for Indian Christians, one to a seat specially reserved for Anglo-Indians and four to seats specially reserved for Women and four to seats specially reserved for Labour. Eight Councillors are elected one each by the members of the Madras Chamber of Commerce, the Madras Trades Association, the Southern India Chamber of Commerce, the Andhra Chamber of Commerce, the Muslim Chamber of Commerce, the Nattukottai Nagarathars' Association, the Southern India Skins and Hides Merchants' Association and the Piece-goods Merchants' Association, Madras. One Councillor is elected by the Trustees of the Port of Madras and one by the members of the Senate of the University of Madras. Five Aldermen of whom one should be a woman, are elected by the Councillors referred to above. In addition to the above, the Provincial Government may appoint a person or persons having special knowledge or experience of any subject relating to the municipal administration to be Special Councillor or Councillors for such subject. However, there shall not be more than three Special Councillors on the Council, at any time.



COUNCIL CHAMBER

Under the City Municipal Amendment Act of 1936 the term of Councillors was fixed at three years, and under the procedure prescribed in Section 414 (c) of the Act, 15 of the 45 Divisional Councillors vacated their seats every year and the vacancies were filled up at an ordinary election conducted by the Commissioner. By the Amending Act of 1939 provision was made for the simultaneous triennial elections to all the seats, instead of annual, rotational elections to a third of the seats. The first general election under this change which was to have been held in the year 1940 was being postponed from year to year owing to the abnormal conditions which prevailed in the City on account of the war and the post-war effects. After a lapse of twelve years, general elections were held towards the close of the year 1948 and the new Council came into office on 1-11-1948.

1. **The Council.**—The Council has to meet every month but there are usually several meetings in each month as the business to be transacted is heavy. The quorum for a meeting of the Council is twenty.

The Municipal Government of the City is vested in the Council under Sec. 23 of the City Municipal Act. But the Council is not entitled to exercise any function expressly assigned by law to a Standing Committee or to the Commissioner. The Council has to consider all statements of receipts and disbursements and all progress reports and to pass on them, such resolutions

as it deems fit ; and the annual report of the Administration of the Corporation and to forward it to the Government with its resolutions thereon, if any. Under Sec. 158 of the Act it is the duty of the Council to pass the Budget Estimate before the beginning of the year to which it relates. The Council is also vested with the power of passing any supplemental estimates which might be found necessary during the course of the year. It is also the duty of the Council to make necessary adjustments of income and expenditure which may be found necessary to balance the budget leaving a cash balance of not less than a lakh and fifty thousand rupees. The Council is the authority to decide the rates at which taxation shall be levied. No amount can be borrowed except by a resolution passed by the Council at a Special Meeting. The sanction of the Council is necessary for estimates and contracts exceeding Rs. 50,000. No immovable property worth more than Rs. 1,000 can be acquired or any lease for more than three years can be concluded except with the sanction of the Council. Sanction of the Council is necessary for the acceptance of a gift or bequest burdened by an obligation if the value of the property is more than Rs. 1,000; for the sale of any movable property worth more than Rs. 5,000 or for the grant of lease for more than three years. Sections 85 to 91, 95 and 96 of the Act relate to the powers of the Council over the Municipal establishment. Under Sec. 85, the Council is bound to appoint a Health Officer,

an Engineer, an Electrical Engineer, a Water Works Engineer, a Revenue Officer and an Educational Officer. Under Sec. 86 the Council may, with the sanction and subject to the confirmation of the Government, appoint Special Engineers to carry out water and drainage schemes or other works. The Council is vested with the power to appoint Special Health Officers to investigate and suggest remedies for any unusual mortality or any prevalent dangerous disease, and also Special Revenue Officers for the periodical revision of assessment or the introduction of new taxation or any other extraordinary purpose connected with revenue administration. Under Sec. 90 of the City Municipal Act appointments to the Corporation establishment have to be made by the Council if the maximum monthly salary of the office exceeds Rs. 500. Under Sec. 91 the Council may modify, amend or sanction the schedule of establishment laid before it by the Commissioner and the Standing Committee. Under Sec. 95 any service regulations framed by the Standing Committee can come into force only after the Council has confirmed them and after they are approved by the Government in the case of regulations framed under Clause (b) of Sec. 95 in respect of any officer whose appointment is subject to their confirmation and in the case of regulations relating to the grant of pensions or gratuities or the establishment of a Provident Fund. The Council has to elect one of its number to be its Mayor at its first meeting after the first day of November each year

and one of its number other than the Mayor to be its Deputy Mayor.

2. Standing Committees.—Section 6 of the Madras City Municipal Act lays down the constitution of six Standing Committees for dealing respectively with

1. Accounts,
2. Education,
3. Health,
4. Taxation and Finance, excluding Taxation Appeals,
5. Town-Planning and Improvements, and
6. Works.

Every Standing Committee consists of seven members elected by the Council from its own number, each of whom holds office until he resigns or until his term of office as Councillor is in any manner determined. Every year, each Standing Committee elects one of its number to be its Chairman, at its first meeting after the election of the Mayor in November. The Mayor is an ex-officio member of all the Standing Committees, except the Taxation Appeals Committee.

The powers and duties of the Standing Committees are defined in the Act and also in the regulations framed by the Council under Sec. 20 of the Act. The sanction of the Standing Committee is required for an estimate or a contract exceeding Rs. 10,000 but not exceeding Rs. 50,000. No contract involving an expenditure of

more than Rs. 3,000 can be entered into without calling for tenders; but the Standing Committee may authorise the Commissioner in specified cases to enter into a contract without inviting tenders. The Standing Committee may amend the establishment schedule before laying it before the Council and it is also vested with the power to frame service regulations subject to confirmation by the Council.

The Taxation Appeals Committee constituted under Rule 14 of Schedule IV of the Madras City Municipal Act is the authority created by the Amending Act of 1936, to decide appeals against assessment to taxes, in case the assessee does not accept the order of the Commissioner. Assesseees may appeal against the Committee's decision to the Small Causes Court.

THE MAYOR of the Corporation is elected * once a year by the Members of the Council (other than

* The Presidential (Mayoral) Election, since the year 1930, is governed by a healthy convention agreed upon by the City Council that year, which is designed to afford equal opportunities to the members of different communities to serve the City, by turns, as its President (Mayor). The following is the order of the communities of members to be elected to the Presidential (Mayoral) Chair :

- | | |
|-----------------------|------------------------------|
| 1. Non-Brahmin Hindu. | 7. Non-Brahmin Hindu. |
| 2. Brahmin. | 8. Depressed Classes. |
| 3. Non-Brahmin Hindu. | * * * |
| 4. Christian. | At this point the Cycle com- |
| 5. Non-Brahmin Hindu. | mences again. |
| 6. Mahomedan. | |

the Special Councillors nominated by the Provincial Government) at the first meeting of the Council in November. He presides over the meetings of the Council and is an *ex-officio* member of all Standing Committees (except the Taxation Appeals Committee). All official correspondence between the Corporation and the Provincial Government should be conducted only through the Mayor.

The Mayor of Madras is considered to be the First Citizen and although his office is an honorary one and does not carry with it any executive power, as the presiding officer of the Council—the ultimate authority in all municipal matters within the framework of the Madras City Municipal Act—his influence over the Council and the civic administration of the City is unlimited.

THE DEPUTY MAYOR is also elected by the Council at the first meeting of the Council in November each year. On him devolves the functions of the Mayor, when the Mayor is absent or when he delegates his powers to the Deputy Mayor, or when the office of the Mayor is vacant.

THE COMMISSIONER is the Chief Executive Officer of the Corporation. He is a gazetted and full-time officer appointed by the Provincial Government for a renewable period of three years. The selection of the Commissioner is usually made from among the

holders of listed Posts. The Commissioner can be removed from office by the Provincial Government before the expiry of his term and is bound to be removed if at a Special Meeting of the Council called for the purpose, not less than forty-three Councillors vote for such removal. Though he is not a member of the Council, he can, under the provisions of the M. C. M. Act, attend the meetings of the Council—and must, if so desired by the Mayor—and of any Standing Committees and take part in the discussion. He has the right to intervene at any stage of the Council's debates, but has no right either to move any resolutions or to vote on any subject.

The Commissioner has to give effect to every resolution of the Council, unless it is cancelled or suspended by the Government. The executive powers of carrying out the provisions of the Act are vested in him, subject, however, to the powers expressly vested by the said Act in the Standing Committees or the Council. He is vested with wide powers in regard to making appointments, sanctioning expenditure, etc. He prescribes the duties of the Corporation establishment and exercises supervision and control over their acts and proceedings. In the discharge of his multifarious duties he is assisted by the Deputy Commissioner and the Departmental Heads.

In cases of emergency the Commissioner may direct the execution of any work or the doing of any act,

which would ordinarily require the sanction of either the Standing Committee or the Council or both, and the immediate execution of which is, in his opinion, necessary for the service or the safety of the public health, provided that the Commissioner shall report forthwith the action so taken, with the reasons therefor to such other authority.

The principal officers of the Corporation are:—

1. The Deputy Commissioner,
2. The Health Officer,
3. The Engineer,
4. The Electrical Engineer,
5. The Water Works Engineer,
6. The Revenue Officer, and
7. The Educational Officer.

They are appointed by the City Council, subject, in each case, to confirmation by the Provincial Government. In addition to these Officers, there are the Special Engineer, the Chief Accounts Officer, who with other officers are appointed by the Council subject to confirmation by the Provincial Government. These Officers are the heads of their respective departments working under the supervision and direct control of the Commissioner.

The Commissioner's Office—the General Department—which forms an important and necessary link between the Commissioner and other departments, representing the various branches of municipal administration, is in charge of the Deputy Commissioner.

The Ripon Buildings.—The various administrative departments of the Corporation of Madras are housed in the Ripon Buildings.

LIST OF MUNICIPAL COUNCILLORS

(as on 1-1-1950)

Divisional Seats—50 Seats.

<i>Date.</i>	<i>Division.</i>	<i>Names of Councillors.</i>
1-11-48	1	Sri C. Parthasarathy Naicker.
"	2	" N. Jeevarathnam.
"	3	" C. V. Pandiyan.
"	4	" N. Thiruvengada Naicker.
"	5	" E. K. Manavalan.
"	6	" G. Natesa Mudaliar.
"	7	" K. Ramalingam.
"	8	" K. Ramadoss.
"	9	" V. Munuswamy.
"	10	" G. Rajamannar, M.L.A.
"	11	" K. Kuppuswamy.
"	12	Mr. A. Mohamed Ubaidulla Sahib.
"	13	Sri V. R. Ramanatha Iyer.
"	14	Dr. P. Alagasingara Naidu.
"	15	Sri Sathrasala Venkataram.
"	16	" M. Radhakrishna Pillai.
"	17	" D. K. Kannappa Mudaliar.
"	18	Mr. S. C. C. Anthony Pillai.
"	19	Sri S. Pakkiriswami Pillai.
"	20	" A. J. Guruswamy Gramani.
"	21	" G. Loganathan.
"	22	" K. Venkataswamy Naidu, M.L.C.

<i>Date.</i>	<i>Division.</i>	<i>Names of Councillors.</i>
1-11-48	23	Sri T. S. Govindaswami.
"	24	" S. P. Rajabathar, (Deputy Mayor).
"	25	Vacant.
"	26	Dr. A. Krishnaswami.
"	27	Sri P. Namasivaya Bharathi.
"	28	" P. S. Bashyam Chetty.
"	29	" P. K. Vinayaka Mudaliar.
30-11-49	30	" B. A. Moorthy.
1-11-48	31	" M. K. Navaneetham.
"	32	" N. Ramanatha Iyer.
"	33	Mr. G. A. Abdul Khadir.
"	34	Dr. V. T. Desikachari.
"	35	Sri K. Vinayakam.
"	36	" S. Ramaswami Naidu.
"	37	Dr. P. Marthandam Pillai.
"	38	Mr. M. Ahmed Mohiuddin Bijapuri.
"	39	Mr. Munawar Hussain.
"	40	Dewan Bahadur C. Tadulinga Mudaliar.
"	41	Sri A. R. V. Achar.
"	42	" A. M. Sambandam.
"	43	Mr. S. A. Shaffee Mohamed.
"	44	Sri V. C. Gopalarathnam.
"	45	Mr. A. Dorairaj.
"	46	Sri T. Ekambara Naicker.
"	47	" K. M. Subramanyam.
"	48	" M. S. Rathnavelu.
"	49	" G. Janakiram Chetty.
"	50	" K. Krishnan.

Reserved Seats—for Scheduled Castes.

<i>Date.</i>	<i>Division.</i>	<i>Names of Councillors.</i>
1-11-48	18	Sri R. Rajagopal.
"	19	" M. Somasundaram.
"	20	" L. A. Lakshmana Pillai.
"	33	" R. Angesan.
"	34	" K. M. Nadamuni.

Reserved Seats (4 seats for Mulims).

1-11-48	12	Mr. C. H. Sigbathullah.
"	14	" K. Mohamed Ibrahim.
"	38	Dr. Syed Niyamathullah.
"	39	Mr. Abdul Hameed Khan, M.L.A.

Reserved Seats—(2 Seats for Indian Christians).

1-11-48	2	Mr. Barnes Paramanandam.
"	23	Dr. M. Santhosham.

Reserved Seat—(1 Seat for Anglo-Indian)

1-11-48	26	Mr. N. O. Stuart.
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Reserved Seats (4 Seats for Women).

1-11-48	11	Mrs. Saraswathi Pandurangam.
"	17	Srimathi R. K. Rajammal.
"	40	" T. L. Thirupurasundari Ammal.
"	45	Mrs. Ahalya Santhanam.

Reserved Seats (4 Seats for Labour).

	The Railway Trade Union
1-11-48	Sri N. Jumbulingam.
	The Textile Workers' Trade Union
"	Sri M. V. Elumalai.
	The Non-Union Labour—North
"	Sri P. M. Manickaswamy.
	The Non-Union Labour—South
"	Sri T. M. Ramaswamy.

INSTITUTIONAL COUNCILLORS

	The Madras Chamber of Commerce
22-11-49	Mr. E. de Elphick.
	The Madras Trades Association
1-11-48	Mr. H. I. Cormack.
	The Southern India Chamber of Commerce
"	Sri P. R. Nammalwar.
	The Andhra Chamber of Commerce
"	Sri Guntur Narasimha Rao, M.L.A.

The Muslim Chamber of Commerce

1-11-48	Mr. M. H. Cassim Sait.
	The Nattukottai Nagarathars' Association
"	Sri. R. Ramanathan Chettiar.
	The Southern India Skins and Hides Merchants' Association
"	Mr. M. J. Jamal Moideen.
	The Piece-goods Merchants' Association
"	Sri V. Devarajulu Chetty.
	The Madras Port Trust
"	Mr. G. P. Alexander.
	The University of Madras
9-8-49	Mrs. Meenambal Sivaraj.

ALDERMEN—(5 Seats)

1-11-48	Dr. U. Krishna Rau.
"	Sri T. Chengalvaroyan.
"	Dr. P. V. Cherian, (Mayor).
"	Sri M. P. Sivagnana Gramani.
"	Mrs. Indrani Balasubramaniam.

SPECIAL COUNCILLORS

6-8-49	Sri S. Rajagopalan.
21-11-49	Dr. R. Subramaniam.

Mayor of Madras (1949-50) ... Dr. P. V. Cherian,
 M.B.B.S., D.L.O., F.R.F.P.S.
 (GLAS.), F.R.C.S. (EDIN.).

Deputy Mayor (1949-50) ... Sri S. P. Rajabathar,
 B.A., B.L.

Commissioner ... Sri C. Narasimham,
 M.A., B.L.

Deputy Commissioner ... Sri N. Sankaran,
 M.A., L.T.

CITY OF MADRAS

OFFICIAL HANDBOOK

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SECTION III

TAXATION AND FINANCE

1. DETAILS OF TAXATION

The Standing Committee (Taxation and Finance) deals with matters relating to taxation and the finances of the Corporation. Appeals against taxation, which were originally heard by the Taxation and Finance Committee are now heard by a Special Committee—the Taxation Appeals Committee, which was constituted under the Amendment Act X of 1936.

The task of collecting revenues under all heads is entrusted to the Revenue Department, formed as a separate department as early as 1892. The Revenue Officer is the head of this Department. He is assisted by five Assistant Revenue Officers, who are placed in charge of the five ranges, into which, for purposes of assessment and collection, the City, including the extended areas, is divided.

1. Property Tax.—Unlike other sister Corporations in the country which have a number of taxable sources, the Madras Corporation has to rely almost exclusively on the revenue derived from Property Tax which, therefore, forms the backbone of the City Corporation's finances. The rates of Property Tax were revised with effect from 1-4-1949 in order to augment the tax resources of the Corporation. The three grades of taxation and their component parts are given overleaf.

- I. DETAILS OF TAXATION.
- II. RECEIPTS AND CHARGES 1948-49.
- III. A COMPARATIVE STUDY OF MADRAS CORPORATION WITH OTHER CORPORATIONS.
- IV. THE CITY AND ITS CORPORATION SINCE 1900.

TAX ON PROPERTIES

Annual Value of Property	PROPERTY TAX				Education Tax @ 15% of Property Tax	Total Tax on Properties
	Tax for General Purposes	Water Tax	Drainage Tax	Lighting Tax	Total	
(a) Rs. 500 and below	11%	1½%	2%	2%	16½%	18 ³⁹ / ₄₀ %
(b) Above Rs. 500 but below Rs. 1,000 ...	12%	1½%	2%	2%	17½%	20½%
(c) Above Rs. 1,000	14½%	1½%	2%	2%	20%	23%

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The tax on Property thus comprises of a tax for General Purposes, Water and Drainage Tax and the Lighting Tax; Education Tax, being a surcharge on the total of the above taxes. The amount of tax leviable is determined by first assessing the rateable value of each item of property. This is taken to be the reasonable rental value at which each holding is or can be let, subject to a deduction of 10 per cent. for repairs in respect of buildings only. The percentage is fixed for each year by the Council at the time of framing the Budget. The amount of tax is calculated on the annual value of each property at the prescribed rates. The Revenue Officer, with the help of the Assistant Revenue Officers and the Assessors, fixes the assessment of tax for each item of property and collects them. The Property Tax is collected every half year. Any owner of a property, who considers the amount of tax levied on his or her property as excessive, has the option to move the Commissioner by a revision petition so as to reach the Municipal office, not being less than 30 or more than 60 days before the end of a half year and the revised valuation shall have effect for the subsequent half-year. An appeal lies to the Taxation Appeals Committee within 15 days from the date of despatch of the order of the Commissioner. An appeal by the assessee lies to the Small Causes Court against any decision of the Taxation Appeals Committee.

Remission is granted for vacancy and the amount of remission is calculated from the date of delivery of the notice of vacancy to the Commissioner and on the receipt of claim either during or the subsequent half-year.

Profession and Companies Tax.—Next in importance is the tax on Professions and Companies. Persons with a salary or income are assessed under definite classes on a scale fixed by the Council subject to a minimum of Re. 1, and a maximum of Rs. 25 per half-year. The tax may be levied with reference to the nature and reputed value of business, the size and rental of residential and business premises, the quantity of articles dealt with, the number of persons employed and the income-tax paid to Government. Tax on Companies registered under the Indian Companies Act VII of 1913 having their principal or Head Office at Madras are assessed on the paid-up capital and the branches of such of those non-resident Companies are assessed on their gross income earned in the year preceding the year of taxation. Liability to pay profession tax or companies tax arises only if persons exercise a profession, calling or trade or if a company transacts business for over 60 days in a half-year. Consequent on the limitation of the maximum rate of Profession Tax to Rs. 50 per year under the Profession Tax Limitation Act, 1941, the Corporation has lost a major portion

of its income under this head. The Government have, however, been paying Rs. 3.25 lakhs annually as compensation for this loss of revenue.

Vehicles and Animals Tax.—A tax is levied on all vehicles and animals other than motor vehicles kept in the City. The full amount of tax under the schedule of rates is payable, if a vehicle or animal is kept for over 60 days in the City during a half-year. But only half the amount is payable in case a vehicle or animal is kept for less than 60 days but over 15 days during the half-year.

Timber Tax.—A tax is levied on all timber imported into the City but no tax is collected in respect of timber brought into the City in the course of transit to places outside the City.

Entertainment Tax.—A tax is levied on all entertainments in the City. The amount of tax is in proportion to the payments for admission to any entertainment according to a certain schedule of rates. Entertainments in aid of philanthropic, charitable, religious or educational purposes are generally exempt, if they satisfy certain conditions.

From July 1943 onwards, the Madras Entertainments Tax Act is being administered by the Provincial Government (Commercial Tax Department) and the taxes are also collected by them. The Corporation has been

receiving an annual compensation of Rs. 94,353-8-0 fixed by the Government on the basis of the average income prior to 1-4-1939. The rates of taxes were increased by 50 per cent over the then existing rates with effect from 1-4-1945 and the Government have generously decided to allot the entire proceeds of the tax, less collection charges, to the Local Bodies concerned, which thus brings in an additional income of Rs. 8 to 9 lakhs to the Corporation.

Advertisement Tax.—A tax is levied on all displayed advertisements and collected at the revised schedule of rates fixed by the Council in its resolution dated 29-3-1947.

Duty on Transfers of Properties.—A duty on all transfers of immovable properties is levied in the shape of additional stamp duty at 5%—on all instruments of sale, gift and mortgage with possession—on the amount of consideration, the value of the property, or the amount secured by the mortgage as set forth in the instrument. The amount is collected by the Inspector-General of Registration and paid to the Corporation, after deducting 2½% by way of collection charges. The Government have, on the request of the Corporation, permitted it to raise the maximum duty leviable to 5% with effect from 1-12-46.

Tolls.—The tolls formed an important source of revenue to municipal bodies for a very long time, but they have been abolished since the introduction of the Motor Vehicles Act III of 1931 that came into force on 1st April 1931. To compensate the loss of revenue, Government have agreed to pay to the Corporation of Madras an annual contribution, as may be fixed by them from year to year.

Miscellaneous.—Besides the tax-sources, the Corporation receives income from rents and licence fees for certain places and trades levied under a schedule prescribed by the Council. The Corporation maintains model institutions such as markets, cattle-yards, dhoby-khanas and dwellings for the poorer classes living in the City, though the income derived as rental for these places is lower than the cost of their maintenance.

Growth of Revenue.—The revenues of the Corporation under both tax and non-tax resources began to rise from 1940-1941 onwards except during 1942-43 in which year owing to a large-scale evacuation of the City's population scared by the threatened imminence of aerial bombing, there was a fall in rents necessitating reduction of property tax and grant of vacancy remissions in many cases. The figures showing the income

under tax and non-tax resources since 1940-1941 are given below :—

<i>Financial Year</i>	<i>Tax Resources</i>	<i>Non-Tax Resources</i>
1940-1941	Rs. 61,03,302	12,40,112
1941-1942	Rs. 62,86,563	13,49,584
1942-1943	Rs. 58,88,306	11,87,849
1943-1944	Rs. 62,13,847	15,44,238
1944-1945	Rs. 70,71,627	20,53,180
1945-1946	Rs. 87,92,903	25,87,099
1946-1947	Rs. 95,29,533	32,57,664
1947-1948	Rs. 1,15,09,313	37,00,930
1948-1949	Rs. 1,32,32,073	39,04,291

A comparative study in a tabular form of the area, population, income, expenditure, sources of income, etc., of the Corporation of Madras and the Corporations of Bombay and Colombo is annexed at pages 132 and 133 a scrutiny of which will show that while Madras has an annual income of less than Rs. 2 crores, Bombay, smaller in area, has an annual income of over Rs. 7 crores.

The higher income of other Corporations is explained by the fact that they have a wider field of taxation.

The Government of Madras have not so far been pleased to approve of the suggested amendments to the City Municipal Act so as to enable the Corporation of Madras to levy :—

- (a) a City Duty on grains, building materials, etc.
- (b) a Passenger Tax (on those alighting in the City from a distance of over 50 miles by railways).

The imposition of these and similar taxes, which are actually levied in other cities in India, would increase the income of the Corporation to at least $1\frac{1}{2}$ times its present level.

Thus, the Corporation of Madras is at a great disadvantage of having to plan for greater improvements of the City with no means of augmenting its income which, as at present, is inelastic.

CORPORATION OF MADRAS

RECEIPTS AND CHARGES

1948-1949

TOTAL RECEIPTS :

Rs. 199.73 lakhs.

Normal Receipts :

Rs. 176. 54 lakhs.

Education Tax :

Rs. 12.37 lakhs.

Government Grants :

Rs. 10.82 lakhs.

	Rs.	Percentage of total Receipts
A. Consolidated Property and Education Tax	... 92.42 lakhs.	46.26%
(1) General Tax	... 54.17 lakhs.	27.12%
(2) Lighting Tax	... 9.13 "	4.57%
(3) Water Tax	... 7.04 "	3.52%
(4) Drainage Tax	... 9.71 "	4.86%
(5) Education Tax	... 12.37 "	6.19%
B. Other Taxes	... 45.00 "	22.53%
(1) Profession Tax	... 5.83 lakhs.	2.92%
(2) Tax on Companies	... 4.01 "	2.01%
(3) Tax on Timber	... 1.86 "	0.93%
(4) Tax on Entertainments	... 13.29 "	6.65%
(5) Duty on Transfer of Property	... 9.93 "	5.00%
(6) Tax on Animals and Carriages	... 2.24 "	1.12%
(7) Compensation from Government for loss of Toll Revenue	... 7.79 "	3.90%

	Rs.	Percentage of total Receipts
C. Miscellaneous Revenue	... 62.31 lakhs.	31.21%
(1) Collection for Excess water	... 12.17 lakhs.	6.09%
(2) Income from Licence fees	... 10.44 "	5.23%
(3) Rent from lands and buildings	... 1.65 "	0.83%
(4) Slaughter House Fees	... 1.68 "	0.84%
(5) Market Fees	... 2.19 "	1.10%
(6) Government grants and contributions	... 10.82 "	5.42%
(7) Other various minor items	... 23.36 "	11.70%

	Rs.	Percentage of total Expenditure
TOTAL EXPENDITURE :	... 182.45 lakhs.	—
(1) Conservancy	... 28.57 lakhs.	15.66%
(2) Education	... 9.02 "	4.94%
(3) Sanitation and Vaccination	... 3.41 "	1.87%
(4) Medical Relief	... 6.42 "	3.52%
(5) Communications	... 33.35 "	18.28%
(6) Supervision and Management	... 15.05 "	8.25%
(7) Drainage	... 14.52 "	7.96%
(8) Water Supply	... 12.85 "	7.04%
(9) Lighting Account	... 6.09 "	3.34%
(10) Remunerative Enterprises	... 10.48 "	5.74%
(11) Public Amenities	... 6.30 "	3.45%
(12) Child Welfare and Maternity	... 7.28 "	3.99%
(13) Repayment of debt and interest on loans	... 23.26 "	12.75%
(14) Other items	... 5.85 "	3.21%

A COMPARATIVE STUDY OF MADRAS CORPORATION WITH OTHER CORPORATIONS

Particulars	Madras	Bombay	Colombo
1. Municipal Area ...	49.74 sq. miles.	26.189 sq. miles.	12.995 sq. miles. (Exclusive of the lake).
2. Population ...	14,53,116 (as per ration office fig- ures on 31-3-49) 14,46,356 (as per ration office figures on 30-6-49)	Over 27,40,933 (actual at the end of 1948)	3,62,074 (Census figures of 1946)
3. Total Income ...	199.73 lakhs.	713.86 lakhs (in- cluding transfer from post-war reconstruction fund).	159.15 lakhs.
4. Total Expenditure ...	182.45 lakhs.	688.79 lakhs.	134.24 lakhs.
5. Main sources of income	Property tax, Pro- fession tax, Com- panies tax, Tax on carriages, En- tertainment tax compensation, Duty on transfer of property, Col- lection for ex- cess water sup- ply, Income from licence fees, etc.	House rate, Gene- ral tax, Water Tax, Town duties, Wheel tax & tolls, Fire tax, Halal- khore tax, Li- cence fees etc.	Taxes, Licenses, Judicial fines, Collections from Markets, Slaugh- ter house, Con- solidated rate, Water, rents, Drainage etc.
6. Grants from Provincial Government ...	10.82 lakhs.	50 lakhs.	30.87 lakhs.
7. Birth rate per 1000	46.58	21.4	55.6
8. Death rate per 1000	31.25	14.8	23.5
9. Total Road length ...	443 miles	268.88 miles.	158.62 miles.

S.No.	Particulars	1900-1901	1910-11	1920-21
1.	Population ...	5,09,346	5,18,660	5,26,911
2.	No. of Municipal Divisions	8	20	30
3.	No. of Houses (Assessed) ...	—	—	—
4.	No. of Medical Dispensaries	2	3	6
5.	No. of C.W. Centres ...	—	—	3
6.	Birth rate (per 1000) ...	45.6	37.9	41.3
7.	Death rate (per 1000) ...	46.2	39.8	41.3
8.	Infantile Mortality (per 1000)	272.0	294.1	279.3
9.	Total water consumption per day (in million gallons) ...	—	—	16.33
10.	Total Corporation Elementary Schools ...	—	1	27
11.	Total Children attending ...	—	132	4155
12.	Expenditure on Midday meals	—	—	—
13.	Total Sewer length (in feet)	—	—	—
14.	Total sewage pumped in Million Gallons ...	—	—	3633.80
15.	Private F.O.Ls' ...	—	—	—
16.	Total Public Latrines : Dry Latrines ...	—	—	100
	Public F.O.Ls. ...	—	—	45
17.	Total No. of Electric lamps	—	59	4,113
18.	Total income of the Corporation	25,91,800	32,55,899	46,24,720
19.	Total expenditure of the Corporation	25,94,857	36,59,538	44,84,325

1930-31	1940-41	1948-1949
6,47,230	7,77,481	*14,53,116 as per ration office figures on 31-3-49.
30	40	50 71,537
19 Allop., 1 Ayur and 1 Unani	20 Allop., 1 Ayur., 4 Unani, 2 Siddha, 2 Lepy., 1 Venl.	24 Allop., 1 Ayur., 4 Unani, 3 Siddha, 2 Lepy., 1 Venl. & 1 T. B. Clinics.
12	14	25 Centres, 4 Sub-Centres, 1 Maternity Home & 15 Maternity wards.
47.7	43.23	46.58
42.4	33.98	31.25
243.9	205.70	175.98
19.27	21.55	21.24
142	140	202
28,915	43,998	60,165
—	50,000	1,82,432
9,79,594	15,04,725	18,17,875
6212.98	7576.72	9411.38
2,127	31,132	47,663
67	65	31
132	249	375
10,011	14,213	16,763
56,36,796	75,22,836	199.73 lakhs.
55,31,073	75,11,874	182.45 lakhs.

*14,46,356 (as per ration office figures on 30-6-49).

CITY OF MADRAS

OFFICIAL HANDBOOK

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SECTION IV

THE MUNICIPAL DEPARTMENTS

(Their Organisation and Functions)

- I. THE GENERAL DEPARTMENT.
- II. THE HEALTH DEPARTMENT.
- III. THE CHILD WELFARE SECTION.
- IV. THE WORKS DEPARTMENT.
- V. THE WATER WORKS DEPARTMENT.
- VI. THE ELECTRICAL DEPARTMENT.
- VII. THE SPECIAL WORKS DEPARTMENT.
- VIII. THE MECHANICAL ENGINEERING SECTION.
- IX. THE EDUCATION DEPARTMENT.
- X. THE REVENUE DEPARTMENT.
- XI. THE CENTRAL ACCOUNTS DEPARTMENT.

1. THE GENERAL DEPARTMENT

Sri N. Sankaran, M.A., L.T., Deputy Commissioner, (Tel. No. 4753 Personal, Tel. No. 2988 Exchange, Tel. No. 3963 Residence).

Sri C. Venkata Rama Reddy, B.A., B.L., Secretary to Council. (Tel. 2988—Exchange).

The General Department which works directly under the Deputy Commissioner, consists of two major sections *viz.*, (1) the Administrative Section and (2) the Council Section. Besides these, there are the Record, the Central Typing and the Central Despatch Sections.

The Administrative Section deals with all matters of general importance relating to municipal administration and procedure among which the following are some of the important items :—

1. Appointment of, grant of leave to, and retirement of Heads of Departments, Assistant Officers, Section Managers and Clerks.
2. Preparation of retirement list.
3. Payment of pensions and gratuities.
4. Compilation of the Administration Report.
5. Payment of contributions to Medical and Non-medical institutions.
6. Contract for supply of clothing, and stitching uniforms to the Corporation Staff.

7. Advertisements, and
8. Receipt of tenders for all Corporation works.

The post of 'Deputy Commissioner' for the Corporation of Madras was created by Government in the year 1946 with a view to minimise the work of the Commissioner whose duties as the chief executive authority of the Corporation are so multifarious as to leave him little time to attend to major and important scheme works of public utility. The Deputy Commissioner, besides scrutinising all papers submitted by the several heads of departments to the Commissioner and exercising direct control over the work of the General Department, relieves the Commissioner of the ordinary duties or functions conferred on him under the Madras City Municipal Act, such as sanctioning estimates and entering into contracts (up to a limit of Rs. 2,000), purchase of non-scheduled articles for the General Department (up to Rs. 500), making appointments, sanctioning increments, grant of leave to and punishment of employees whose salaries do not exceed a specified amount, entering into or inspecting buildings as well as places where dangerous trades are carried on, summoning persons to be present before him and give evidence or produce documents in respect of questions relating to taxation or inspection or registration or to the grant of any licence or permission under the provisions of the Act, ordering recoveries (up to Rs. 100) in respect of articles found short during stock verifica-

tion and so on. He inspects particularly the extended areas of the city *viz.*, Saidapet, Sembiam, Aminjikarai etc., and communicates notes of his inspection to the officers concerned for necessary action. He also inspects, if necessary, sites for assignments, alienations, encroachments etc., both in the city and the extended areas.

The Secretary to Council is in charge of the Council Section. This Section deals with all matters concerning the Council and the Standing Committees. The Secretary to Council assists the Mayor in the discharge of his functions both in and outside the Council Chamber. He maintains the Minutes of all the Meetings of the Council and the Standing Committees and performs all duties connected with the Corporation Council and the Standing Committees. The proceedings of the Council are reported verbatim by official reporters. Printed proceedings of the Council are available in the Records for sale to the Public.

In addition to these two major Sections, there are the (1) Central Typing Section, (2) Central Despatch Section and (3) General Records Section.

The Stock Verifier, whose duty it is to check the stock of all materials in the several stores attached to the various departments of the Corporation and report all discrepancies detected by him, works under the Deputy Commissioner.

Divisional Offices.—With a view to enable the subordinate out-door officers to take prompt action on minor complaints from rate-payers and to help the rate-payers to get their cycle licences, cart licences etc., to register the births and deaths, divisional offices were opened in each division in 1946. These divisional offices were found useful to the rate-payers and the public and though the experiment was a success in many ways, the Corporation was compelled to close most of them in 1947 on account of financial stringency and the greater need to provide funds for public health measures. Only three of these offices are functioning in the newly included areas of the City, *viz.*, Aminjikarai, Sembiam and Saidapet as these places are far away from Ripon Buildings.

