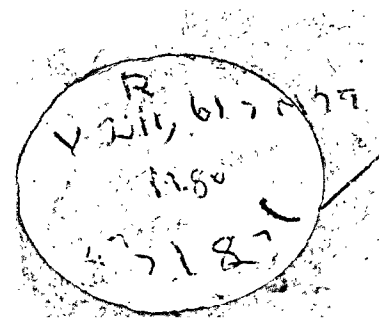


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Report on Municipality of
Madras 1879



Meetings

Sanctioned Receipts and Expendit.
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MUNICIPALITY OF MADRAS.

REPORT OF THE PRESIDENT FOR THE YEAR 1879.

I.—GENERAL.

The year 1879 was the first under the working of the new Municipal Act V of 1878.

Elections.—The elective system, the chief feature of novelty in this Act, was put into force during the month of April. When the lists were completed it was found that there were 271 persons qualified to be elected Commissioners, and 2,196 qualified to vote for the election of Commissioners.

Out of the 15 Commissioners elected under the new system, 5 had been Commissioners under the previous Act.

58 of the elections were contested, and on an average 45 per cent. of the voters exercised their right of voting. The largest percentage, viz. 63, of voters appeared in the seventh Division, and the smallest, viz. 37, in the fifth Division.

Meetings.—There were 6 General and 9 Special Meetings of the Commissioners during the year, and the Standing Committee met 42 times.

Subjects considered.—Besides the regular business connected with budget and accounts, the schemes for Drainage and Water Supply were again discussed. It was resolved to make a grant of Rs. 9,000 to enable the Vice-President to complete the surface drainage of a small section of Black Town as an experimental measure indicating the method proposed to be adopted throughout the town.

License Tax.—This was worked under the Assessor and Collector, Mr. Cardozo, with a special establishment. The receipts for the year were Rs. 71,764. The cost of the establishment was Rs. 9,650. The collection of this tax for Government throws on the Municipality labor and responsibility without return. The Commissioners can feel but little solicitude regarding the imposition of a tax with the proceeds of which they have nothing to do. It would be a great advantage if the work were transferred to the Collector of Madras who, from his official position, would take an interest in it which cannot be experienced by the Commissioners.

II.—FINANCIAL.

Sanctioned Receipts and Expenditure.—The Receipts during the year were estimated at Rs. 8,42,476, excluding opening balances and suspense accounts, and the actual Receipts were Rs. 8,51,101. The difference arose from the collections of house-tax being Rs. 12,000 below the estimate, though the actual collections were considerably above the average. There was a receipt of Rs. 20,000 being the amount of a loan raised to purchase the Vepery Market. The expenditure was esti-

* செப்பனிடவதற்காக எடுத்த
* கொள்ளப்பட்ட
* ரூ. 2 மாதம் 1988 வருடம்
* செப்பனிட முடித்த
* ரூ. 2 மாதம் 1988 வருடம்
* ஆராய்ச்சி உதவியாளர்
* இயோபம்

mated at Rs. 8,53,907, and the actual expenditure was Rs. 8,03,858, exclusive of suspense accounts. This includes Rs. 17,000 advanced for the purchase of the Vepery Market.

The total of the closing balance was Rs. 68,538, not including a sum of Rs. 51,068, collections of Imperial License Tax due to Government.

The year closed, however, with heavy outstanding liabilities due to Government, amounting to Rs. 1,40,703. This has since been reduced to Rs. 1,19,182 as the Government have waived their claim to Rs. 8,788 on account of Contagious Diseases Act, and Rs. 12,733 on account of Quit-rent.

But even thus the liabilities exceed the closing balance by Rs. 50,644, and the Municipal Fund must therefore be regarded as exhibiting a deficit to this amount.

This is a sufficiently unsatisfactory condition of Municipal affairs. It is, however, rendered worse by the fact the recent judicial decisions as to the levy of the Professional Tax will reduce the receipts under that head by Rs. 54,000 per annum. The Government have also by Act VII of 1878 taken power to make a charge against the Municipal Fund on account of Police which may amount to 50 per cent. of the whole, or Rs. 1,10,000 per annum. No charge was however made during 1879.

There thus appears to be no reasonable probability that the Municipal finances will resume a position of equilibrium without the direct intervention of Government.

Water Works Loan.—The amount of this loan was Rs. 14,30,000, of which Rs. 2,57,323 had been paid off by the 2 per cent. Sinking Fund by the end of 1879. The interest payable to Government is Rs. 57,200 per annum at 4 per cent. It is calculated by the Accountant General in a statement checked in this Office that the whole of this loan will be paid off by the year 1900.

Stores.—The value of Stores in hand and received from England during the year was Rs. 90,833. The stores issued were valued at Rs. 42,039, leaving in hand stores valued at Rs. 48,794. There had been no stock-taking for a considerable period, and this work has been ordered for 1880, and since completed.

Workshops.—The amount credited under this head is Rs. 66,493, and the amount debited is Rs. 64,874, showing a balance of Rs. 1,619 in favor of the Workshop.

House Services of Water-supply.—The number of House-services laid on at private expense was 158 during 1879, as compared with 57 during nine months of 1878. The total number of private house-services now amounts to 457. The receipts for making the 158 house-services were Rs. 20,104. This includes a charge of 10 per cent. to pay for the cost of Municipal supervision in carrying out the work.

Auditors' Report.—The points requiring attention in the Auditors' Report are discussed in letters to Government which appear in the Appendix. The first relates to matters of account, the second to an unsettled educational grant, and the third is a report upon a defalcation of Rs. 6,715, effected by a Bill-collector.

III.—COLLECTION OF TAXES.

Tax on Arts, Professions, &c.—The demand for 1879 was Rs. 1,35,633. The average for the previous three years was Rs. 1,31,155. The current collec-

tions were Rs. 77,864, being Rs. 14,711 above the average. The arrears collections were Rs. 34,824. The revenue from this tax has been materially affected by a decision of the High Court on appeal, that persons shall be assessed in each class according as the income from their profession does or does not equal the amount of salary drawn by salaried persons in the same class.

The result of this decision was that 609 persons were assessed in lower classes, and a total of Rs. 19,688 was remitted. As, however, a large number of persons who would have been entitled to benefit under this decision paid their tax without appeal, the loss of revenue during 1879 was comparatively small. In future the annual loss of revenue from this cause will be between fifty and sixty thousand Rupees.

The total number of persons liable to this tax was 8,931. It became necessary to take out summonses against 6,073. Neglect to pay however, and not inability, was the cause, as is shown by the fact that 5,553 of these persons paid up before their case came on for hearing. 151 cases were convicted, and fines to the moderate amount of Rs. 80 levied in addition to the tax. 367 cases stood over chiefly owing to the absence of parties from Madras.

The arrears collected amounted to Rs. 34,824, much in excess of the collections of arrears in previous years. The arrears outstanding at the end of the year were Rs. 46,769, and efforts are being made to secure a clear file during 1880.

Tax on Houses, Buildings and Lands.—This was levied at the maximum rate of 10 per cent.

The total demand was Rs. 3,70,933, being Rs. 3,49,789 current, and Rs. 21,144 arrears. The total collections were Rs. 3,35,739, being Rs. 3,24,868 current, and Rs. 10,870 arrears. Rs. 6,164 have been remitted, and the total arrears still to be collected are Rs. 29,030. Under the new law of 1878 the tax is payable in two half-yearly instalments. As there are over 30,000 taxable premises, the number of notices to pay was 64,163. Great additional work is thrown upon the office by the issue of the bills half-yearly. The number of warrants of distress was 12,489, of which 6,624 were settled before execution, and 4,399 before sale of distrained property.

Payments for Occupation of Municipal Lands.—These realized Rs. 9,710 against Rs. 7,024 in 1878. The outstanding balance is Rs. 3,512.

Water Tax.—This is levied at 4 per cent. of the annual value of houses, buildings and lands. The demand for the year 1879 was Rs. 1,35,824, and the collections were Rs. 1,25,312. The question was raised as to whether water-tax could be levied on property more than 150 yards from a public fountain (Section 211), but the imposition of the tax beyond such limit was upheld by the Magistrates and their view was confirmed by the High Court. As, however, the High Court also held that any person paying such tax was entitled to sue the Municipality if water was not supplied within the prescribed area, it became necessary to limit the levy of the tax during the following year until the Act could be revised.

Lighting Tax.—This is the only tax which is not levied at the maximum rate permitted by law. It is levied at $1\frac{1}{4}$ per cent. the maximum being 2 per cent., and forms a separate fund which cannot be diverted to any other purpose.

Tax on Vehicles and Animals.—The demand amounted to Rs. 43,595, of which Rs. 42,464 were collected. The demand for 1877-8 was Rs. 42,203.

Tax on Vehicles without Springs.—6,863 carts were registered during the year, against 7,820 in 1878. The number was 6,591 in 1876, rose during the famine in 1877 to 8879, and then began to fall off again. The number now registered is slightly in excess of that for 1876.

Tolls.—These were as usual let out on contract, and realized Rs. 44,200, as against Rs. 40,100 in 1876, Rs. 45,000 in 1877, and Rs. 43,200 for 1878.

Tax on Liquor Shops.—This showed a demand of Rs. 15,100, against Rs. 11,500 in 1878. The increase is due to the higher rate fixed by the Act on shops for the sale of European Liquors. The amount realized was Rs. 13,196 against Rs. 10,457 in 1878.

Miscellaneous Collections.—Of these, fees for licenses for dangerous and offensive trades, markets, &c., realized Rs. 8,686, against Rs. 8,322 in 1878. Municipal ground rents realized Rs. 9,709, against Rs. 7,292 in 1878; Market stall rents Rs. 6,289 against Rs. 9,066 in 1878. Other rents brought in Rs. 14,157 against Rs. 11,946 in 1878. Fines and fees realized Rs. 9,517 against Rs. 8,177 in 1878.

Sewage Farms.—These are at Krishnampett, Triplicane, and D'Mellow's Road. The receipts from hay and grass were Rs. 8,308. The maintenance cost Rs. 6,468, and the rent Rs. 3,182. The rent thus absorbs all the profits and causes a net loss of Rs. 1,342 which must be regarded as a trifling cost for getting rid of the nuisance formerly caused by three of the largest sewers in Madras.

In the Napier Park also sewage is used for irrigation, and the receipts were Rs. 3,311. In the People's Park the receipts from sale of grass were Rs. 4,192. Other miscellaneous receipts amounted to Rs. 14,024.

The receipts and disbursements are as follows :—

	EXPENDED.						Receipts.		
	Cost of working.			Rent.					
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1. Krishnampett	2,141	15	6	2,736	10	4	4,059	15	7
2. Triplicane	1,945	9	6	409	14	7	1,931	3	6
3. D'Mellow's Road	1,660	2	5	...	...	...	2,766	15	6
4. Napier Park	2,198	11	3	200	0	0	3,311	4	7
				(Quit Rent.)					
5. Egmore	11	4	0	...	...	...	24	2	8

It will thus be seen that these farms would yield a net profit but for the rent paid for Krishnampett and Triplicane.

IV.—PURPOSES OF THE MUNICIPAL ACT.

Education.—The aid to education is given only in the form of result grants for elementary education in poor schools. Three Inspecting Schoolmasters are also maintained. The total cost was Rs. 8,531 against Rs. 9,567 in 1878.

Hospitals and Dispensaries.—Rupees 300 were paid as a contribution to the Rev. Dr. Strachan's Dispensary at St. Thomé.

The contribution fixed by Government towards Provincial Funds on account of Government Dispensaries and Hospitals and the Medical College was Rs. 46,047, which, however, could not be paid for want of funds.

Public Health.—Births.—The birth-rate per mille was 41·8, as compared with 37·9 in 1878, 36·2 in 1877, 29·7 in 1876, and 26·2 in 1875.

The increased number is due no doubt partly to a return to the normal condition of the population as the effects of the famine pass away, and partly to improved registration. The registration is probably still incomplete inasmuch as the percentage of male births to female is as 53 to 47 among children born alive—a proportion however which is almost the same as in the preceding year.

The percentage among the different races was as follows :—

	Male.	Female.	Rate per Mille.
Europeans.	47·4	52·6	37·9
East Indians	55·3	44·7	33·3
Native Christians	50·1	49·9	32·7
Hindus	53·2	46·8	43·9
Mahomedans	52·1	47·9	34·8

The total number of births was 16,629.

Deaths.—The death-rate fell during 1879 lower than it had been since 1872. The average of ten years (excluding 1877) was 14,601, while in 1879 the total number was 13,803. This gives a death-rate of 34·7 per mille. The number of deaths among males was very slightly in excess of the number among females, there being 6,929 of the former to 6,874 of the latter. Among Europeans however as is natural owing to the unequal numbers of the sexes, the deaths among males were largely in excess, being 59 males to 29 females.

The deaths from small-pox and fever were above the average, while cholera claimed only 35 against 85 in 1878.

An interesting diagraphic table in the Appendix shows that the maximum of small-pox cases occurred during the minimum of Fever; and vice versa.

Of the 13,803 deaths, 6,728 or just one-half occurred among children under 12 years. Of the deaths among children, 4,361 occurred among infants under 1 year. It is hard to suppose that a considerable number of these deaths could not have been prevented.

Vaccination.—The total number of cases vaccinated shows a considerable falling off. The total number for 1879 was 21,306 as against 39,376 for 1878. The successful cases were 17,009, the unsuccessful 1,645; while the results of 2,652 cases were unknown. The great decrease in 1879 as compared with 1878 is due to the fact that in 1878 vaccination was carried out in day nurseries and famine camps up to the end of March, by which time 19,249 persons had been vaccinated. During the remaining 9 months of 1878, only 18,127 persons were vaccinated. Making every allowance however, it appears that vaccination somewhat languished during 1879. There is however one feature of improvement in the work of the year, viz. that the number of infants under 1 year that were vaccinated rose to double that of 1878, being 5,907 as compared with 2,642 in

1878. But as the number of births in 1879 was 16,629, the fact remains that 10,722 children born during the year were not vaccinated.

Sanitary Inspection.—Appendix No. IV gives details of the working of the different clauses affecting sanitation.

Conservancy.—The daily removal of rubbish and filth, and the cleansing of surface drains, &c., was carried out by a force of 944 coolies and 359 carts. The carts make two trips in the day. 3,69,779 cart-loads, of which 37,666 were night-soil, were removed during the year.

32 carts were employed for the removal of night-soil only in 2nd, 3rd, and 6th Divisions; that is, Nungumbaukum and Black Town.

The rubbish was chiefly deposited in the following places:—

	No. of cart-loads.
Coorookapettah.....	35,066
Basin Road.....	24,349
Brickkiln Road.....	41,220
Barbers' Bridge.....	29,424
Cuthevakum Road.....	3,687
Rubbish Shoot.....	29,524
Washermanpett Esplanade.....	18,611
St. Thomé High Road Rubbish Depot	7,500
Victoria Hotel Grounds.....	6,326

The main drains of Black Town and Triplicane were cleaned out at a cost of Rs. 381; 456 cubic yards of silt were removed. The cost of the surface cleansing, the most important part of the conservancy and sanitation of the Town, cost Rs. 1,53,653. The receipts from sale of rubbish and night-soil were Rs. 4,982 against Rs. 3,489 in 1878 and Rs. 2,039 in 1877.

Latrines.—There are now in the whole town 129 permanent and 16 temporary latrines. During 1879 no new ones were erected.

Drainage.—The scheme for the surface drainage of Black Town has been under preparation by Mr. Jones, and the details are given in his report appended.

Water Supply.—The supply from the Red Hills Lake was maintained throughout the year except from 6 P. M. April 5th to 5 A. M. April 9th, when the supply was cut off that the channel might be cleared of weeds.

The water was at its lowest on the 31st July when there were still 7 feet of water above the bottom of the lowest pipe. The chief work on the delivery channel was the repair of a slip in the bank 50 feet long. The bed of the channel is badly levelled and extensive cutting would be required to rectify the defects. It will probably become necessary to do this before the channel can be replaced by a main from the lake. The pipes and fountains were kept in order throughout the year. Estimates have been made for scour pipes to clear the mains of snails and silt.

Thirty new hydrants were fixed during the year, 158 extensions of water supply to private houses were effected against 57 in 1878.

The consumption of water was 904,868,750 gallons or 5,362,185 cubic yards, and is estimated to supply 200,000 persons with 12½ gallons per head per day.

Roads.—The expenditure on roads during the year was Rs. 92,415. 48 miles of road were reformed at the rate of Rs. 1,935 per mile. They had lasted, without expenditure by the Municipality, for periods varying from one to ten years, and had been maintained during their period of liability by the contractors. Emergent repairs cost Rs. 19,241 for labour and materials.

Lighting.—The total number of lamps is 1,880.

Public Parks.—Details of the receipts and expenditure on parks will be found in the appendix.

The annual fair took place in December in the People's Park under the management, as before, of a mixed committee, without aid from the Municipal Funds, and attracted vast crowds of people.

Avenues.—The cost under this head was Rs. 3,958. 3755 trees have been watered, and 651 young trees have been planted. On the whole the avenues of new trees are in a flourishing condition.

MUNICIPAL OFFICE,
Madras, 13th September, 1880.

A. T. ARUNDEL,
Acting President.

APPENDIX I.

Statement I.—Revenues and Receipts of the Municipal Fund of the City of Madras,
during the Calendar year 1879.