II. THE HEALTH DEPARTMENT

Health Officer :

Dr. S. E. D. Masilamani, M.B., B.S., B.S.Sc.,
D.P.H. (Lond.)

Office Phone No. 2168—*Residence Phone*
No. 4235.

Assistant Health Officers :

Dr. G. Srinivasan, B.A., M.B., B.S., B.S.Sc.,
Residence—*Phone* No. 2451.

Dr. A. Ranganathan, L.M. & S., B.S.Sc.
Residence—*Phone* No. 86340.

Dr. B. V. Sundara Babu, M.B., B.S., B.S.Sc.,
D.P.H. (Cal.)

Dr. P. V. Balakrishna Marar, M.B., B.S., B.S.Sc.
Residence—*Phone* No. 4823.

Dr. J. Muthia, L.M.P., L.P.H.

Medical Officer, Infectious Diseases Hospital :

Dr. M. Abdul Hadi, M.B., B.S.

Office—*Phone* No. 3117.

Residence—*Phone* No. 3116.

Medical Officer, Thiruvateeswarar Tuberculosis Hospital :

Dr. V. V. Vythialingham, M.B., B.S., T.D.D.

Phone No. 4827.

Veterinary Officer :

V. J. Balasundara Doss, G.M.V.C., P.G.

Public Analyst :

V. Venkatachalam, M.A., A.R.I.C.

Water Analyst :

V. Kirupakaran, B.Sc.

Director, Ashok Vihar, Health & Recreation Centre :

Dr. P. S. Sambandam, L.R.C.P., M.R.C.S.,

Office and Residence—*Phone* No. 4759.

The Health Department under the control of the Health Officer, is in charge of the public health administration of the City. Its chief administrative functions are :

1. General Sanitation including housing.
2. Conservancy or public cleansing.

3. Food sanitation including prevention of adulteration.
4. Registration of births and deaths and maintenance of vital statistics.
5. Control of communicable diseases.
6. Medical relief and care of destitutes.
7. Medical care of school children.
8. Laboratory work.
9. Health education.

The 50 divisions of the city are grouped into 5 ranges for administrative purposes and an Assistant Health Officer is in charge of the public health administration in each range.

General sanitation comprises the duties of supervising residential and other buildings to enforce their maintenance in a sanitary state, scrutinising building plans with reference to sanitary requirements, controlling places of offensive trades, disinfecting and disinfecting the environments of places where communicable diseases occur, preventing committal of nuisances in streets and other public places, etc.

Conservancy or public cleansing involves the duties of cleansing streets, foot-paths, water-tables, cess-pools, etc., removal and disposal of rubbish and filth, providing and maintaining public conveniences, latrines and urinals. It also includes the maintenance of a veterinary section to look after the health of the conservancy animals.

Food sanitation entails maintenance of the public markets, supervision of the sanitary upkeep of private markets, prevention of the sale of unwholesome and noxious food, control over food-handling establishments, maintenance of butcheries and the enforcement of the Madras Prevention of Food Adulteration Act.

Registration of Births and Deaths and Vital Statistics constitutes arrangements for the registration of births and deaths, maintenance of records of vital events affecting the health of the city, regulation of places for the disposal of the dead, etc.

Control of communicable diseases involves measures for the prevention of diseases like cholera, small-pox, tuberculosis and typhoid by immunising the population by vaccination or inoculation, hospitalisation of infectious disease cases and their contacts for effective isolation, maintenance of ambulance service for removal of such cases, control and prevention of malaria and of rabies, etc.

Medical Relief involves the establishment of dispensaries for the treatment of ordinary ailments and of special clinics and hospitals. It also includes the establishment of homes for providing food, clothing and shelter to destitutes in the city.

Medical care of school children entails systematic inspection of children attending elementary schools, treatment of defectives among them, and supply of midday meals to deserving children.

Laboratory work consists of Water Analysis, Food Analysis and Clinical Laboratory tests.

Health education entails lectures and informal talks, cinema shows, magic lantern demonstrations and distribution of leaflets and pamphlets and press notifications about subjects relating to personal and environmental hygiene and health, nature and treatment of diseases and methods of preventing their incidence.

III. THE CHILD WELFARE SECTION

Dr. (Mrs.) H. V. Kamalammal, Lady Superintendent :
Child Welfare Scheme.—Tel. 2988—*Exchange.*—86538—*Residence.*

The Child Welfare Section is a part of the Health Department and is in the charge of the Lady Superintendent.

The main activities of the Child Welfare Scheme are :—

1. Care and supervision of pre-natal cases.
2. Intra-natal care.
3. Care of young infant and mother during the puerperal period.
4. Supervision and care of the infant and pre-school child.
5. Teaching mothers in health matters collectively at the centres and individually in their homes.

6. Sending in time to hospital those cases which would benefit by hospital care and treatment.
7. Treatment of minor ailments of expectant and nursing mothers and children up to the age of 5 years.
8. Free maternity service to those who are indigent or whose monthly income is Rs. 80/- or less and on payment to those whose income is not more than Rs. 200/- per mensem.

The staff of the Child Welfare Scheme consists of 25 Lady Doctors, 1 Relieving Lady Doctor, 32 Health Visitors, 220 Midwives, 22 Compounders and 90 Peons.

IV. THE WORKS DEPARTMENT

Engineer :

Mr. Mohideen Meeran, B.E., M.I.Struct.E.,
A.M.I.E. (Ind.), A.M.Am.Soc.C.E.
Telephone No. 2709—*Office (Personal).*
Telephone No. 86638—*Residence.*

Executive Engineer :

Sri T. V. Rangaswami, B.E., A.M.I.E. (Ind.).
Telephone No. 84361—*Residence.*

Capital Road Works (Asst. Engineer) :

Sri C. Janardana Rao, B.E., A.M.I.E. (Ind.).

Capital Building Works (Asst. Engineer) :

Sri P. T. Govindarajalu Chetty, B.E.

Town Planning and Layout Works (Asst. Engineer) :

Sri D. P. Varadachari, B.E.

Range Assistant Engineers :

1. Sri G. Nandagopal, B.Sc., B.E.,
I Range, Divns. 1 to 10.
2. Sri K. Ramanna, B.A., B.E.,
II Range, Divns. 11 to 20.
3. Mr. Abdul Kareem, B.E.,
III Range, Divns. 21 to 30.
4. Sri S. M. Madurai, C.E.,
IV Range, Divns. 31 to 40.
5. Sri B. Natarajan—Upper Subordinate—Passed
A.B. & C. Exam. of the I.C.E. England
V Range, Divns. 41 to 50

Town Planning :

Sri P. Rama Rao, B.E., Assistant Engineer.

Housing Scheme :

Sri T. Sethurama Iyah, B.E., Assistant Engineer.

The following are the chief functions of the Department :—

1. Execution of all works pertaining to the construction and maintenance of roads, pavements, culverts, bridges, buildings, parks, etc.

2. Maintenance of records of all Corporation lands and buildings.
3. Regulation of the construction of buildings and structures according to the provisions of the City Municipal Act and the Town Planning Act.
4. Improvements to slums, land development and housing the poor.
5. Preparation of Town Planning Schemes and their execution.

The Works Department is under the control of the Engineer who is assisted by one Executive Engineer and 10 Assistant Engineers. 4 of the Assistant Engineers and the Executive Engineer are borne on the temporary establishment for Capital Works. The City of 50 Municipal divisions is divided into 5 Ranges of 10 divisions each. One Assistant Engineer is in charge of each Range and looks after the divisional works, maintenance and construction of roads etc., within his range. The Executive Engineer who is assisted by four Assistant Engineers looks after the Road and Building Capital Works under the control and supervision of the Engineer. The 10th Assistant Engineer is solely in charge of Town Planning Works in the City.

Each Assistant Engineer is assisted by a Building Plan Inspector for inspection and scrutiny of building applications received from parties for construction, re-

construction of buildings, additions or alterations to the existing buildings etc., before they are put up for the sanction of the Engineer. In such cases where the building plans submitted conform to the rules and regulations prescribed under the Act, the concerned applicants are advised of the sanction and on their remitting the requisite licence fees, a permit is issued.

There are 50 Overseers, each in charge of a division to look after building and road works of the concerned division. Each Overseer has a gang of coolies and Head coolies with an Assistant Overseer to promptly attend to all repair works of roads, foot-paths etc. In most of the divisions there are stores for the Overseers to keep materials and equipments etc.

The Survey Section with one Head Surveyor and 7 Surveyors deals with all cases of lands proposed for acquisition and with matters relating to encroachments. A record of all the lands belonging to the Corporation is maintained by this Section.

Plans and estimates for construction of new roads and buildings, improvements to existing buildings, preparation of specifications for inviting tenders in connection with works proposed to be let out on contract, are dealt with by the Drawing Section comprising of 1 Head Draftsman, 8 Draftsmen and 2 Tracers.

All the buildings in the City owned by the Corporation are under the control of the Engineer, who attends to their proper maintenance.

V. THE WATERWORKS DEPARTMENT

Water Works Engineer :

Sri M. Muniswami Achari, B.A., B.E.

(Tel. No. 2988—Office Exchange).

(Tel. No. 3406—Residence).

Executive Engineer, Water Supply :

Sri O. T. Raghavan, B.A., B.E., A.M.I.E. (Ind.)

(Tel. No. 2988—Office Exchange).

(Tel. No. 86181—Residence).

Assistant Engineers, Maintenance :

1. Sri G. Krishnan, North Range (Divisions 1 to 25).

2. Sri K. Venkatarama Reddy, B.E., South Range (Divisions 26 to 50).

(Tel. No. 2988—Office Exchange).

(Tel. No. 2228—Residence).

Assistant Engineers, Capital Works :

1. Sri S. Raghavachari, B.E.

2. Sri L. J. Marthandam, A.M.I.E. (Ind.)

3. Sri P. Viswanathan, B.E.

The Water Works Department is responsible for the maintenance of the water supply system in the City comprising of the Jones Tower and Roughing Filters at

Red Hills, masonry conduits from Red Hills to Kilpauk Filter Beds and Pumping Station at Kilpauk, and the distribution system in the City consisting of nearly 400 miles of water mains including sluice valves, scour valves, air valves, fire hydrants, public fountains, bathing fountains, cattle troughs, etc. Besides these, there are nearly 54,000 private house connections given from the Corporation mains which have to be supervised and maintained by the Corporation. The works inside the private houses have to be done by plumbers licensed by the Corporation, while the portions of the house services which are in the street limit have to be maintained by the Corporation at the cost of the respective owners or occupiers. Applications for either new connections, alterations, or renewals of the existing service pipes inside private premises should be sent to the Water Works Engineer for sanction, through plumbers licensed by the Corporation. The Water Works Department will after scrutiny add to such estimates the cost of work to be done in the street portions, if any, and the supervision charges and send intimation to the plumbers to deposit the municipal charges. Any work, whether inside private houses or in the street portion, can be carried only after the estimates are sanctioned and the municipal charges remitted into the Corporation.

There is, on an average, one Water Works Overseer in charge of 2 Municipal divisions to look after the maintenance of distribution works and also to read

the water meters fixed in the area. Complaints regarding defective supply of water in private houses or leaks, etc., may be made by the parties directly to the Overseers at their offices, addresses of which are given at pages 154 and 155. In the case of leaky taps in private houses, it is quite probable in many cases due to a worn out washer which can easily be replaced by the Water Works Overseer at a cost of As. 2 only. In cases where the discharge cocks are very much worn out and the leak cannot be stopped by merely renewing the washer, parties will have to pay the cost of renewing the discharge cock which will be done by the Corporation at the rate of Rs. 5/- per discharge cock.

With regard to metered services, complaints regarding excess consumption or wrong working of meters should be made directly to the Water Works Engineer or his assistants and should be accompanied by the usual deposit of Rs. 6 for testing the meter, if desired. Ordinarily an error of 5% either way is allowed in the recording of the meter. If, as a result of the protest by the party, the meter is tested and found to record beyond the margin of 5% error allowed by the rules, the relative water supply bills will be revised on some suitable basis according to the bye-laws and regulations framed by the Corporation and the deposit amount will be refunded. If the meter is found to be correct on test, the deposit of Rs. 6/- will be forfeited to the Corporation.

LIST OF WATERWORKS OVERSEERS WITH THE ADDRESSES OF THEIR STORES

S.No.	Divisions	Stores-Address	Tel. No.
1.	Water Works Overseer 1 & 2	Kalnandapuram Road, Royapuram near Palmyrah Yard...	—
2.	Do.	Monegar Choultry Road near its junction with Old Jail Street	—
3.	Do.	Old Jail Street, near its junction with Mint Street	—
4.	Do.	130-B, Wall Tax Road near its junction with Anna Pillai Street	—
5.	Do.	161, Govindappa Naicken Street	—
6.	Do.	32, Thambu Chetty St.	4387
7.	Do.	161, Govindappa Naicken Street	—
8.	Do.	11, Rotlers Street, near Smithfield Market, Purasawalkam	2387
9.	Do.	DeMellows Road, Opp. Choolai Mills	—
10.	Do.	23, Paper Mills Road	—
11.	Do.	65, Poonamallee High Road near Nehru Park	—
12.	Do.	11, Rotlers Street near Smithfield Market, Purasawalkam	—
13.	Do.	Behind Ripon Buildings, near Periamet Police Station	—
14.	Do.	Next to Elephant Gate Police Station	—

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15.	Do.	Audikesavalu Street, Napier Park, Chintadripet	—
16.	Do.	83, Harris Road, Komaleswaranpet near Harris Bridge	—
17.	Do.	21, Village Road, Nungambakkam	84463
18.	Do.	21, Village Road, Nungambakkam	—
19.	Do.	1, Theagaroya Road opposite to Panagal Park, Theagarayanagar	—
20.	Do.	17, Perumal Mudali Street, Pudukkalam, western end of Pycrofts Road, at its junction with Westcott Rd.	—
21.	Do.	Audikesavalu Street, Napier Park, Chintadripet	—
22.	Do.	Besant Road Pumping Stn.	—
23.	Do.	55, Royapettah High Road	8212
24.	Do.	55, Royapettah High Road	—
25.	Do.	37, Alandur Road, Saidapet	—
26.	Do.	Old Pumping Station, Mylapore, on the Marina near Nochikuppam, San Thome	—

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Note :— During night time, urgent complaints if any about serious leaks, bursts on mains, etc., which have to be attended to immediately may be made to the respective Repair Centres noted below :

Repair Centre, North Range : Telephone No. 4387
 Repair Centre, Central Range : Telephone No. 2387
 Repair Centre, South Range : Telephone No. 8212

VI. THE ELECTRICAL DEPARTMENT

Electrical Engineer :

Sri V. A. Patnaik, B.A., B.Sc. (Hons.) (Birm.)
Tel. No. 3082—*Office (Personal).*
Tel. No. 3865—*Residence.*

Asst. Electrical Engineers :

Sri K. C. Nambiar, B.A., B.Sc. (Dunelm.)
Tel. No. 2988—*Office.*
Tel. No. 4294—*Residence.*

Sri P. Balasubramaniam, B.A., B.E.
Tel. No. 2988—*Office.*
Tel. No. 3071—*Residence.*

The functions of the Electrical Department are :—

- (i) Installation and maintenance of street lighting in the City of Madras including traffic bollards and traffic signals.
- (ii) Maintenance of electrical installations in all Corporation buildings.
- (iii) Maintenance of the City Water Supply Pumping Station at Kilpauk and the Booster Pumping Stations at various places in the city where electrical pumping sets have been installed.
- (iv) Construction and maintenance of clock towers.

- (v) Installation and maintenance of public radio-receiving sets in parks, schools, etc.
- (vi) Installation and maintenance of ornamental fountains.
- (vii) Provision of Carnatic Band Music in various parks and public places in the city for the entertainment of the public and
- (viii) Working of the Sembiam Electricity Licence Undertaking for the distribution of electric energy to consumers in Sembiam.

Consequent on the inclusion of Sembiam area within the city limits in 1946, the Corporation of Madras took over the Sembiam Electricity Licence Undertaking from the defunct Sembiam Panchayat Board and is now in charge of distribution of electric energy not only for street lighting purposes but also to private consumers in that area. There are now about 600 consumers served by this Undertaking and the number is growing every month as a result of the relaxation of restrictions on the use of electricity. The undertaking is under the charge of the Asst. Electrical Engineer, North Range.

The Electrical Department is also in charge of the two electric pumping sets at the Kilpauk Pumping Station, each of 575 H.P. capable of pumping 1.2 million gallons per hour. The electrical motors are of 5,000 volt 3 phase A.C. synchronous type, working

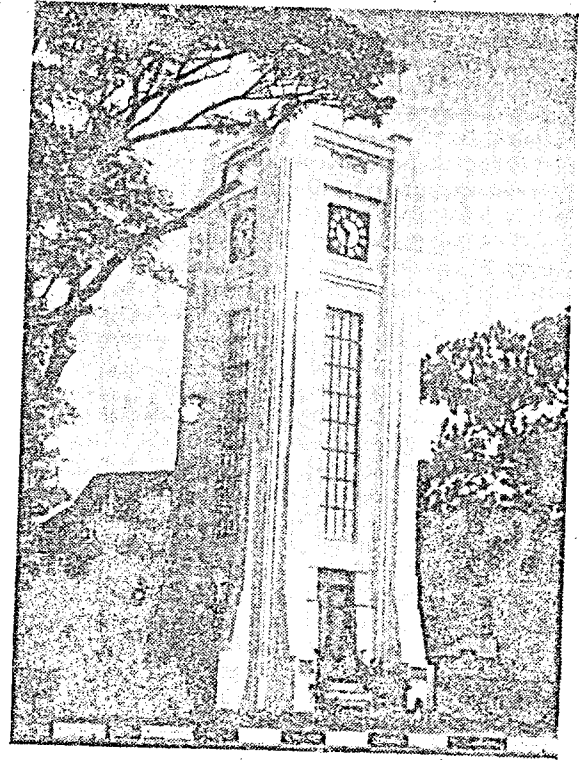
at a power factor of unity. A third unit of a similar capacity is being installed. The six booster pumping stations at various places in the city are designed to increase the pressure in the water mains in the outlying areas and are electrically operated.

Tower Clocks.—The policy of providing street electric clocks fixed to posts at important junctions in the city has been given up as it has been found that such clocks are not reliable time-keepers due to atmospheric conditions, traffic vibrations etc. Hence it was decided to construct masonry clock towers to replace the street electric clocks. There are four such clock towers in the city at present at important junctions of roads:—

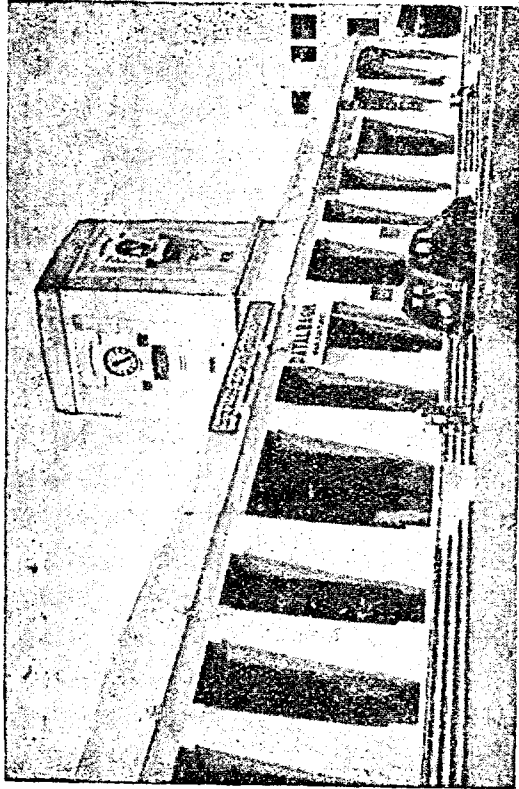
- (1) Strahans Road, Perambur.
- (2) Harris Road at the junction of Pantheon Road, Egmore.
- (3) Hunters Road, Madurai Pillai Garden, Purasawalkan.
- (4) Whites Road at the junction of Pycrofts Road, Royapettah.

Besides these, tower clocks are maintained by the Corporation on buildings as detailed below:—

- (1) Ripon Buildings, Park Town.
- (2) Corporation Fruit Market, Esplanade.
- (3) Chetput Reading Room.



CLOCK TOWER AT THE JUNCTION OF WHITES ROAD
AND WESTCOTT ROAD, ROYAPETTAH



FRUIT MARKET, ESPLANADE

There are six radio sets with loud-speaking apparatus at important places besides 12 small sets in smaller parks in the city, 18 in Corporation Schools and 3 in labour areas.

Maintenance of electrical installations in Corporation buildings: An electrical Supervisor is in charge of the maintenance of electrical installations in all the Corporation buildings. His office is at Ripon Buildings.

Ornamental fountains.—Three ornamental illuminated fountains are installed, one in the Marina at the junction of Edward Elliotts Road, the second in the Panagal Park, Thyagarayanagar, and the third in front of the Fruit Market in China Bazaar Road.

The Corporation Band.—The Corporation maintains an Indian Band to play Carnatic Music every evening.

Electrocuting Station for Dogs.—An electrocuting apparatus introduced for the humane destruction of dogs has been working satisfactorily for the last 17 years. The humane destruction of stray dogs is effected by High Tension supply of 2,000 to 3,000 volts. It is instantaneous and painless.

Pig Slaughter House.—An Electro-lethaller was introduced in 1939 for stunning pigs before slaughter. This is done by passing a small electric current between the ears of the pigs thereby stunning them prior to slaughtering.

The Electrical Workshop (Tel. No. 4395) and the Electrical Stores at Trevelyan Basin (Tel. No. 4395) are attached to the Electrical Department and are in the charge of a Foreman and Storekeeper respectively. Electric lamp brackets, fittings etc., are manufactured in the electrical workshop. Repairs to all kinds of electrical machinery, electric and gas welding, electro-plating, armature winding etc., are also done here. Private works relating to repairs to electrical machinery are also undertaken at the Workshop.

The Corporation is also running a technical training centre under the Government of India, Ministry of Labour-Technical Training Scheme, for the benefit of demobilised services personnel. Training is imparted in different trades such as Electrician, Armature Winding, Electro-plating, Gas and Electric Welding. The total sanctioned strength of trainees is 88. The training centre has been functioning satisfactorily and hundreds of trainees have been trained and become skilled artisans in different trades.

Apprentices.—12 apprentices are selected every year for practical training for a period of two years. The apprenticeship fee payable by each selected apprentice is Rs. 60/- per annum.

Street Lighting.—The history of the development of street lighting in the City and details of its present working are furnished separately.

VII. THE SPECIAL WORKS DEPARTMENT

Special Engineer :

Sri P. Ramaswami Chetty, B.E., A.M.I.E. (Ind.).
Tel. No. 2578—*Office*.
Tel. No. 4384—*Residence*.

Asst. Engineers :

1. Sri N. Bhaskaran, B.E., A.M.I.E. (Ind.).
Tel. No. 88154—*Residence*.
2. Sri B. Varadarajulu, B.E., A.M.I.E. (Ind.).
3. Sri P. S. Damodaram, B.E.
4. Sri A. Ramiah, L.S.E. (Hons.), (*Drainage Superintendent*).
Tel. No. 86654—*Residence*.

The Special Works Department is in charge of laying underground sewers, construction of storm water drains and public conveniences in different parts of the City. It is also in charge of provision of flush-out latrines in private houses at the cost of owners, as well as the maintenance of the sewerage system.

The Special Engineer, the Head of this Department, is assisted by four Assistant Engineers, each of them being in charge of a fourth of the City. There are four indoor sections in the Office *viz.*, (1) General Section, (2) Accounts Section, (3) Drawing Section and (4) Drainage Maintenance and Flush-out latrines Section.

The out-door staff engaged in drainage construction works, consists of 6 Supervisors, 12 Overseers, 4 Surveyors and 3 Asst. Overseers. For the drainage maintenance and for construction of flush-out latrines in private houses, 4 Supervisors, 13 Overseers and 6 Surveyors are employed. Besides, there is one Supervisor in charge of construction of public conveniences works. For the convenience of the public, there are 4 range offices *viz.*, (1) at Napier Park, Chintadripet (2) at Walltax Road, (3) at Demellows Road and, (4) near Sanskrit College, Mylapore, serving the four Ranges of the City.

There is a central store in Napier Park for the use of the Department under the charge of a Store-Keeper. There are also four other sub-stores in the Range Offices under the immediate supervision of the four Supervisors for carrying out the flush-out latrine construction and drainage maintenance works. Each Range Office and the sub-store are under the control of the respective Range Assistant Engineer.

VIII. THE MECHANICAL ENGINEERING SECTION

Mechanical Engineer :

Sri M. Sivaraman, Diploma in Mech. Engineering.

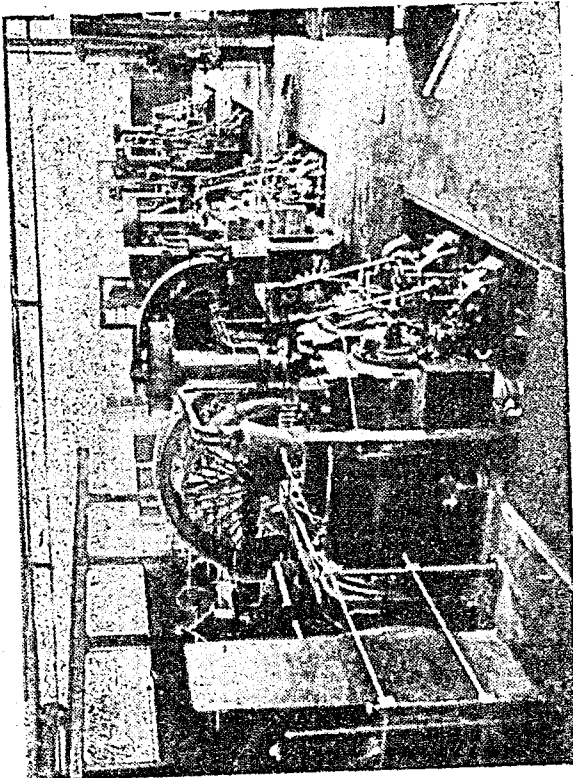
Tel. No. 2988—*Office Exchange.*

Tel. No. 86161—*Residence.*

Asst. Mechanical Engineer : Temporary.

Mr. K. C. C. Paul, B.E. (Mech.)

DRAINAGE PUMPING STATION, NAPIER PARK



The Mechanical Engineer is in charge of all the 19 Sewage Pumping Stations in the City. He is assisted by an Assistant Mechanical Engineer, a Mechanical Supervisor and two Foremen who daily inspect the working of the stations and attend to the repair of the units. The Mechanical Engineer is responsible for the proper working of all the units in the Pumping Stations, of which two are worked by steam; one by electricity and the remaining sixteen by oil engines.

The following is the list of the pumping stations:

- | | |
|--|-----------------------------------|
| 1. Napier Park Drainage Pumping Sta., Chintadripet—Tel. No 8293. | |
| 2. Triplicane | „ Triplicane. |
| 3. North Mylapore | „ Sullivans Garden St. |
| 4. South Mylapore | „ St. Mary's Road. |
| 5. Graemes Road | „ Near Thousand Lights. |
| 6. Langs Garden | „ Pudupet. |
| 7. Purasawalkam | „ Barracks Road—Tel. 4388. |
| 8. Chetput | „ Near Railway Station. |
| 9. Kilpauk | „ Behind Mental Hospital. |
| 10. Wall Tax Road | „ Wall Tax Road. |
| 11. D'Mellows Road | „ Choolai. |
| 12. Law College | „ Esplanade. |
| 13. Royapuram | „ Chambu Chetty St. |
| 14. "A" Drainage Pumping Sta. | „ Korukkupet. |
| 15. "B" „ | „ Somu Chetti 4th St. Kalmandapam |
| 16. "C" „ | „ Casimode. |
| 17. "E" „ | „ Tiruvottiyur High Rd. |
| 18. Theagaroyanagar | „ Theagaroyanagar. |
| 19. Adyar | „ Adyar. |

IX. THE EDUCATION DEPARTMENT

The Educational Officer :

Sri N. D. Sundaravadevelu, M.A., L.T.
(Tel. No. 2988—Office Exchange).

Lady Superintendent :

Corporation Girls' Schools.

Mrs. M. M. Peters, B.A., L.T.
(Tel. No. 2988—Office Exchange).

The Educational Officer, Corporation of Madras, is the Head of the Department. He is assisted by the Lady Superintendent, who is in charge of all the Girls' Schools and their administration, subject to his general control.

There are two High Schools, one at Nungambakkam and the other at Saidapet and 202 Corporation Elementary Schools in the City of which 111 are for Non-Muslim boys, 22 for Muslim boys, 54 for Non-Muslim Girls and 15 for Muslim girls. Of these, 28 are slum schools which were originally started as feeders but are gradually developing into complete lower Elementary Schools.

The City is divided into three ranges for purposes of inspection. The schools for non-Muslim boys in each area are placed under the supervision and control

of a Supervisor. All the Muslim Boys' Schools in the City are under the supervision of one Muslim Supervisor. The Girls' schools are divided into two categories, one, the Muslim girls' schools and the other, the non-Muslim girls' schools, each under a separate Lady Supervisor. The two Lady Supervisors work under the direct control of the Lady Superintendent. The salaries of the Educational Officer and other officials including the entire teaching staff are met from the Elementary Education Fund.

The Educational Officer is in charge of all the Corporation Elementary Schools in the City and the two high schools at Nungambakkam and Saidapet respectively, and is responsible for their proper functioning. Besides, he is also in charge of the administration of all the 59 Reading Rooms, 18 Playgrounds, 4 Nursery Schools maintained by the Corporation as well as the 10 Corporation Adult Education Centres, and 10 Corporation Adult Literacy Centres.

Consequent on the transfer of the powers of the Commissioner, Corporation of Madras, to the District Educational Officer, Madras, in respect of the imposition of fines on the defaulting guardians, the defaulters' lists approved by the Attendance Committees are forwarded to the Deputy Inspector of Schools for further action under Section 41 of the Elementary Education Act.

X. THE REVENUE DEPARTMENT

Revenue Officer :

Sri G. Munuswami Chetty, B.A.

(Tel. No. 3442—Office—Personal).

(Tel. No. 55038—Residence).

Asst. Revenue Officers :

Mr. S. Md. Sibghathullah, B.A.

Sri A. Balaram, B.A.

Sri M. Jayaseelan, B.A.

Sri P. V. Ranganatha Naidu, B.A.

Sri N. Kannabiran Pillai, B.A.

The authority charged with the Revenue administration of the Corporation is the Revenue Officer. He is assisted by five Assistant Revenue Officers, who are in charge of assessment and collection work pertaining to the five ranges including the extensions.

The main functions of the Department may be briefly stated to be the assessment and collection of all taxes and licence fees.

There are 23 Assessors, 109 Tax Collectors, 25 Licence Inspectors, all of whom work under the direct supervision of the Assistant Revenue Officer of the con-

cerned Range. The Assessors' functions consist in assessment and collection of all taxes payable to the Corporation, in which they have the assistance of the Tax Collectors. Collection of licence fees is done by the Licence Inspectors. The purposes for which premises in the City may not be used without a licence issued by the Corporation of Madras are detailed in Schedule VI of the Madras City Municipal Act.

The work in the office is divided into (1) Property Tax Section, (2) Profession Tax Section, (3) Vehicle and Animal Tax Section, (4) Miscellaneous Section, (5) Licence Section and (6) Cash Section.

The different sections, as their very names indicate deal with all work connected with the respective taxes. The Miscellaneous Section, however, deals with the collection of rents from Municipal markets, model tenements, Corporation leased lands and collection of tax on timber imported into the City for local sale or consumption.

The Revenue Department was formed as a separate department in 1892. Since then, the City has grown considerably in size and importance. With the growth of the City, the income of the Corporation has also been increasing, though not in proportion to the pace of its growth, and with it the Department also has necessarily expanded.

XI. THE CENTRAL ACCOUNTS DEPARTMENT

Chief Accounts Officer:

Sri S. Satyamurthi, B.A.

Tel. No. 2988—Office Exchange.

Head Accountant: Vacant.

The Chief Accounts Officer is the head of this department and he is assisted by a Head Accountant. The department deals with all the accounts relating to Municipal Funds including the Elementary Education Fund, Loan Funds, Deposits and Sinking Funds.

The work of the Department can be classified under the following 6 sections:—

1. Expenditure Audit ; 2. Accounts Compilation ; 3. Suspense and Deposits, including Loans, Sinking Funds, Advances and Stores ; 4. Bills, Cheques, Debentures and Miscellaneous ; 5. Stationery, Printing and Forms and 6. Labourers' Bonus Fund Scheme.

The main functions of the department are :

1. To see that all moneys received by the Corporation are properly accounted for, and all payments made to satisfy administrative requirements.

2. To maintain proper accounts of all loans granted by the Government and those raised in the open market.

3. To examine all claims made against the Corporation and to arrange for issue of cheques in payment of claims admitted.

4. To maintain all the necessary books for compiling the monthly and annual accounts of the Corporation Funds.

5. To scrutinize every proposal involving fresh expenditure before being submitted to the competent authority for sanction.

6. To prepare and print the Annual Budget and enclosures thereto, at different stages.

7. To exercise a general control over the monthly expenditure with a view to see that sanctioned appropriation is not exceeded.

8. To obtain necessary information from Departments and furnish answers to all audit objections.

9. To maintain the Corporation Labourers' Bonus Fund Scheme accounts.

In addition to these, this department offers technical advice to the Commissioner in respect of admissibility

of leave, increment, allowances, etc., to the members of the Corporation establishment. Applications for pensions, gratuities and bonus are scrutinized here.

Preparation of a Schedule of officers and officials of the Corporation, Proposition statement involving changes in such schedule, Establishment list with designations, names, grades of pay, qualifications etc., of all the employees, Printing and supply of forms required by the different departments and distribution of stationery are all dealt with in this department.

CITY OF MADRAS

OFFICIAL HANDBOOK

1950

SECTION V

AMENITIES OF LIFE

- I. AMENITIES OF LIFE.
- II. THE AQUARIUM.
- III. SOCIAL INSTITUTIONS.
- IV. THE MUSEUM.
- V. SOCIETIES AND CLUBS.
- VI. THE ZOOLOGICAL GARDENS.
- VII. THE ROYAL SWIMMING BATH, THE MARINA SWIMMING POOL AND THE MARINA CANTEN.
- VIII. ASHOK VIHAR HEALTH AND RECREATION CENTRE.
- IX. RADIO AND MUSIC.
- X. PARKS AND GARDENS.
- XI. SPORTS STADIUM, TENNIS STADIUM & PLAY-
GROUNDS.

I. AMENITIES OF LIFE

Growth of City Amenities.—It was about 1792 that an astronomical observatory was started and a separate Medical Department was constituted for Madras under the control of a Physician-General. The Madras Post Office was started in 1786; and it was arranged that all letters were to be paid postage at the rate of one fanam each per 100 miles. Newspapers began to appear about this time. The first Madras newspaper was known as the *Madras Courier*. It was a Weekly and served as a medium for the publication of Government notifications and was allowed to be circulated free of postage.