	1879. Estimate.				Receipts from January to December 1879.				Total Receipts under Major Heads.	
	Detail of Minor Heads.		Total of Major Heads.							
	Rs.	A. P.	Rs.	A. P.	Arrear.		Current.		Rs.	A. P.
I.—Taxation.										
1. Tax on Arts, &c., (Section 103.)..	1,10,202	0 0			35,019	8 0	77,978	8 0		
Deduct refund..					195	0 0	114	8 0		
					34,824	8 0	77,864	0 0	1,12,688	8 0
2. Tax on Houses, Buildings, and Lands, (Section 119), at 10 per cent.	3,47,781	0 0			13,127	10 8	53,25,841	12 7		
Deduct refund..					1,887	7 8	1,308	2 0		
					11,240	2 9	3,24,533	10 7	3,35,773	13 4
3. Water Tax on Houses, Buildings and Lands, (Section 139), at 4 per cent.	1,27,853	0 0			...	...	1,25,810	7 7		
Deduct refund...					...	...	480	5 10		
					...	...	1,25,360	1 9	1,25,360	1 9
4. Lighting Tax on Houses, Buildings and Lands, (Section 151), at 14 per cent.	39,369	0 0			...	...	39,580	3 10		
Deduct refund...					...	...	151	7 10		
					...	...	39,378	12 0	39,378	12 0
5. Tax on Vehicles on Springs and Animals, (Section 155)	43,216	0 0			413	8 0	12,472	8 0		
Deduct refund...					4	8 0	8	0 0		
Registration of Hack Carriages. ...	897	0 0			409	0 0	42,464	8 0		
					...	...	895	10 0		
					409	0 0	43,261	2 0	43,770	2 0
6. Tax on Carts and other Vehicles without Springs, (Section 168)...	13,494	0 0			42	12 4	13,722	7 0	13,755	3 4
7. Tolls on Vehicles and Animals entering Municipal limits, (Section 174.)	44,116	0 0			3,600	0 0	40,516	10 8	44,116	10 8
8. Tax upon Places used for the sale of Spirituous and Intoxicating Liquors, (Section 183) ...	13,501	0 0			248	0 0	13,220	0 0	13,468	0 0
9. Fees for Licenses for Dangerous and Offensive Trades, Markets, &c., (Sections 311, 322, 325, 328, 333, 347, 349, 350, 356, 360) ...	8,362	0 0			...	...	8,686	14 7	8,686	14 7
Total Income from Taxation...			7,48,791	0 0					7,37,008	1 8
II.—Rents.										
1. Payment for occupation of Municipal Lands, (Section 137) ...	8,048	0 0			...	...	9,709	14 1		
2. Esplanade Grazing Rents ...	1,308	0 0			...	...	1,559	1 9		
3. Rent of Lands and Buildings not falling under Section 137 ...	3,344	0 0			...	...	3,406	9 11		
4. Rent of Cart-stands ...	1,305	0 0			...	...	1,429	8 7		
5. Contract for sale of Firewood, &c., at Burning Grounds ...	137	0 0			...	...	212	3 0		
6. Contract for collecting fees at Slaughter Houses. ...	6,350	0 0			...	...	7,550	2 6		
7. Rent of Market Stalls ...	6,115	0 0			...	...	6,289	7 3		
			26,607	0 0					30,156	15 1
III.—Fines and Fees.										
1. Demand and Warrant Fees ...	3,773	0 0			...	...	4,191	10 0		
2. Fines Magisterial... ..	1,300	0 0			...	...	1,190	6 0		
3. Do. Departmental on Contractors	4,269	0 0			...	...	3,890	14 4		
4. Do. do. on Subordinates	244	0 0	9,586	0 0	...	...	245	0 2	9,517	14 6
Carried over...			7,84,984	0 0					7,76,632	15 3

APPENDIX I.

Statement I.—Revenues and Receipts of the Municipal Fund of the City of Madras,
during the Calendar year 1879.

		1879. Estimate.				Receipts from January to December 1879.				Total Receipts under Major Heads.	
		Detail of Minor Heads.		Total of Major Heads.							
		Rs.	A. P.	Rs.	A. P.	Arrear.		Current.		Rs.	A. P.
Brought over...				7,84,984	0 0					7,76,632	12 3
IV.—Contributions from Pro- vincial Funds.											
1. Roads				15,058	0 0			15,058	0 0	15,058	0 0
V.—Payments for Services to Individuals.											
1. Laying on Water pipes to Pre- mises and Sundry Services ...				14,000	0 0			9,525	2 10	9,525	2 10
VI.—Miscellaneous.											
1. Proceeds of Sale of Rubbish ...		3,925	0 0					4,877	0 0		
2. Do. Blood at Slaughter Houses		1,100	0 0					1,300	0 0		
3. Sewage Farms (Sale of Hay and Grass)		8,732	0 0					8,308	10 4		
4. People's Park		3,420	0 0					4,193	0 4		
5. Napier Park		3,000	0 0					3,311	4 7		
6. Sale Proceeds of Lands ...		5,617	0 0					5,368	4 9		
7. Sale Proceeds of old Stores ...		1,000	0 0					609	2 1		
8. Other Items		594	0 0					590	10 6		
9. Payments for Water supplied for purposes other than domestic...		1,151	0 0					1,265	14 11		
10. Sundry Receipts Water Works ...		35	0 0					14	0 0		
11. Do. Lighting		30	0 0					3	12 0	29,835	11 8
				28,434	0 0						
Grand Total, Receipts...				8,42,476	0 0					8,31,101	13 9
Opening Balance.				12,753	0 0					*50,840	5 7
Total...				8,55,229	0 0					8,81,942	3 4
<i>Unbudgeted.</i>											
Six Per Cent. Debenture Loan of 1879...								20,000	0 0	20,000	0 0
Total...										9,01,942	3 4
<i>Suspense.</i>											
Stores								42,039	9 6		
Workshops								66,433	0 0		
Deposit Account								4,302	4 3	1,22,303	13 7
Advances Recovered								9,558	15 10		
										12,931	4 7
Imperial License Tax, Nett ...											
Grand Total...				8,55,229	0 0					10,37,217	5 6

* Includes Imperial License Tax Balance, Rs. 38,087-6-7.

*Statement II—Expenditure from Municipal Fund of the City of Madras,
during the Calendar year 1879.*

	1879. Estimate.						Expenditure from January to Dec. 1879.		Total Expenditure under Major Heads.	
	Details of Minor Heads.		Totals of Minor Heads.		Totals of Major Heads.					
	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.
Brought over...					6,52,914	0 0			5,90,491	13 2
Repayment of Debt.										
Sinking Fund--W. W. Loan			28,600	0 0			14,222	5 10		
Interest on Debt.										
Interest on W. W. Loan			57,200	0 0			28,444	11 10		
Payment for Red Hills Water			6,000	0 0						
Arrears			1,09,293	0 0			1,09,519	15 7		
					2,01,093	0 0			1,52,217	13 3
Grand Total, Expenditure...					8,53,907	0 0			7,42,708	14 5
Unbudgeted.										
Election Charges							1,587	8 8		
Arrears due to Contractors, &c.							42,561	11 7		
Advanced on account of Choolay Market							17,000	0 0	61,159	4 3
Suspense.									8,03,868	2 8
Stores							42,252	5 2		
Workshops							64,874	4 5		
Embezzlement by a Conicopillay							6,715	5 1	1,13,841	14 8
									9,17,710	1 4
Closing Balance. { General Fund							*99,061	10 7		
Water Works do					1,322	0 0	18,363	13 3		
Lighting do							2,181	12 4	1,19,607	4 2
Total...					8,55,229	0 0			10,37,317	5 6

* Includes Imperial License Tax Balance, Rs. 51,068 11 2.

L. R. BURROWS,

President, Municipal Commission.

W. H. AXELBY,

Manager and Book-keeper.

-- Examined and found correct.

EDWARD J. FIRTH, }
C. HALL, } *Auditors.*

Report on Municipal Accounts for the year ending 31st December 1879.

From Messrs. E. J. Firth and C. Hall, Auditors, to the President of the Municipal Commission, Madras, dated Madras, 13th April 1880.

We have the honor to state, for the information of the Municipal Commissioners, that we have carefully examined the Municipal Accounts for the year ended 31st December 1879, and that having compared the expenditure shewn in the Cash Book with the vouchers filed in support of the charges, and traced a percentage of those charges to their appropriate headings in the Ledger, we have been enabled to verify the entries in the Statements (I & II) of Receipts and Expenditure accompanying, regarding which we have a few remarks to offer.

RECEIPTS.

2. The aggregate Receipts of the Municipality during 1879, including the balance at the beginning of the year, are as follows :—

	Rs.	A. P.
Revenue and Receipts	8,31,101	13 9
Suspense Account	1,22,393	13 7
Debenture Loan	20,000	0 0
Imperial License Tax	12,981	4 7
	9,86,476	15 11
Opening Balance	50,840	5 7
Total	10,37,317	5 6

3. The first item includes the sum of Rs. 6,715-5-1 collected, but embezzled by a Bill Collector of the Revenue Department—See remarks at paragraph 22 of this Report.

4. The Debenture Loan was raised under Section 208* of the Madras Act V of 1878. The Loan was taken up by five persons in 200 debentures of Rs. 100 each. The premium realized, viz., Rs. 205, has been credited to Deposit Account; but, as all expenses for advertisements and other charges are borne by the Municipal Fund, this Fund should apparently have received the credit.

5. *Imperial License Tax.*—Realizations during the current year on this account amounted to ...Rs. 91,253 2 0

Deduct payment to Collector

of Madras... 65,127 0 4

Charges for collection, &c. ... 13,144 13 1

78,271 13 5

Net sum credited as Receipts ... 12,981 4 7

6. It may be here mentioned that collections on account of this Tax aggregate from its introduction to 31st December 1879 ...Rs. 1,35,613 2 0 and payments as follows :—

To Collector of Madras	65,127 0 4
Charges for collection and refunds	19,417 6 6
	84,544 6 10

leaving a balance in the hands of the Municipality of Rs... 51,068 11 2

CHARGES.

7. Comprising expenditure both budgeted and unbudgeted for...	Rs. 8,03,868 2 8
Suspense Account	1,07,126 9 7
Amount embezzled for eventual recovery	6,715 5 1
	9,17,710 1 4
leaving a balance at close of the year of...	1,19,607 4 2
Total	10,37,317 5 6

8. The sum of Rs. 8,03,868-2-8 above, includes arrears aggregating ...Rs. 1,52,111 11 2 Budgeted for being liabilities to Government ... ,, 1,09,549 15 7 Unbudgeted arrears due to Contractors, &c. ... ,, 42,561 11 7

which should have been shewn under their proper heads of account.

9. These charges appertaining to previous years, when separate accounts of Water Works and Lighting were not maintained, have, with the exception of Rs. 43,509-6-5, due 31st December 1878, and which under ordinary circumstances would not have been paid until the following January, been taken against the General Fund. A Statement marked A, shewing the heads of account to which they are chargeable accompanies.

10. No payment should, on the ground of there not being provision for it in the Budget, be excluded from its proper head of account. Grants should be provided for such charges in the Regular Estimate.

11. Statement B annexed, shows Receipts and Expenditure of the General, Water Works, and Lighting Funds. It was necessary to make a temporary transfer of Rs. 22,000 from the General to the Water Works Fund, which accounts for the latter closing with a credit balance of Rs. 18,863-13-3, instead of a deficit of Rs. 3,636-2-9.

12. Appendix C is a Statement of Liabilities amounting to Rs. 1,40,703-11-2 which had not been met during the year, but which find no place in the Municipal Books.

13. A register of all such liabilities as they fall due should be maintained, in which adjustments might be noted. The Standing Committee might be kept advised of such liabilities by a foot-note appended to the monthly abstract submitted to it.

14. The Assets and Liabilities of the Municipal Fund which are shewn on its books will be found in Statement D annexed. This statement is not complete inasmuch as, though the amount of the Sinking Fund which is to repay the Water Works Loan is exhibited as an asset, the loan itself is not shewn as a liability. Acknowledged liabilities outstanding at the close of the year should be adjusted by credit to a head which might be termed "Acknowledged dues," or "Bills Payable," and debit to Municipal Funds, these heads being relieved whenever payment is actually made. There is also an asset of Rs. 22,697-8-0 under office premises + Rs. 17,000 for the recent purchase of the Smithfield Market, and it may fairly be assumed that the Municipality is possessed of other property, for which, at some time or another, payment has been made from its funds, and which after valuation might be brought on its accounts.

15. There is a sum of Rs. 18,083-15-2 on the Municipal Books to the credit of "Government Grant towards Elementary Education." In G. O., Financial, No. 972 of the 11th July 1873, a grant of Rs. 23,000 was made to the Municipality on an estimate of Rs. 33,000, the Municipality making provision for the balance, viz., Rs. 10,000. It is, however, apparent from G. O., Financial Department, No. 1683 of the 20th November 1873, that a mistake was made in the estimate, as, in para. 3 of the Order, the grant was limited to the difference between Rs. 10,000 provided for by the Municipality and the actual grants which amounted to Rs. 14,916-0-10, or Rs. 2,619-5-2 more than that spent by the State in 1872-73—Vide G. O., Financial, No. 758 of 2nd May 1874, in which Order, the Government determined that their grant for 1873-74 was not to exceed Rs. 10,000, from which it is apparent that the Government quota was Rs. 4,916-0-10.

16. In the Minutes of Proceedings of a General Meeting of the Municipal Commissioners, published in the Supplement of the *Fort Saint George Gazette* of the 17th June 1879, allusion is made to this surplus, but the matter does not appear to have been brought prominently to the notice of Government with a view to their orders being taken as to the disposal of the same.

STORES.

17. As the stock-taking has not been completed, we have not been able to verify the value of the stores shewn in the books.

18. It has already been suggested (*vide* report for the first half-year of 1879) that the Receipts and Issues should be gotten out on a monthly basis. Two forms of Statements of Receipts and Issues, to be maintained in the Store Department are appended for adoption, if approved, a fair copy of which, after being totalled and priced, should be forwarded by the Storekeeper monthly to the head office—say by the first week of the month succeeding that to which the statements appertain. The monthly results only should be posted in the Store Ledger. The Storekeeper should have nothing to do with cash, he should merely deal with quantities valued periodically by such officer as the President may depute to do this part of the work.

19. The actual cost of the stores should be debited on payment, the difference between which and the Storekeeper's value as given in the monthly tabular statement, should be adjusted to the debit of stores and credit of Miscellaneous, or *vice versa*.

20. The foregoing observations apply only to serviceable stores. Stores either unserviceable or repairable should be separately treated. They may be recorded in a separate register and posted in quantities only in the Ledger under the columns headed "Repairable" and "Unserviceable." The latter, when sold or otherwise disposed of, may be struck off the Ledger, and the proceeds remitted to the Office to be dealt with as at present. Articles issued for repair may also be struck off, and when returned repaired, be re-entered at the standard value. The cost of repair will come on the books through the workshop accounts, the difference between which and the standard value being adjusted on receipt of the Storekeeper's monthly abstract.

21. From the commencement of the current year the mode of indenting has been changed. Hitherto indents had been prepared in triplicate, one copy, or counterfoil, being retained by the Indenting Department, a second, receipted, lodged with the Storekeeper, and a third sent by him to the Office in support of the debit in his accounts. Now the indent is in duplicate, one being retained by the Indenting Department, and the other by the Storekeeper, who, in lieu of the third copy as before, prepares a forwarding note in duplicate, of which he retains a copy, and after getting the second receipted by the receiving Department forwards it to the Office in support of the debit in his books. It is evident that the system now in force entails additional scriptory labor without apparently any counterbalancing advantages, and we would recommend, in the absence of any strong objection to the contrary, that the original mode of indenting be reverted to, an additional column being opened in the indent for values.

DEFALCATION.

22. Mention has been made in para. 3 of this report of a sum of Rs. 6,715-5-1 embezzled by a Bill Collector in the employ of the Municipality, collections of which, the above amount is a portion, appertained chiefly to House, Water, and Lighting Taxes, which, a reference to the Statement of Receipts and Expenditure for 1879 shows, aggregated Rs. 5,00,512-11-1, a considerable portion of which was collected by 27 Conicopillays, on a salary of Rs. 12 per mensem, and who could not therefore be expected to find a larger security than Rs. 1,000, which, it is understood, is the sum demanded in each case.

23. The system of recording the amount due and realized on account of Taxation, would not appear to be defective, but it is clear that the number and amount of the bills entrusted to each collector far exceeds, and necessarily so, the amount of the security taken from him, and it is stated that were it not so, collections would be greatly retarded; such being the case, the examination of the bills entrusted to collectors cannot be too frequent, or the scrutiny too searching.

24. At present, the examination appears to be confined to counting the bills tendered, and agreeing the total with that standing against the Bill Collector in the account opened in his name. This mere counting has proved to be no safeguard, for, in the search made in the house of the defaulting Bill Collector, a large number of bills were found which had been discharged by the payees and the amounts brought to account. It is assumed that these bills were kept by the collector to be substituted, when occasion offered, for bills the amounts of which he had collected and retained. The remedy for this state of things is apparently to compare a percentage of the bills with the register to see if the amount covered by them is actually outstanding. It would also be desirable to call in and make a list of outstanding bills at least once a year for comparison with the Bill Registers.

25. In conclusion, we have a few remarks to offer on the suggestions contained above, and their bearing upon those made in the Auditors' report on the accounts for the 1st half-year of 1879, and the remarks of the Municipal President thereon published in the Orders of Government as per margin.*

26. The adjustment of arrear charges to their proper heads of account which is now being done, the opening of a register in which to record liabilities and their adjustment, the inclusion of such liabilities in a foot-note in the monthly abstract of accounts submitted to the Standing Committee, and the preparation and submission to the Committee of an half-yearly Statement of Assets and Liabilities will, we are of opinion, meet the requirements of the report on the accounts for the first half year of 1879, paras. 3 to 11, and paras. 2 to 7 of the Municipal President's remarks on the same, (we are prepared to accept the suggestion that the workshop accounts be balanced and closed every other, instead of every month) and obviate the necessity of any further modification of the Statement of Receipts and Expenditure. See our remarks in letter to Government of the 20th November 1879, published in Proceedings of Government, No. 2297 of the 6th December 1879.

27. Paras. 8 to 11 of the President's remarks are dealt with, in our suggestions headed "Stores," para. 17 of this report.

28. By carrying arrear charges which have hitherto appeared under separate* heads of "Arrears" budgeted for, and "Arrears due to contractors" unbudgeted for, at once† to their proper heads of account, and providing for charges in excess of Budget Grants in the Regular Estimate, the irregularities commented upon in paras. 14 to 17 of the President's remarks will be avoided, and the Statement of Receipts and Expenditure submitted to the Standing Committee with the foot note already referred† to, will represent more closely the financial position of the Municipality at any given time. The arrangement of arrear charges of 1878 under Budget heads (para. 15 of the President's remarks) will be found in the Statement A annexed. The President, in remarking that the payment of arrear charges merely displaces an equal amount which will have to be paid out of the next year's receipts, and that "if precautions are taken to prevent payments on account of arrears exceeding in the aggregate the savings out of the previous year's Budget Grants there is a safe check," appears to have lost sight of the fact that the amount of the Budget Grant of any year lapses with that year, and that if arrears are finally charged as such, instead of being carried to their proper head of account, the accounts are robbed of their value as statistics.

29. The suggestions in the Auditors' report on the accounts for the first half year of 1879, para. 28, Clause c, have more direct reference to bills for work on estimates, and should be adhered to in such cases; with reference, however, to bills of the nature alluded to by the President, it will be sufficient if they are encased with the amount of any deduction made from them, as is now done on the counterfoil of the cheque. It is here remarked that payments now treated as advances to contractors might apparently, without inconvenience, be treated as charges and carried at once to their appropriate head of account, and "advances recoverable" be proportionately relieved.

30. Payments to coolies, &c., are now made by the Office in the particular branch to which the work performed appertains.