The Male Orphan Asylum was developed out of the charity school maintained by the vestry of St. Mary's Church. Doctor Bell, who was the first Superintendent of that school, adopted the method of teaching that was usually followed in the village pial-school, viz., the sharper and senior boys teaching their juniors, and acting as monitors and assistant teachers. Dr. Bell popularised this system in the United Kingdom and it was for long known in Europe as the Madras system of education. A press was subsequently established in the school which provided useful training for the orphans. Government printed their Gazette at this Press. From this emanated the *Asylum Almanac*.

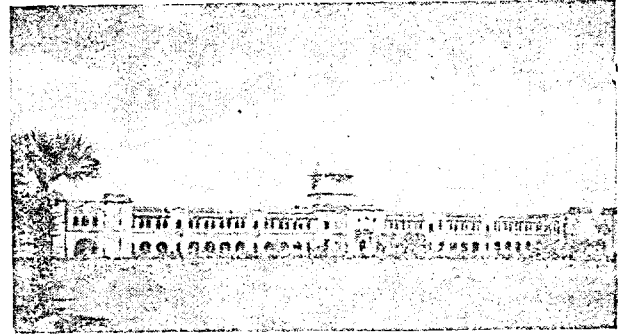
A Female Orphan Asylum was founded in 1787 by the efforts of Lady Campbell, wife of Sir Archibald Campbell, the then Governor. It existed as a separate institution for over a hundred years and later merged with the Lawrence Asylum in Ootacamund.

In 1798 there was established the Recorder's Court which entirely re-organised the administration of justice in the City. Four years later, it was made the Supreme Court of Judicature, the ancestor of the present High Court.

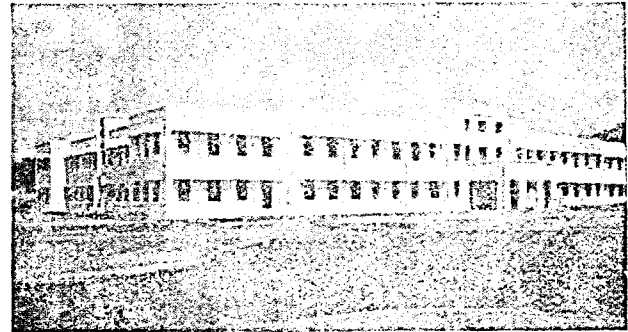
During the Governorship of Lord Clive, who was a son of the famous conqueror (1798-1803), several important changes were effected in the condition of the City as well as of the Presidency. The fall of Seringapatam and the destruction of Tipu's power made the English unquestioned masters of the whole of South India. The acquisition of the Ceded Districts and the annexation of the Carnatic and Tanjore, finally shaped the Madras Presidency as it is at the present day. As a memento of the English victory over Tipu, Lord Clive built the Banqueting Hall by the side of the new Government House which he also enlarged. He combined with the triumph of Seringapatam the memory of Plassey which was a great achievement of his father, both of which victories are indicated by the friezes on the pediments of the roof of the Hall. A battery whose shell still exists on the North Beach Road was constructed in his time at the sea-end of the Black Town Wall. It is still known as the Clive Battery.

Thus, in the opening years of the nineteenth century, Madras City came almost to its present shape and extent even as the Presidency came to be finally formed. The Fort has now become more of a collection of civil buildings and very much less military in its appearance and substance. Its walls and bastions remain much the same but for the moat, which has been choked and dried up. On the east side of the Fort the Beach Road was constructed in 1846. The Marina, which is a continuation of the Beach Road right down to San Thome, was completed in the time of Governor Grant-Duff in 1885. Prior to the formation of the Marina and the Beach Road, the evening resort of the fashionable folk of the City was the Mount Road, down which gentlemen and ladies used to ride or drive to the Cornwallis Cenotaph which was surrounded by an avened oval drive. Mount Road itself was widened and remade in 1796. In its course over the Island, it was provided with an avenue of trees, three deep on either side. Along the road half down to Cenotaph was built St. George's Cathedral by the famous Engineer, De Havilland, in 1816. A few years later the Scotch residents in Madras made use of the same engineer for the construction of their Kirk, St. Andrew's, which has got a stately appearance characterised by general lightness. It is regarded as one of the noblest Christian edifices in India. The Madras Club, one of the finest residential European Clubs in India, was started in 1832. The Madras Literary Society which is housed in a fine building in the Old

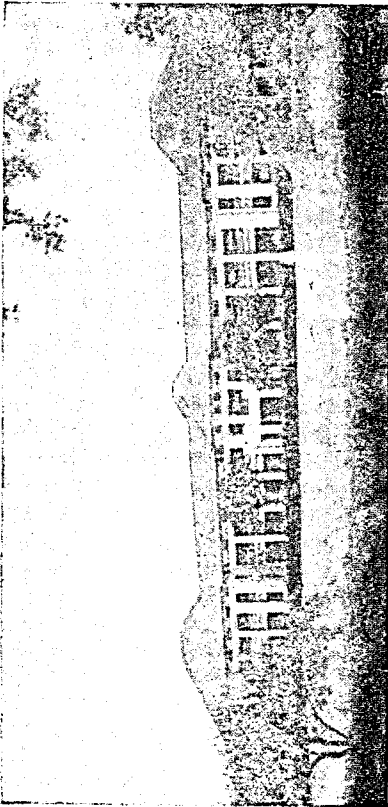
College compound in Nungambakkam began its life in 1817. Sir Thomas Munro, the famous Governor (1820-27), was greatly interested in the promotion of education and started English schools in several places in the Presidency. Macaulay's Minute about the necessity of imparting western education to Indians led to the Madras Government running a collegiate institution which was originally known as the High School and subsequently became the nucleus of the Presidency College. A school of Industrial Art was started by Dr. Hunter in 1850. It was subsequently taken over by Government and has been fostered into its present usefulness as the School of Arts and Crafts. Government ran a Survey School for the training of their servants in the Revenue Department. In 1859 this school was made into a Civil Engineering Institution to meet the requirements of the Public Works Department and was subsequently raised into a College. The Madras Medical College was established in 1835 for the training of the subordinates for the Medical Department. A senior section was subsequently added to it and an auxiliary Medical School at Royapuram was established in 1877 to meet a deficiency in the strength of the subordinate Medical Service during the great Madras famine of that time. This has since developed into a full fledged Medical College, viz., The Stanley Medical College. The Presidency College had a Law branch also, till the creation of a separate Law College for which sanction was given only in 1891.



ENGINEERING COLLEGE, GUINDY



PACHAYAPPA'S COLLEGE, CHETPUT



CHRISTIAN COLLEGE, TAMBARAM

Private efforts in the field of education were undertaken both by Missionaries and by Indians. In 1837 John Anderson, a Scottish Missionary, opened a school which, under the fostering care of his successors, particularly of the great Doctor Miller, has developed into its present proportions and usefulness, as the Madras Christian College. The pioneer of Hindu institutions is Pachaiyappa's College which was originally started in 1842 for the free education of the poorer classes of the Hindu Community from out of the munificence of a generous Dubash of the eighteenth century.

It was during the stress of the Mutiny days that the University of Madras was started. Higher education has, in spite of many defects, been progressing favourably. In recent years, women's education has been receiving a remarkable impetus. A College for women was started by Government in 1914 and named in 1917 as Queen Mary's College for Women. It is fully residential and is located in a group of spacious buildings facing the Marina to the south of the Ice House. Ice House itself was so called, because in its vaults was stored, the ice that was annually imported from America for the use of the Madras residents in the hot weather. It now serves as a Widows' Home, most of its inmates being students. To its west is the Government Training College for Women named after Lady Willingdon, wife of Lord Willingdon, Governor of Madras (1919-24) and subsequently Viceroy of India. Missionary enterprise has also been useful in the field of women's

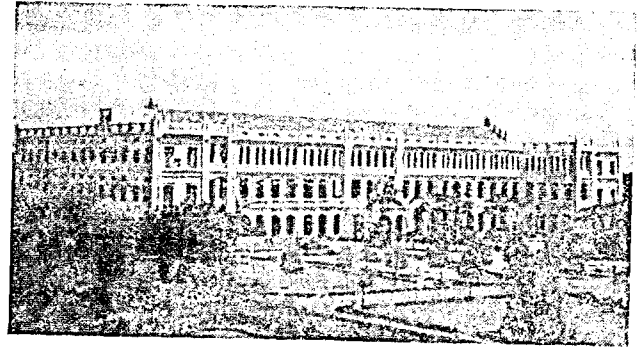
education. The Women's Christian College has been doing useful work and is controlled by a representative body of British and American Missionary Societies. St. Christopher's Training College in Vepery was opened some years back and is under the control of a representative Missionary Council. The most recent addition is the Ethiraj College for Women. The Loyola College managed by the Madura section of the Jesuit Mission, the Vivekananda College managed by the Ramakrishna Mission and the Government Arts College* are the other Institutions which serve the cause of higher education in the City. Besides these Collegiate Institutions, there are a number of High Schools in the City,

II. THE AQUARIUM

The Aquarium, situated on the Marina sands opposite the Presidency College, was a very unique one. It was under the charge of the Fisheries Department of Government and contained a very attractive and numerous collection of fishes of varying colours, besides typically preserved specimens of a large range of marine animals.

The Aquarium was removed from its location on Marina during the War, as it was almost on the sea-shore. There is a proposal pending consideration by Government to locate the Aquarium in a new building to be constructed somewhere near the old building.

* Formerly known as the Government Muslim College.



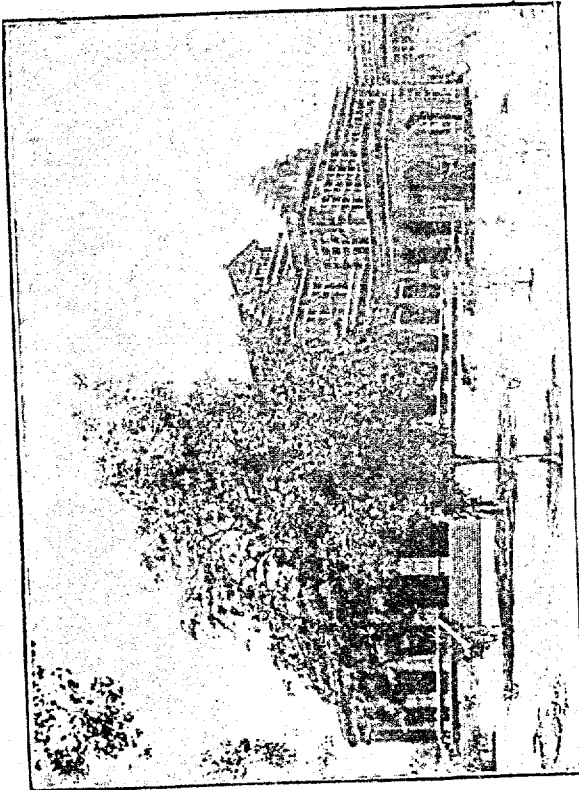
LOYOLA COLLEGE, NUNGANBAKKAM

III. SOCIAL INSTITUTIONS

Early in the nineteenth century, the Monegar Choultry which exists even now, developed out of a previous standing fund into a permanent institution for the relief of the sick and poor. The beginnings of the Madras Lunatic Asylum go back to the last years of the eighteenth century. The Asylum has in every way proved a model institution of its kind. The Poor House opened in 1927, the Special Home opened in 1945, the Work House opened in 1946 and the Orphanage opened in 1947 are the Institutions maintained by the Corporation. In this connection mention must also be made of the Friend-in-Need Society, started in 1807 for the relief of indigent Eurasians, the Society for the Prevention of Cruelty to Animals, the Pinjrapole largely maintained by the charity of the Marwari community, the Humanitarian League and the Society for the Protection of Children, and the Government-sponsored Womens' Welfare Association and the Provincial Welfare Fund.

IV. THE MUSEUM

The starting of a Museum under Government auspices may be regarded as part of their activity in the field of educational promotion. The Madras Literary Society presented to Government in 1851, a large collection of geological specimens, and this with the duplicates left after despatching similar articles



MUSEUM BUILDINGS, EGMORE

for the great London Exhibition of that year, formed the nucleus of the present Government Museum.

The Madras Government Museum, one of the best of its kind in India, is situated on the Pantheon Road in an extensive compound of shady trees. The Museum consists of two fine buildings and an extension. The Museum Theatre forms part of the front buildings and to its rear is the Connemara Public Library. In this front building on the ground floor, are exhibited the prehistoric antiquities, and the arms and weapons and on the first floor, the bronze images and ethnographic collections.

The new extension leads on to the rear building. In this part, the visitor sees the stone sculptures beginning from the ancient bronze age site of Mohenjo Daro, leading through the main phases of Indian History. The architecture and sculptures of these periods — Jain, Buddhist and Hindu, show the pervasive symbolism of religious art in India. The evolution of the several South Indian scripts is also depicted here in inscriptions and charts. The History of India through coins is yet another interesting and instructive exhibit.

First, there is a chronological sequence of South Indian Sculptures—Pallava, Chola, Vijayanagar, leading on to the modern period. The next section is devoted mainly to sculptures depicting the deities of the Hindu Pantheon; the third section exhibits the Buddhist sculptures from the Amaravathi stupa of which there

is also a plaster model; and in the next section, are the Jain images, chiefly the Tirtankaras.

A small collection of paintings typical of South Indian art, is exhibited at the beginning of the Natural History Galleries. On the ground floor, are the skeletons among which is the huge whale skeleton, reptiles, birds and mammals and adjoining this, are the newly reorganised Geology Galleries. On the first floor are the corals, shell-fish, insects and fishes on one side and the Botanical section on the other, including economic and medicinal plant products and plants of systematic importance.

In the front building which houses the Museum Theatre in front and the Connemara Public Library in the rear are varied exhibits. On the right wing of the ground floor are exhibited the large collections of prehistoric antiquities. These include stone tools of the old and new stone ages, huge pottery urns and coffins, iron tools, beads and bronze vessels mostly obtained from very ancient burials. In the left wing are guns, cannons, mortars and grape-shots obtained as trophies of the East India Company, and the swords, daggers, spears and elephant goads from the Tanjore Armoury.

On the first floor of this building, are the ethnographic collections such as bows and arrows, boomerangs and blow guns, firemaking appliances, models of dwellings and objects of the material culture of the South Indian

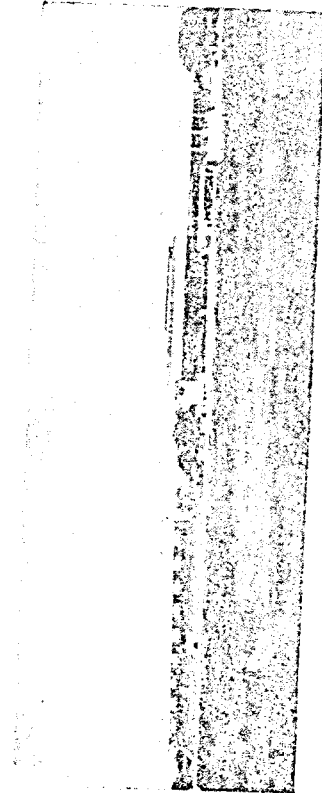
hill tribes, a large collection of South Indian musical instruments and peasant jewellery.

The world-famous bronze images of South India of which the Dancing Sivas or Natarajas are some of the finest pieces of art, are exhibited here along with other remarkable Saivite, Vaishnavite and Buddhist images. On the same first floor on the opposite section are exhibited a large number of exquisite wood carvings, objects of ivory work and a varied collection of metal-ware objects.

The Madras Museum is one of the best civic amenities where the visitor is made conscious of the immense cultural heritage of this country.

V. SOCIETIES AND CLUBS

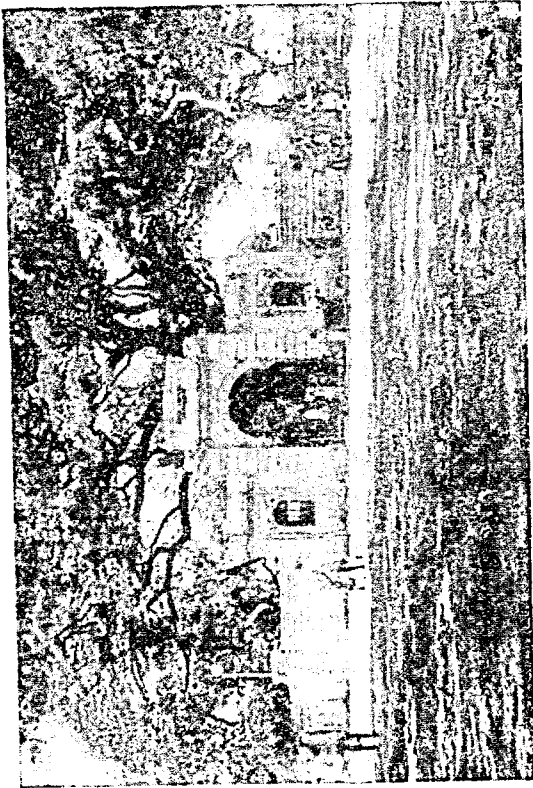
Madras can also boast of a Fine Arts Society which holds an annual exhibition of pictures and other works of art, an Agri-Horticultural Society which manages the fine garden opposite the Cathedral and holds an annual flower show, a Musical Association and an Amateur Dramatic Society which stages its plays in the fine theatre attached to the Museum buildings. The Madras Club and the Adyar Club are the chief favourite resorts of the European community. The Gymkhana Club and the Presidency Club are also two good clubs.



PANORAMIC VIEW OF THE MADRAS RACE COURSE, GUINDY

The Cosmopolitan Club in Mount Road, the Suguna Vilasa Sabha situated next to it, the South Indian Athletic Association in the People's Park and the Madras United Club are the chief resorts of the upper class Indians among whom the club-going habit has largely spread.

The Madras Race Club.—The Madras Race Course existed even as early as 1777, though records relating to those periods are not traceable. In 1896, after nearly a century when Racing in Madras went through a great many vicissitudes, the Madras Race Club was formed and during the past half a century except during the first World War (1914-18) when racing was completely abandoned and when the late Lord Willingdon gave a fillip to its revival, racing has been the favourite sport of many thousands in and around the City. His Excellency the Governor of Madras, the Rajah of Bobbili and Dr. P. Subbarayan are the Patrons of the Race Club which is administered by a Committee of Stewards elected by the Club and assisted by a paid Secretary. The Madras Race Course, situated near the Guindy Railway Station (S. I. Ry.) and about 8 miles from Madras is about $1\frac{1}{2}$ miles in length and has one of the loveliest racing turfs in India. The most important event during the annual racing season (from the 2nd or 3rd week of November to the middle of April) is the Governor's Cup Race run on the New Year day each year, when His Excellency the Governor of Madras will arrive at the course in state drive and



ENTRANCE TO THE ZOO

himself present the Cup to the owner of the winning horse.

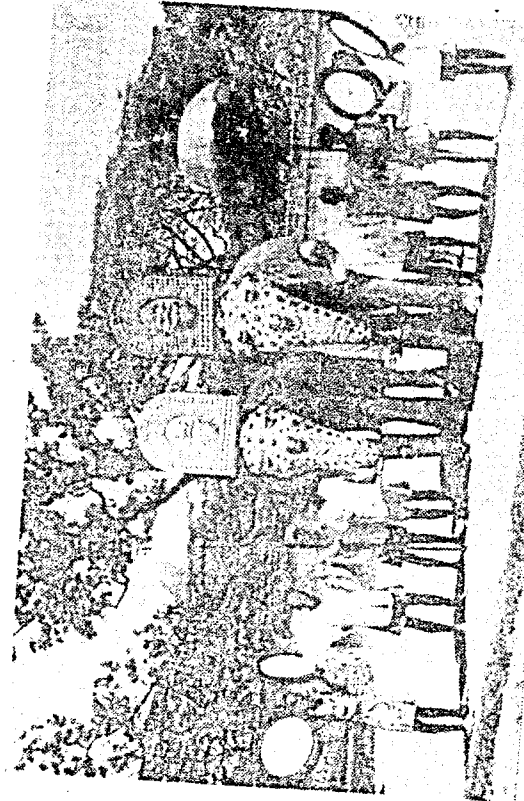
The Club has its programme of donations from its own funds to various charitable objects including the organisations working for the welfare of the Common Man.

VI. THE ZOOLOGICAL GARDENS

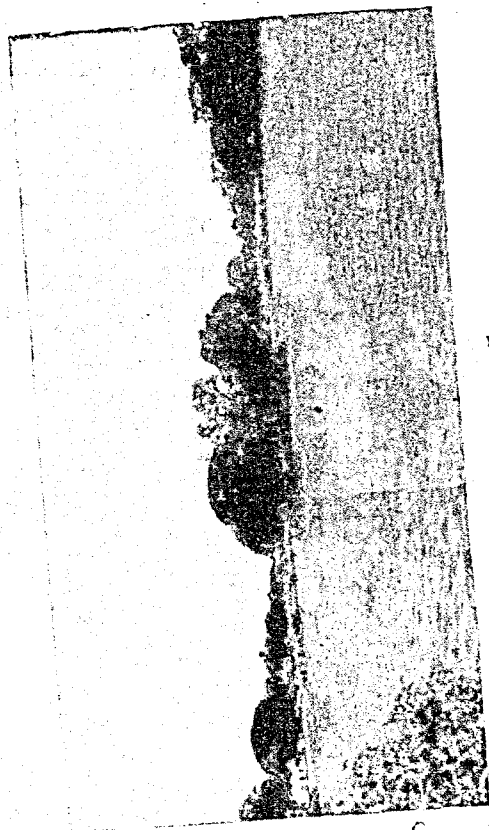
A menagerie was started as an adjunct to the Museum in 1853. It was shifted to the People's Park which was opened in 1861. Its up-keep along with that of the park vested in a committee of which the President of the Municipal Commission was the Chairman. In 1866 it was handed over to the Madras Municipality and remained under the control of the President. In 1917 it was placed under the Licence Officer. From 1921 its management came to be vested with the Health Officer.

The wild animals were scattered, at first, about the park. It was only gradually that they were moved within the site now called the Zoological Gardens. A small tank with an island in the middle makes the garden very attractive and affords facilities for boating.

Many improvements have been effected to the Zoo and the gardens in recent years. The cages and enclosures for animals have been improved and extended to provide more accommodation and as much natural



CORPORATION ELEPHANTS WITH REGALIA



POND IN THE ZOO

environs as possible to the animals. Erection of ornamental walls with an architectural gate-way, revetment of the edges of the tank, remodelling of garden lay-out and planting of more trees have made the gardens more attractive.

When the City was threatened with aerial bombardment in 1942, all dangerous animals had to be killed under instructions from the Provincial Government. Some of the other animals were removed to Erode for safety and brought back in 1944.

The live-stock in the Zoo has since been considerably replenished and the Zoo now contains a rare collection of animals housed in cages and enclosures specially suited to each species.

Admission fee to the Zoological Gardens is fixed at 2 annas per head. Children between 2 years and 12 years of age are admitted at a concessional rate of anna one per head.

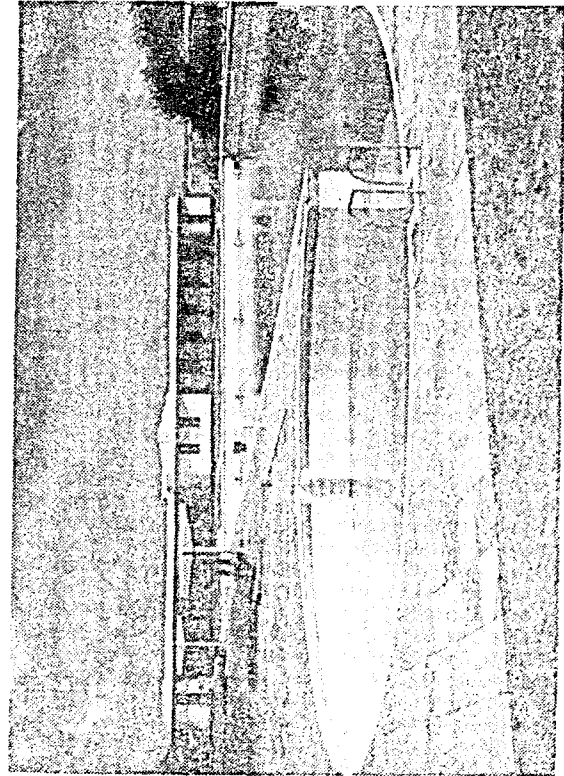
A cafe is run within the Zoo Gardens for the benefit of the public.

Facilities for boat rowing are provided in the tank within the Zoological Gardens. There is a boat house with 6 boats for the use of the public. The fee for a trip round the zoo lake is 2 annas per head. Children between 2 years and 12 years of age are charged half-rates.

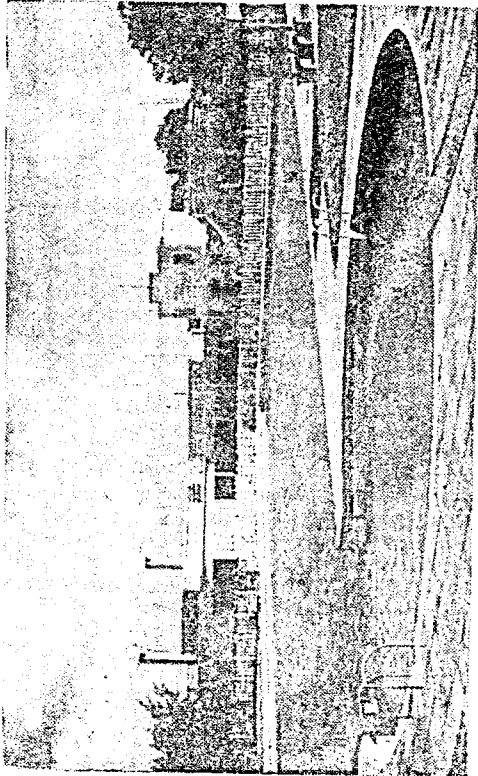
VII. THE ROYAL SWIMMING BATH, THE MARINA SWIMMING POOL AND THE MARINA CANTEN

Adjoining the Zoo is the Corporation Swimming Bath. Constructed in 1922 out of the munificence of the Rajah of Kirlampudi, it is called the Royal Swimming Bath. The gradient at the bottom is so gradual that even beginners can learn swimming without any risk. Where the water is deep enough at the farther end there is a diving board. The entrance fee to the Bath is 8 annas on Saturdays and Sundays, 6 annas on Mondays and Tuesdays and 4 annas on Wednesdays and Thursdays. On Fridays when the Bath is closed to the public, it is emptied, cleaned and re-filled with fresh water. Half rates are charged for *bona fide* students. Season tickets are issued at Rs. 3/- for 30 calendar days with a refundable deposit of Re. 1/- The Bath is open to the public from 7 a.m. to 11 a.m. and from 2 p.m. to 5 p.m.

The Swimming Pool and the Canteen in the Marina which were started during the war period as amenities for the troops stationed in the City, were taken over by the Corporation on 30-9-1947 and opened to the public on 5-10-1947. To make them more attractive and popular, major improvements were effected to the Swimming Pool and the Canteen at a cost of about Rs. 80,000/-. For the convenience of the users of the Pool, dressing rooms, flush-out latrines and baths have



MARINA SWIMMING POOL WITH AMENITY BUILDINGS IN THE REAR



MARINA CANTEN WITH SWIMMING POOL IN THE FOREGROUND

been provided separately for Ladies and Gentlemen. On Saturdays, Sundays and Mondays, the Swimming Pool is open to the public from 6 a.m. to 6 p.m. the entrance fee being 8 annas. Season tickets are also issued at Rs. 3-8-0 for 30 calendar days. On Tuesdays, Wednesdays, Thursdays and Fridays, the Pool is closed to the public, and during this period it is cleaned and refilled with fresh water. Copper sulphate and bleaching powder are used to make the water safe for bathers.

The Marina Canteen is leased out to a firm of caterers and is run on up-to-date and scientific lines under the supervision of the Corporation.

VIII. ASHOK VIHAR HEALTH & RECREATION CENTRE

The Ashok Vihar Health and Recreation Centre, the first of its kind in India, is situated behind the Moore Market and housed in the premises where the Hope Club was run during the war, for the welfare of invalid army men.

Modelled on the Peckham Health Centre, London, with modifications to suit local conditions, the centre was opened on 29-5-1948, and is maintained by the Corporation of Madras.

The primary object of the centre is to maintain optimum standards of health by periodic overhauls, advice, and to provide recreational and educational facilities to all the members of the family as a unit

as distinct from the services available to the individual. With this object in view, families consisting of parents, children and dependent members have been enrolled as members of the centre. The facilities afforded in the centre are intended to be taken advantage of chiefly by the less privileged class of families residing in the neighbouring slums which are at a walking distance from the centre. Membership to the more privileged class of families has been restricted to a minor percentage. The membership fee is one anna per family per month. This fee is nominal and is meant to make the family realise that they are contributing something within their means for the various amenities they get in return.

The centre has also for its aim the raising of the standard of living of the families residing in the slums in all aspects of life, *viz.*, social, economic, educational, etc.

The centre has separate sections for men, women, boys and girls where they engage themselves in activities such as attention to personal hygiene, creative activity, music and indoor and outdoor games. In the women's section, useful handicrafts are also taught. In the boys' and girls' sections, elementary education is imparted to children not in a position to attend schools.

Besides periodical health overhauls, facilities are provided for the diagnosis of eye, ear, nose, throat

and dental complaints of the members by visiting specialists. There is a maternity section for conducting pre-natal examination of expectant mothers among members. A labour ward with 6 beds is attached to the centre for attending to deliveries. A creche is run for the benefit of children (under 6 years) of working mothers among members, and a canteen for supplying snacks and tea at cost price to members.

Every individual member of the family on admission, undergoes complete medical examination by the Director and the Assistant Director and the findings are recorded in specially prepared case sheets. The members are also referred to the various special sections provided at the centre, each in charge of a specialist. Members who require special pathological investigations, are referred to the Pathologist attached to the Corporation Public Health Laboratory. When all the individuals in the family have been examined, the whole family meets in a consultation and the health of everyone is discussed with the head of the family. Nothing is withheld in these talks. Whatever defect found in the members of the family, is frankly reviewed and necessary advice given for the benefit of all concerned.

Attached to the centre is a small dispensary for treating minor ailments and injuries. Members suffering from major ailments are given necessary advice and are referred to the various hospitals in the City.

Preventive inoculations to the members are carried out periodically and when necessary.

The Director, the Assistant Director and the welfare organisers visit the members in their homes almost daily in the mornings. During these visits, besides making enquiries about their health and the progress of their children in the schools, advice is given on personal and domestic hygiene. Post-natal cases which have been discharged from the maternity ward of the centre are contacted and the health of the mothers and babies noted. Members who are unable to come to the centre due to illness are attended to in their homes. Children are admitted in schools. The staff in addition identify themselves with their difficulties and problems, helping as far as possible to find a solution for them.

Sports are conducted at the stadium in the People's Park, when members of all sections take part. Occasionally, entertainments are staged by the creche children and then all children receive presents and sweets. Members are also taken on excursions to the Zoo and My Ladye's Gardens.

IX. RADIO AND MUSIC

A regular broadcasting service was started by the Corporation on 1st April 1930 which functioned till the middle of June 1938, when the broadcasting

service in the Country was taken over by the Government of India.

The Corporation has installed six Radio loud-speaking equipments in the following centres:—

1. Marina, Triplicane.
2. Robinson Park, Washermanpet.
3. Spur Tank, Egmore.
4. People's Park, Periamet.
5. Panagal Park, Theagaroyanagar.
6. High Court Beach.

In addition, small radio sets have been installed in the undermentioned 12 parks of the City. The All-India Radio Programmes of Madras Station are being received and rediffused for two and a half hours each evening, viz., from 5-30 p.m. to 8 p.m. The 12 sets in the following smaller parks are controlled by automatic time-switches.

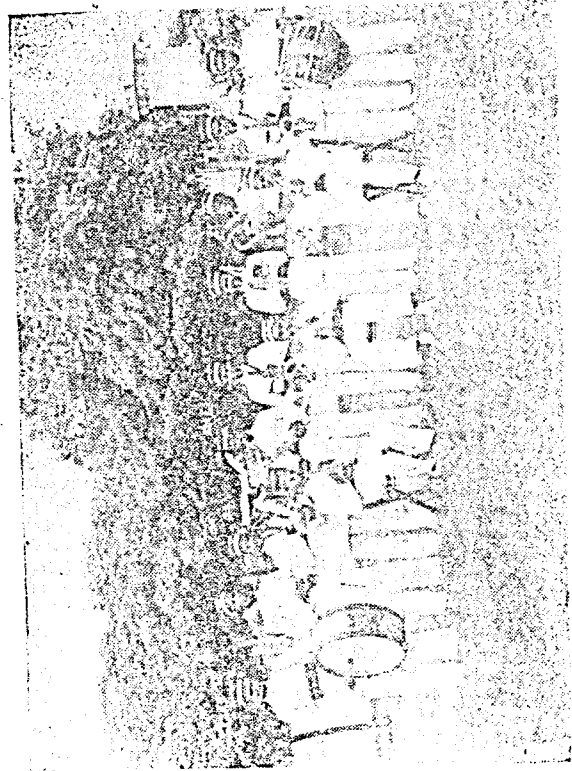
1. Park in Venkatesa Naicken St., Royapuram.
2. Sir Theagaroya Park, Washermanpet.
3. St. Xavier Street Park, George Town.
4. Sivagnanam Park, Peddu Naicken St., George Town.
5. Raghavendra Rao Park, Choolai.
6. Patel Park, Purasawalkam.

18. Corporation Model School, Veeraswamy Pillai Street, Egmore.
19. Do. Anna Pillai Street, George Town.

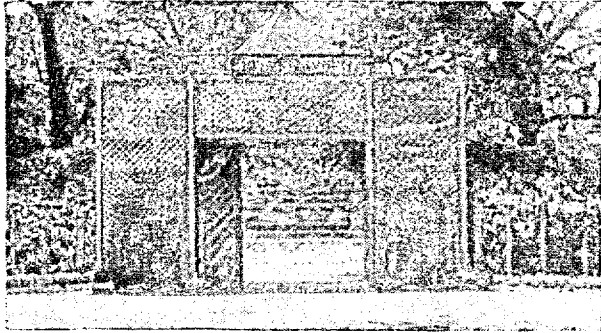
Corporation Band.—The Corporation Band gives performances in Indian (Carnatic) music every evening at one or the other of the various parks and public places in the City for the entertainment of the public. It is also in attendance at all important Corporation functions such as Inauguration Day Celebrations, Civic Receptions, etc. Without prejudice to the programmes of the Corporation, the Band is hired to the public at a charge of Rs. 50/- for the first three hours or part thereof and Rs. 25/- for every additional hour or part thereof.