31. In conclusion, we have much pleasure in acknowledging that our work has been considerably lightened by the hearty co-operation and assistance we have received from the officers of the Municipality, very especially from the Head Accountant, Mr. Axelby, whose accounts are neatly and accurately kept, and though the closing entries and final adjustments were not complete until some little time after the six weeks proposed to be allowed for the closing of the accounts of the Municipality, there is no reason to anticipate any such delay in future.

Copy of the above forwarded to the Secretary to Government, Financial Department, in accordance with clause 97 of the Act.

We have the honor to be,

Sir,

Your most obedient Servants,

EDWARD J. FIRTH, } Auditors.
C. HALL, }

ORDER THEREON, 19TH JUNE 1880, No. 1,204.

Communicated to the Accountant General. The Government await the President's remarks on the report, especially on paragraphs 16, 17 to 21, and 25 to 29.

2. It should be explained how there remained a net amount, to be carried to the credit of the Municipality, of Rs. 12,981 on account of the License Tax, when the actual cost of the establishment has been far in excess of the 10 per cent. ordered by Government. The finally settled demand must have formed the basis of the amount paid to Government; the only deduction to be made from it being the 10 per cent. commission—*vide* G. O., 27th September 1879, No. 1936, Revenue Department. It should be stated why out of a total collection of Rs. 91,253, only Rs. 65,127 were paid to Government.

3. The Government desire to have a separate report on the defalcation referred to in paragraphs 22 to 24. The facts briefly recounted by the Auditors reveal a very unsatisfactory state of things calling for speedy remedy. The establishment charges are very heavy, and if efficiency of work has not been attained, it must probably be the fault of the system. The Acting President will report when the defalcation took place and what steps have been taken to trace it to its source.

(True Extract)

E. GIBSON,

Acting Under Secretary to Government.

Statement showing the Establishment and Expenditure of the Municipal Fund of the City of Madras, current and arrear, under the proper heads.

	Estimate.				Expenditure from January to December 1879.			
	Total Minor head.		Total Major head.		Total Minor head.		Total Major head.	
	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.
Grant I.—(Public Works).								
1. New Works and Improvements	25,100	0 0			21,414	11 1		
Arrears					4,074	4 3		
2. Maintenance	1,33,060	0 0			1,29,205	14 5		
Arrears					14,737	0 7		
3. Establishment	17,492	0 0			17,497	10 3		
4. Tools and Plant	23,248	0 0			24,340	6 4		
Arrears					2,059	5 0		
			1,93,900	0 0			2,13,329	3 11
Grant II.—(Education).								
1. Results Grants	5,000	0 0			6,771	12 10		
2. Inspection	1,655	0 0			1,635	0 0		
3. Contingent, Stationery and Printing	156	0 0			124	0 0		
			6,811	0 0			8,530	12 10
Grant III.—(Sanitation and Medical Services).								
1. Hospitals and Dispensaries	46,347	0 0			331	0 0		
Arrears	57,953	0 0			57,953	4 0		
2. Vaccination	4,693	0 0			4,657	13 2		
Arrears					200	0 0		
3. Registration of Births and Deaths	5,663	0 0			5,513	1 1		
4. Conservancy	2,09,379	0 0			1,99,653	9 8		
Arrears					9,677	15 3		
			3,24,040	0 0			2,78,041	11 0
Grant IV.								
1. Lighting	34,570	0 0			33,414	3 10		
Arrears					5,236	7 2		
2. Markets, &c.	23,960	0 0			29,768	5 0		
Arrears					3,705	10 6		
			63,530	0 0			72,124	10 6
Grant V.								
1. Salaries	40,750	0 0			40,400	0 0		
2. Head Office Establishment	11,418	0 0			11,390	1 7		
3. Assessment and Collection	40,712	0 0			39,960	12 8		
Arrears					95	8 0		
4. Miscellaneous	21,824	0 0			21,590	9 8		
Arrears					2,771	8 10		
			1,14,704	0 0			1,16,208	8 9
Grant VI.								
Pensions	2,782	0 0			2,767	13 7		
Arrears					4	0 0		
			2,782	0 0			2,771	13 7
Repayment of Debt (Sinking Fund, W. W. Loan)	23,600	0 0			14,222	5 10		
Arrears	17,113	0 0			17,199	14 6		
Interest on Debt (Interest on W. W. Loan)	57,209	0 0			28,444	11 10		
Arrears	34,227	0 0			34,397	13 1		
Payment for Red Hills Water	6,000	0 0						
			1,43,140	0 0			94,263	13 3
Unbudgeted.								
Election Charges					1,597	8 8		
Advanced on account of Choolay Market					17,000	0 0		
							18,597	8 8
Total...			8,53,907	0 0			8,03,868	2 8

EDWARD J. FIRTH, } Auditors.
C. HALL,

APPENDIX I.

Unpaid Liabilities to Government.

	RS.	A.	P.
Interest on Water Works, due 31st December 1879	43,252	9	8
Hospitals and Dispensaries, from January to December 1879	41,700	4	0
Contagious Diseases, for 1879	5,738	0	0
Medical College	4,185	0	0
Red Hills Water, viz.,			
Arrears to 31st December 1878	21,277	13	6
Do. for 1879	5,500	0	0
Arrears of Quit Rent per G. O., 20th January 1880, No. 136	16,000	0	0
	1,40,703	11	2

EDWARD J. FIRTH, } Auditors.
C. HALL, }

I

Statement of Assets and Liabilities of the Madras Municipality for 1879.

Assets.			Amount.			Liabilities.			Amount.		
			RS.	A.	P.				RS.	A.	P.
Sinking Fund	...	...	2,57,322	10	8	Imperial License Tax	...	...	51,068	11	2
Workshops	...	...	3,579	8	10	Six per cent. Debenture Loan of 1879	...	...	20,000	0	0
Stores	...	...	48,794	2	2	Strand Rents	...	...	949	11	11
Advances	...	...	2,734	6	6	Electric Light	...	...	234	12	1
Smithfield Market	...	...	17,000	0	0	Band Fund	...	...	48	5	3
Embezzlement by a Bill Collector	...	...	6,715	5	1	Composition of Tolls	...	...	508	0	0
Office Premises	...	...	22,697	8	0	Deposits	...	...	4,853	15	0
Bank of Madras	...	...	1,19,607	4	2	Government Grant towards Elementary Education	...	...	18,083	15	2
						Balance transferred to Municipal Fund	...	...	95,747	6	7
									3,82,703	6	10
			4,78,450	13	5				4,78,450	13	5

EDWARD J. FIRTH, } *Auditors.*
C. HALL, }

[illegible]

EDWARD J. FIRTH, { Auditors.
C. HALL.

G. No. 442.

From

A. T. ARUNDEL, Esq.,

Acting President, Municipal Commission,

To

THE HON'BLE R. DAVIDSON, C.S.I.,

Chief Secretary to Government, Ootacamund.

SIR,

1 have the honor to reply to G. O., No. 1,204, dated 19th June, and will take *seriatim* the different points noted in the Auditors' Report.

2. Referring to para. 4 of the Report, the sum of Rs. 205, premium on debentures, has been credited to the Municipal Fund.

3. *Imperial License Tax*.—With reference to paras. 5 and 6 of the Report, and para. 2 of the G. O., I have the honor to enclose copy of a letter from the Assessor and Collector explaining the matter in detail. The Auditors apparently confined themselves to the books of the General Department and did not separately examine the accounts of the Assessor and Collector. The former give only the lump sums received and expended without distinguishing one year's receipts, refunds, and expenditure, from those of another. The latter details are given in the books of the Assessor and Collector. The detailed report and accounts of 1878 have, however, been reviewed by the Board and Government in G. O., No. 1,587, dated 31st July 1879.

4. Para. 8 of the Report notes that arrears due to Contractors amounting to Rs. 42,561-11-7 were unbudgetted. This was erroneous and will be rectified in the next budget.

5. Para. 10 of the Report. I quite concur with the remark of the Auditors and have directed every payment to be brought to its proper head of account, whether provided for in the budget or not.

6. Paras. 12 and 13 of the Report. The liabilities referred to are arrears of the previous year. All these appear as such in the budget of the current year, which is constantly before the Standing Committee, and a note is made as they are gradually paid off. It would be advantageous, however, to append a foot-note to the monthly statement of receipts and disbursements for the Standing Committee, shewing how the liabilities stand.

7. Para. 14. The amount of the Water Works loan will be entered as a liability as suggested by the Auditors. The Auditors suggest that all "property for which at some time or another payment has been made from (Municipal) funds" should be entered in the list of assets, in the same way as the Office Premises and the Smithfield Market are now entered. Such a list of assets is no doubt included in a theoretically correct system of accounts, but the money value must in a very

large number of cases be a purely imaginary quantity, rendering the nominal results more or less fictitious. Municipal property of almost every kind would have to be entered and valued for the purpose in question. Every public well, tank, reservoir, fountain with all the water-pipes laid throughout the Town, and the delivery channel should be entered and valued, so also roads, streets, and waste-lands on which money has been laid out and which yield rent in case of occupation or encroachment; sewers, drains, and latrines, &c., &c., should appear for similar reasons. The office establishment, already attenuated to the utmost owing to the present financial embarrassments, cannot now undertake this work without the neglect of more practical duties, and I should therefore prefer to postpone the preparation of these lists for the present.