X. PARKS AND GARDENS

The People's Park.—This park was originally a narrow stretch of pasture land thrown open to the public in 1859 by Sir Charles Trevelyan, the then Governor of Madras, after effecting necessary improvements. In the year 1866 its entire management was transferred to the Municipality. The plot of land on which the Victoria Public Hall now stands, was leased to the Town Hall Committee on a nominal rent of Re. 1/- per annum for a term of 99 years from 1883. Another portion in the south-eastern side of the People's



CORPORATION BAND SET



MY LADYE'S GARDEN, PEOPLES PARK

Park was subsequently leased to the South Indian Athletic Association for encouraging athletic games, fairs and festivals. The open space to the north-western corner of People's Park originally used as a playground is proposed to be converted into an ornamental garden giving an attractive landscape to the approaches. From the beginning, the administrative control of the park was under the direct charge of the President until 1st August 1917 when the License Officer was asked to take charge, and on the 19th May 1921 it was transferred to the City Engineer.

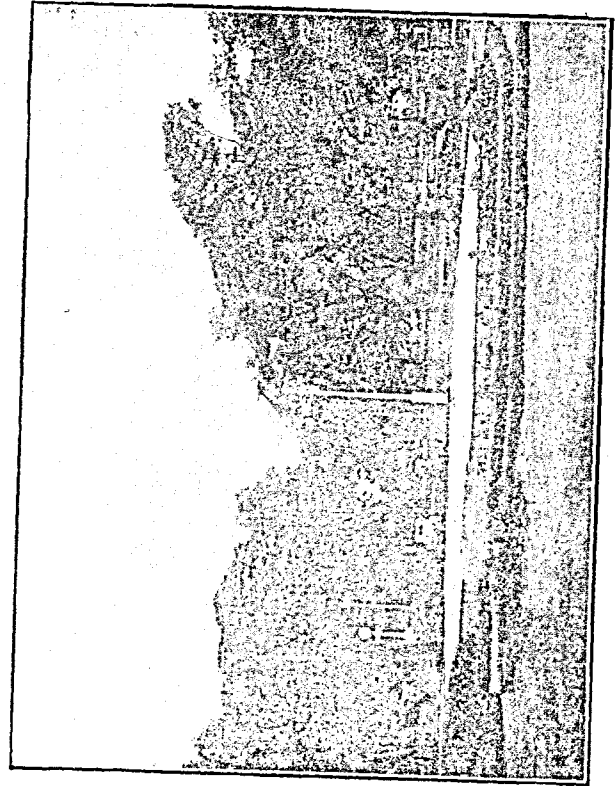
My Ladye's Garden inside People's Park is a beauty spot where the Flower Show is held every year in February and kept open for a week. A number of side exhibits from the Government Departments are also requisitioned for the Show to educate the public in growing more food, Pisciculture, Food Recipes and Fruit Culture.

Napier Park.—This park was entrusted to the Municipality in 1879 when improvements were effected with flower beds and gravel walks. It is named after Lord Napier, the then Governor of Madras. Every effort has been taken in recent years to improve this park to present a beautiful appearance. A swimming pool provided for children inside the park has become very popular. The park is now a favourite resort to the residents of Chintadripet one of the most congested divisions in the City.

Robinson Park.—On 1st February 1899 the management of this park was transferred to the Municipality. This is maintained in good condition and forms a lung to Washermanpet and Royapuram.

Wayside Parks.—Other parks scattered all over the City at street corners and marginal land on roads relieve the monotony of endless rows of buildings in brick and mortar which is so tiring to the eye of the passer-by and in some places provide a shady resting place for the residents close by. The extensive parks of this kind are:—

1. Sir Theagaroya Park, Tiruvottiyur High Road.
2. Sree Ramulu Naidu Park, Broadway.
3. Sivagnanam Park, George Town.
4. Kesava Pillai Park, Choolai.
5. Selvapathy Chetty Park, Perambur.
6. Wadia Park, Perambur.
7. Raghavendra Rao Park, Choolai.
8. Nehru Park, Poonamallee High Road.
9. Park in Spur Tank Road.
10. Gopathi Narayanaswamy Chetty Park, Vellala Teynampet.
11. Panagal Park, Theagaroya Nagar.
12. Dr. C. Natesa Mudaliar Park, Theagaroya Nagar.
13. Satyamurthy Park, Egmore.



ROBINSON PARK

14. Independence Day Park, Nungambakkam.
 15. Richards Park, Saidapet.
 16. Nageswara Rao Pantulu Park, Mylapore.

XI. SPORTS STADIUM, TENNIS STADIUM AND PLAYGROUNDS

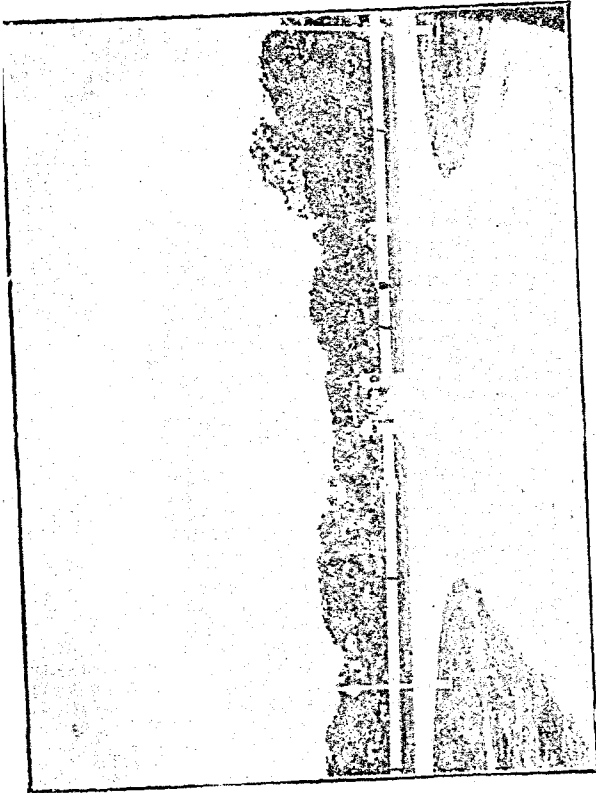
The Sports Stadium in the People's Park was constructed in the year 1946. Designed to accommodate about 20,000 spectators, this Stadium is provided with earthen galleries supported by retaining walls, toe walls, etc., at a cost of about Rs. 1.5 lakhs.

The central arena in the Stadium consists of six cricket pitches, with foot-ball and hockey fields on either side and a cinder track 30 feet wide all round for holding of sports like running races, hurdle races, cycle races, rekla races, etc.

Separate enclosure with roofing for the use of athletes who take part in sports and a temporary asbestos-sheet-shed for accommodating distinguished visitors have been provided. The latter is proposed to be replaced by an up-to-date Club house.

A Tennis Stadium with three tennis-courts and concrete galleries with a seating capacity of about thousand was constructed in the year 1946 in the open ground behind the buildings popularly known as the

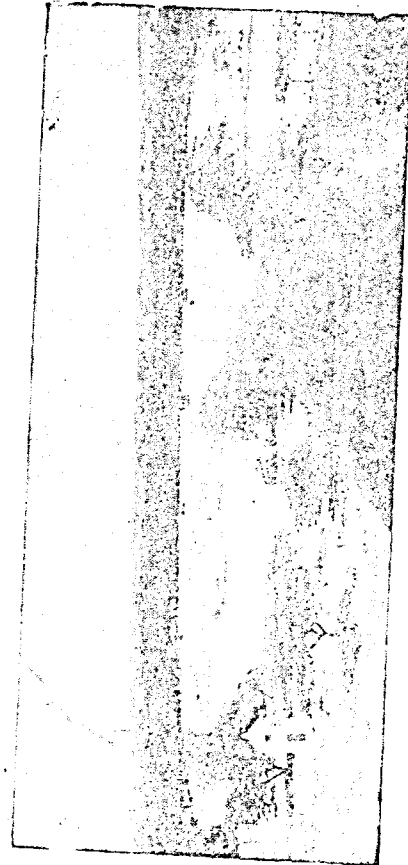
PANAGAL PARK, THYAGARAYANAGAR



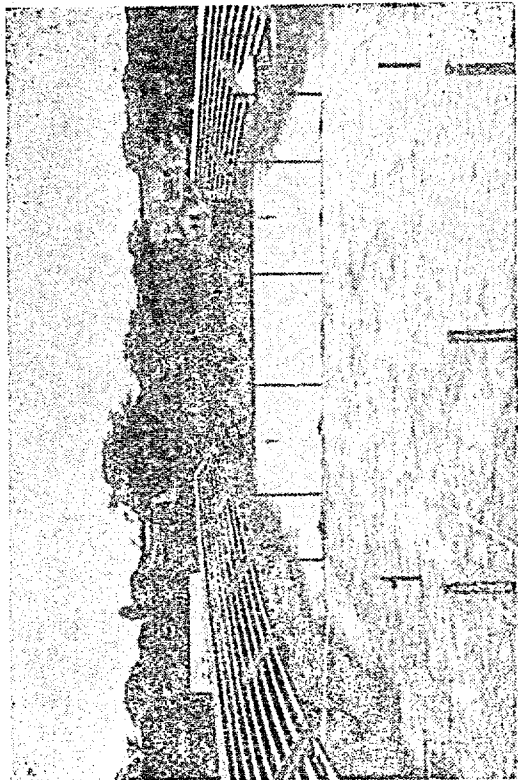
Old Records Office, Egmore. Within this Stadium foot-ball and hockey grounds have also been formed. A Club-house with bath-room and flush-out latrines has also been constructed as an adjunct to this Stadium.

The Corporation Authorities in co-operation with sports enthusiasts in the City are exploring ways and means to improve and popularise the Stadia in People's Park and Egmore.

The policy of the Corporation to afford more playgrounds in the City for the increasing population is being given effect to by the formation of playgrounds in Kesava Pillai Park at Choolai and Dr. C. Natesa Mudaliar Park at Theagaroyanagar and the conversion of all available open spaces in the High Court compound into recreation grounds with a cricket field, foot-ball and hockey grounds, several lawn-tennis and badminton courts, volley and base-ball courts and a gymnasium with necessary equipments. Provision is also being made in several of the Town Planning Schemes under preparation for providing similar facilities. Other open spaces available, in the different parts of the City, are also included in the programme for opening more playgrounds with equipments and attendants to encourage athletics and sports in the City for the coming generations. The recent extensions of the City limits offer unlimited scope for further improvements of the activities of the Corporation in this direction.



CORPORATION SPORTS STADIUM, PEOPLES PARK



CORPORATION TENNIS STADIUM, EGMORE

CITY OF MADRAS

OFFICIAL HANDBOOK

1950

SECTION VI

SOCIAL SERVICES

PART I. ROADS

Madras City covering an area of about 49.74 square miles, has a total metalled road length of about 443 miles including the roads handed over by the Highway Department in the extended areas of the City, and is, therefore, appropriately called a city of distances. The total road length can be classified as hereunder :

I. ROADS.

II. PUBLIC HEALTH.

III. EDUCATION.

IV. DRAINAGE.

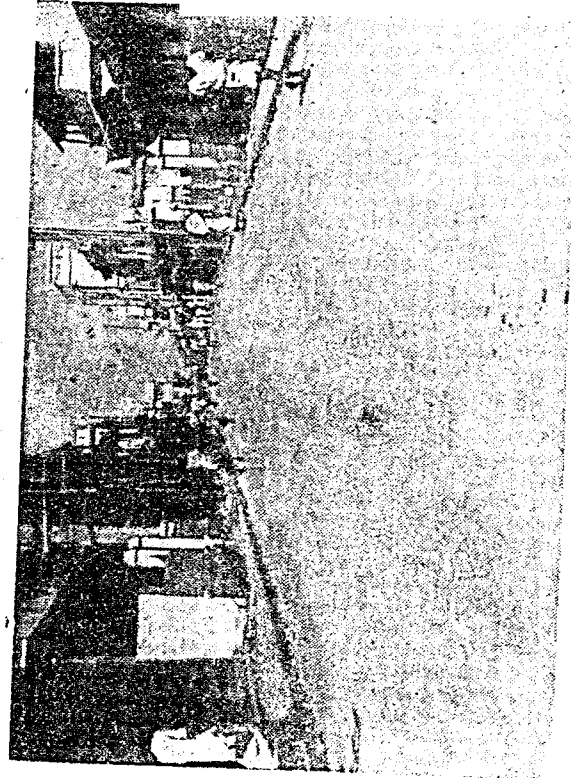
(a) Water bound Macadam	...	13.25	Miles.
(b) Asphalt Roads	...	363.82	"
(c) Cement Concrete Roads...	...	7.78	"
(d) Asphalt Concrete Roads			
(Cold mix)	...	34.79	"
(e) Asphalt Concrete Roads			
(Hot mix)	...	19.18	"
(f) Set stone paving	...	0.43	Mile.
(g) Conphalt	...	3.75	Miles.

The ultimate aim of the Corporation of Madras is to make all the roads in the City, including residential streets and lanes in the interior, dust-proof and to provide all the important thoroughfares with asphaltic concrete or cement surface to enable them to stand up to the high density of traffic. Superior road surfacing is done departmentally, and is financed from loans received from the Provincial Government. In this connection a Hot-mix-plant at a cost of Rs. 1,25,875

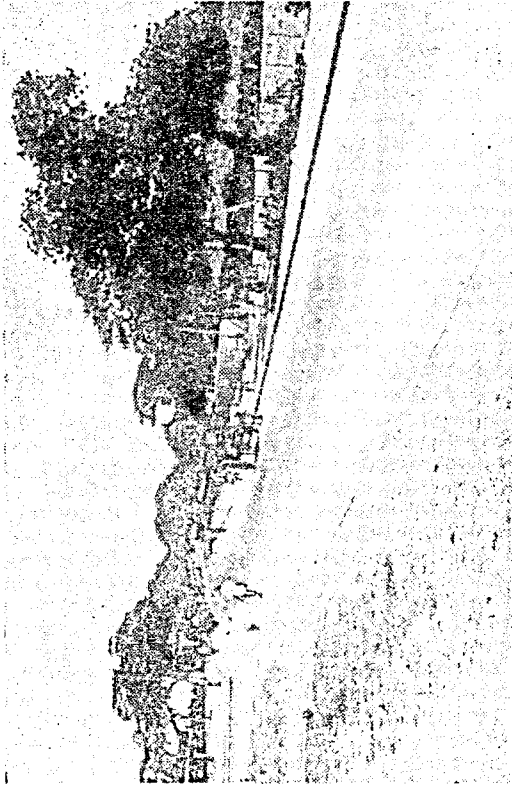
has recently been purchased from Messrs. Millar Machinery Ltd., London.

In view of the heavy iron-tyred traffic in Audiappa Naicken and Ramanan Streets, George Town, they were provided with sett stone paving to a length of 2,281 R. ft. in the stretches where the volume of traffic is the heaviest. The sett stone paving was given a bitumen seal coat which gives not only a smooth surface to the stretch but also minimises the noise peculiar to all sett stone pavements, caused by the plying of heavily laden iron-tyred hand-carts and bullock-carts.

A scheme for superior surfacing all the important roads at an estimated cost of about Rs. 70 lakhs was approved by the Council on 1-2-46. The Government were requested to accord sanction for the scheme and also to give a loan of Rs. 70 lakhs spread over a period of 5 years at Rs. 14 lakhs per year so that the scheme might be completed within a period of 5 years. After some correspondence, the Government in their order G.O. No. Ms. 1828 dated 7-11-46 stated, that, while they appreciated the need for improving the present condition of important roads in the city, they considered that the Corporation of Madras would not be well advised in launching upon a programme of road improvements estimated to cost Rs. 70 lakhs considering its financial position. The Government further stated that they could not guarantee the provision in future years of the loans required for the purpose.



GRANITE SETT STONES PAVING IN AUDIAPPA NAICKEN STREET AND RAMANAN STREET



TYPICAL ASPHALT ROAD—BASIN BRIDGE ROAD

With the help of the loans, received from the Government, superior surfacing of roads is being done. Alongside works connected with road improvements, the Corporation undertakes on a large scale as far as funds permit, formation of new pavements for the use of pedestrians. It also maintains the roads and pavements by constant patching and resurfacing wherever necessary. To regulate the control of vehicular traffic, traffic islands are constructed at important junctions of roads and streets, in consultation with the Police Department. The expenditure incurred on superior surfacing of roads till the end of the official year 1948-49 was about Rs. 43,00,000.

II. PUBLIC HEALTH

In the early years of English settlement in Madras and before the Corporation was established, the Governor of the East India Company made arrangements for keeping the town clean by appointing scavengers for the purpose and defraying the expenses thereof by means of a moderate tax collected from the inhabitants.

In 1688 the Corporation was inaugurated and the East India Company decided to transfer these taxes to the Corporation subject to the condition that the conservancy of the town was managed by the Corporation. But the Corporation seems to have made no serious or regular attempts to keep the town clean and healthy for the residents.

In 1776 the Company's Scavenger issued Sanitary Regulations for the prevention of nuisance in George Town, prohibiting carts and cows being kept in the streets and compelling each house to have a cess-pool.

In 1793 an Act of Parliament was enacted by which the Corporation was given powers to appoint scavengers for cleaning the streets and to defray the expenses therefor by raising necessary taxes. The preamble to the Act contained as its object "that the streets should be regularly and effectively cleaned, watched and repaired and scavengers should be appointed for the purpose."

It was then that the town cleaning duties were entrusted to officials known as Surveyors and Collectors, under whom conservancy work was done on contract basis.

In 1856 the Justices of the Peace were replaced by a body corporate consisting of 3 Commissioners, who were to look after the conservancy and improvement of the Town of Madras. By Act IX of 1867, provision was made for the systematic registration of births and deaths and the sections relating to Public Conservancy and Public Health were amplified and improved. It was also in that year that the office of the "Sanitary Inspector" as the head of the Sanitary Department was created on a salary of not less than Rs. 300/- and not exceeding Rs. 500/- a month, which marks the real beginning of the Health Department

as a separate unit of the Corporation of Madras. By the supplementary Act V of 1871 the Corporation included among its functions the training and appointment of Vaccinators and the application of the India Contagious Diseases Act and all local works of public utility calculated to promote the Public Health of the Town.

The Sanitary Department created in 1884 had one Sanitary Inspector to begin with. Later, the number of Sanitary Inspectors rose to 8, corresponding to the 8 divisions into which the City was then divided, and they were assisted by 20 Overseers. In 1919 when the City was divided into 30 divisions, 16 Sanitary Inspectors were placed in charge of sanitation and 21 Sanitary Inspectors in charge of conservancy work assisted by Process Servers numbering 16 and 21 respectively.

In 1935 the City was divided into 40 divisions and the number of divisional Sanitary Inspectors was raised to 45. The number of Process Servers also correspondingly increased, and in 1942, their designation was appropriately changed to "Conservancy Inspectors."

Conservancy of the City till about 1905 was done on contract basis. The scavengers, carts, bullocks and drivers were all supplied by contractors. Later, scavengers came to be employed by the Department. Then the Corporation began to supply the carts and as an experimental measure, 3 depots for conservancy animals

and carts were started departmentally in 1905 and 3 more in the next year. The experiment proved a success and the contract system was abolished and two more depots brought under departmental management in 1908. Each of these 8 depots was placed under the charge of a Sanitary Inspector designated "Depot Superintendent". But they were gradually reduced to 6 by 1919 and Veterinary Graduates placed in charge of those depots from 1926. 2 more depots were opened since 1944 raising the total number to 8. The work of the Depot Superintendents is supervised by a Veterinary Officer who also attends to the treatment of sick animals at the Veterinary Hospital maintained by the Corporation.

From 1-4-46, the Public Health Staff of the extended areas consisting of 8 Sanitary Inspectors, 4 Vaccinators, 4 Registrars for births and deaths, 1 Medical Officer and two compounders besides clerks and peons and Public Health Institutions (1 Dispensary and 1 Cattle-depot) have been taken over by the Corporation and placed under the control of the Health Officer.

In 46 out of the 50 divisions into which the City has now been divided, a Sanitary Inspector and a Conservancy Inspector are placed in charge of sanitation and conservancy respectively. Divisions 17, 22, 35 and 48 have been further divided and a Sanitary

Inspector and a Conservancy Inspector are posted to work in each of these sub-divisions.

Registration of Births and Deaths.—Registration of deaths was first introduced in the City on 1st January 1855 and the duty of collecting the information vested with the Municipal and police authorities. From the beginning of 1860 the whole mortuary establishment was transferred to the office of the Director-General, Medical Department, and on 1st January 1865 it was placed under the Sanitary Commissioner. In 1868 the registration of both births and deaths was made compulsory by Act IX of 1867 and the work devolved upon the Corporation. It is now enforced under the provisions of the Madras City Municipal Act.

Registration was originally under the direct control of the President and was transferred to the Health Officer in 1884. Registration offices were opened in several parts of the City and the work managed by 8 laymen designated as Registrars assisted by 8 'Concillaries'. In 1913 these laymen were replaced by qualified medical men and they functioned separately as Medical Registrars till 1919 when both registration and vaccination works were amalgamated and the Medical Officers in charge of them re-designated as "Medical Registrars and Vaccinators".

The designation of "Medical Registrars and Vaccinators" has since been changed as "Medical Officers in charge of registration of births and deaths"

and they have their offices in 27 depots situated in different parts of the City.

Vaccination.—The vaccination department was originally administered by the Government Inspector of Vaccination and was transferred to the Corporation in 1878. Compulsory vaccination was introduced in the City in 1884 and it is now enforced under the provisions of the Madras City Municipal Act by which every parent or guardian of an unprotected child more than 6 months old and residing within the municipal limits is bound to get it vaccinated. Provision has been lately made for the enforcement of compulsory re-vaccination as well.

Till 1913 the work was done by trained vaccinators, with a Deputy Inspector of Vaccination to supervise their work. From 1913 Sub-Assistant Surgeons are in charge and they are assisted by trained vaccinators.

Food Control.—Sanitary control over the sale of articles of food is exercised by the Health Department by licensing all food handling establishments and private markets in the City and supervision over public markets and slaughter-houses. While the private markets are under the supervision of the divisional Sanitary Inspectors, the public markets are under a separate Sanitary Inspector. In 5 of the larger markets, there are Superintendents to assist the Sanitary Inspectors.

The Inspectors of Weights, Scales and Measures, are in charge of the work relating to the enforcement

of the by-laws under the Madras City Municipal Act prescribing standard weights, scales and measures.

Food Analysis.—Analysis of samples of articles of food under the Madras Prevention of Adulteration Act is done at the laboratory behind the Ripon Buildings by the Public Analyst of the Corporation, who is assisted by 3 qualified Assistants. There are 5 Food Inspectors who are empowered to take samples of food such as milk, butter, ghee, edible oils, tea and coffee powder for analysis. The number of samples analysed in 1947 was 3,229 and in 1948, 4,035.

Medical Relief.—Corporation maintains 32 general dispensaries and 4 special clinics, a tuberculosis hospital and an infectious diseases hospital where medical treatment is given free of charge. Medical care of children attending Corporation Elementary Schools is also undertaken and the defectives among them are given suitable treatment.

The general dispensaries and the special clinics are open from 7 to 10-30 a.m. and 3 to 5 p.m. The general dispensaries consist of 24 allopathic, 4 unani, 3 siddha and 1 ayurvedic dispensaries. The ayurvedic dispensary, Thousandlights, is intended for women and children only. The special clinics consist of 2 leprosy clinics, 1 venereal clinic and 1 tuberculosis clinic. The following is the list of Corporation dispensaries and clinics.

Serial No.	Name of Dispensary	Location of Dispensary	Div. No.
1.	Royapuram Dispensary	87, Suryanarayana Chetty St.	1
2.	Washermanpet ..	85, Thiruvottiyur High Rd.	5
3.	Vyasarpady ..	Hope Lodge, Gantz Road.	6
4.	Perambur ..	55, Madhavaram High Road.	6
5.	Mint ..	244 Mint Street.	8
6.	Harbour ..	6/7 Adam Street.	11
7.	Mafuzkhan Garden ..	55, Thatha Muthiappan Street.	14
8.	Trevelyan Basin ..	17, Trevelyan Basin.	16
9.	Baliah Naidu ..	Rotler Street.	17
10.	Sembiam ..	Sembiam.	20
11.	Ayanavaram ..	Konnur High Rd.	21
12.	Kilpauk ..	6, Gangadereswarar Koil St.	23
13.	Kosapet ..	8, Chellappa Mudaly St.	24
14.	Chintadripet ..	2/6, Arunachella Naick St.	29
15.	Egmore ..	34, Poosala Gengu Reddy St.	32
16.	Nungambakkam ..	11, Noore Veeraswamy Iyer St.	34
17.	Kodambakkam ..	68, Arcot Road.	35
18.	Pudupakkam ..	367, Pycrofts Road.	37
19.	Triplacane ..	25, " " "	41
20.	Krishnampet ..	25, Barbers Bridge Road.	43

Serial No.	Name of Dispensary	Location of Dispensary	Div. No.
21.	Mylapore Dispensary	91/92, Kutcheri Road.	45
22.	Teynampet ..	104, Mount Road.	46
23.	Theyagaroya Nagar ..	3, Sivagnanam Road.	47
24.	Adyar ..	Lattice Bridge Road.	50
25.	Ayurvedic ..	Model School Street, Thousandlights.	33
26.	Unani Dispensary, Mannady.	47, Linghi Chetty St.	13
27.	" Pulianthope	55, Pulianthope High Road.	18
28.	" Pudupet	1, Venkatachela Achari St.	31
29.	" Thiruvateeswaranpet	103, Thayar Sahib St.	39
30.	Siddha Dispensary, Royapuram	109, Adam Sahib St.	3
31.	" Choolai	16, Alathoor Subramania Achari Street.	17
32.	" Otteri	1-B Bashya Reddy St.	19
33.	Skin & Leprosy Clinic	Beasant Road.	43
34.	" "	Vyasarpady.	6
35.	Venereal Clinic	83, Strahans Road.	19
36.	Tuberculosis Clinic	39, Pulianthope High Road.	18

Tuberculosis Hospital.—Corporation has provided a hospital for the treatment of Pulmonary Tuberculosis in the city besides a clinic in Pulianthope High Road. It is named the "Sri Thiruvatteeswarar Tuberculosis Hospital" and is situated in Konnur High Road, Otteri. It was opened for admission of cases

on 7-8-1948 by Sri O. P. Ramaswamy Reddiar, the then Premier of Madras.

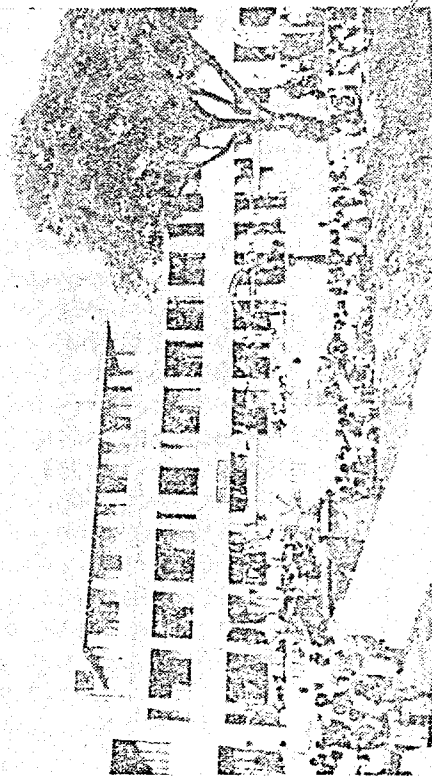
—This hospital owes its existence to the generosity of the late Rao Sahib T. P. Ramaswamy Pillai who gave the site of land and 1½ lakhs of rupees for the hospital building constructed at a cost of 3 lakhs of rupees. He has also made an endowment of Rs. 15,000 for the maintenance of a ward in the hospital.

The hospital is in a 2-storeyed building consisting of a central block with 2 wings on its either side. It is equipped with X-ray plant, operation theatre, laboratory and other clinical appurtenances for up-to-date treatment of pulmonary tuberculosis and has an accommodation of 48 beds.

The hospital serves as an observation hospital and a receiving station for tuberculosis patients in the City. Admissions to it are made from deserving cases attending the tuberculosis clinic in Pulianthope High Road.

It is staffed with a Medical Superintendent and an Asst. Medical Officer, both of whom have specialised in tuberculosis. The nursing staff consists of 1 Matron and 7 nurses. The annual maintenance charge is about 1½ lakhs of rupees.

— **Infectious Diseases Hospital.**—The hospital for the effective isolation and free treatment of infectious diseases is situated at Tondiarpet, on Thiruvottiyur.



SRI THIRUVATESWARAR TUBERCULOSIS HOSPITAL,
KONNUR HIGH ROAD

High Road in a spacious ground walled off from the surroundings. It is only a few yards from the sea-front and enjoys an abundance of light and fresh air. It has 2 main blocks connected to each other by protected verandahs and is provided with 130 beds.

There are 2 ambulance cars for the conveyance of cases of infectious diseases to this hospital. The services of these ambulance cars are available free of cost to the public, for removing cases, day or night.

Statistics show that the rate of deaths among cases treated for cholera, small-pox and other infectious diseases in the hospital is lower than in the case those of treated in private houses. It is therefore very essential that in the interests of public health of the City and the safety of patients concerned, all cases of infectious diseases are taken to this hospital for effective isolation and treatment. It is also equally essential that cases of infectious diseases are taken to the hospital only in the ambulance cars provided at the hospital for the purpose, as it is dangerous to public health and an offence against public health laws to remove such cases in public conveyances.

Authority is vested with the Health Officer to take measures for the prevention of any outbreak in the City of any of the following infectious diseases.

1. Acute Influenzal Pneumonia.
2. Anthrax.



WARDS IN THE I. D. HOSPITAL

- * 3. Cerebro-spinal Fever.
- * 4. Chicken-pox.
- * 5. Cholera.
- * 6. Diphtheria.
- * 7. Enteric fever.
- * 8. Leprosy.
- * 9. Measles.
- * 10. Plague.
- * 11. Rabies.
- 12. Relapsing Fever.
- * 13. Scarlet Fever.
- * 14. Small-pox.
- * 15. Tuberculosis.
- 16. Typhus.

Public Health Laboratory.—The Corporation maintains a laboratory for the examination of blood, sputum, urine, faeces, etc., and serological tests. It is situated behind the Ripon Buildings and was opened on 2-7-1946. A fee of Rs. 2-8-0 per test is charged for those who get an income of Rs. 100/- or more per mensem. Sputum for tubercle bacilli is examined free of charge for all.

*These diseases are notifiable to the Health Officer by Medical Practitioners, Hakims, Vaidyans, Managers of Factories and Public Institutions, Keepers of Lodging Houses, Heads of Families and Owners or Occupiers of Houses.

Maternity and Child Welfare

The conditions prevailing in the City during the first quarter of the 20th Century so far as they related to the health and welfare of infants and pregnant women were appalling. The City recorded a very high rate of maternal and infantile mortality. There were even then Government Hospitals for Women and Children, such as the one at Egmore which enjoys a reputation of being one of the best of such hospitals in the East, and the Government Victoria Caste and Gosha Hospital now renamed as Government Kasturba Gandhi Hospital at Triplicane and Rajah Sir Ramaswamy Mudaliar's Lying-in Hospital, besides other such private institutions. But the poor and middle class women, through perhaps ignorance, contented themselves with obtaining the services of unqualified barber women. It was in the year 1917 that the Corporation started an experimental Child Welfare Scheme, with the chief object of displacing these unqualified barber women by trained midwives. The beginning made by the Corporation was praiseworthy, though the extent of the usefulness of the Scheme was necessarily restricted by the limited finances that the Corporation could provide for this worthy cause, *viz.*, provision of skilled midwifery service to women of the poorer classes free of cost. The first Child Welfare Centre thus came into existence in 1917. An out-patient clinic was established wherein minor ailments of infants, ex-

pectant and nursing mothers were also treated. This clinic gained a great deal of popularity. In the years that followed, the usefulness of the Scheme was expanded by opening more child welfare centres. At the end of 31 years of useful service, the Scheme has now 25 Child Welfare Centres, 1 Maternity Home, 4 sub-centres and 15 Maternity Wards in different parts of the City serving the needs of the poor and lower middle classes.

Pre-natal Clinics.—Pre-natal clinics are held regularly in each centre by the lady doctor thrice a week. The patients are advised to attend the clinics first at the 12th week of pregnancy, and even earlier if she had trouble at a previous confinement. At this clinic, a full medical and obstetrical history of the patient is taken, a thorough physical examination made in every case, urine examined, blood pressure and pelvic measurements taken wherever necessary. Pre-natal advice at these clinics is given free to any pregnant mother irrespective of the earning capacity of her husband. In 1948, the Health Visitors registered 41,501 expectant mothers in the homes of the patients of which 37,918 cases were booked at the clinics and had the necessary examination by the lady doctors. In attending to maternity cases, preference is generally given to those cases which are on the rolls of the pre-natal clinics for at least a month before the date of confinement and women who had periodically attended the clinics and have had the benefits of examinations

conducted therein. This is done in order to impress on the public the importance of pre-natal care.

Maternity Service.—The success and popularity of the Child Welfare Scheme is explained by the fact, that firstly it is given free of cost to poor class women and secondly they are assured of the advice and care of skilled midwives. In Madras, and it is perhaps true of other Indian cities as well, it is difficult for a woman of moderate means not to speak of the labouring classes—to procure the services of qualified private midwives at a cost within her reach. The maternity service rendered by the Corporation thus fulfils a real want, specially among the poorer classes. At the beginning, maternity service was made available to all classes of public without any restrictions. But it was soon realised that the Corporation could not meet the growing demand from all sections of the population and it was therefore confined to rendering free maternity service to the women of the poorer and lower middle classes whose family income is Rs. 80/- or less p.m. A lump sum of Rs. 15/- is charged for 10 days service, inclusive of visits by lady doctors, health visitors and midwives for persons whose monthly income is above Rs. 80/- and below Rs. 101/- p.m. and Rs. 25/- for those whose monthly income is Rs. 101/- to Rs. 200/- p.m. In addition to this a sum of Re. 1/- per day is collected towards diet charges for paying cases in the maternity ward. Normally no maternity service is rendered to persons whose income is above Rs. 200/- per mensem

and the service is, however, not available for cases after delivery which were attended to by private medical practitioners, nurses and midwives. 26,051 labour cases came under the observation of the Scheme during 1948.

Conduct of Operative Delivery.—The Child Welfare Scheme deals, as far as possible, with cases of 'normal labour'. Cases requiring instrumental aid or special attention, are taken to the Government Hospitals in time though cases of emergency which cannot be safely and in time taken to the hospitals, are attended to by the medical staff of the Scheme. For the prompt removal of cases to hospitals, the Corporation maintains 2 ambulance cars.

Maternal and Infantile Mortality.—High maternal and infantile mortality rates are most often due to want of proper care and attention during pregnancy of mothers and after childbirth. The Child Welfare Scheme impresses on women the care expected of them prior to childbirth and the necessity of attention by a trained qualified midwife during childbirth. Owing to the increasing usefulness of the Scheme and the large number of women who take advantage of the free service rendered by the Scheme, there has been a considerable decrease in Maternal and Infantile Mortality rates, e.g., maternal and infantile mortality rates in 1921 were 5.0 and 178.7 per mille respectively whereas the corresponding rates for 1948 were 1.91 and 83.40 per mille.