8. Paras. 15 and 16. A separate letter will be addressed to Government on the surplus educational grant referred to.

9. The stock-taking has been a laborious process, and has only just been completed. The two forms of monthly receipts and issues prepared by the Auditors have been adopted and will be forwarded to the head office every month when completed. The Store-keeper since last year has had no cash transactions whatever, but merely enters the prices of the stores he issues according to an approved list. I do not think that it will be well to enter monthly results only in the Store Ledger. The Ledger should show all particulars relating to individual items of stores under each head, so that by reference to it full information can be obtained as to any one item of stores, without searching through the pages of the journal of daily issue and receipt books. For instance, suppose there are twenty issues of two-inch piping in a month, these will be scattered throughout the journal or daily issue book, but will be gathered together in the Ledger, ready for reference if the transaction of any one day be called for. If only the total of the whole twenty transactions be entered in the Ledger, no such information will be available. A further objection is that the quantity of any article in store could never be ascertained from the Ledger at any particular time, but only the amount that *was* in store at the end of the preceding month.

10. The suggestion in para. 19 of the Report will be carried out. It will be better to keep a separate Ledger of repairable articles (para. 20) to avoid the confusion arising from diminished values, and a separate register will be kept of unserviceable articles.

11. After carefully enquiring into the present system of indent referred to in para. 21, I find that its advantages compensate for the slight additional scriptory labor involved. The indent in triplicate with no forwarding note would answer excellently, provided the Store-keeper could invariably supply at once every article indented for. But, as a matter of fact, it often happens that he cannot, and the indent must be returned partly unexecuted. A new indent must then be made out for the lacking articles, and may possibly meet with a similar fate. But under the present system with a duplicate indent, the forwarding note from the Store-keeper takes the place of the triplicate indent that used to be sent to him and returned by him with the articles supplied. In the forwarding note he enters only the articles he can then and there supply. If some articles are wanting, they can be sent afterwards with another forwarding note.

12. Defalcation—para. 22.—A separate report on this matter will be forwarded as desired by Government. I would merely note here that the Conicopillays who collect the House Tax receive Rs. 20, not Rs. 12, per month, and that the periodical examination of the unpaid bills still in the hands of the Conicopillays is not confined to counting them, but they are properly checked off unless the rules on the subject are disobeyed. How the defalcation was possible and was carried out will be explained in the report.

13. Para. 28. As stated in para. 4 of this letter, I concur with the Auditors in considering that arrears should be brought to their proper head of account, and not charged as “arrears” in the Budget. The Budget ought to be a clear representation of actual financial facts.

14. The suggestion in para. 29 will be carried out.

I have the honor to be,

Sir,

Your most obedient Servant,

A. T. ARUNDEL,

Acting President, Municipal Commission.

Enclosure No. 1.

No. 179.

LICENSE TAX OFFICE,
MADRAS, 12th July 1880.

From

J. B. CARDOZO,

Assessor and Collector, Imperial License Tax,

To

A. T. ARUNDEL, Esq.,

Acting President, Madras Municipality.

SIR,

In returning the Order of Government in the Financial Department, No. 1204, dated 19th June 1880, para. 2 of which has been referred to me for report, I have the honor to state that the Auditors have apparently been led into error by confining themselves to the books kept in the General Department and without any reference to this Office.

2. I must premise that the books kept in your Office and those kept here are not a reflex of each other, the General Department simply recording, in lump sums, our daily collections remitted, and our expenditure as incurred, without distinguishing one year's collections, refunds, and expenditure from another; for instance, in para. 5, they set down a sum of Rs. 13,144-13-1 as “charges for collection, &c.” This sum being analysed by the light of our accounts stands thus—

	RS.	A.	P.
Charges for Establishment, House Rent, &c., from January to March 1879, collecting 1878 taxes agreeably to Clause 2, Section 20 of Act III of 1878	3,129	14	3
Refunds ordered in 1878, adjusted in 1879	1,175	0	0
Do. do. for 1878 paid in 1879, will be adjusted in 1880	1,255	0	0
Amount appertaining to 1878 alone	5,559	14	3
Charges for Establishment, House Rent, &c., from 1st April to 31st December 1879, collecting 1879 taxes	7,543	14	10
Refunds ordered and paid in 1879	41	0	0
Total	13,144	13	1

Similarly in specifying the “Realizations during the current year,” Rs. 91,253-2-0, the Auditors have included one sum of Rs. 31,344-8-0, which was the amount collected from 1st January to 31st March 1879, but appertaining to the year 1878, and another sum of Fines and Warrant Fees, Rs. 238-2-0, also belonging to the year 1878; but as the collections and expenditure as well as the amount paid into the Treasury to the credit of Government have already been reviewed by the Revenue Board and Government in Order, No. 1587, dated 31st July 1879, it seems unnecessary to pursue the subject further.

3. Turning to para. 6 of the Auditors' Report, I find they are more correct; the result arrived at corresponding with our books. Still it appears necessary to subdivide the items to understand them correctly, viz:—

	RS.	A.	P.
Collections actually made up to the 31st December 1878	44,360	0	0
Do. for 1878 but collected from January to March 1879	31,344	8	0
Do. of Warrant fees and fines for 1878 made in 1879	238	2	0
Do. from 1st April 1879 to 31st December 1879, for the year 1879	58,314	8	0
Do. of Warrant fees and fines for 1879	1,356	0	0
Aggregate collections	1,35,613	2	0
Cost of Establishment, &c., for 1878 up to 31st March 1879	9,402	7	8
Do. from 1st April to 31st December 1879	7,543	14	10
Amount refunded for the year 1878 adjusted in 1879	1,175	0	0
Do. 1879 up to 31st December 1879	1,296	0	0
Charges for collection and refunds	19,417	6	6
Amount paid to the Collector of Madras	65,127	0	4
	84,544	6	10
“Leaving a balance in the hands of the Municipality of”	51,068	11	2
Total	1,35,613	2	0

I have the honor to be,

Sir,

Your most obedient Servant,

J. B. CARDOZO

ORDER THEREON, 30th August 1880, No. 1649.

Paragraph 3 will be communicated to the Revenue Department.

2. Paragraphs 7, 9, 10, and 11, will be referred to the Auditors of the Madras Municipality for remarks.

3. The Government await the report referred to in paragraph 12. The President's statement that the periodical examination of bills in the hands of the conicopillays is not confined to counting them, but that they are properly checked off unless the rules on the subject are disobeyed, conveys no information as to what the actual practice has been. It should be stated where this has differed from the system prescribed.

(True Extract.)

J. A. DAVIES,

Acting Under Secy. to Govt.

G. No. 441.

MUNICIPAL OFFICE,
MADRAS, 20th July 1880

From

A. T. ARUNDEL, Esq.,
Acting President, Municipal Commission,

To

THE HON'BLE R. DAVIDSON, C.S.I.,
Chief Secretary to Government, Ootacamund.

With reference to paras. 15 and 16 of the Auditors' Report in G. O., No. 1204, dated 19th June 1880, I have the honor to report as follows:—

2. In G. O., 11th July 1878, No. 972, the Government assuming that the sum required for Educational Grants in the Municipality was Rs. 33,000, and finding that the Commissioners had only allotted Rs. 10,000 in their Budget, sanctioned a special grant of Rs. 23,000, to enable them to meet the demand on account of education in that year.

3. The Commissioners having requested to be informed on what data the estimate of Rs. 33,000 was formed, it was discovered that an error amounting to Rs. 10,000 had crept into the calculation, and the Government then directed that the special grant by Government for the current year should be limited to the difference between Rs. 10,000 and the actual grants.—Vide G. O., 20th November 1873, No. 1683.

4. In G. O., 2nd May 1874, No. 758, the Government again ordered that as the Director of Public Instruction estimates the required expenditure at Rs. 20,000, the special grant must not exceed Rs. 10,000.

5. In the meantime the special grant of Rs. 23,000 sanctioned in the first of the Orders quoted above was received in August 1873.

6. The account now stands as follows:—

Received from Government.....	Rs.	23,000	0	0
Municipal Budget Grant	„	10,000	0	0
Total... ..	„	33,000	0	0
Amount actually expended in 1873-74	„	14,915	0	10
Balance due to Government.....	„	18,083	15	2

7. As noted by the Auditors (para. 16 of their Report), the existence of this surplus was alluded to in the Proceedings of the Commissioners, dated the 21st April 1879, and the President drafted a letter on the subject, which however was withheld pending the receipt of the Orders of Government on the budget and was then overlooked. The matter appears also to have escaped the attention of the Accountant General.

8. As regards the disposal of the surplus Rs. 18,083-15-2, I would suggest for the consideration of Government that it may be regarded as contribution to the expenditure on education by the Municipality in subsequent years. Failing this, perhaps the Government would assign a contribution to the following years on the same terms as in 1873-74, viz., the difference between Rs. 10,000 to be provided for education by the Municipality and the actual amount expended. The expenditure on education exceeded Rs. 10,000 in the four following years and no grant was made by Government.

	Expended on education.
1874-75	Rs. 12,970 2 6
1875-76	„ 14,404 14 10
1876-77	„ 14,168 8 7
1877-78	„ 11,709 5 9
	„ 53,252 15 8
Deduct Municipal allotment at Rs. 10,000 for 4 years	„ 40,000 0 0
Contribution by Government	„ 13,252 15 8
Then deducting	„ 18,083 15 2 surplus grant
	„ 13,252 15 8
Balance due to Government.....	„ 4,830 15 6

9. In the event of Government directing a refund, it will be necessary to effect a corresponding modification in the Budget which is now before Government.