Maternity Wards & Home.—A maternity ward with two beds was first started at the Chetput Child Welfare Centre in February 1942 as an experimental measure. This proved a success and the Council sanctioned further maternity wards to be opened in existing centres. There are 15 maternity wards with beds ranging from 4 to 12 and a Maternity Home with 32 beds. The Corporation maternity wards are deservedly popular and in certain localities there is distinct need for increasing the number of beds. Owing to the difficulty in securing suitable spacious buildings for the location of these child welfare centres with maternity wards, the latter could not be expanded and cases of delivery are admitted and discharged after 5 days, if they are normal. The free diet consists of coffee, bread and milk.

Free milk is supplied to expectant mothers, nursing mothers, toddlers and infants at the Corporation Child Welfare Centres. The Corporation expends about Rs. 54,000 annually towards this milk supply scheme.

LIST OF CHILD WELFARE CENTRES IN THE CITY OF

MADRAS

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Names and addresses of Centres	Tel. No.	Divn. where located	Divisions served	Date of opening
1. Tondiarpet Centre, 385, Thiruvottiyur High Road	4615	1st Dn.	1st Dn.	13- 8-1947
2. Royapuram Centre, 26, Suryanarayana Chetty St., Royapuram	2146	3rd Dn.	2 & 3 Dns.	3-11-1924
3. Washermanpet, 86, Thiruvottiyur High Rd.	3258	5th Dn.	5th Dn.	26- 5-1919
4. Sanjeeviroyanpet, 21/22, Kapalapolu Chetty St., Washermanpet	2319	4th Dn.	4th Dn.	23- 3-1949
5. Trevelyan Basin, 52, Basin Water Works St., Sowcarpet	3128	16th Dn.	7, 8 & 16 Dns.	19- 7-1945
6. George Town, 44, Annmen Koil St., G.T., Madras	3697	9th Dn.	9 & 15 Dns.	17- 5-1922
7. Muthialpet, 175, Thambu Chetty St., G.T., Madras	3121	11th Dn.	10, 11 & 12 Dns.	24- 8-1924
8. Kothaval Bazaar, 1/27, Appu Maistry St., Mannady	4616	10th Dn.	13 & 14 Dns.	24- 9-1947

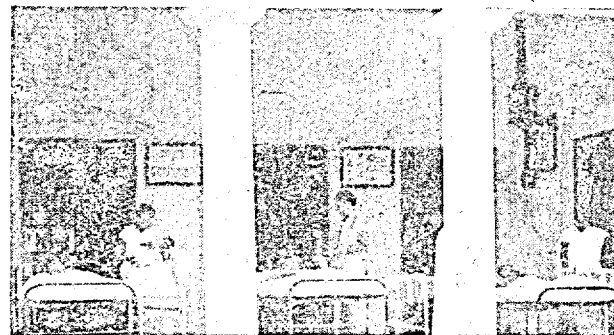
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9. Choolai Maternity Home, 15, Vijaya Vigneswarar Koil St., Choolai	4617	17 Dn.	17th Dn.	29- 8-1947
10. Pulianthope, 39, Pulianthope High Road, Pulianthope	3880	18th Dn.	6 & 18th Dns.	3- 6-1928
11. North Perambur, 54 & 55, Perambur High Road, Perambur	4523	19th Dn.	19th Dn.	31- 5-1940
12. Sembiam, 45, Paper Mills Rd., Sembiam	2606	20th Dn.	20th Dn.	9- 9-1946
13. Ayanavaram, 7, Gurusvappa Maistry St., Ayanavaram	Sub-centre	21st Dn.	21st Dn.	28-10-1948
14. Kilpauk, 19, Halls Rd., Kilpauk	—	22nd Dn.	22nd Dn.	28- 6-1944
15. Parasawalkam, 109, Parasawalkam High Rd., Parasawalkam	3035	23rd Dn.	23, 24 & 25 Dns.	Oct. 1919
16. Periamet, 4/8, Naval Hospital Rd., Periamet	4341	26th Dn.	26th Dn.	7- 3-1946
17. Park Town, 2/3, Pereira St., P.T.	4522	28th Dn.	27 & 28 Dns.	30- 5-1940
18. Egmore, 37, Langs Garden Rd., Egmore	86519	31st Dn.	29, 30, 31, & 32 Dns.	7- 7-1923
19. Chetput, 27, Jagannathapuram II St., Chetput	8199	33rd Dn.	33 & 34 Dns.	24- 9-1923
20. Kodambakkam, 68, Arcot Rd., Kodambakkam	Sub-centre	35th Dn.	35th Dn.	5- 1-1949

**LIST OF CHILD WELFARE CENTRES IN THE CITY OF
MADRAS—(Contd.)**

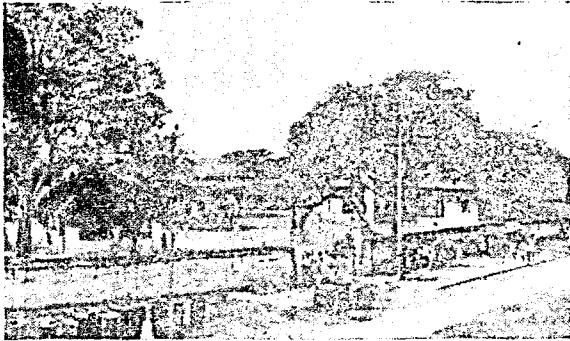
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Names and addresses of Centres	Tel. No.	Divn. where located	Divisions served	Date of opening
21. T. Nagar, 3, Sivagnanam Rd., T. Nagar ...	Sub-centre	36th Dn.	36th Dn.	10- 3-1948
22. Royapettah, 84, Lloyds Rd. ...	86644	37th Dn.	37th Dn.	9-10-1929
23. Triplicane, 2/3, Kuppu Muthu Mudali St., Triplicane ...	86505	39th Dn.	38, 39 & 40 Dns.	15- 9-1917
24. Mirsahibpet, 65, Dr. Besant Rd., Triplicane	86947	43rd Dn.	41, 42 & 43 Dns.	25-10-1941
25. Mylapore, 48, Bazaar Rd., Mylapore ...	86570	44th Dn.	44 & 45 Dns.	4- 8-1924
26. Teynampet, 104, Mount Rd. ...	Sub-centre	46th Dn.	46th Dn.	10- 3-1948
27. Saidapet, 2, Jeevis Rd. ...	88265	48th Dn.	47 & 48 Dns.	28-11-1946
28. Saidapet ... Press Rd., Arunachalam, Adyar ...	84427	49th Dn.	49th Dn.	31-10-1947
29. Mandavalli, 34, Brodies Rd. ...	86614	50th Dn.	45 & 50 Dns.	7- 2-1946



MATERNITY WARDS, CHILD WELFARE CENTRE,
KILPAUK

III. EDUCATION



CORPORATION MODEL SCHOOL, STRAHANS ROAD,
PERAMBUR

Till the year 1910 Corporation funds set apart for education were used mainly for the payment of teaching grants to the Elementary Schools in the City run by private management. In 1908, the Government while reviewing the administration report of the Corporation of Madras for 1907-08 observed that the improvement of accommodation of many of the Elementary Schools in the City was an important matter on which the funds of the Corporation might be usefully spent and advised the Corporation to take up the matter for consideration in consultation with the Director of Public Instruction, Madras. The subject was thereupon duly considered and a scheme for opening 40 Model Elementary Schools in buildings owned by the Corporation within 10 years at the rate of 4 schools per year was formulated which received due sanction of the Government. In view of the heavy outlay involved in the scheme, the Corporation was relieved from its liability to award teaching grants to private Elementary Schools in the City during that period. But on the expiry of this period in 1921, the Corporation was able to construct buildings for only 26 Corporation Schools and maintained four other schools in rented buildings.

In 1921, a beginning was made in the matter of opening Elementary Schools exclusively for girls. Between April 1921 and March 1924, the number of

schools maintained by the Corporation for Boys and Girls rose to 38 and 4 respectively with 6,731 boys and 1,997 girls on the rolls.

The year 1924 is an important land-mark in the history of Elementary Education in the City, for it was in that year that the Corporation took a bolder and more progressive step by resolving to introduce free and compulsory education in Divisions 24 to 27 as an experimental measure. On the 20th January 1925, it further resolved to levy an education cess of $\frac{1}{4}\%$ of the annual valuation of property and to contribute annually a sum of Rs. 2.4 lakhs to the Elementary Education Fund from the General Revenues of the Corporation. The Government accepted the principle of gradual introduction of compulsory elementary education in the City and approved the scheme of compulsory elementary education for boys and girls except Muslim girls, in Divisions 24 to 27 during the year 1925-26. On the 9th December 1926, the Government sanctioned the introduction of compulsion in Divisions 28 to 30 with effect from 1st January 1927. The success that attended the experimental measure naturally resulted in the Corporation extending the scheme to other parts of the City. Within three years compulsion was enforceable in all parts of the City.

Before the introduction of compulsion in July 1925, Corporation had under its management 53 elementary schools. There are at present 202 schools

managed by the Corporation, of which 133 schools are for boys and 69 for girls which include 19 Higher Elementary Schools for boys and 9 Higher Elementary Schools for girls with 60,165 pupils (33,898 boys and 26,267 girls) receiving free education in them.

Elementary Education is at present imparted in the City by the following Schools:—

1. Corporation Elementary Schools,
2. Elementary Schools owned by private agencies,
3. The Schools of the Government Labour Department, and
4. Primary Departments of Secondary Schools.

The extent to which elementary education was provided for by the end of 1948-49, by the above institutions is given below:

1. Corporation Elementary Schools	...	60,165
2. Elementary Schools owned by private agencies	...	40,253
3. Government Schools	...	1,298

In addition to the voluntary efforts of private managements and those of the Government Labour Department, the Corporation of Madras which levies and collects an educational tax is responsible for providing necessary and adequate facilities for imparting

free compulsory elementary education to boys and girls of school-going age in the City.

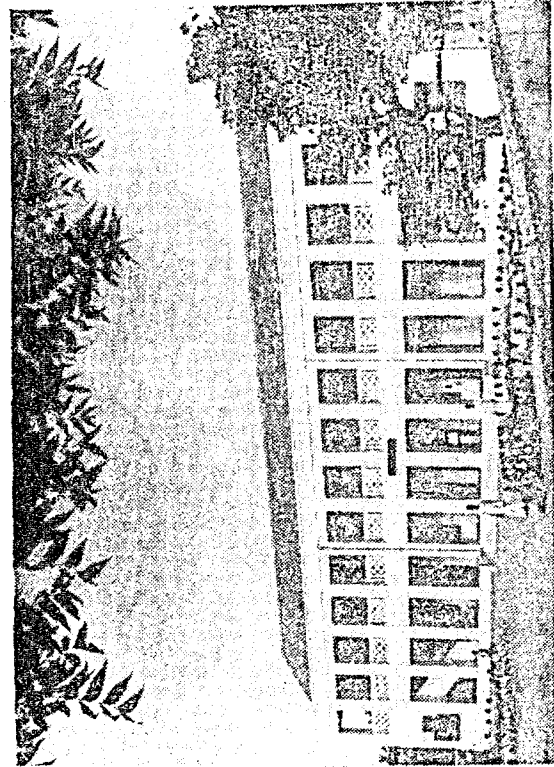
Pre-vocational Training.—Special attention is being paid to handicrafts and in selected schools, instructions in the following crafts according to the needs of the locality are given :—

Carpentry, whittling in soft wood, net weaving, spinning and weaving, tailoring, printing, rattan work, embroidery etc.

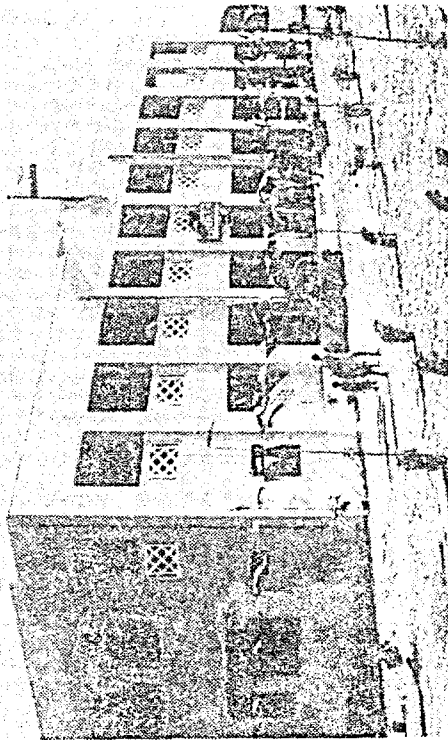
Materials required for the teaching of these crafts are supplied to pupils free of cost.

Accommodation.—Only 73 out of 202 schools are located in Corporation buildings and 3 schools in Government buildings while the remaining 126 are housed in private buildings rented for the purpose. A comprehensive scheme for construction of buildings on sites already acquired and for further acquisition of lands and buildings for school purposes is under consideration. As the accommodation at present is insufficient in a number of the Corporation Schools and rush for admission is great, some of the schools work in shifts to meet the increase in strength.

Medical Inspection.—A systematic medical examination of school children is being conducted by a special staff of 4 Medical Inspectors and 2 Medical Inspectresses, who work under the supervision of the Officers of the Health Department. Children found



CORPORATION BOYS SCHOOL, GANGADARESWARAR KOIL STREET,
PURASAWALKAM



CORPORATION GIRLS SCHOOL, RUTLAND GATE ROAD

defective and requiring special treatment are sent to special hospitals for treatment and those suffering from minor ailments are advised to attend the nearest Corporation dispensaries. Cases of malnutrition are attended to at the schools. Special attention is being paid to the "follow-up" work. The Head-teachers are required to maintain a separate register for this purpose and this work is being regularly checked. With a view to inculcate health habits in pupils, the schools are supplied with soaps, towels and coconut oil and the teachers attend to the cleanliness and tidiness of pupils.

Visual Education.—Cinema shows in Corporation Schools are conducted by the Educational Cinematographic Institute. Films on interesting educational subjects such as First-Aid, Cleanliness, Food and Growth, Blood Circulation, Manufacture of Rubber, Manufacture of Common-Salt etc., are screened. These supplement the instructions imparted in the class-rooms. Sound pictures for the benefit of the Corporation School Children and the Aided Adult Centres were exhibited by the kind courtesy of the U.S.A. Information Service.

Adult Education.—There are ten Corporation Adult Literacy Centres and ten Adult Education Centres to cater to the needs of illiterate and semi-literate adults respectively. In addition to these centres, 18 Adult Literacy Centres run under the auspices of private agencies are paid each, a subsidy of Rs. 15/- per mensem. In all, 894 adults receive instruction

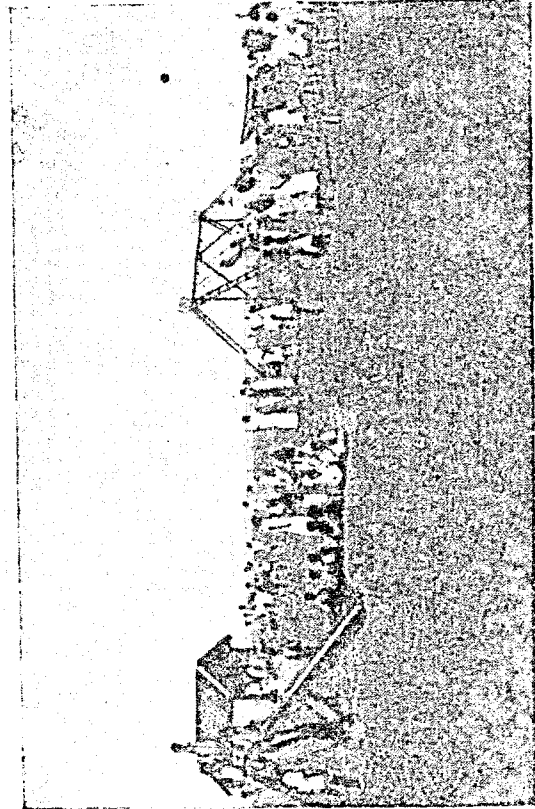
in the Corporation as well as subsidised Adult Education and Literacy Centres. Each Adult Centre is provided with a small library, a daily newspaper in the language of the adults attending the Centre and a Carrom-Board. Besides instructions given through talks, useful and educative films are also exhibited for the benefit of the adults.

Reading Rooms.—The Corporation is at present maintaining 59 Free Reading Rooms including the one reserved exclusively for the benefit of ladies in Theagarayanagar. Dailies and magazines in various languages are subscribed for the use of the public in these Reading Rooms which are adequately furnished. Small libraries are also attached to these Reading Rooms. These facilities are being fully availed of by the public. In addition, the Corporation grants subsidies to 40 Reading Rooms maintained by private agencies in the City.

Play-Grounds.—There are 18 Playgrounds in the City run by the Corporation of Madras of which 9 are intended for the Corporation School children and the remaining 9 for the general public. There is a great need for more playgrounds and this is engaging the attention of the Corporation.

The Corporation maintains one swimming pool in the Napier Park in addition to those in the Peoples Park and the Marina.

Radio.—Radio sets have been installed in 19 Corporation Schools. Programmes for school children



PLAY-GROUND, MARINA

broadcast by the All-India Radio, Madras, are tuned in for the benefit of the children of higher standards.

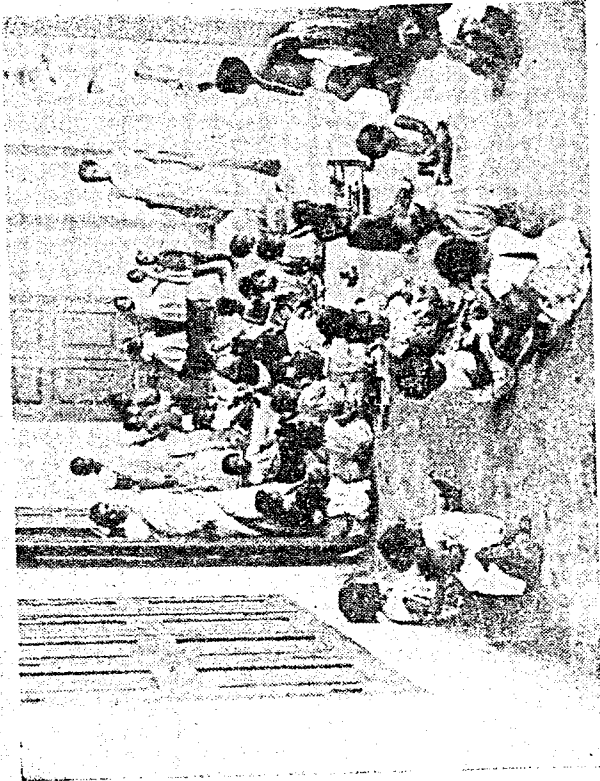
Boy Scouts and Girl Guides.—There are 50 Scout Troops, 74 Cub Packs, 4 Girl Guide Companies and 46 Blue Bird Flocks. The total strength of the movement including the pupils and the teachers is 5,100. The Corporation Scouters and Guiders participate in rallies organised by the Provincial Organisations on special occasions.

Nursery Schools.—Pre-primary instruction through Nursery Schools or classes is considered as an essential adjunct to any sound system of elementary education and 4 Nursery Schools particularly in labour areas are functioning since 1945 with specially trained teachers. Children between $3\frac{1}{2}$ and $5\frac{1}{2}$ years are admitted in them. Sweet congee and food are served to them at the schools.

Secondary Education.—(a) The Corporation High School at Nungambakkam started in 1926, has over 1,166 pupils on its rolls which includes 232 girls, 141 Harijans and ten Muslims. There is a separate section for girls in Form V. This school serves the educational needs of a very large number of Harijan pupils of the area.

(b) The High School at Saidapet under the management of the Saidapet Municipality was taken over by the Corporation of Madras on 1st April 1946 and it has on its rolls 520 pupils of whom 89 are girls.

CORPORATION CRECHE. BUNDER RAMA NAIDU GARDENS



Conclusion.—A sum of nearly Rs. 30 lakhs is being spent annually by the Corporation on Elementary Education and, about Rs. 10 lakhs on the supply of Mid-day Meals, maintenance of Reading Rooms, High Schools, Play-grounds, Nursery Schools, etc., as against an expenditure of Rs. 5,500 in the year 1911-12. It has been observed by an eminent writer that "if any one function is to be singled out as furnishing the best index of vitality and vision of the City Government, it is education". Judged by this test, the Madras Corporation can well claim a prominent place among the Municipal Bodies in India.

IV. DRAINAGE

The City of Madras presents very difficult problems in drainage, as it is particularly flat with no slope whatever. This has necessitated a pumping scheme as opposed to a gravitation scheme. The subsoil consists of sand in the eastern half of the City and clay or sand and clay mixed in the western portion. Large quantities of sub-soil water are encountered within a few feet below ground surface at all times of the year. These natural difficulties make it impossible to lay sewers below a certain depth except at prohibitive cost and necessitate the erection of a number of pumping stations.

For drainage purposes, the City is divided into a number of areas, the extent of each area being limited

by the depths at which sewers could be laid without difficulty and within reasonable cost. Each of these areas is served by a pumping station to which the sewers in that area gravitate. The sewage from the houses flows into the street-sewers which convey it by gravity to the pumping station in that area. No artificial agency is required to carry the sewage from the houses to the pumping stations where the sewage of the whole area is lifted up by pumps into a cast-iron pumping main. Similarly, the sewage in other areas is pumped out and sewage of the whole City is conveyed in this manner to the north-eastern corner of the City, where it is allowed to discharge into the sea.

The system of drainage adopted is known as the "partially separate system". The sewers are intended primarily to convey the sewage, though a fair quantity of rain water from the roofs and courtyards of houses inevitably finds its way into the system. If the sewers are to handle all the rain water as well, their capacities will have to be increased thirty or forty times. All the rain water admitted into the sewers has necessarily to be pumped and this involves considerable recurring expenditure. It has, therefore, been wisely decided to prevent the rain water from getting into the sewer system as far as possible. The rain water from the road surface and the excess rain water from the house drains flow through the road side ditches

and masonry drains into the nearest water course, such as the Otteri Nullah, the Cooum River and the Buckingham Canal.

The main sewerage scheme was designed about forty years ago, by the late Mr. J. W. Madley, who was Special Engineer to the Corporation from 1907 to 1924 and it was then estimated to cost Rs. 121.66 lakhs. The area of the City covered by the scheme is about 15 sq. miles. It was proposed to construct 15 pumping stations, lay about 270 miles of sewers and provide about 40,000 house connections. The Madras Government generously undertook to meet half the cost of the scheme from Provincial funds. Under this arrangement, work was going on satisfactorily for about three or four years when, owing to financial stringency caused by the first Great War, expenditure was curtailed and orders were issued to finish only portions of work already started, leaving the completion of the scheme to a future date. After the first Great War was over, the financial restriction was withdrawn and both the Government and the Corporation agreed once again to complete the scheme and to share the cost.

The completion of the original scheme prepared by the late Mr. Madley, will not complete the sewerage of Madras since it does not provide for the sewerage of the western and northern portions of the City as they were not sufficiently developed at that time. Sewers had to be laid urgently in Chetput, Kilpauk,

North Tondiarpet, Theagaroyanagar, Adyar, Mylapore extension, Nungambakkam, Perambur and Vyasarpady. Plans and estimates for all these areas which have been later sanctioned by the Government, were prepared by the then Special Engineer Sri Rao Bahadur T. R. Sreenivasachariar. The works have been nearly completed in all the above mentioned areas, except in Theagaroyanagar, Perambur and Vyasarpady areas which are under progress. Schemes for sewerage other areas *viz.*, Tondiarpet, A, B, C and E areas, Aminjikarai, Gandhinagar, Adyar, Slaterpuram, Seni Amman Coil Street, Nammalwarpet, Cochrane Basin Area etc., were prepared by the present Special Engineer Sri P. Ramaswami Chetti. Some of the works have already been completed.

The Corporation has so far completed 18 pumping stations and 4 more are under construction; about 354 miles of sewers have been laid and 29,163 house-connections given. The total cost of these works amounts to Rs. 213 lakhs approximately.

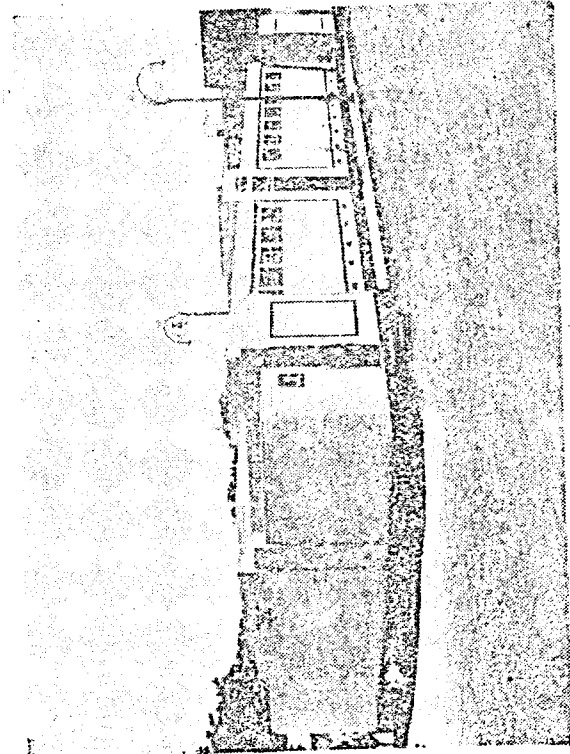
For most of the sewer laying works the Provincial Government have been contributing half the cost as free grant. The amount so far received as grant from Government for the drainage works is about Rs. 93 lakhs. The remaining amount has been met as loan from Government.

Water Carriage System of Night Soil.—The practice of employing men and women for the collection

and removal of human excreta is repulsive. To citizens it must be a source of supreme disgust while its degrading influence on those deputed to carry out such work cannot be overestimated. The introduction of flush-out latrines in houses is an absolute necessity. If this is not done, the citizens will not be making proper use of the costly underground sewerage system which the Corporation has constructed at such great cost.

With the introduction of flush-out latrines and water closets, the reduction in death rate has been immediate and remarkable in many cities. Unfortunately this essential sanitary reform could not be effected completely as the majority of the people pleaded poverty. To get over this difficulty, a scheme has been prepared by which the Corporation undertakes to construct such latrines in private houses, the cost thereof being recovered in easy monthly instalments spread over 3 or 4 years. The scheme was approved and work was started in May 1930.

Owing to the compulsion adopted in getting the parties to comply with the scheme and the advantage afforded by recovering the cost in easy monthly instalments, there has been satisfactory progress in constructing flush-out latrines in private houses. The total number of flush-out latrines constructed upto 31-3-49 was 47,663.

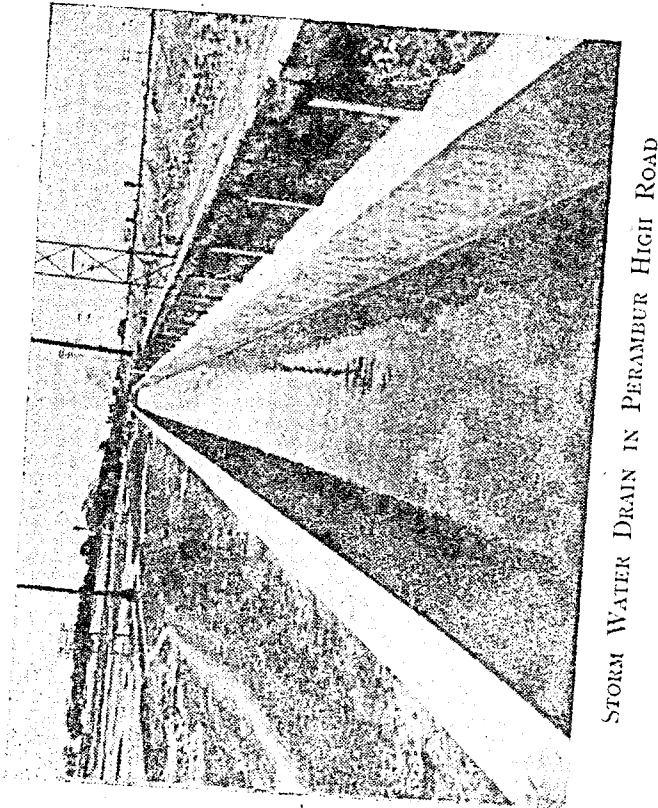


TYPICAL PUBLIC CONVENIENCE AND BATHROOM

Public Conveniences in the City.—There were about 406 public flush-out and dry latrines and public conveniences in different parts of the City. But many of them were old and insanitary and as the want of superior types of public conveniences suitable for middle classes was felt, comprehensive schemes for constructing 275 improved type of public conveniences in thoroughfares, slums, cheries, and hutting grounds at an estimated cost of about Rs. 14.65 lakhs were drawn. 177 new public conveniences have so far been constructed in several essential and important parts of the City. In some of the public conveniences, bath-room facilities have also been provided. As increased accommodation for bath-rooms was found necessary, 21 separate bath-rooms were constructed at a cost of Rs. 31,600 affording facilities for more number of people to bathe at a time.

Sewage Disposal.—Sewage is of high economic value as it contains substances which enrich the soil. At present the City sewage, which could be utilised in a profitable way, has necessarily to be wasted. The Corporation is investigating the most suitable and profitable method of sewage disposal.

Storm Water Drainage.—The Corporation has already constructed about 62.25 miles of storm water drains in various parts of the City to carry away the rain water which at present stagnates on roads, the



size of the drain varying from 2 ft. width to twin drains each 11 ft. wide. The Corporation has programmes for constructing masonry storm water drains in the remaining parts of the City.

Improvements to Coom River.—The question of improvements to the Coom River has been pending for over several years and was not taken up till now, as experts could not arrive at an agreed solution regarding the best method of improving its condition. But as the insanitary condition of the River with its stagnant pool and obnoxious smell is a long-standing menace to the health of the City, it was decided to take up some remedial measures, pending the question of major improvements to be decided at a later date. The measures that were recently taken up are (1) removing silt from the bed of the river and deepening the River to provide a greater flow of water more particularly during floods; (2) erecting dwarf wall on one side of the River to prevent overflow of water during floods; (3) providing screw-gear shutters for storm water inlets to prevent backing up of flood water and inundation of the locality. Other improvements to the Coom River now carried out are diversion of sullage outlets of several premises now flowing into the River, provision of detritus tanks for preventing overflow of sewage from pumping stations and construction of public conveniences on the banks of the River to prevent committal of nuisance on the bed of the River by the poorer classes.

Formula re : Gradients for Sewers

1. The sewers have been laid out at gradients which will give self-cleaning velocities.

The ordinary limiting gradients are :—

<i>Diameter</i>	<i>Ordinary Maxi- mum gradient</i>	<i>Ordinary Mini- mum gradient</i>
4 inches	1 in 20	1 in 40
6 "	1 in 40	1 in 135
9 "	1 in 60	1 in 230
12 "	1 in 90	1 in 340
15 "	1 in 130	1 in 460
18 "	1 in 160	1 in 580
21 "	1 in 200	1 in 720
24 "	1 in 230	1 in 860
27 "	1 in 300	1 in 1000
30 "	1 in 400	1 in 1150

2. Size of sewers, flattest ordinary gradients flowing half full and population served taking 25 gallons per head.

<i>Diameter of pipe</i>	<i>Flattest gradient</i>	<i>Population served</i>
6 inches	1 in 135	2100
9 "	1 in 230	4700
12 "	1 in 340	8500
15 "	1 in 460	13250
18 "	1 in 580	19150
21 "	1 in 720	26000
24 "	1 in 860	33900
27 "	1 in 1000	43000
30 "	1 in 1150	53100

CITY OF MADRAS

OFFICIAL HANDBOOK

1950

SECTION VII

CIVIC AND PUBLIC UNDERTAKINGS

I. TOWN-PLANNING

The history of Town-planning in the City of Madras is, as will be expected, somewhat obscure. At the time of the British occupation of Fort St. George, Madraspatnam, later called Black Town to distinguish it from the Fort or White Town, appears to have existed while there was the Portuguese Settlement of San Thome five miles to the south and the Indian Town of Mylapore adjacent to it. The population, according to the Fort records in the Seventeenth Century (1687), was very considerable amounting to $2\frac{1}{2}$ or 3 lakhs. This included the area within the British zone extending for five miles along the shore. This figure is a very large one and when it is compared with London, about one lakh at that time, and other large cities, it seems incredible.

A short extract from the description of Madraspatnam about the year 1707, by Thomas Salmon, is of interest on the point of early Town-planning. "To the northward, adjoining the White Town, is the Black Town, where the Portuguese, Indians, Armenians and a variety of other people inhabit. This is built in the form of a square, and is better than a mile and a half in circumference, being surrounded by a brick wall 17 ft. thick, with bastions at proper distances after the modern way of fortification. . . . The streets of Black Town are wide, and trees planted in some of them; and having the sea on one side and a

- I. TOWN-PLANNING.
- II. GREATER MADRAS.
- III. HOUSING.
- IV. RAILWAY IMPROVEMENTS.
- V. LIGHTING.
- VI. WATER-SUPPLY.
- VII. HARBOUR AND PORT TRUST.
- VIII. TRAMWAYS.
- IX. BUSES.

river on the other, there are few towns as pleasantly situated or are better supplied; but except some few brick houses the rest are miserable cottages, built with clay and thatched, and not so much as a window to be seen on the outside, or any furniture, except the mats and carpets they lie on. The houses of the better sort of Madras, with a little square in the middle, from whence they receive all their light..... but I must say, notwithstanding all this appearance of poverty, I never was in a place where wealth abounded more, and where ready money was more plentiful twenty years ago.....Beyond the Black Town are gardens for half a mile together, planted with mangoes, cocoanuts, orange trees, etc., where everybody has the liberty of walking and may purchase the most delicious fruits for a trifle."

We may add a few sentences from the account by Charles Lockyer. "The prospect it gives at sea is most delightful; nor appears it less by land. The great variety of fine buildings that gracefully overlook its walls affording an inexpressible satisfaction to a curious eye...The streets are straight and wide, paved with brick on each side; but the middle is deep sand for carts to pass in. Where no houses are, causeways with trees on each side supply the defect; these being always green render it pleasant to those who otherwise must walk in the sun."

At the time of the attack by the French and during their occupation (1746-1758) this old town was levelled; houses worth 180,000 pagodas were stated to have

been destroyed; so much so, no trace of this town is to be seen now.

No feature of the early planning of the villages and towns in our country is more characteristic than the square of car streets around temples. It is an essential feature and character of this planning that this square is made and kept unbroken, so that the entrances and exits are only at the corners, and not by the sides. Examples of this planning are at present found in Triplicane, Mylapore and Tiruvateeswaranpet.

With the exception of a few places here and there, the planning of Madras was not always fully appreciated by the majority of its inhabitants in the past. If it were, there would be fewer signs of the neglect that we see very often. Many opportunities had been missed in the past but while with most towns such lapses would be irretrievable, here they do not fortunately preclude the replanning of the City on the most up-to-date lines.

Madras might have been much worse off than it is, with respect to road adequacy in view of the difficulties that are normally experienced in securing main through roads due to multitude of small property owners and lack of civic sense and co-operation. There is, of course, great inadequacy and congestion in particular localities and the cost of services, water supply, sewage, lighting, transport, etc., have been very largely increased because of indirect and narrow routes for the alignment of mains of all sorts. With a proper framework of

main roads and streets there would have been much greater efficiency and economy both in respect of capital and running costs.

The City, being one great agglomeration of towns and villages now included within its limits, lacks the cohesion of more compactly built Cities and consequently fails to convey the impression of dignity that might be expected from its size; but it certainly affords many features of undeniable beauty and charm. It may not strike one as a fine City, but it undoubtedly possesses the most exceptional possibilities and few Cities on the scale and with the resources of this one, could hope to effect so much in the way of beautification.

In order to secure effective and co-ordinated control over the development of the vast open areas of the City, the Corporation has undertaken 39 detailed Town-Planning Schemes under the Madras Town-Planning Act as detailed below:—

Serial No.	Name of Town Planning Scheme	Approximate area in acres.
<i>Sanctioned Schemes.</i>		
1.	Lloyds Road	117.78
2.	Cathedral Road (South)	90.82
3.	Nungambakkam (East)	299.49
4.	Mylapore (East)	285.15
5.	Thousand Lights	28.46
6.	Jagannathapuram	56.39
7.	Perambur (North)	240.35
8.	Kilpauk Garden Road	53.38
9.	Nungambakkam (North)	118.18

Serial No.	Name of Town Planning Scheme	Approximate area in acres.
<i>Sanctioned Schemes.—(contd.)</i>		
10.	Tondiarpet No. 1	105.42
11.	Perambur High Road	83.39
12.	Nungambakkam (Central)	132.31
13.	Mylapore (South)	461.86
14.	Sanskrit College	112.22
15.	The Nungambakkam West Part I Area	94.00
16.	The Mylapore Eastern Section Area	238.56
<i>Schemes Pending Sanction</i>		
17.	The Shenoy Nagar Area Town Planning Scheme	198.86
18.	The Tondiarpet No. II Area	227.80
19.	The Tondiarpet No. III Area	364.21
20.	The Nungambakkam West Part II Area	167.00
<i>Schemes under preparation</i>		
21.	Royapettah East Extension	75.65
22.	Mylapore South East	850.83
23.	Kilpauk Garden Further Extension	199.34
24.	Egmore-Harrington	196.20
25.	Mylapore-Teynampet	256.00
26.	Mylapore (North)	240.00
27.	Vyasarpadi No. I	295.00
28.	Vyasarpadi No. II	120.00
29.	Vyasarpadi No. III	330.00
30.	Tondiarpet Railway affected Area No. I	141.80
31.	Tondiarpet Railway affected Area No. II	140.20
32.	Chetput Area	149.87
33.	Poonamallee High Road	110.78
34.	North Poonamallee High Road	223.58
35.	Purasawalkam North West	268.12
36.	Theagaroyanagar Revised Scheme	1200.00
37.	West Mambalam (North)	...
38.	West Mambalam (South)	221.83

As soon as the Madras Town-Planning Act of 1920 was passed, the Government ordered the formation of a Town-Planning Trust for Madras. The Trust was constituted in the latter half of 1921, but its activities began only in 1922. The Director of Town-Planning with the Government of Madras was the adviser to the Trust. The preparation of plans, draft schemes, inspection of sites, disposal of building applications and other matters were done in his office. The Trust exercised jurisdiction over the following areas :—

1. Mambalam area.
2. Mylapore Quadrilaterals.
3. Nungambakkam area.
4. Ambathur, Villivakkam, Perambur and other suburban areas.

In addition to the preparation of Town-Planning Schemes a number of matters relating to the improvement of the Madras City, such as, the sand accretion, level-crossings, Esplanade, railway schemes etc., were referred by the Government to the Trust for its opinion. The question of making the Trust as an executive body was under consideration of Government in 1925.

The Madras Town-Planning Trust took up the preparation of a number of schemes of which the schemes for the Mambalam area and the Mylapore Quadrilaterals were the most important. These schemes were sent up to Government for sanction but the latter refused to finance the Trust by either loans or grants, and

the Trust's work was rendered abortive. The prolonged and futile negotiations with respect to the financial basis of the Trust must be accounted as the chief cause for the stagnation in development from which the City has suffered during the early stages of the working of the Town-Planning Act. For, with the Trust in existence, there was no call for the Corporation to take up Town-Planning seriously.

The Mambalam Town-Planning Scheme initiated by the moribund Madras Town-Planning Trust in 1922 was transferred to the City Corporation in 1923, sanctioned by Government in 1925 and revised and extended by the Corporation in 1928. After long delay, Government completed the revenue survey of the area which was formerly a Zamindari tract and the revised scheme was prepared and finally approved by the Council on 6-10-49 and submitted to Government for sanction.

The revised scheme covers about 1,200 acres of which about 600 acres of land was acquired by the Corporation whilst an equal extent remains in the hands of private persons. The area is being controlled under the Town-Planning Act. The private owners are liable for betterment levy to the extent of 50 per cent of the maximum increment in land value due to the carrying out of the scheme. The scheme is an object lesson in the value of municipal ownership, for, the difficulties encountered in securing development of private land according to a super-imposed plan, are

very formidable, very little co-operation being forthcoming.

The revised Mambalam scheme will involve the construction of about 15.6 miles of main roads providing for a population of about 40,000. There is a minimum restriction of $1\frac{1}{2}$ grounds per plot (equivalent to a net density of 12 houses per acre) whilst the area is in the main restricted for residential purposes. Building lines and open spaces around houses are prescribed and provision is made for housing schemes for the poor in particular areas. Sites for public buildings of all kinds are provided as also a number of parks and open spaces, with an open garden belt all round the area. There is an embryo civic centre in Panagal Park and the sites surrounding it from which main roads (of widths varying between 50 and 100 feet) radiate in all directions. Along the central Sir Theagaraya Road (which is 100 ft. wide), running eastward, a bazaar and business centre is planned. The cost of the Mambalam scheme is estimated at about Rs. 28,50,000, to be recovered from sale of sites and from betterment tax. Even if the scheme is not directly remunerative, its indirect benefits in providing a larger and healthy suburban extension will make it a good investment on the part of the Corporation.

The Madras Town-Planning Trust was dissolved by Government in 1930 and the Town-Planning work devolved on the City Corporation since that time. A special Town-Planning Committee was appointed

and necessary powers relating to Town-Planning matters were delegated to it by the Corporation under the Town-Planning Act. Since 1937 with the sanction of Government the Standing Committee for Town-Planning and Improvements constituted under the amended City Municipal Act has been functioning also as special Town-Planning Committee for the purposes of the Town-Planning Act.

The Government of Madras have in July 1945, passed into Law the Madras City Improvement Trust Act and the Improvement Trust Board has been constituted in October 1946 with Mr. M. B. Chablani as its Chairman. The services of Mr. Chablani having been taken by the Government of India, he was succeeded by Sri A. Raghava Reddi in March 1948 as acting Chairman, who continued as such till 7-10-48, when Sri K. K. Nambiar, who was appointed as permanent Chairman, took charge.

The population of the City rose from 5,27,000 in 1921 to 7,77,481 in 1941 and the number of houses from 64,600 to about 88,000 during the corresponding period. Owing to conditions brought about by the Second World War, there has since been a large influx of population into the City most of which is likely to remain in the City. Even after making necessary allowance for the portion of the population which might be deemed temporary or floating, the normal present population is reckoned as 14 Lakhs. (Figures from the City Ration Office for May 1949 indicate the City's

population to be in the neighbourhood of 14.43 lakhs). On the other hand the increase in the number of houses has been only very insignificant owing to the impracticability of securing building materials during this period.

The density of population per house was 8.16 in 1921 and 8.83 in 1941 while the density of the present population works out to about 14.0 per house.

Owing to the inflation caused by the War, the cost of lands within the City has risen considerably. Even though the 38 Town-Planning Schemes, when completed, are expected to go a long way to facilitate redistribution of population and relieve congestion to some extent in the already built-up areas of the City, the poorer classes who constitute the bulk of the population, are not likely to derive much benefit out of these Schemes, as the prices of lands within the City are generally already beyond their means. It was therefore considered desirable to include within the City limits several adjoining villages, where it will be possible to acquire lands for the poorer classes at much lower values than obtains in the City.

II. GREATER MADRAS

The census of 1941 disclosed an increase of 48% in the population of the City over that of 1921 (i.e. from 5,27,000 to 7,77,481) while the increase in the number of houses was only 36.5% for the corresponding period (i.e., from 64,600 to 88,000). It was fairly

obvious from these figures that development of the City was not taking place commensurate with the increase in the population and consequently some areas were becoming more congested resulting in deterioration of conditions of housing accommodation. It was also considered that the public health of the City was often endangered by infection of epidemic diseases spreading into the City from the surrounding villages, where the control of public health was not very satisfactory. The Corporation, therefore, requested the Government about the end of 1941 to consider the question of extending the City limits, with a view to secure more effective control over the public health of the adjoining areas and also to relieve the congestion of population in the City, especially of the poorer classes, by acquiring lands there at much lower values than obtained in the City. The Government were not then pleased to consider this proposal.

Owing to conditions brought about by World War II, there was a large influx of population into the City within the next two or three years, without any possibility of increase in the number of houses owing to non-availability of building materials. The population had already exceeded one million even in 1944 and this sudden influx aggravated the already poor housing condition in the City. The soaring prices of building sites within the City, due to inflation was yet another obstacle in the way of housing enterprise for the middle and lower classes. The density of population per in-

habited house was 8.16 in 1921 and 8.83 in 1941 while the present density works out to more than 14.0.

Faced with such an acute housing problem, the Government were pleased in February 1944, to revive the question of extending the City. The proposal being approved by the Council, the Government tentatively approved the scheme in their order No. Ms. 1179 dated 29th May 1944 and desired the formulation and submission of detailed proposals in this regard. Proposals for including within the City an area of 19.93 sq. miles together with the detailed particulars required by the Government and the statement of financial commitments, were approved by the Council on 16-10-1946 and submitted to Government.

The areas forming parts of the scheme are as follows :

1. The entire area of the Saidapet Municipality (now abolished as a result of the extension) and which comprised of the revenue villages of Mambalam, Saidapet, Government Farm, and portions of Puliur, Kodambakkam, Saligramam, Adyar and Alandur Villages
... 3794.91 Acres.
2. Entire area under the Sembiam Panchayat Board (abolished with effect from 1-4-46) comprising of the revenue villages of Sembiam, Siruvallur, Peruvallur, Chinnasembarampakkam, and Aynavaram ... 2,813.58 Acres.

3. Entire area under the Aminjikarai Panchayat Board (abolished with effect from 1-4-1946) comprising of the revenue villages of Aminjikarai, Periyakudal and Naduvakarai
... 852.77 Acres.
 4. Part of Velacheri Panchayat Board area comprising of a portion of Velacheri revenue village (this area was excluded from the jurisdiction of Velacheri Panchayat Board)
... 395.65 Acres.
 5. The following areas administered by the Chingleput District Board—
 - (a) The entire revenue villages of Mul-lum, Chinnakudal, Arumbakkam, Agramvada, Urur, Kottur, Pallipattu, Kalikkunram, Guindy Park (Government House) and Ikkattuthangal, and
 - (b) Portions of Puliur, Adyar, Alandur and Thirumangalam revenue villages
... 4,900.21 Acres.
-
- Total Area ... 12,757.12 Acres.
or
19.93 Sq. Miles.
-

Of the above area, about 0.31 sq. miles forming part of Aminjikarai and Periyakudal villages were annexed to the Corporation with effect from 1-10-1945 under G. O. No. 1722 L.A. dated 15-8-1945 in connection with the Aminjikarai Housing Scheme. The remaining area of 19.62 sq. miles has been annexed with effect from 1-4-1946 under G. O. No. P. S. 529 L.A. dated 16-3-1946.

The total area of "Greater Madras" is now 49.74 sq. miles.

Chief among the institutions that have come into the City limits as a result of this extension are:—

1. The M. & S. M. Ry. Workshop and Loco Offices in Ayanavaram,
2. The Theosophical Society at Adyar,
3. The Engineering College at Guindy,
4. The Guindy Government House,
5. The Guindy Race Course,
6. The King Institute, Guindy, and
7. The Teachers' College, Saidapet.

The estimated population in the new areas is about 1,10,000 and the number of houses about 17,500.

The anticipated normal annual revenue to the Corporation from these areas is about Rs. 5.79 lakhs and the estimated expenditure on maintenance about Rs. 5.31 lakhs. In order to extend the amenities now

obtaining in the City to the inhabited portions of the new areas and to improve such of those as now exist in some localities, a huge capital investment will be necessary. It is hoped that the revenues from the new areas will correspondingly increase when the areas develop and as more amenities are provided, and thus enable the Corporation to obtain more loans and execute more works.

On the suggestions of the Government and the Council respectively to include Thiruvannmiyur and Thiruvottiyur villages, proposals for further extending the City by about 11.25 sq. miles more, comprising of Thiruvannmiyur, Kanagam in the south and Thiruvottiyur and parts of five other contiguous villages in the north are now under consideration. Repeated representations are being received from the residents of Villivakkam and Alandur Panchayat Board areas pressing for the inclusion within the City of those areas as well. As this will involve the inclusion of considerable contiguous areas also, the question can perhaps be considered only some years hence in the light of the experience gained from the recent extension.

With a view to regulate the development of the areas newly added to the City these areas were conveniently grouped into 17 compact units for detailed town planning and Government were requested to notify them for town planning under Section 12 of the Town Planning Act. The notification by Government is still awaited.

With the extension of the City limits the preparation of the General Town Planning Scheme has received a new orientation. The Corporation Council has resolved to adopt a General Town Planning Scheme so as to include within its scope 54 villages lying outside the extended City limits. The area included in the General Town Planning Scheme is about 110 sq. miles. The preparation of the General Town Planning Scheme (or the Master Plan) is well under advance.

III. HOUSING

When the Royal Commission on Labour visited Madras it discovered that 25,000 one-roomed dwellings sheltered 150,000 people in the City. It worked out to nearly a quarter of the population. In addition to this there are thousands of people who are entirely without any dwellings whatsoever. About 80 per cent of the residents of Madras live in rented buildings and this figure may probably be taken to apply to the very poorest of the community, most of whom live in the crowded parts of the City in what are called 'Cheris'. It is these crowded places which hatch most of the diseases which spread with great rapidity over the whole population. The following paragraph appears in the *Hindu* of July the 18th, 1932 :—

"In the census report of 1901 this is recorded : 'Between 1891 and 1901 Madras gained 89,500 persons by immigration more than it lost by emigration—most

of whom came from Chingleput and North Arcot Districts.' The census report of 1921 is still more emphatic : 'During the past ten years the number of deaths in the City has exceeded the number of births by not less than 22,963 or 11.7 per cent. Thus the increase of 8,251 recorded in the decade is due entirely to immigration.' From these quotations it is obvious that two of the main features with regard to the population have been a high mortality rate amongst those dwelling in the City, together with a steady increase in population due entirely to the numbers who flock into the City chiefly to find work. While there has been some improvement since 1921, these features still prevail. For example, the Health Report for the Quinquennium ending 1929 shows an excess of deaths over births of 1.4 per thousand for the whole City though the annual report for 1930 is happily able to record an excess of births over deaths of 4.4 per thousand. As citizens of Madras, we can hardly afford to congratulate ourselves, therefore, on the increase of 120,622 for the decade, since this is due almost entirely to immigration and not to healthy increase in those native in the City."

It is not, therefore, surprising that the Corporation has been devoting its attention to the question of housing and slum clearance. First, a number of modern hutting schemes were launched mainly for its employees such as sweepers and cart drivers. From 1918, the Corporation launched on a scheme of tenement construction

for housing the poorer classes. However, nothing tangible was achieved during these years. An *Ad Hoc* Committee was appointed by the Council on 15th August 1933 to enquire into the housing conditions in the City of Madras (with special reference to overcrowding, slum clearance and housing of the poorer classes) and to evolve a comprehensive housing policy for the City and report what legislative and administrative action is necessary to remedy the existing defects.

The Committee went into the matter carefully and recommended :

(1) The formation of an Improvement Trust, (2) building of houses for housing middle class people, (3) construction of tenements for housing the poorer classes, (4) improvement of slums and (5) housing of beggars and homeless. This scheme is estimated to cost a crore of rupees. The Corporation Council approved the recommendations of the Committee and forwarded the same to Government.

The Madras City Improvement Trust has now come into being and the Trust Act provides for the improvement and expansion of the City by opening up congested areas, laying out or altering streets, providing open spaces for purposes of ventilation or recreation, demolishing or constructing buildings, acquiring land for the said purposes and for the re-housing of persons displaced by the execution of improvement schemes, and under that Act, the Trust Board is invested with special powers for carrying out the objects aforesaid.

Including the Chairman, the Board consists of nine trustees. The Chairman is appointed by the Provincial Government and is a wholetime officer of the Board. The Commissioner, Corporation of Madras, the Director of Town Planning and the Director of Public Health are *ex officio* members of the Board. Two members of the Council of the Corporation of Madras, elected by the Council, a member of the Chamber of Commerce, Madras, elected by the Chamber, a member of the Southern India Chamber of Commerce, elected by the Chamber and a person appointed by the Provincial Government, constitute the Board.

The Corporation of Madras and the Provincial Government contribute to the funds of the Trust Rs. 2.50 lakhs each, annually. Number of improvement schemes have been formulated by the Trust. The following have been sanctioned by the Government and taken up by the Trust for execution.

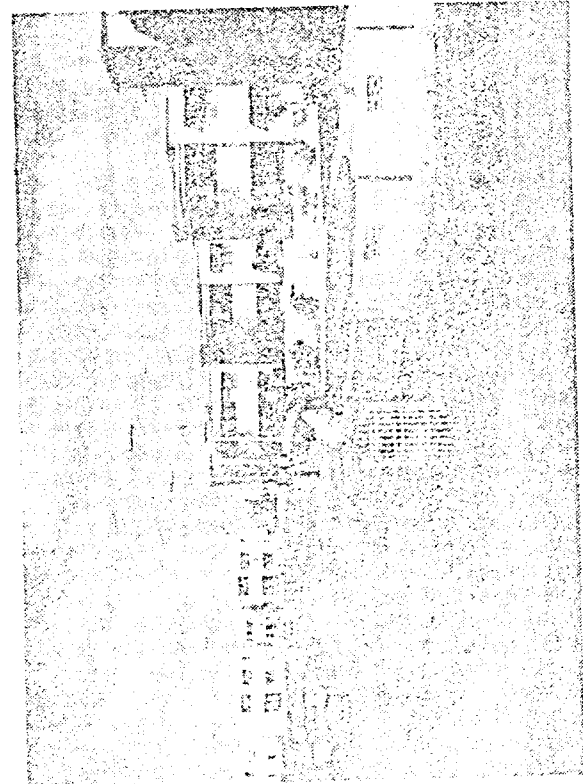
1. The Cox Cheri Improvement Scheme,
2. The Sylvan Lodge Improvement Scheme, and
3. The Mansion Improvement Scheme.

The huge influx of population into the City consequent on the war and post-war developments intensified the already acute shortage of housing accommodation for middle and upper middle class people. With a view to relieve this shortage, the Corporation of Madras decided upon the construction of a colony of about 1,000 houses at a total cost of Rs. 1

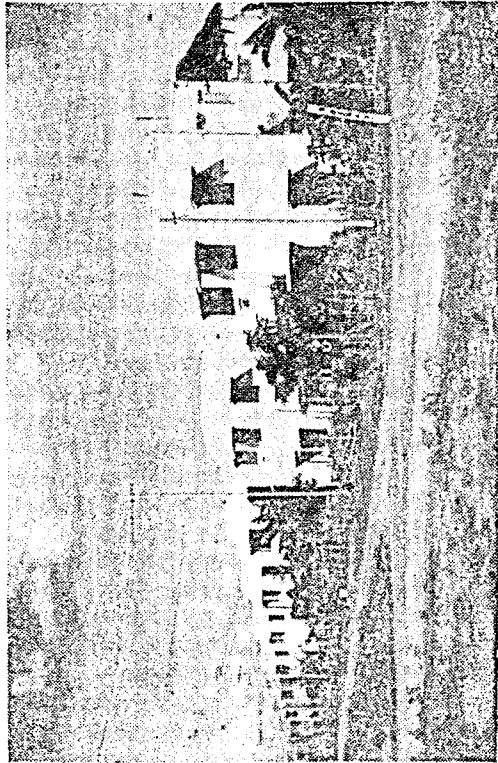
crore, built around a community centre and self-contained with provision for a school, dispensary, child welfare centre, market, playgrounds, etc. A Town-planning Scheme was prepared for this purpose for an area of about 200 acres in Aminjikarai of which 50 acres were already owned by the Corporation. The execution of the scheme was commenced in February 1947 with a loan of Rs. 8 lakhs sanctioned by the Government for this purpose. The Colony was named SHENOY NAGAR after the then Commissioner, Mr. J. P. L. Shenoy. 102 houses of the following categories have been constructed upto April 1949 and let out for occupation.

<i>Type.</i>	<i>Cost of each House excluding Site</i>	<i>No. of Houses Constructed</i>
A	Rs. 43,000	6 Nos.
B	" 33,000	6 "
C (Original)	" 14,500	12 "
C (Revised)	" 15,500	17 "
D	" 11,500	47 "
E	" 11,500	6 "
F	" 12,000	6 "
G	" 5,500	1 "
H	" 4,500	1 "

11 houses of the "F" type and 14 of small house type No. 1 (modified 'G' type) and a block of 12 shops are now under construction. The provision of amenities such as water supply, sewerage, roads and street



SHENOY NAGAR—"A AND B" TYPE HOUSES



SHENOY NAGAR—REVISED 'C' TYPE HOUSES

lighting were taken up along with the construction of the houses, so that the houses were fit for occupation as soon as they were completed. All the houses are provided with flush-out latrines, protected watersupply and electricity.

The houses constructed are let out on a monthly rent varying from Rs. 160/- for the 'A' type to Rs. 24/- for the 'H' type. The Council recently resolved to sell the houses to employees of the Corporation and the public on hire-purchase system charging interest at $3\frac{1}{2}\%$ per annum. As soon as the scheme submitted to the Government is sanctioned, the remaining lands in the scheme will be acquired for the construction of the remaining houses of the scheme.

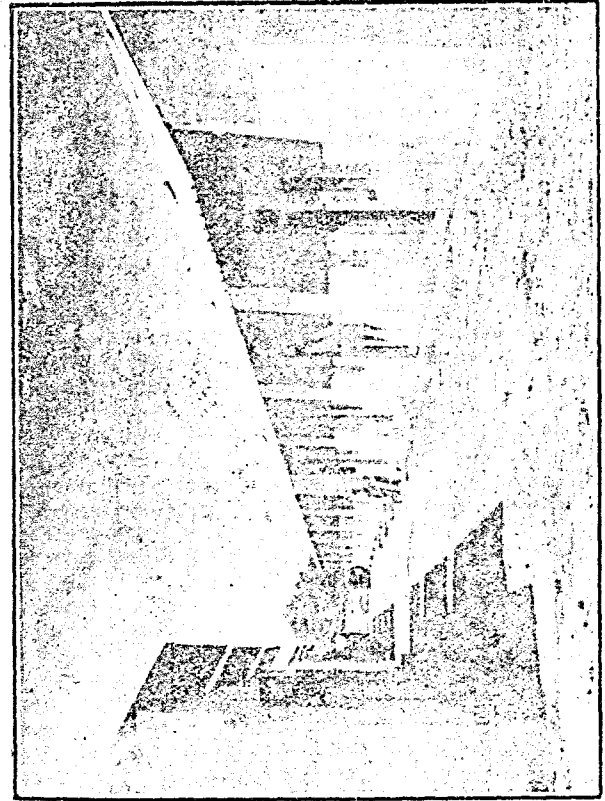
The Government have so far sanctioned a loan of Rs. 21.40 lakhs for the scheme and propose to sanction a further loan of Rs. 10 lakhs in the current year.

The Madras Co-operative House Construction Society was formed in May 1947 with Sri K. Venkataswami Naidu, as President and Sri C. Narasimham, Commissioner, Corporation of Madras, as Vice-President, to prepare and carry out comprehensive schemes of housing in the City of Madras and its suburbs. The Society chose three areas for house construction, viz., Adyar, Mylapore and Ayanavaram. At Adyar, the Society was able to purchase by private negotiation 131 acres at a total cost of Rs. 16 lakhs, and a lay-out modelled on the modern neighbourhood unit was prepared for this area. It is a self-contained unit, with

all communal amenities, such as paved roads, side walks, underground sewerage, surface drainage, parks and play-grounds, a swimming pool, water supply with an overhead tank for decentralised storage to ensure uninterrupted supply at uniform pressure, electric lights, markets and shopping centres, canteens, a school, a dispensary and child welfare centre, post office and a bus stand. Intended for all communities, so that they may enjoy and foster that harmony and unity which the Father of the Nation strove to create, this estate has been named GANDHI NAGAR, and this when completed, will accommodate 341 families.

The Society has also planned to construct houses in three other areas. These are, Mylapore, Ayanavaram and Adyar (on the southern side of Gandhinagar). The lands in Ayanavaram comprising 22 acres have already been acquired and the Society has taken possession of them. A lay-out plan has been prepared and four demonstration houses are being erected on the site to enable the members of the Society to choose their designs. In Mylapore and in the area south of Gandhinagar, acquisition proceedings are progressing rapidly and construction work will be put on hand shortly.

Slowly, but steadily, the Corporation has been constructing from 1908, tenements and plinths for housing the poorer classes. The statement appended herewith exhibits the activities of the Corporation in this direction.



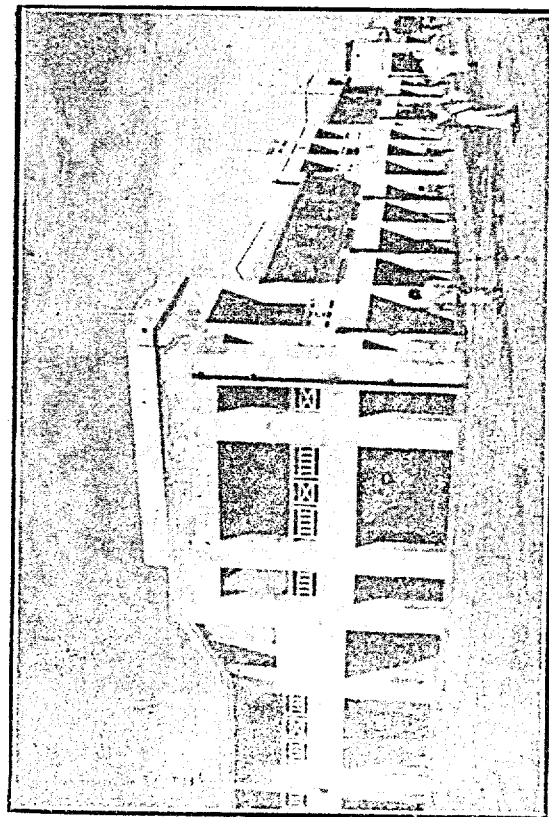
MODEL TENEMENTS, CEMETERY ROAD



CONRAN-SMITH NAGAR

Serial No.	Tenement	Year of Construction	No. of Tenements	Remarks
1.	Model tenements in Cemetery Road ...	1908	144	
2.	Do. do. ...	1915	34	
3.	Do. Vasapmode Cheri ...	1910	85	
4.	Do. do. ...	1913	73	
5.	Do. Salai Vinayagar Koil St. ...	1910-11	14	
6.	Do. Anglo-Indian Dwellings, Nariangadu ...	1914	20	
7.	Do. Pensioners Lines ...	1908-09	36	
8.	Do. Harris Road ...	1921-22	76	
9.	Do. Kuravankulam ...	1923-24	60	
10.	Do. Sami Reddi Cheri, Egmore ...	1925-26	50	
11.	Do. do. Additional ...	1927-28	11	
12.	Do. do. do. ...	1930	4	
13.	Do. Cochrane Basin Road ...	1926-27	30	
14.	Do. Jagannathapuram ...	do.	30	
15.	Do. Lloyds Road ...	do.	30	
16.	Do. Model Lines, Krishnampet ...	do.	15	
17.	Do. Palmyra Yard, Kuppan ...	1927-28	50	
18.	Do. Old Slaughter House Road ...	1910-11	35	
19.	Do. Conran-Smith Nagar, Perambur ...	1931	106	
20.	Do. Pulianthope ...	1931	75	

Serial No.	Tenement	Year of Construction	No. of Tenements	Remarks
21.	Tenements in Bogipalayam	1935	55	
22.	Do. do. ...	1936	56	
23.	Do. do. Additional	1937	32	
24.	Do. Harbour-Additional	1934	55	
25.	Do. do. do. ...	1935-36	55	
26.	Do. do. do. ...	1938	72	
(a)	Do. Model Huts in Cemetery Road ...	1939	20	
27.	Do. Bunder Rama Naidu Garden ...	1938-39	84	
28.	Tenements in Bunder Rama Naidu Gardens — additional ...	1941-42	84	
29.	Tenements in Palmyrakuppam ...	1940-41	11	
30.	Tenements in Seni Ammen Koil St. ...	1941-43	22	
31.	Model Huts in Ennore Road	1941-42	40	
32.	Tenements in Chellappa Mudaly St., Purasawalkam	1941-42	22	
33.	Houses in Angalammen Koil St. ...	1941-42	9	
34.	Kodambakkam Tenements	1945	50	
35.	Cemetery Road tenements	1945	50	
36.	Model Huts in Ayodhyakuppam, South Beach Road 2nd Section ...	1945-46	10	
37.	Chellappa Mudaly Street tenements ...	1948-49	26	

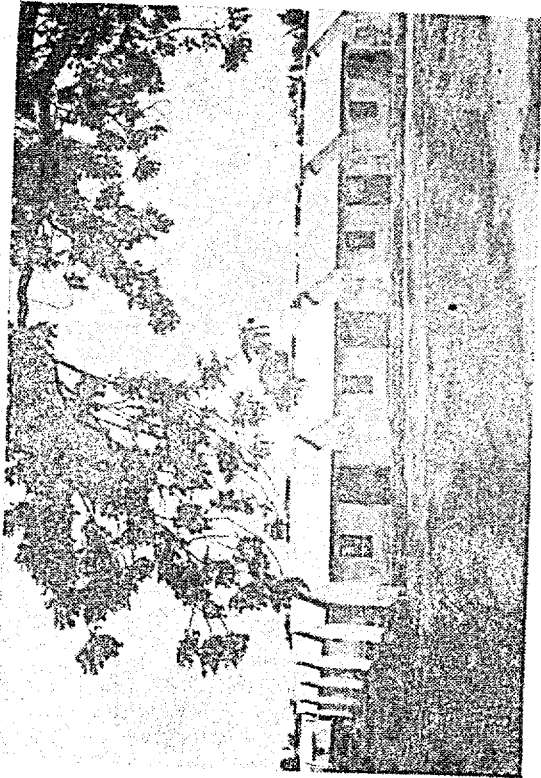


HARBOUR TENEMENTS

Serial No.	Tenement	Year of Construction	No. of Tenements	Remarks
38.	Bunder Rama Naidu Garden tenements ...	1948-49	24	In progress.
39.	Tenements in Bogipalayam	1948-49	2	
40.	Tenements in Kursedipuram		24	
41.	Tenements in Seni Ammen Koil St. ...		14	
42.	Tenements in Robinson Park for Lower Middle class ...		16	
PLINTHS				
1.	Plinths in Cochrane Canal Road ...	1932-33	132	
2.	Do. Lloyds Road ...	1934-35	72	
3.	Do. Napier Park ...	1933-34	20	
4.	Construction of superstructure over the existing plinths in Old Slaughter House Rd., Choolai	1946	20	
5.	Do. in Tondiarpet Market and Harness & Saddle Factory ...	1947-48	179	

Improvement of slums in the City is receiving the special attention of the City Improvement Trust. As already stated, the Cox Cheri Improvement Scheme, the Sylvan Lodge Improvement Scheme and the Mansion

CORPORATION TENEMENTS, KODAMBAKKAM



Improvement Scheme have been taken up for execution by the Trust. Other schemes which are either under preparation or pending sanction of the Government will be taken up for execution in due course.

With the opening of a Poor House, a Special Home for diseased and disabled beggars, a Work House for able-bodied beggars, Homes for the homeless and an Orphanage for vagrant children, the Corporation has made a start in the matter of housing beggars and homeless. It is hoped that liberal grants from Government and large donations from philanthropically minded public will be forthcoming to enable the Corporation to fully solve the problem of housing all beggars and homeless who now pester the public at all times and at all places.

IV. RAILWAY IMPROVEMENTS

The South Indian Railway approaches Madras through an area which has, for many years past, been developing as a residential one and was served by a single line of railway which, congested with main line traffic, gave an inadequate local train service. A proposal to construct a suburban loop through Triplicane and Mylapore was examined but it was decided to retain the existing route for suburban traffic and in 1904 plans were prepared for doubling this existing single line of railway. It was, however, felt that the needs of the traffic would be met more cheaply

by shortening the block sections to one and a half miles and constructing crossing stations at the end of each such section. This was done, but as traffic continued to increase, the whole question was reinvestigated but no definite action was taken owing to the financial stringency during the First World War. In 1922 the scheme known as the 'Madras Improvements' was prepared.

This consists of the construction beside the Main line of new Up and Down electrically equipped suburban tracks from Madras to Egmore (mile three), the terminus for steam traction to Tambaram (mile eighteen), and doubling the line from Beach (mile zero) to Egmore (mile three). The scheme though confined at present to the section from Madras Beach to Tambaram is so designed as to facilitate easy extension up to Chingleput with the minimum of dislocation.

In designing the new stations, care has been taken to provide ample platform space for both up and down passengers and waiting rooms for every class of passengers.

There are twelve stations between Beach and Tambaram, all of which have been rebuilt, with an island platform with waiting rooms, etc., between the Up and the Down lines. These platforms are connected to the Booking-offices by reinforced concrete footbridges; the platforms are 44 feet wide, 600 feet long of which 400 feet is roofed. The station yards at Egmore and Beach

have also been remodelled entirely. The construction of a flag station near the Loyola College is under the contemplation of the Railway Authorities.

Through goods trains are hauled from Tambaram to Madras Beach by electric engines. Shunting in Beach goods yards is done by these engines which when they work on sidings having no contact line, are attached to battery tenders having their own charging sheds at Egmore.

Power is taken at 5,500 volts A.C. from the Madras Electricity System into the sub-station at Egmore where it is stepped up, in the outdoor station, to 33,000 volts and taken on towers to the next sub-station at Meenambakkam (mile 12.48). In the indoor sub-stations both at Egmore and Meenambakkam the current is passed through mercury arc rectifiers where it is converted to D.C. at 1,500 volts, at which pressure it is fed to the contact line; other transformers step it down to lower voltages for the automatic signalling and station lighting.

Semaphore arm-signals have been removed on both the Main and Suburban lines, on all of which three aspect colour light signals have been erected, those on the suburban lines being entirely automatic, whereas on the Main line they are semi-automatic. The permanent-way in the yards at Tambaram, Egmore, and Beach is track circuited.

The electrification was designed and carried out by Messrs. Robert White and Partners, of Victoria Street, Westminster.