I have the honor to be,

Sir,

Your most obedient Servant,

A. T. ARUNDEL,
Acting President, Municipal Commission.

ORDER THEREON, 30th August 1880, No. 1647.

The Government waive the claim to a refund, but they require the Municipal Commissioners to apply the amount remitted to educational purposes.

2. The Accountant General will explain how it was that the excess amount drawn and retained by the Municipality was not brought to notice nor recovered by him.

(True Extract.)

J. A. DAVIES,
Acting Under Secy. to Govt.

G. No. 505.

MUNICIPAL OFFICE,
MADRAS, 16th August 1880.

From

A. T. ARUNDEL, Esq.,
Ag. President, Municipal Commission, Madras.

To

THE HON'BLE R. DAVIDSON, C.S.I.,
Chief Secretary to Government, Ootacamund.

SIR,

I have the honor to submit the report called for by Government in G. O., No. 1,204, dated 19th June 1880, upon the embezzlement in the House Tax Department of the Municipality in 1879.

2. The fraud was effected in September 1879 by a Bill-collector or Conicopillay named Lakshman Sing. The amount embezzled was Rupees 6,715-5-1, and the net loss to the Municipality, after deducting Rupees 978-2-8 the amount realized by the sale of Lakshman Sing's security, is Rupees 5,737-2-5.

3. Before detailing the facts of the case it will be as well to note the method of conducting the collections in the House Tax Department.

4. The bills in 1879 were three in number for each house each half-year, viz., for House Tax, Water Tax, and Lighting Tax. As there are over 30,000 taxable houses in the City, the total number of bills to be collected for each half-year was over 90,000.

5. The collection of these taxes is entrusted to 27 Bill-collectors or Conicopillays, who receive a monthly salary of Rupees 20 each, and who have each deposited security to the value of Rupees 1,000 for the proper discharge of their duties.

6. Besides the bills, (which are receipts for the amount of tax to be paid), a notice is issued to each householder informing him of the amount due by him, and this amount can either be paid to the Conicopillay who should then give the receipted bill in exchange, or can be paid at the Municipal Office where a temporary receipt is given till the proper receipted bill can be given by the Conicopillay who holds it.

7. When the receipted bills for the half-year, consecutively numbered, have been prepared in the Office, they are issued in batches of 200 or more at a time to the Conicopillays, a strict account being kept of the bills issued to each Conicopillay.

8. The Conicopillay then begins his work of collection, and on receipt of the tax due from any house-owner is bound to deliver the receipted bill in return.

9. If the Conicopillay neglects this part of his duty and the house-owner fails to demand the receipted bill, an opportunity of fraud at once arises, which cannot be guarded against, and it will be seen later on that this opportunity was freely utilized by Lakshman Sing.

10. Each Conicopillay is bound to visit the Office every day, or if his work lies in the suburbs, every other day, and to pay in the moneys which he has collected, giving at the same time particulars of the bills so paid. Such bills are then noted as settled in the account kept of the bills which had been issued to him.

11. Each Conicopillay had to bring to the Office every day of his attendance all the bills still in his possession. Once a month these bills were checked off one by one by clerks detailed for the work and compared with the account of the bills issued to the Conicopillay and of those bills which had been paid and accounted for by him during the preceding month.

12. It is plain, however, that if the Conicopillay had received payment for any bill without giving the receipted bill to the payer, he could produce this receipted bill in proof that no payment had been made. Such a fraud could not be detected by any examination of books and bills.

13. The examining clerk entered in a book kept for the purpose the result of the examination, and the book was examined by the Superintendent of the Department. Any collusion between the Conicopillay and the examining clerks would also defeat the purpose of the examination and afford facilities for fraud.

14. The rule for the monthly examination of each Conicopillay was seriously neglected during 1879 prior to the fraud. Twenty-five out of twenty-seven Conicopillays were not examined at all until the month of May. Between January and the end of August each Conicopillay should have been examined eight times. As a fact however 27 Conicopillays were examined twice, 21 were examined three times, 8 were examined four times, 2 were examined five times, and none more than five times.

15. The Superintendent of the Department, Ponnusawmi Pillai, is primarily and directly to blame for this neglect of the rules. It is, however, shown that the Office Establishment was barely sufficient for the work, that additional clerks had been budgetted for but disallowed on the reductions ordered by Government in their Order on the Budget for 1879—(G. O., No. 82, Financial Department, dated 18th Jan. 1879.) Mr. Burrows notes that the Vice-President on several occasions asked for an increased staff, which, however, could not be entertained for want of funds.

16. It is further shown that, in order to avoid increased expenditure, the heavy work of conducting the Municipal elections, preparing lists of voters, &c. &c., had been thrown on the House and Trade Tax Departments, already barely adequate for their own proper work.

17. The election work was over by the second week in May, and it was not till then that the monthly examination of the Conicopillays was resumed.

18. To turn now to the case of Lakshman Sing. This Conicopillay appeared for the usual monthly examination on the 19th June, and the result was reported satisfactory, though it was afterwards ascertained that he must then have produced, as unpaid, receipted bills for which he had actually collected the amounts some time before.

19. No further examination of Lakshman Sing was entered in the examination report up to the time he absconded, but it has since been proved that his bills were examined by a clerk named Kistnasawmy Mudali on the 26th August, that serious errors were then discovered, and that the fact of the examination was totally suppressed by Kistnasawmy Mudali until, upon enquiries being instituted after Lakshman Sing's flight, he confessed the truth to the Vice-President.

20. With the view apparently of keeping up a good show and avoiding suspicion, Lakshman Sing was reported by Kistnasawmy Mudali on the 28th August

for neglecting to bring in his bills for the periodical examination and thereby preventing any examination, and Lakshman Sing was accordingly fined by the Superintendent for this neglect.

21. On Friday the 29th August, Lakshman Sing absented himself from Office reporting himself ill. Saturday the 30th and Sunday the 31st were holidays. Monday the 1st September was not his day for attendance to pay in collections. On the 2nd September he sent in a further sick report, followed next day by a sick certificate and an application for ten days' sick leave, which was granted. To avert suspicion he sent payments of collections to the Office on the 2nd, 4th, and 6th September.

22. As he did not appear at Office at the expiry of his leave, enquiries were made, and his relatives stated (September 15th) that he had gone to Trivellore for medical treatment.

23. His house was searched with consent of his family on the 17th, 18th and 19th, and a number of bills were found and secured. On the 23rd September a charge of criminal breach of trust was laid against him before the Magistrate, and on the 25th a further search of the house was made by the Police. A reward of Rs. 1,000 was offered by Mr. Burrows on his own responsibility for the capture and conviction of Lakshman Sing, and this offer has since been adopted and approved by the Commissioners. Up to the present time, however, Lakshman Sing has escaped arrest.

24. It was found that Lakshman Sing kept in his employ two men, Narrainsawmy and Appiah, who collected money and issued the receipted bills on his behalf. One of these men has disappeared, the other Narrainsawmy, has been brought before the Magistrate and released on bail pending further search after the principal offender.

25. At the time Lakshman Sing absconded the number of bills entrusted to him for which he was accountable was 3,833, representing taxes to the amount of Rs. 18,020-5-2.

26. Among the bills discovered in the Conicopillay's house, were 1,121 receipted bills representing Rs. 4,184, which had been collected and paid into the Office by Lakshman Sing. He had, however, kept all these receipted bills in his hands and the tax-payers had quietly paid the demands without taking any receipt whatever. The number of his bills which were missing was 753 for Rs. 5,800-5-1, collected and embezzled.

27. He had also forged a set of three bills for Rs. 915 against the Cutwat Choultry. The amount had actually been paid, and the true bills delivered to the tax-payer on the 16th August, but the forged bill was kept for production at the monthly examination to support the assertion that the amount was still outstanding.

28. In two other cases Lakshman Sing had delivered forged receipts for Rs. 301-15-2 to two householders for payments made on 6th June, retaining the true receipted bills to show at his monthly examination as a proof that the amount had not been paid.

29. Of the total amount embezzled, viz., Rupces 6,715-5-1, the sum of Rs. 2,923-5-4 had been collected before the 29th August when Lakshman Sing

stayed away from Office on the plea of sickness. The remainder was collected afterwards.

30. The absconding Conicopillay, Lakshman Sing, left behind him a letter addressed to the Vice-President of the Revenue Department, implicating the clerk Kistnasawmy Mudali and his father Teruvengada Mudali, a Distraining Inspector. The former was charged by Lakshman Sing with demanding Rs. 100 as a bribe for reporting the examination of the 26th August as correct; and the latter with embezzling certain specified collections. It was asserted that they had been preying upon him and that he had resorted to embezzlement to meet the demands they made.

31. It was satisfactorily proved that the clerk Kistnasawmy Mudali examined Lakshman Sing's bills on the 26th August and suppressed the fact until after the exposé. He was also guilty of falsehood and prevarication during the enquiry. He was dismissed by Mr. Burrows and the decision was upheld by the Standing Committee.

32. The father of this man, Teruvengada Mudali, a Distraining Inspector, a man of 23 years' service, was charged with receiving payments of certain small sums which he embezzled. He was suspended by Mr. Burrows and afterwards dispensed with on reduction of establishment. The charges made against him were supported by several house-owners and by other evidence. The Standing Committee, however, regarded them as not proved, and decided to grant this man a pension. I therefore took the opinion of Messrs. Barclay and Morgan on the case, and the payment of pension will be suspended pending the result of a prosecution which has been instituted with the concurrence of the Standing Committee.