Concomitantly with this scheme, the substitution of overbridges for level crossings has been taken on hand, and of these four have been finished.

The provision of over-bridges in lieu of the two level crossings at McNichols Road and Gengu Reddi Road already approved by Government and deferred owing to war was again revived. The preliminaries, *viz.*, survey of the land required for siting the bridges etc., are being carried out in consultation with the Railway Authorities and the Collector of Madras. The actual execution of the work has, however, not been taken up owing to the present financial position of the Railway Administration. It is hoped to materialise in 1951-52.

M. and S. M. Ry.

The Central Station forms the terminus of the broad gauge lines from (1) Calcutta, (2) Bombay, (3) Bangalore and (4) Mangalore which bifurcate at the Basin Bridge junction about a mile to the north. There are two more stations on the Calcutta line and one at Perambur on the western line. The latter is connected on to the Beach Terminus of the S.I.Ry. and the Harbour, with an intermediate station at Royapuram.

The provision of over-bridges in lieu of the two level-crossings at Monegar Choultry Road and Thiru-

vothiyoor High Road has been approved by the Government and preliminary works such as survey of lands for siting the bridges and their approaches are being carried out in consultation with the Revenue Authorities. The construction of a sub-way at Perambur is also under active consideration.

The development of electric traction from Madras to Washermanpet, Washermanpet to Trivellore, Washermanpet to Egmore, Vyasarpadi to Central Station, Madras Beach to Saidapet (*via*) Adyar, San Thome and Mylapore, Madras Chetput to Villivakkam connecting the S. I. R. metre gauge main line and Madras to Trivellore broadgauge line is also indicated as a possibility in a recent order of the Government. Even if some of the above schemes materialise, they will help dispersal of the population over a considerably greater area and thus bring about improvement in the housing conditions in the City.

V. LIGHTING

Street Lights.—The streets in the City of Madras were lit with oil lights till the year 1910, when electric lights were first introduced. At the beginning of 1909-10, there were 6,289 oil lights and 15 electric lights in the city. The use of electricity for street lighting which began in a small way in 1910 was gradually increased and by 1924-25 all the oil lights in the city were completely replaced by electric lights. The streets

of Madras are now lit with 16,783 electric lamps, of which 575 are mercury discharge lamps.

Electric power for street lighting within the old city limits is obtained in bulk from the Madras Electricity System's power house at Basin Bridge at 5,000 volts and at the Corporation Main Controlling Station, Basin Bridge, the supply is metered and distributed through a separate High Tension network which connects 23 sub-stations. At each sub-station, the voltage is reduced to 250 volts and distributed to the various streets. The following are the sub-stations:—

			Tel. No.
A)	Main Controlling Station	Basin Esplanade Rd.	3692
B)	Perambur Sub-station	Cantz Road	3115
C)	West George Town	Mint Street	3018
D)	East George Town	Ayappa Chetti St.	3048
E)	South George Town	Memorial Hall St.	3024
F)	Royapuram Main Station	North Rly. Terminus Road	3113
G)	Kasimode Sub-station	Suryanarayana Chetti Street	3386
H)	Robinson Park	.. Cemetery Road	3179
I)	Washermanpet	.. Tiruvottiyur High Rd.	3192
J)	Tondiarpet	.. Paracheri Road	3244
K)	Vepery	.. Rundalls Road	3027
L)	Kilpauk	.. Kellys Road	3028
M)	Chetput	.. Spur Tank Road	8395
N)	Egmore	.. Pantheon Road	86063

		Tel. No.
Q)	Mount Road Sub-station Next to Durga	86133
P)	Thousand Lights „ Mount Road	88079
Q)	Ice House „ Besant Road	86107
R)	Mylapore „ Luz Church Road	86070
S)	South Mylapore „ Brodies Road	86242
T)	High Tension „ „	—
	Bunk „ Mount Road	—
U)	Mambalam „ Sir Thyagaraya Rd.	88211
V)	Bazlullah Road „ Thyagarayanagar	—
W)	Madley Road „ Thyagarayanagar	—

Each sub-station is attended to by a staff consisting of electricians and switchers who are on duty during street lighting hours by turns. Two or three sub-station areas are under a Charge Engineer or Lighting Inspector.

The Stations:

A, B and K are under Charge Engineer, Perambur,
C. to E are under the Lighting Inspector, G.T.,
F to J are under the Charge Engineer, Royapuram,
L to N are under the Lighting Inspector, Kilpauk,
P and R to W are under the Charge Engineer, Mambalam
and O and Q are under the Lighting Inspector, Mount Road.

Maintenance of Street Lighting.—Three Supervisors and 4 Asst. Supervisors, each with a gang of Jointers, Asst. Jointers, coolies etc., are in charge of

maintenance and repairs of the entire street lighting system in the City. The office of the Electrical Supervisor, North Range (sub-stations A to K) is located in the Main Controlling Station, Basin Esplanade Road (Telephone No. 3692) and that of the Electrical Supervisor, South Range in Ritchie Street, Chintadripet (sub-stations Nos. L to W—Telephone No. 86657). The office of the third Supervisor who is in charge of the Saidapet area is located at Jeenis Road, Saidapet (Telephone No. 88265).

There is no separate staff for the street lighting in the Sembiam area and the work is attended to by the staff of the Electricity Undertaking under the Asst. Electrical Engineer, North Range.

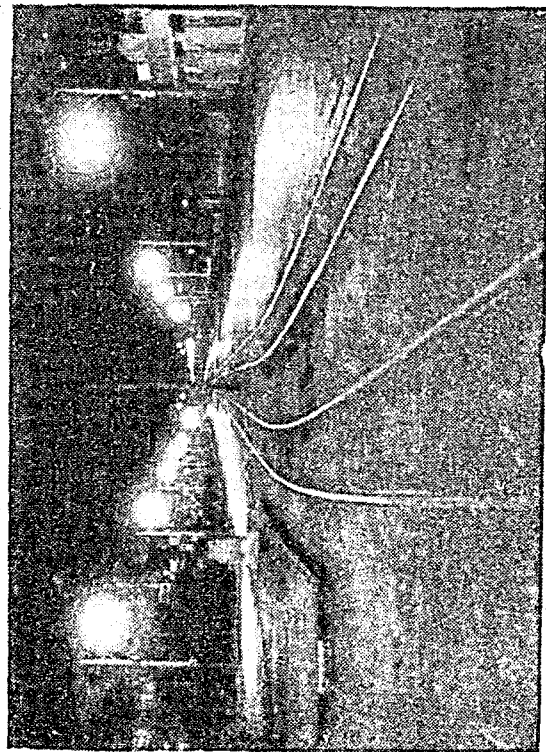
Maintenance of Street Electric Sub-stations.—

A separate Electrical Supervisor is now in charge of the repairs to and maintenance of the sub-station machinery and equipment such as transformers, switch-gears etc., in the various electric sub-stations of the Corporation.

The Madras Corporation has a total length of 612 miles of lighting mains in the City, out of which 545.52 miles are Low Tension cables, 28.5 miles are Low Tension overhead mains and 37.98 miles are H.T. cables which interconnect the 22 Corporation sub-stations controlling the entire street lighting of the City. The present street lighting load in the City is about 720 kilowatts and would be well above 1,000 kilowatts had

it not been for the restrictions that have been temporarily imposed due to present conditions necessitating economy in the consumption of electricity due to shortage of coal and other essential materials.

Mercury Discharge Lamps.—Modern improvements to street lighting with mercury discharge lamps and special fittings were introduced first in 1939 in a portion of Mount Road in the Teynampet area. This street lighting is planned according to the latest developments in other countries and designed to give the maximum efficiency with the minimum expenditure. The standard of lighting obtained by such scientific planning is in conformity with those laid down by the street lighting authorities in England and America. In main streets a higher mounting is adopted with steel tubular poles fitted with special long arm brackets manufactured in the Corporation Workshops. The mounting of these posts vary from 20 to 30 ft. In certain areas, reinforced cement concrete posts are also being used. These concrete posts are manufactured in Madras. This latest method in street lighting proved at once so efficient from the traffic point of view and also economical that it was extended throughout Mount Road, Body Guard Road and the Marina and in some of the most important junctions of the City where vehicular traffic is considerable. The advent of the World War II and the difficulty in obtaining suitable equipment for such lighting from Europe and the necessity to restrict the consumption of electrical energy



NETHAJI SUBASHI CHANDRA BOSE ROAD—LIGHTED BY MERCURY DISCHARGE LAMPS

made a set-back in the progress of the introduction of mercury discharge lamps in all the important thoroughfares of the City. However, the work has been taken up again and mercury discharge lamps have now been installed in Netaji Subash Chandra Bose Road, Rattan Bazaar Road, Wall Tax Road and a considerable portion of Poonamallee High Road. Schemes are on hand to charge over the lighting in other important roads in the City.

Schedule of Lighting.—The normal street lighting hours maintained in the City are about 3,172 per annum.

Electric Lamp Posts.—The standard type of street lighting posts in the City is made of cast iron with ornamental scroll work on top with a mounting height of 14 ft. It is provided with a double cone reflector which can take up to 200 watt lamps. All the parts relating to the lamp posts are manufactured in the Corporation Workshops. Suspension lights have also been used in various junctions where well distributed lighting in large areas is required.

The average span between two posts adopted in the City is 150 ft. which is found to be satisfactory for ordinary needs. In the case of thoroughfares where the volume of traffic is great, the span between posts is varied to suit the type and kind of lighting adopted.

In parks, along the edges of tanks, on bridges and in front of places of public worship, short lamp posts with ornamental globes are used.

Every street lamp post is given a serial number which indicates the division as well as the sub-station to which it is connected. For example, Q. 43/230 indicates that it is in the 43rd division and connected to the Ice House Road Electric Sub-Station.

Traffic Lighting.—(i) Electric Traffic Controllers : Manually operated electric traffic controllers, one at the junction of Broadway and Nethaji Subash Chandra Bose Road and the other at the junction of General Hospital Road and Stanley Viaduct were installed to control effectively the heavy traffic at these junctions particularly during nights. These are operated normally by traffic constables during night times only.

(ii) "Keep-left" traffic bollards : 100 keep-left bollards are erected at important junctions to regulate traffic and thereby enhance the safety at these junctions.

VI. WATER SUPPLY

Source of Supply.—The water supply for the City is obtained from the Kortalarayar River and its tributaries. A masonry weir 6 feet high has been built across the Kortalarayar River at Tamarapakkam, about 17 miles north-west of Madras to divert the flood water and lead it through the upper supply channel to the Chola-

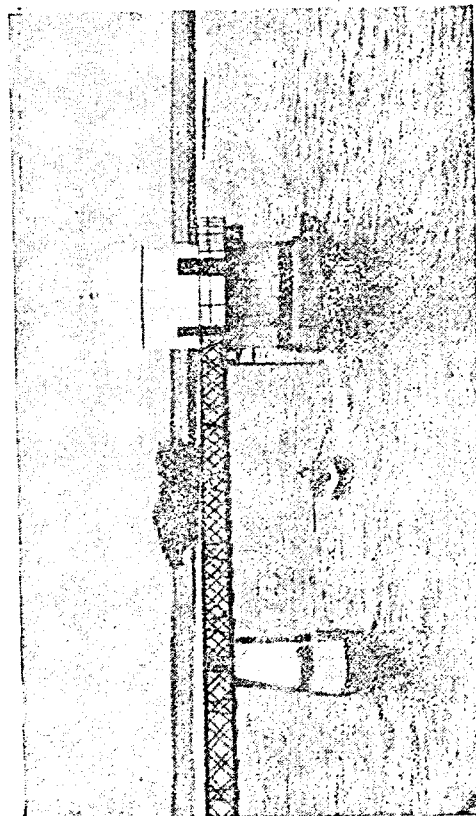
varam lake and from thence through the lower supply channel to the Red Hills Lake from which the City supply is drawn. Both these lakes also receive a considerable supply from their own catchment areas to the extent of 140 sq. miles. The cost of these works which were completed in 1870 was borne entirely by the Government of Madras and their maintenance is in the hands of the Government Public Works Department.

Brief Description of the Existing Works.—The water supply to the City of Madras is drawn directly from the Red Hills lake through an in-take tower known as the "Jones Tower" located at the deepest point in the lake. The water drawn through the in-take tower passes through a tunnel and enters a screening chamber and roughing filters at Red Hills where grosser impurities are removed by passing the water through a gravel bund. The water then flows by gravity through two masonry arched under-ground conduits, each 7 miles long and enters the Kilpauk Water Works where it is filtered, chlorinated, and pumped into the City distribution system. All these works were constructed by the Corporation of Madras and are maintained by them. The Corporation has to pay the Government for all water drawn from the Red Hills lake for City supply at Re. 1 per 1,000 cubic yards, subject to a maximum payment of Rs. 55,000 per annum, the quantity of water being measured by a weir recording apparatus installed at the Roughing Filters.

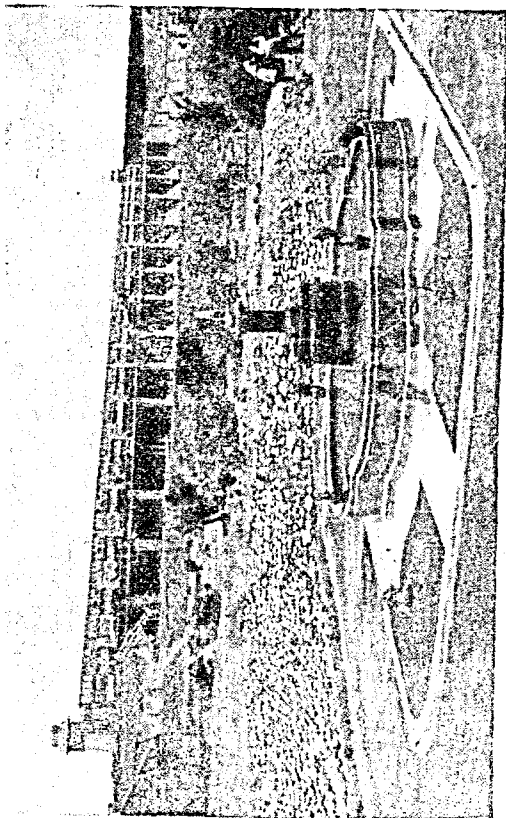
Red Hills Lake.—This lake is situated about 8 miles to the north-west of Madras on the Great Northern Trunk Road. The water from this lake and the Cholavaram lake further north is also used to irrigate about 7,500 acres of wet lands. The total quantity of water drawn from the Red Hills Lake for the City supply in a normal year will be about 8,750 million gallons or 1,400 million cubic feet. The quantity of water used for irrigation will be about 340 million cubic feet.

Poondi Reservoir-Satyamurti Sagar.—To meet the increased demand for water for the growing needs of the City, it was found necessary to augment the source of supply. After investigating various possibilities, it was decided in 1940 to construct a dam across the Kortalar River and form a reservoir at Poondi, 12 miles above Tamarappakkam anicut. The Poondi Reservoir is for impounding the greater flood discharges which normally surplussed over the Tamara-pakkam and Vallur anicuts and wasted into the sea. The reservoir is designed to impound 2,500 m.c.ft. of water (the full Reservoir level being 137 ft.) and will have a water spread of nearly $12\frac{1}{2}$ sq. miles. Its storage capacity will be nearly equal to the combined storage capacity of the Cholavaram and Red Hills lakes.

The construction of the Poondi Reservoir was inaugurated in August 1940 and completed in June 1944 by the P.W.D. The Reservoir was formally opened by H.E. the Hon'ble Sir Arthur Hope, G.C.I.E., M.C.;



JONES TOWER, RED HILLS LAKE



REGULATOR, SATYAMURTI SAGAR, POONDI

Governor of Madras, on 14-6-1944. The cost of the works, estimated at Rs. 65.36 lakhs, was met by the Corporation by taking loans from the Government to the extent of Rs. 39.66 lakhs, the remaining Rs. 25.70 lakhs having been paid to the Corporation as a free grant by the Government. The maintenance of the reservoir is in the hands of the P.W.D., the cost thereof being entirely borne by the Corporation every year.

The water impounded at Poondi Reservoir is drawn into the Red Hills tank through the Kortalayar River upto Tamarapakkam anicut and from there through the upper and lower supply channels to Cholavaram and Red Hills lakes. With the additional storage of water available at Poondi, it is expected to tide over even two consecutive drought years without seriously affecting the City water supply. The Poondi Reservoir has been renamed as SATYAMURTI SAGAR as per Council resolution dated 20-1-48 and G.O. No. Ms. 1907 P.H. dated 28-5-48.

Storage capacity of the Red Hills Lake, Cholavaram Lake and Poondi Reservoir :—

	<i>Total capacity in m.c.ft. at full.</i>	<i>Actual storage above the sill levels</i>
1. Red Hills Lake	2,440	1,980
2. Cholavaram Lake	583	526
3. Poondi Reservoir	2,573	2,573

Conduits.—Till 1914, water from the Red Hills Lake was drawn through an open channel upto Kilpauk and it was directly let into the distribution system without any sort of filtration or pumping, sedimentation by storage at Red Hills lake being considered sufficient safeguard for ensuring a pure supply of water. This method, although it was a decided improvement over the polluted water supply from wells and tanks on which the City depended prior to 1870, had very many disadvantages. In 1914 a rectangular masonry conduit 5'×4' with arched roof with a maximum carrying capacity of 23 million gallons of water per day was constructed to lead the water from the Jones Tower at Red Hills to the then newly constructed water works at Kilpauk. The conduit is provided with man-holes fitted with air inlets or outlets alternately at about every furlong. A second rectangular conduit 6'—6'×4' with an arched roof and with a maximum carrying capacity of 32 million gallons per day has been constructed and brought into use from 1949. Two villages *en route viz.*, Surapattu and Madanakuppam which were originally enjoying water supply from the Red Hills lake are provided with a supply of about 87,600 and 78,000 gallons per month respectively by means of a hand pump fixed to man-holes in the conduit.

Filtration and Chlorination.—At the Kilpauk Water Works, there are 17 slow sand filters, fourteen of

which measure 200 ft. × 100 ft. and the remaining three 200 ft. × 130 ft.

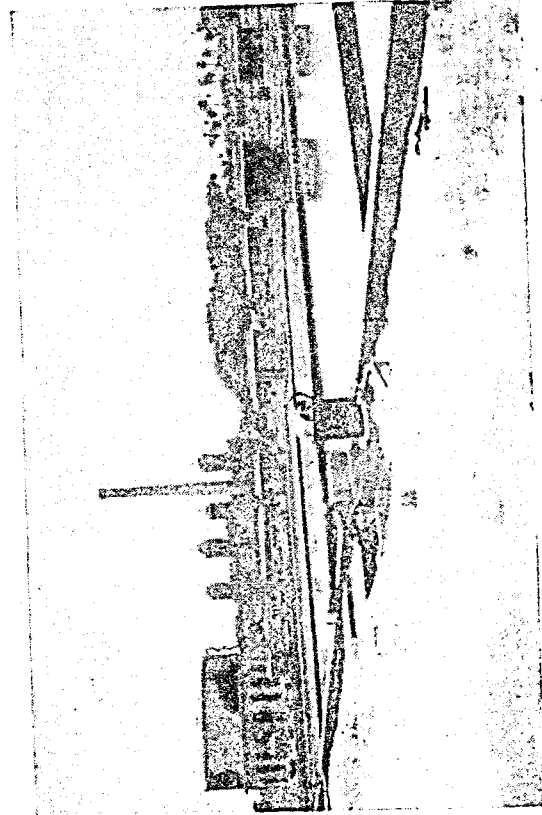
The filtering materials of these filters consist at present of 6" of fine sand supported on 2 inches of coarse sand which rests on a 2-inch layer of 3/8 inch stone which again rests on another 2-inch layer of 3/4 inch stone. Below these are the loose brick collecting cross drains leading to a central longitudinal drain which is sunk below the floor of the filters. The raw water before it enters the filters is chlorinated and then it percolates through the above filtering media, runs down the central longitudinal drain and comes out into a rectangular chamber which contains an automatic outlet regulator. The rate of filtration is about 8" vertical per hour. The filtrate from all the above filters is led into four underground storage tanks all together capable of storing 6½ million gallons. These tanks are to provide adequate storage to serve as a balance between the rate of filtration and the rate of pumping water to the City. The four filtered water tanks are independent of each other so that each one of them can be isolated for cleaning without interfering with the working of the others. All the filtered water is again chlorinated just before it enters the filtered water tanks with an average dose of one part of chlorine per million parts of water. Chlorination has the effect of killing all harmful bacteria which are still to be found in the filtered water even after filtration.

Pumps and Balancing Tank.—From the filtered water tanks, water gravitates to the suction culvert leading to the pumps whence it is pumped into the Distribution system through a 48" steel pumping main about 1/2 a mile long. A steel circular elevated tank of 104' diameter, 28' high with a capacity of $1\frac{1}{2}$ million gallons is connected with the pumping main close to the pumps to act as a balancing tank between the pumps and the distribution system.

There are three pumping units run by steam, and two electrical units at Kilpauk Pumping Station. The steam pumping plants installed in 1914 comprise of three high duty Worthington direct acting pumping engines capable of delivering 12,000 gallons of water per minute against a total head of 80 feet. Four Babcock and Wilcox Boilers are provided to supply steam to these units.

The two electrical units were installed in 1936 to meet the increased quantity of pumping for the growing needs of the City. The electrical units are capable of pumping 20,000 gallons each per minute against a total head of 80 feet.

Distribution System.—The City distribution system consists of 29.5 miles of Trunk mains and sub-mains varying in size from 48" diameter to 9" diameter, nearly 365 miles of distributaries and street mains varying in size from 8" to 4" and a few lengths of 3" and 2 $\frac{1}{2}$ " street mains and riders. The four Trunk mains



WATER WORKS PUMPING STATION, KILPAUK

which supply the several parts of the City, branch off from the 48" steel pumping main which ends at the place known as the Kilpauk Shaft. At this place there are valves fitted on to each of the Trunk mains to enable the pressure on the Trunk mains being regulated suitably at different parts of the day.

Automatic Electric Boosters.—To remedy the defective supply at the tail ends of the distribution system and in high level areas such as Muthialpet and Mylapore, three automatic electric booster pumps have been installed in 1934 and they are functioning satisfactorily. These booster pumps work from 6-30 a.m. to 10 a.m. and from 4 p.m. to 6 p.m. daily. While these pumps provide a satisfactory supply to the areas for which they are intended they cause defects in the adjacent areas by the suction effect of the pump. This point has been taken due note of when similar pumps had to be installed for three other defective areas in Triplicane, San Thome and Mandavalli. In these cases the water from the mains is drawn at night time or during the midday period by gravity into underground reinforced concrete storage tanks of 3 lakh gallons capacity each, from which the pumps draw water in the mornings and evenings and supply the areas which they are intended to serve.

Water Supply to Extended Areas of the City.—Of the areas newly added to the City limits in April 1946, Sembiam and Saidapet areas have protected water

supply systems of their own from infiltration galleries. After the new areas were taken into the City, Red Hills water supply has been extended to certain areas in Aiyavaram, Aminjikarai, Kodambakkam and Adyar. In some of the outlying villages where it was difficult to extend the protected supply, water is being supplied in Mobile Tank Units mounted on lorries.

Analysis of Water.—There is a full-time Water Analyst at the Filter Beds, Kilpauk, working under the direct supervision of the Health Officer who takes samples of water from the filter beds every day and from the distribution system at frequent intervals and conducts a thorough bacteriological and chemical examination of the same. He supervises the chlorination of the City water supply and regulates the dose of chlorine to be added to the water to sterilize it properly.

Supply Statistics.—The total quantity of water supplied to the City in a year is about 8,750 million gallons, which works out to an average of just over 30 gallons per head per day for a population of 7,77,481 as per census of 1941. The average daily supply to the City is about 24 million gallons at present.

The quantity of water supplied to Saidapet and Sembiam from the infiltration galleries is on an average 1.25 million gallons and 0.40 million gallons respectively per day.

At no time is the supply to any of the areas completely cut off. A limited supply is always allowed to keep the mains filled in and to have flow in all low level street taps and house services etc., though there may be no flow in the high level areas. It is during these periods and night time that most of the big industrial concerns, Railways, Port Trust, etc., draw their largest requirements without affecting the supply to domestic houses.

Improvements under Execution and under Contemplation.—The Conduit, Filter Beds, Pumping Plant and the distribution System were designed and constructed by M. J. W. Madley, Special Engineer between 1911 and 1914 to provide for supply on an average of 25 gallons per head per day for a population of 6,60,000 anticipated in 1961. But the population of the City had reached this limit even before 1941. According to the 1941 census the population of Madras City was 7,77,481. The population of the City including the extended area of 20 square miles is estimated to be nearly 14 lakhs in 1949. To provide for the increased needs of the City, the following improvements to the Water Supply Works have been taken on hand.

(a) **Laying of a Separate Trunk Main to South Madras.**—Due to the Mambalam extension and the various Town Planning and House Building Schemes in this area, the water supply to South Madras, es-

pecially at the tail ends of the Distribution System is found very defective. To remedy this defect, the Corporation with the sanction of Government has taken for execution the work of laying a Separate Trunk Main starting from the 48" Pumping Main at Kilpauk Shaft to San Thome area at an estimated cost of Rs. 20.50 lakhs.

(b) Third Electrical Pumping Unit for the Kilpauk Pumping Station.—The installation of a third Electrical Pumping Unit with a pumping capacity of 1.20 million gallons per hour has been sanctioned by the Government at an estimated cost of Rs. 1.50 lakhs. The Pumping Plant has been received and the Plant will be erected at the Kilpauk Pumping Station during 1950.

(c) Duplication of the 48" Steel Pumping Main from Pumping Station to Shaft.—An estimate for Rs. 4.815 lakhs for the above work has been sanctioned by the Government in G.O. No. 878 P. H. dated 17-3-1949. Steps are being taken to obtain the required pipes and specials for carrying out the work early.

(d) Filtration and Purification of City Water Supply.—An estimate for Rs. 77.50 lakhs for the installation of Rapid Mechanical Filters capable of filtering 40 million gallons of water per day at the Kilpauk Water Works in the place of the existing Slow

Sand Filters has been approved by the Corporation Council and is awaiting sanction of Government.

(e) City Water Supply Distribution System Improvement.—The Scheme for Rs. 10.85 lakhs sanctioned by the Government in G.O. No. 1343 P.H. dated 2-4-1940 is now under execution. The Scheme provides for (1) laying new mains in streets where there are no water mains, (2) renewal of existing mains below 4" size by 4" and above and (3) renewal of existing mains of 4" and above by mains of the same size or bigger size. Works to the extent of about Rs. 8.00 lakhs have already been carried out till the end of March 1949 under the Scheme and further works are in progress. The Scheme is expected to be completed in another two years.

Schemes for further improvements to the City Distribution System are under consideration.

(f) Further Proposals for Augmenting the Sources of Supply.—The failure of the North-east Monsoon in two consecutive years in 1947 and 1948 has revealed that even with the Poondi Reservoir, it will not be safe to assume that the City will have an assured supply without any cause for anxiety. It has, therefore, become necessary to find other sources of supply independent of the North-east Monsoon. If the Krishna-Pennar Scheme which is now under consideration of the Government mainly as an Irrigation Project materialises it will be possible to replenish

the supply to the Poondi Reservoir and thereby place the City Water Supply on a sound basis.

Liabilities of the Corporation for providing water supply.—According to the Madras City Municipal Act the Corporation has to provide a supply of wholesome drinking water within the City and shall erect sufficient stand-pipes, fountains or other conveniences for the gratuitous supply of water. The Corporation shall, as far as possible, make adequate provision that such supply is continuous throughout the year except in the case of unusual drought, other unavoidable causes or accidents or the necessity of relaying or repairing pipes. Private house connections are allowed to all buildings which are separately assessed and which have an annual valuation of Rs. 60/- and above. Ordinarily two taps with a $3/4$ " service pipe are allowed without a meter for domestic houses.

Water supply Bye-laws and Regulations.—The following are some of the important bye-laws framed by the Council and approved by the Government in G.O. No. 4764 L. & M. dated 23-10-1929.

Bye-laws.—In the case of existing private house services, these shall be metered wherever there are more than four taps except in cases where houses are occupied by several tenants in which case the occupiers or owners must enter into an agreement to pay at 4 annas a tap per month for all taps in excess of 4. In respect of all new house connections given after 1929, meters

shall be fixed where more than two taps are required. There shall be no restriction as to the number of taps that may be fixed on metered services. All non-domestic service supply shall be metered. All existing unmetered services with four or less than four taps whenever they are altered or otherwise interfered with after the water supply bye-laws came into force must be metered if more than two taps are used and charges for fixing and entirely removing meters must be recovered from the owners or occupiers of the premises to which they belong. Such alterations or interference exclude petty repair to pipes and fittings.

No dwelling house or other premises charged or chargeable separately with water rate or rent shall be supplied with water of the Corporation by more than one supply pipe connected to the Corporation main except with the consent in writing of the Commissioner of the Corporation.

Complaints as to incorrect or excess readings or as regards a meter being out of order shall be made by the person concerned within 4 weeks of the date of reading of the meter which is disputed. Such complaints will be investigated provided the complainant deposits Rs. 6/-. This deposit will be forfeited if the meter is found correct, and will be refunded to the party if the meter is found incorrect, an error of 5% either way will be ignored. In cases where the meter is found to give incorrect or excess readings or is out of repair for any

period during a month, the consumption recorded during the corresponding month of the previous year or where this information is not available or though available is not applicable, such suitable data as the Commissioner considers most suitable will be taken as the basis for charges and the quantity so estimated shall be deemed the quantity actually consumed.

Regulations—Water Rate and excess water charges.—Water tax is now being levied at $1\frac{1}{2}$ per cent of the annual rental valuation of a premises against 4 per cent in 1880. All water consumed in metered domestic premises, garden bungalows, etc., above a certain free allowance fixed by the regulation of the Standing Committee is charged for at the rate of Re. 1-6-0 per 1,000 gallons.

In the case of premises used as places of business, godowns, public offices, etc., the rate of Re. 1-6-0 per 1,000 gallons for all water consumed in excess of the free allowance applies only upto the limit of sanctioned supply (*viz.*, $1\frac{1}{2}$ times the free allowance). For water consumed in excess of the sanctioned supply, a rate of Rs. 2-4-0 per 1,000 gallons is payable. In the case of Railways, Tramways, Mills and other factories where any manufacturing process is carried on, free allowance is allowed on the basis of the average number of persons employed in the premises every day and all excess is charged at Re. 1-6-0 per 1,000 gallons up to the limit of "sanctioned supply" (which is the average of the

previous year's consumption per month) and all excess beyond the sanctioned supply is charged at Rs. 2-12-0 per 1,000 gallons.

In the cases of unmetered services all water supplied for petty trade purposes is charged for on agreement system at the rate of Re. 1-6-0 per 1,000 gallons the quantity of water chargeable being determined according to the nature of business and number of cattle etc.

ADVICE TO CONSUMERS

- (a) Use water only to the extent required.
- (b) Close the tap when you have drawn the required quantity.
- (c) Do not leave the tap open when not in use.
- (d) A little water used carefully and economically will serve your purpose much better than wasting a large quantity of water.
- (e) Please remember that your neighbour's needs are as necessary and important as those of yours.
- (f) Water being an essential need, costs the taxpayers a good deal and so prevention of wastage means a reduction in expenditure of your money.
- (g) Do not use water directly from the tap for bathing or washing purposes, but always use a vessel.

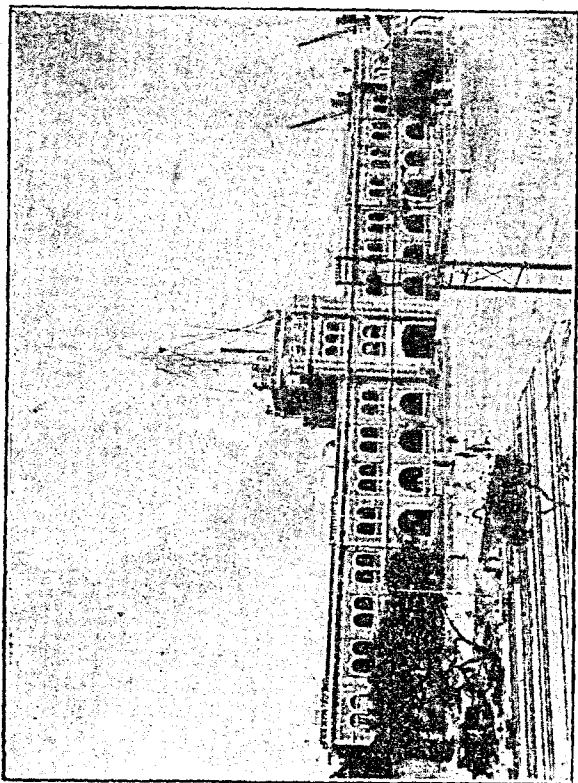
- (h) Your co-operation in checking wastage would ensure copious and perennial supply for all of you in the city.
- (i) Do not use tap water for your garden.
- (j) Inform the Water Works Department, Ripon Buildings, Madras, by dialling Telephone No. 2988 and asking for a connection to the Water Works Department whenever you find a tap out of order or a pipe leaking or a hydrant left open by anybody.
- (k) Your duty as a citizen is to stop wastage of water.

VII. MADRAS HARBOUR AND PORT TRUST

Madras Harbour.—Madras was long suffering from the lack of a natural harbour. The rough surf prevented ships from anchoring near the shore and necessitated the transporting of passengers and goods in the familiar masula boats built of yielding planks sewn together and catamarans. In 1862 a screw pile pier was built to facilitate the landing of goods from boats. The harbour itself consisting of two masonry break-waters, each running out eastwards into the sea on either side of the pier and then bending in towards each other leaving an entrance on the East, was begun in 1876 and was still in progress in 1881. Shortly afterwards, a violent cyclone destroyed a great part of the break-waters. The work had to be done again



AERIAL VIEW OF THE HARBOUR



PORT TRUST BUILDINGS

and was completed only in 1896. But it was soon found that the sea at the entrance of the harbour was silting up, owing to the accumulation of surf-driven sand from the south. This entrance was therefore closed and the southern arm was so projected in its curve, while the northern arm was cut off so as to provide an opening at the north-east corner.

Madras Harbour is an artificial harbour formed by two arms projecting from a low, sandy coast.

Latitude ... $13^{\circ} 05' - 46''$ N.

Longitude ... $80^{\circ} 17' - 48.5''$ E.

Width of entrance 400 feet.

Depth of water at entrance—High water 37 feet.

Depth of water at entrance—Low water 34 feet.

It has a water-spread of approximately 200 acres. Normally steamers lie in still water.

Madras Port Trust.—The Port is controlled by a statutory body, the Madras Port Trust Board, which is governed by the Madras Port Trust Act of 1905. The Chairman of the Board is appointed by the Central Government, and is in Executive and Administrative charge of the Port.

Of the 20 members of the Board excluding the Chairman, nine (of whom the Municipal Commissioner for the City of Madras is one) are appointed by the Central Government, two are elected by the Madras

Chamber of Commerce, six by the Southern India Chamber of Commerce, two by the Andhra Chamber of Commerce and one by the Municipal Corporation of the City of Madras.

There are seven general cargo berths and two collier berths at the Port. The General cargo quays have ample space for outdoor cargo, ores, heavy packages of machinery etc. in transit. The quay berths are normally kept at the following depths below Indian Spring Low Water :—

		Length	Depth of water below I.S.L.W.
East Quay (Collier Berth)	General Cargo.	515'-0"	26'-0"
South Quay I		325'-0"	30'-0"
South Quay II		430'-0"	28'-0"
West Quay I			26'-0"
West Quay II			30'-0"
Central Berth, West Quay		2500'-0"	30'-0"
West Quay III			30'-0"
West Quay IV			28'-0"
North Quay (Collier Berth)		500'-0"	28'-0"

Moorings are provided for eight vessels and more can be accommodated if necessary. These include four oil berths accessible to oil pipe lines on the north groyne including the outer petrol berth. Petrol can be pumped

ashore at the outer berth. This berth is not usually occupied for the three months—October to December—the seasonal period for cyclonic storms in the Bay.

Six general cargo berths have transit sheds adjoining. These are equipped with rooms for damaged cargo, liquor yards and safe custody rooms. The total area of covered transit space is 8.2 acres.

In addition, one shed comprising 27,200 sq. ft. is used as an overflow transit shed, when necessity arises.

Loading and discharging by means of lighters is carried on chiefly at 3 points in the Harbour and coal for bunkering purposes, when lightered, is loaded at a concrete wharf in the Boat Basin. West Quays Nos. 3 and 4 are now being equipped with nine new electric level luffing cranes, eight of 3-ton capacity and one of 5 ton. For Nos. 1 and 2 West Quay berths, there are four 3-ton and one 5-ton electric travelling portal luffing jib cranes of 60' maximum radius. A static 60-ton electric crane of 40'-0" radius has been installed at the Central Berth at West Quay. This crane can lift 60 tons at 40'-0" radius and 30 tons at 60'-0" radius by its main hoist and 20 tons at 90'-0" radius by its auxiliary hoist.

There are available at the South Quay, (a) one travelling Titan steam crane of 33 tons capacity (25 tons can be lifted direct from steamer's hold by this crane, there being about 40 feet clearance above I.S.

L.W. to the eyebolt of the crane) ; (b) one 10-ton electric travelling portal luffing jib crane of 90 feet radius and (c) one 5-ton electric travelling portal luffing jib crane of 90 feet radius, both working cargo into and out of vessel's hatches and (d) one 5-ton electric travelling portal luffing jib crane of 50 feet maximum radius, which may be used for loading into and discharging from lighters.

Warehouses X, Y and Z are provided with hydraulic cranes for storing cargo in the upper floor.

There are at present ten Warehouses with an area of 10.64 acres which are leased to the importers and exporters in the Port for storage of goods pending shipment or final clearance as the case may be. Their cubical capacities are given below.

Warehouse	'A'	...	3,90,679	C. Ft.	Single storey.
"	'B'	...	2,93,750	"	"
"	'C'	...	9,68,520	"	"
"	'D'	...	5,27,534	"	"
"	'E'	...	10,15,350	"	"
"	'W'	...	5,16,600	"	"
"	'X'	...	14,25,229	"	Double storey.
"	'Y'	...	8,84,625	"	"
"	'Z'	...	8,08,800	"	"
Open Warehouse	...		1,80,750	"	Single storey.

Note.—Volume is calculated from floor level up to underside of truss or terrace.

Two tanks of 200 tons capacity have been installed with electric pumps and pipe connections for storing groundnut oil in bulk and pumping it into a tank or tanks on board vessels berthed at West Quays No. II, Central Berth and No. III Berth.

Oil from Bulk Oil tankers can be pumped ashore at the four oil berths on the North Groyne (which includes the Outer Berth) North Quay and South Quays I and II.

Petrol can be pumped ashore at the outer berth at all times except during the period of the North-East Monsoon—November–December.

Timber imported is normally floated, or carried by lighter to a timber pond, from where it is lifted by hand cranes and stored in a timber yard surrounding the pond.

All nine quays and warehouses are served by a mixed gauge (broad and metre) railway and eight of the quay berths are accessible to road vehicles. Ample railway and road connections are laid throughout the harbour premises, and the direct transfer of cargo between ship and road or rail is made specially convenient.

Railway goods for all stations in India (both metre and broad gauge) are received at the Port.

The average strength of the Trust's decasualised Shore Labour during the year was 1,200.

There are at present four pilots to pilot ships. Pilotage is compulsory. Pilots are ordinarily on duty from 6 a.m. to midnight. If previous notice is given, arrangements are made for pilotage after midnight.

A slipway is provided in the Boat Basin capable of handling all of the Trust's own craft. The maximum tonnage it can take is 965 tons.

Slipway with ordinary type cradle as generally used for smaller vessels.

Length, extreme, of slipway	545'-0"
Length of cradle overall	221'-0"
Width of cradle, external ends	23'-3"
Middle	24'-0"
Draught over centre line keel blocks at forward end.	4'-3" at mean high water spring.
Draught over centre line keel blocks at aft end.	15'-0" at mean high water spring.

Maximum tonnage of vessel that can be docked is about 965 tons.

Water from the City supply is laid on to eight quays. It is also available by barge for ships at moorings.

The Port employs three tugs, one capable of exerting a 15-ton pull and one 10 tons, the third is employed in the towage of lighters.

Since the Port Trust Board took over from the Collector of Customs, the work of warehousing bonded

goods in 1934, this facility has become increasingly popular with merchants. An area of about 22,050 sq. ft. is normally used for goods in bond under permission of the Collector.

All quays are flood-lit and all roads and railway tracks are adequately lighted.

The Trust has a well-equipped workshop and running sheds for the operation, repairs and maintenance of all its locomotives, cranes, floating craft, lighting etc. These shops and other workshops in the vicinity can also cope with minor ship repairs.

The difference between high and low water at Madras varies between two and four feet. The centre of the Harbour is dredged to 31 feet and the quay berths are normally kept at the schedule depths below Indian Spring Low Water mentioned under quay berths.

A Port First Aid Service with the necessary staff and equipment has been constituted, and is rendering very valuable service not only to Port Trust employees but also to any who have business in the Harbour.

The Trust has a separate Medical Service which provides the following additional facilities:—

Medical attention to employees' families, Maternity and Child Welfare Clinic, Domiciliary Service by a Health Visitor, 'X'-Ray Department and Emergency in-patient Ward.

A Port Fire Service has been organised and it has assumed responsibility for fighting fires in the Port.

The Board's Consulting Engineers are Messrs. Rendel, Palmer and Tritton, 125, Victoria Street, Westminster, London, S.W. 1.

Nearly 1,050 steamers of an average net registered tonnage of 3,800 tons enter and leave the harbour yearly, and the total tonnage of cargo handled amounts to 1,900,000 tons.

The principal imports are coal and coke, food grains, mineral oil, railway materials, metals, timber, piece-goods, building materials, cement etc., provisions, beer and wines, sugar and jaggery, tanning substances including wattle bark, glass and glassware, hardware, chemical manures, paper and stationery, cycles and motor-cars and accessories. The total approximate tonnage in a year is 1,650,000.

The principal exports are seeds and nuts, hides and skins, vegetables and provisions, cotton, oil-cake, bone-meal, piece-goods, turmeric, ores and tobacco. The total approximate tonnage in a year is 250,000.

The total value of the trade of the Port amounts to about Rs. 1,25,00,00,000 annually.

VIII. TRAMWAYS

The sanction to construct the first Tramway Company in Madras was issued by Government in their order dated the 6th of April 1892 to Messrs. Hutchinson & Co. Ltd. London, who were the promoters

of the original company having a nominal capital of £100,000 but it was not until 1895 that the first tramway section was completed and opened for the use of the public.

The original tramways were constructed on the conduit system, i.e., the live conductor was situated underground, but it was found that owing to the flooding of the streets during heavy rains, the electric current for the tramways could not be maintained and eventually this system was abandoned and the overhead system was installed.

In the year 1900 the original company were obliged to sell the undertaking as their capital proved inadequate. The purchasers, the Electric Construction Co., Ltd., England, who were the suppliers of the material for the original tramway company, then operated the tramways in Madras for a period of four years under the name of the Madras Electric Tramways Trust.

In 1904 the present company, known as the Madras Electric Tramways (1904) Ltd., was formed and has been carrying on business from that date. In the years 1905, 1910 and 1919 extensions were made to the tramway system. The company has now about 11 miles of double track and 11 miles of single track over which their tramcars operate.

In the years 1925-27 the Tramway Company operated a fleet of fifty motor buses and were the first to open

up the suburban bus routes around the City on which buses now regularly run. This service was abandoned in 1928 as owing to the low fares charged at this period the scheme was not a financial success.

During the few years before 1939, the Tramway Company improved its permanent and rolling stock. Extensive work was carried out in replacing the old single track, which was often a danger to traffic, by double track where possible and all the old open type bogie cars have been replaced by new up-to-date closed cars of the corridor type.

The present rolling stock consists of 110 single deck cars. The majority of cars besides being equipped with electric brakes and hand brakes, have also compressed air brakes.

The Tramways serve about $16\frac{1}{2}$ miles of roads in the City of Madras. The daily car mileage amounts to approximately 7,383 and the number of passengers carried daily is approximately 1,72,252.

The present tram service routes are :—

1. Between Mylapore and Parry's Corner and Royapuram.
2. Between Triplicane and Washermanpet (Via China Bazaar).
3. Between Purasawalkam and Parry's Corner (Via Elephant Gate Junction).

4. Between Purasawalkam and Central Station.
5. Between Egmore and Parry's Corner and Royapuram.

The license issued to the Madras Electric Tramways Co., Ltd., expires in 1955.

IX. BUSES

Nationalisation of passenger bus service was first introduced in the City on 15-10-47. The private operators withdrew their buses as and when Government buses were put on the roads. The entire bus transport system was nationalised by the end of June 1948. The Government bus depot including the office, is now housed in the Body Guard Lines.

The various bus routes in the City in which the Government buses are now operating with a list of roads along which they ply, are given below :—

LIST OF ROADS ALONG WHICH CITY BUSES PLY, WITH ROUTE NUMBERS

Route No. 1

TRIPLICANE to PARRY'S *via* CENTRAL

1. Pycrofts Road, 2. Bells Road, 3. Wallajah Road, 4. Mount Road, 5. Body Guard Road, 6. General Hospital Road, 7. Evening Bazaar Road, 8. Rattan Bazaar Road, 9. Nethaji Subhash Chandra Bose Road (China Bazaar Road).

Route No. 1-B

TRIPLICANE to PARRY'S *via* SOUTH SEA GATE

1. Pycrofts Road, 2. Bells Road, 3. Wallajah Road, 4. Mount Road, 5. South Beach Road, 6. North Beach Road, 7. Light House Road, 8. Nethaji Subhash Chandra Bose Road (China Bazaar Road).

(On its return journey to Triplicane it will come by 1 Route).

Route No. 2

TRIPLICANE to MINT *via* CENTRAL

1. Pycrofts Road, 2. Bells Road, 3. Wallajah Road, 4. Mount Road, 5. Body Guard Road, 6. Wall Tax Road, 7. Basin Bridge Road.

Route No. 2-A

MINT to MOUNT ROAD (P. ORR & SONS) (SHUTTLE)

1. Basin Bridge Road, 2. Wall Tax Road, 3. Body Guard Road, 4. Mount Road.

Route No. 3

MYLAPORE to PARRY'S *via* MOUNT ROAD & CENTRAL

1. Brodies Road, 2. Luz Church Road, 3. Mowbrays Road, 4. Royapettah Bazaar Road, 5. West Cott Road, 6. Whites Road, 7. Patullo Road, 8. Mount Road, 9. Body Guard Road, 10. General Hospital Road, 11. Evening Bazaar Road, 12. Rattan Bazaar Road, 13.

Nethaji Subhash Chandra Bose Road (China Bazaar Road).

(On its return journey to Mylapore it will go *via* General Patters Road, instead of Patullo Road and Whites Road).

Route No. 3-B

MYLAPORE to PARRY'S *via* MOUNT ROAD & SOUTH SEA GATE

It will come up to Mount Road as in Route No. 3 and from there, it goes on South Beach Road, North Beach Road, Light House Road and Nethaji Subhash Chandra Bose Road (China Bazaar Road).

(On its return journey to Mylapore it comes on Route No. 3).

Route No. 3-D

MYLAPORE to PARRY'S *via* ABIRAMAPURAM

1. Brodies Road, 2. Saint Mary's Road, 3. Mowbrays Road.

(From Mowbrays Road, it follows Route No. 3).

Route No. 4

MYLAPORE to TONDIARPET

(This follows Route No. 3 upto Parry's on both its up and down journeys).

From Parry's—First Line Beach, Ebrahim Sahib Street, Mannarsamy Koil Road, Suryanarayana Chetty Street, Kuppam Road, Kummalamman Koil Street.

(On its return journey from Royapuram it comes *via* North Railway Terminus road, instead of Ebrahim Sahib Street.)

Route No. 5

ADYAR to PARRY'S

1. Adyar Bridge Road, 2. Brodies Road.

(From Brodies Road, it follows Route No. 3 upto Parry's in both the journeys).

Route No. 5-A

ADYAR to MYLAPORE (SHUTTLE)

1. Adyar Bridge Road, 2. Brodies Road.

Route No. 6

M.U.C. to TONDIARPET *via* ROYAPURAM

1. Rattan Bazaar Road, 2. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 3. First Line Beach, 4. Ebrahim Sahib Street, 5. Mannarswamy Koil Road, 6. Kalmandapam Road, 7. Gollawar Agraharam Street, 8. Kummalamman Koil Street (Tondiarpet).

Route No. 7

PARRY'S to PERAMBUR *via* DOVETON

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Poonamallee High

Road, 6. Sydenhams Road, 7. Vepery High Road, 8. Perambur Barracks Road, 9. Strahans Road, 10. Cooks Road, 11. Perambur High Road—Perambur Railway Station.

Route No. 7-A

KELLY'S to AGARAM *via* PERAMBUR

1. Purasawalkam High Road, 2. Perambur Barracks Road, 3. Strahans Road, 4. Cooks Road, 5. Perambur High Road, 6. Paper Mills Road, 7. Sundara Perumal Koil Street—Agaram.

Route No. 7-B

PARRY'S to AYANAVARAM *via* CENTRAL & DOVETON

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Poonamallee High Road, 6. Sydenhams Road, 7. Vepery High Road, 8. Perambur Barracks Road, 9. Strahans Road, 10. Konnur High Road—Ayanavaram.

Route No. 7-C

PARRY'S to KELLY'S *via* CENTRAL & PURASAWALKAM

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Poonamallee

High Road, 6. Sydenhams Road, 7. Vepery High Road, 8. Purasawalkam High Road—Kelly's.

Route No. 8

PARRY'S TO PERAMBUR *via* MINT

1. First Line Beach, 2. Ebrahim Sahib Street, 3. Old Jail Road, 4. Basin Bridge Road, 5. Powder Mills Road, 6. Pulianthope High Road, 7. Gantz Road, 8. Stephenson Road, 9. Perambur High Road—Perambur Railway Station.

Route No. 8-A

MINT TO PERAMBUR (SHUTTLE)

From Mint to Perambur it follows Route No. 8

Route No. 9

PARRY'S TO T. NAGAR *via* EGMORE HIGH ROAD

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Poonamallee High Road, 6. Gandhi-Irwin Road, 7. Egmore High Road, 8. Halls Road, 9. Casa Major Road, 10. Spur Tank Road, 11. Nungambakkam High Road, 12. Village Road (Nungambakkam), 13. Ranganatham Chetty Road, 14. Kodambakkam High Road, 15. Thirumalai Pillai Road, 16. Dr. Nair Road, 17. Sir Theagaroya Road, 18. Bashyam Chetty Road, 19. Nageswara Rao Road, 20. Md. Osman Road—T. Nagar.

The return journey is *via* Egmore High Road instead of Halls Road and Casa Major Road.

Route No. 10

PARRY'S TO T. NAGAR *via* PANTHEON ROAD

From Parry's to Central, it follows Route No. 9.

1. Poonamallee High Road, 2. Gandhi-Irwin Road, 3. Pantheon Road, 4. College Road, 5. Nungambakkam High Road, 6. Nungambakkam Village Road, 7. Ranganatham Chetty Road, 8. Kodambakkam High Road, 9. Thirumalai Pillai Road, 10. Dr. Nair Road, 11. Sir Theagaroya Road, 12. Thanikachalam Chetty Road, 13. Venkatanarayana Road, 14. Nageswara Rao Road, 15. Md. Osman Road—T. Nagar.

Route No. 11

PARRY'S TO T. NAGAR *via* MOUNT ROAD

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Body Guard Road, 6. Mount Road, 7. Gopathy Narayanaswamy Chetty Road, 8. Bashyam Chetty Road, 9. Nageswara Rao Road, 10. Md. Osman Road—T. Nagar.

Route No. 11-A

PARRY'S TO T. NAGAR *via* WALLAJAH GATE

1. Nethaji Subhash Chandra Bose Road (China Bazaar Road), 2. Light House Road, 3. North Beach

Road, 4. South Beach Road, 5. Mount Road, 6. Gopathy Narayanaswamy Chetty Road, 7. Sir Theagaraya Road, 8. Bashyam Chetty Road, 9. Nageswara Rao Road, 10. Md. Osman Road—T. Nagar.

Route No. 12

TRIPLICANE to T. NAGAR *via* LUZ

1. Dr. Besant Road, 2. Triplicane High Road, 3. Edward Elliotts Road, 4. Venkatachala Mudali Street, 5. Royapettah High Road, 6. Luz Church Road, 7. Eldams Road, 8. Sir Theagaraya Road, 9. Bashyam Chetty Road, 10. Nageswara Rao Road, 11. Md. Osman Road—T. Nagar.

Route No. 12-A

MYLAPORE to T. NAGAR (SHUTTLE)

1. Brodies Road, 2. Luz Church Road.

From Luz Church Road it follows the Route No. 12 upto T. Nagar.

Route No. 13

TRIPLICANE to T. NAGAR *via* ROYAPETTAH

1. Pycrofts Road, 2. West Cott Road, 3. Royapettah Bazaar Road, 4. Lloyds Road, 5. Mount Road, 6. Gopathy Narayanaswamy Chetty Road, 7. Bashyam Chetty Road, 8. Nageswara Rao Road, 9. Md. Osman Road—T. Nagar.

Route No. 14

MINT to KELLY'S *via* E. GATE

1. Basin Bridge Road, 2. Walltax Road, 3. Elephant Gate Bridge Road, 4. Sydenhams Road, 5. Choolai High Road, 6. Hunters Road, 7. Purasawalkam High Road—Kelly's.

Route No. 15

PARRY'S to AMINJIKARAI

1. Nethaji Subhash Chandra Bose Road, 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Poonamallee High Road—Aminjikarai.

Route No. 16

MOUNT ROAD to KELLY'S (*via* EGMORE RAILWAY STATION)

1. Blackers Road, 2. Langs Garden Road, 3. Whannels Road, 4. Gandhi-Irwin Road, 5. Dr. T. M. Nair Road, 6. Poonamallee High Road, 7. Raja Annamalai Chettiar Road, 8. Purasawalkam High Road—Kelly's.

On its return journey to Mount Road it comes from Whannels Road, Ponnamman Koil Road to Langs Garden Road and Dams Road, Mount Road to Blackers Road.

Route No. 17

PARRY'S to NUNGAMBAKKAM

This route follows Route No. 9 from Parry's to Nungambakkam (Ranganatham Chetty Road).

Route No. 18

PARRY'S to SAIDAPET *via* MOUNT ROAD

1. Nethaji Subhash Chandra Bose Road, 2. Rattan Bazaar Road, 3. Evening Bazaar Road, 4. General Hospital Road, 5. Body Guard Road, 6. Mount Road—Saidapet.

Route No. 21

PARRY'S to BRODIES ROAD (MANDAVALLI)

This route follows Route No. 3 upto Royapettah and 1. Royapettah High Road, 2. Brodies Road—Mandavalli.

Route No. 21-A

PARRY'S to MANDAVALLI (*via* BEACH ROAD)

1. Light House Road, 2. Beach Road, 3. Edward Elliotts Road, 4. Venkatachala Mudali Street, 5. Royapettah High Road, 6. Brodies Road—Mandavalli.

Route No. 21-B

PARRY'S to MANDAVALLI (*via* SANTHOME)

1. Light House Road, 2. Beach Road, 3. Santhome High Road, 4. Mada Church Road—Mandavalli.

Route No. 22

TRIPLICANE to KELLY'S *via* MOUNT ROAD

1. Pycrofts Road, 2. Bells Road, 3. Wallajah Road, 4. Blackers Road, 5. Harris Road, 6. Police Commissioner's Office Road, 7. Gandhi-Irwin Road (Egmore

Railway Station), 8. Dr. T. M. Nair Road, 9. Poonamallee High Road, 10. Raja Annamalai Chetty Road, 11. Purasawalkam High Road—Kelly's.

Route No. 23

EGMORE to MYLAPORE

1. Gandhi-Irwin Road, 2. Police Commissioner's Office Road, 3. Pantheon Road, 4. Commander-in-Chief Road, 5. Mount Road, 6. Cathedral Road, 7. Mowbray's Road, 8. Luz Church Road, 9. Brodies Road—Mylapore.

Route No. 23-A

EGMORE to MYLAPORE *via* NUNGAMBAKKAM

1. This follows Route 23 upto Pantheon Road and from there it goes (*via*)

1. College Road, 2. Nungambakkam High Road, 3. Cathedral Road—from here it goes like 23.

Route No. 24

AMINJIKARAI to QUEEN MARY'S COLLEGE

1. Poonamallee High Road, 2. McNichol Road, 3. Nungambakkam High Road, 4. Mount Road, 5. Peters Road, 6. Besant Road, 7. Beach Road—Queen Mary's College.

Route No. 25

TRIPLICANE to KODAMBAKKAM *via* NUNGAMBAKKAM

1. Pycrofts Road, 2. Bells Road, 3. Wallajah Road, 4. Mount Road, 5. Nungambakkam High Road, 6.

Nungambakkam Village Road, 7. Ranganatham Chetty Road, 8. Kodambakkam High Road—Kodambakkam temple.

Route No. 56

MINT TO TIRUVOTTIYUR

1. Tiruvottiyur High Road—Tiruvottiyur.

On the representations received from the Public, Government buses were introduced in the following suburban routes also:—

Route No.	19	Broadway—Lattice Bridge
"	51	Broadway—Alandur.
"	52	Broadway—Pallavaram.
"	53	Broadway—Poonamallee <i>via</i> Amin-jikarai.
"	57	Mint—Red Hills.

A rail bus service between Madras Central and Egmore Railway Stations was started with effect from 1-7-49 for the convenience of through railway passengers.

Week-end excursion specials are run to Mahabalipuram (Seven Pagodas) *via* Thirukkalikundram. Besides the hiring of buses to Public and Private Institutions for excursions, special transport arrangements are also made for all the important festivals both in the City as well as in the suburban places.

Pilgrim Line 101 Mint—Thirupathi.

IMPORTANT PLACES IN MADRAS CITY SERVED BY THE GOVT. BUS SERVICE

(The route number of the nearest fare stage is given against each place).

* Route numbers as * denote fare stages with one way traffic.

Route numbers given as † denote buses of routes passing through the point which is not a fare stage for these routes.

S. No.

1. All-India Radio, †22, 23, 23-A.
2. Avvai Home and Orphanage, 5.
3. Botanical Gardens, †23, 23-A, 24.
4. Central Industrial Museum, *3, *3D, *4, *5, 11, 11-A, *21, 25.
5. Chepauk Palace, 21-A, 21-B; 1, 2, 22, 25.
6. Christian Literature Society, 1, 2, 2-A, 3, 3-D, 4, 4-A, 5, 7, 7-B, 21, 7-C, 9, 10, 11, 11-A, 15, 17.
7. Connemara Library, 11, 13.
8. Corporation Stadium, 1, 2, 2-A, 3, 3-D, 4, 4-A, 5, 7, 7-B, 7-C, 9, 10, 11, 11-A, 15, 17, 21.
9. Corporation Tennis Stadium, 9, 16, 17, †22, 23, 23-A.
10. Corporation of Madras (Ripon Buildings)
Same as in S. No. 8.

11. Employment Exchange, Same as in S. No. 4.
12. Fort Museum, 21-A, 21-B, †1-B, †3-B.
13. Fort St. George, 1-B, 3-B, 11-A, 21-A, 21-B, †1-B, †3-B.
14. Fruit Market, 1, 3, 3-D, 4, 4-A, 5, 6, 6-A, 7, 7-B, 7-C, 8, 9, 10, 11, 11-A, 15, 17, 21, 21-A, 21-B.
15. Government House, Guindy (Route 19).
16. Harbour, 4, 4-A, 6, 6-A, 8.
17. High Court-Same as in S. No. 14.
18. Legislature Council Buildings-Same as in S. No. 12.
19. Light House-Same as in S. No. 14.
20. Madras University Library, 21-A, 21-B.
21. Marina Swimming Pool & Canteen, 1, 2, 21A, 21B, 22, 13, 25.
22. M. & S. M. Railway Office-Same as in S. No. 6.
23. Moore Market do.
24. Museum, 10, †23, †23-A.
25. My Ladye's Garden, 7, 7-B, 7-C, Same as in No. 8.
26. Port Trust Buildings-Same as in No. 16.
27. Ramakrishna Mutt, 21, 21-A.
28. Royal Bath-Same as in No. 6.
29. Secretariat, 21-A, 21-B, †1-B, †3-B.
30. Senate House, 21-A, 21-B.
31. Servants of India Society, *3, *3-D, *4, 5, 21.

32. Telephone House-Same as in No. 14.
33. Theosophical Society, 5.
34. Victory Memorial, Marina, 21-A, 21-B, †1-B, 3-B, 21-A, 21-B.
35. Widows Home, 21-A, 21-B, 12.
36. Water-Works Pumping Station, Kilpauk (Route 20).
37. Y.M.C.A. (Esplanade) Same as in No. 14.
38. Y.W.C.A., 15.
39. Zoological Gardens-Same as in No. 25.

RAILWAY STATIONS

40. Central (M. & S. M. Ry.) Same as in S. No. 6.
41. Egmore (S. I. Ry.) 9, 16, 17, †22, 23, 23-A.
42. Beach (S. I. Ry.) Same as in S. No. 16.

AERODROME

43. Meenambakkam (Served by suburban buses of Route 52).

COLLEGES AND TECHNICAL SCHOOLS

44. Engineering College, Guindy (Suburban Route 19).
45. Ethiraj College for Women, *3, *3-D, *4, *5, *21, *13, 24.

46. King Institute, Guindy (Suburban Routes 52 and 54).
47. Lady Willingdon Training College, 21-A, 21-B.
48. Law College-Same as in No. 14.
49. Loyola College, 9, 10, 17, †23-A, 24.
50. Madras Medical College-Same as in No. 6.
51. Meston Training College, *3, *3-D, *4, *5, 13, 21, 24.
52. Govt. Arts College-Same as in No. 4.
53. Pachaiyappa's College, 15, 24.
54. Presidency College, 1, 2, 22, 13, 25, 21-A, 21-B.
55. Queen Mary's College, 21-A, 21-B, 24.
56. Sanskrit College, 21, 21-A.
57. School of Arts and Crafts, 15.
58. School of Indian Medicine, 15, 24.
59. School of Technology (Routes 6-A and 8).
60. Seva Sadan, 9, 17, 10, 23-A, 24.
61. St. Christopher's Training College, 7, 7-A, 7-B, 7-C, 14, 15.
62. Teachers College (Suburban routes 18, 19, 51, 52, 54).
63. Women's Christian College, 9, 10, 17, *23-A, 24.
64. Stanley Medical College, (Routes 6-A and 8).
65. Veterinary College, 7, 7-B, 7-C.

PUBLIC HALLS

66. Anderson Hall-Same as in S. No. 14.
67. Gokhale Hall do.
68. Memorial Hall, Park Town-Same as in S. No. 6.
69. Museum Theatre, 10, *23, *23-A.
70. Rajaji Hall (Banqueting Hall) 1, 2, 2-A, 3, 3-D, 4, 4-A, 5, 11, 11-A, 21.
71. St. Mary's Hall-Same as in S. No. 14.
72. University Examination Hall, 21-A, 21-B.
73. Vani Mahal, 12, †24.
74. Victoria Public Hall-Same as in No. 6.
75. White Memorial Hall, 10.

HOSPITALS

76. Kalyani Hospital, 12, 21-A.
77. Kasturba Gandhi Hospital (Gosha Hospital) 1, 2, 22, 13, 25.
78. Govt. General Hospital-Same as in No. 6
79. Govt. Hospital of Indian Medicine. 15, 24.
80. Govt. Hospital for Women and Children, 10 †23, †23-A.
81. Govt. Mental Hospital, 7-A, 7-C, 14, 16, 22.
82. Govt. Ophthalmic Hospital, †22, 23, 23-A.

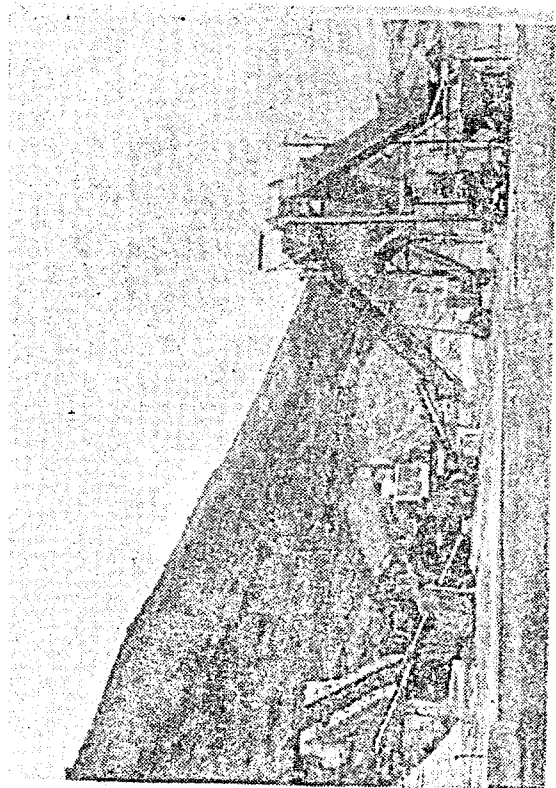
83. Govt. Royapettah Hospital, 24, †3, †3D, †4, †5, 21, 13.
84. Infectious Diseases Hospital, 4, 4-A, 6, 6-A, 56.
85. Govt. Royapuram Hospital, 2, 14, 2-A, 8, 8-A, 56.
86. Rainey Hospital, 4, 4-A, 6, 6-A.
87. Stanley Hospital, 6-A.

PUBLIC PARKS

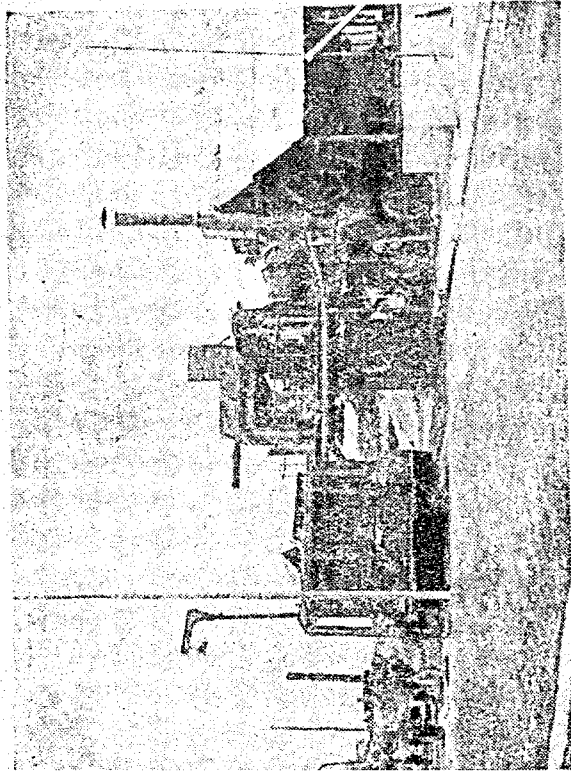
88. People's Park-Same as in No. 6.
89. Panagal Park, 9, 10, 11-A, 12, 12-A, 13.
90. Robinson Park (Routes 6-A and 56).
91. Napier Park, 1, 2, 2-A, 3, 3-D, 4, 4-A, 5, 11, 11-A, 21.

BAZAARS

92. Kothwal Bazaar-Same as in No. 14.
93. Flower Bazaar do.
94. Mat Bazaar do.
95. Pondy Bazaar, 9, 10, 11-A, 12, 12-A.
96. Jam Bazaar, 13.
97. Evening Bazaar-Same as in No. 14.



QUARRY PLANT, PALLAVARAM



CENTRAL ASPHALT PLANT, EGMORE

MISCELLANEOUS

Pallavaram Quarries.—Road laying and maintenance, the primary and principal public works in the City has necessitated the Corporation to quarry for road metal on a large scale.

The Corporation Quarries are located to the south of the City in the Pallavaram Hills, an out-cropping of the Eastern Ghats and quarrying operations are now carried on at the Main Hill and Thirusulam Hill.

In order to increase the output of metal, a new mechanical Stone Crusher Plant costing about Rs. 3 lakhs, was installed at the quarry in November 1948. There is also a small Impact Breaker Type stone crusher at the quarry.

Annually about 10 lakhs cubic feet of road metal is produced at the quarry and conveyed into the City both by Railway wagons and Lorries.

Central Asphalt Plant.—For expediting the progress of superior surfacing of roads in the City, a second-hand Hot-mix Plant was purchased in 1946-47 and erected in a central place at Spur Tank, Egmore. With a view to make the Central Asphalt Plant a permanent feature in the road making of the City, a second Hot-mix Plant costing over Rs. 1.25 lakhs was recently purchased and installed at Spur Tank. This plant besides ensuring economy, enables the Department to take up works in different places in quick succession and execute the same in an efficient

manner. With these two plants working to their full capacity, the Corporation will be able to take up a large number of inferior roads also, for superior surfacing from 1950-51.

General Stores.—Corporation General Stores, which arranges for the purchase and supply of almost all stores articles required for the use of various departments is situated in Trevelyan Basin by the side of the General Workshop. The annual requirements of the various departments are estimated, tenders called for and contracts entered into for supply of articles at the accepted rates for one year. The value of stores handled every year is about Rupees Three Lakhs.

General Workshop.—For the past 58 years, the Corporation is running a Workshop for attending to the running repairs of all Municipal vehicles, Pumps and Road Rollers. Of late it has developed the manufacturing side of all Municipal appliances and equipments such as tar boilers, rubber-wheeled carts and water tanks, screw-down cocks, waste-not taps, ornamental lamp posts, centrifugal pumps, roller rims etc. The Workshop was considered all these years as an unremunerative enterprise of the Corporation, but has at present proved remunerative mostly due to carrying out a thorough reorganisation of the Workshop. The Workshop is located in Anna Pillai Street, George Town. The value of the works turned out, is over three lakhs of rupees per annum. Besides all works connected