33. There is no doubt that the grave neglect of the rules for the monthly examination of the Conicopillays conduced largely to this unfortunate defalcation. Lakshman Sing was not examined at all in 1879 till June, although the bills for collection were issued at the beginning of the year. If the Superintendent, Ponnusawmy Pillay, had given a proper attention to this matter the examinations throughout the year would have been regular, and by employing different examining clerks on different occasions, collusion would in all probability have been prevented. Lakshman Sing was examined on the 19th June and should have been examined about the same date in July and in August. It was easy to suppress the examination on the 26th August, when the neglect to examine excited no attention, and called forth no remark from the Superintendent.

34. Making all allowance for the additional duties thrown on the Superintendent as explained in para. 16, I considered that his neglect of most important duties could not pass unnoticed, and that he could no longer be retained at the head of the House Tax Department. He was therefore suspended and then reduced to act on probation in a post of less responsibility and less pay.

35. It would have been well if the Vice-President had satisfied himself that the Superintendent was not neglecting the monthly examination of the Conicopillays. The entry of the monthly examinations in a book was a new rule introduced by the Vice-President at the beginning of 1879, and but for this book there would have been nothing to show whether the examinations had been conducted or not. The book, however, was never put before the Vice-President that he might see whether the rules for examination were being attended to.

36. Since the fraud took place arrangements have been made to carry out fortnightly examinations of the Conicopillays. This was proposed by the Vice-President more than a year ago, but fell through from lack of establishment, and is only now being carried out by the employment of extra hands from time to time to assist in the work. As a precaution against forgery and to facilitate examination, the bills are now issued with counterfoils in bound volumes, each bill and counterfoil bearing the same consecutive number. It was resolved by the Standing Committee to require each Conicopillay to furnish personal security of Rs. 3,000 besides the Government paper security of Rs. 1,000, but none of them have been able to do this, and the matter remains in abeyance pending the report of a Committee now sitting to investigate the working of the House Tax Department.

37. The closest check, however, leaves altogether untouched the opening for fraud explained in paras. 9, 12, and 13 which arises from the fact that such large numbers of house-holders pay their taxes to the Conicopillays and do not insist on getting their receipts.

38. The only effectual way of putting a stop to this practice is by insisting upon all payments being made into the Office. The Act does not require or even suggest that collections should be made by the Municipal Officers from door to door. This change would have the further advantage that the out-door establishment could be economically revised, as the duties of the Conicopillays would be reduced to the mere serving of notices and demands; the execution of warrants being reserved for special men. The Government in G. O., No. 715, dated 7th April 1880, suggested the adoption of this plan, but the Commissioners, when discussing the matter in connection with reductions of expenditure, hesitated to adopt so considerable a change in its entirety. The change might, I think, be effected gradually, beginning with a single selected ward of the Town as an experiment.

I have the honor to be,

Sir,

Your most obedient Servant,

A. T. ARUNDEL,

Acting President, Municipal Commission.

ORDER THEREON, 15th September 1880, No. 1792.

The explanation is by no means satisfactory, though something may be urged on the plea of scanty establishment and press of work. The Vice-President did not exercise an adequate check, though he seems to have recognized the necessity for it in a measure by introducing additional facilities.

2. Mr. Arundel's description of the system seems to show that no step is taken to withdraw from the Conicopillays the receipted bills for demands which have been satisfied by direct payment in the office. These are apparently left with the Conicopillays for delivery to the payer in exchange for the temporary receipt, but this seems an unnecessary complication.

3. The steps which have been taken to issue bills in a series with bound counterfoils is a simple precaution that might have been adopted sooner.

4. It appears to the Government, however, that the collection by Conicopillays is unnecessarily costly, and also especially open to fraud; and that three separate bills each half year for each house are unnecessarily numerous.

5. The ordinary plan in London of issuing only one notice, specifying thereon the several taxes, and the total sum to be paid, might be adopted with advantage. If the period for payment were notified on the notice of demand, and two or three house offices were opened for, say, two months, as well as the Municipal office, for the receipt of money, the taxes might be received irrespective of the collecting Conicopillays. Defaulters would receive notice to pay at the Municipal Office within so many days, failing which they would be proceeded against. By arrangements with the Post Office, the notices might all be served by post, probably at less cost. Under such a system no receipts will be in the hands of Conicopillays.

(True Extract.)

J. A. DAVIES,

Acting Under Secy. to Govt.

APPENDIX II.

GENERAL DEPARTMENT.

COMMISSION.

The first elections of the Municipal Commissioners for the City of Madras under Act V of 1878 were held on the 29th April, and the names of the elected and the nominated Commissioners were notified in the *Fort St. George Gazette*, dated 24th June.

Prior to the 24th June the Commission consisted of:—

OFFICIAL MEMBERS.

L. R. BURROWS, Esq., *President*.
J. A. JONES, Esq., *Vice-President*, Public Works and Conservancy.
M. R. Ry. P. RAMASAWMY CHETTYAR Avargal, *Vice-President*, Revenue.

NON-OFFICIAL MEMBERS.

1st Division.

THE HONORABLE J. G. COLEMAN.
M. R. Ry. P. PONNOOSAWMY CHETTYAR Avargal.
" N. RAMALINGA PILLAY Avargal.
DR. D. R. THOMPSON, C. I. E.

2nd Division.

M. R. Ry. V. KRISHNAMA CHARIYAR Avargal.
" P. S. RAMASAWMY MUDALIYAR Avargal.
" C. V. SASHACHELLA CHETTYAR Avargal.
" Y. VENKATARAMAYA GARU.

3rd Division.

COWASJI EDULJI, Esq.
M. R. Ry. P. SOMASUNDARAM CHETTYAR Avargal.
" P. VIJAYARANGA MUDALIYAR Avargal.
" N. VENKATASOBBU CHETTYAR Avargal.

4th Division.

CYRUS GRANT, Esq., died 25th March 1879.
M. R. Ry. E. TIRUVENGADAM MUDALIYAR Avargal.

5th Division.

THE COMMISSIONER OF POLICE.
THE HONORABLE V. RAMIENGAR, C.S.I.
M. R. Ry. P. RUNGIAH NAYUDU GARU.
LIEUTENANT J. H. TAYLOR, R.N.R.

6th Division.

G. HAMNETT, Esq.
J. W. HANDLEY, Esq.
B. LOVERY, Esq.
J. P. NICHOLAS, Esq.

7th Division.

ABDUL GHANI KHAN BAHADUR.
MEER HUSSAIN ALLY KHAN, Esq.
DR. MOIDEEN SHARIF KHAN BAHADOOR.

8th Division.

DR. H. STANBROUGH.

During this period were held two Meetings of the Commissioners, both General, two of the Budget Committee, one of the Water supply Committee, and fourteen of the Standing Committee.

APPENDIX II.

35

GENERAL DEPARTMENT.

The gentlemen who served on the Standing Committee during the same period were as follow:—

OFFICIAL MEMBERS.

L. R. BURROWS, Esq., *President*.
J. A. JONES, Esq., *Vice-President*, Public Works and Conservancy.
M. R. Ry. P. RAMASAWMY CHETTYAR Avargal, *Vice-President*, Revenue.

NON-OFFICIAL MEMBERS.

THE HONORABLE J. G. COLEMAN.
M. R. Ry. P. VIJAYARANGA MUDALIYAR Avargal.
J. P. NICHOLAS, Esq.
M. R. Ry. V. KRISHNAMA CHARIYAR Avargal.
B. LOVERY, Esq.

From the 24th June the Commission consisted of:—

OFFICIAL MEMBERS.

L. R. BURROWS, Esq., *President*.
J. A. JONES, Esq., *Vice-President*, Public Works and Conservancy.
M. R. Ry. P. RAMASAWMY CHETTYAR Avargal, *Vice-President*, Revenue.

NON-OFFICIAL MEMBERS.

1st Division.

M. R. Ry. C. V. SUNDARAM SASTRIYAR Avargal.
" C. YETHERAJULU NAYUDU GARU.
THE HONORABLE J. G. COLEMAN.
DR. D. R. THOMPSON, C. I. E.

2nd Division.

M. R. Ry. V. KRISHNAMA CHARIYAR Avargal.
" V. GANESHA RAO GARU.
" P. S. RAMASAWMY MUDALIYAR Avargal.
COWASJI EDULJI, Esq.
M. R. Ry. Y. VENKATARAMAYA GARU.

3rd Division.

HAJI MUHAMMUD ABDULLA BATCHA SAHIB BAHADUR.
THE HONORABLE P. MACFADYEN.
M. R. Ry. P. VIJAYARANGA MUDALIYAR Avargal.
A. M. HOOPER, Esq.
M. R. Ry. P. SOMASUNDARAM CHETTYAR Avargal.

4th Division.

B. LOVERY, Esq.
M. R. Ry. DR. DHANAKOTI RAJU.
" E. TIRUVENGADAM MUDALIYAR Avargal.

5th Division.

THE HONORABLE V. RAMIENGAR, C. S. I.
M. R. Ry. W. S. VENKATARAMANJULU NAYUDU GARU.
ABDUL GHANI KHAN BAHADUR.
LIEUTENANT J. H. TAYLOR, R. N. R.

6th Division.

J. P. NICHOLAS, Esq.
J. H. SPRING BRANSON, Esq.
W. DIGBY, Esq., C. I. E., resigned 27th July 1879.
A. V. D. BEST, Esq., appointed 29th August 1879.
DR. H. STANBROUGH.

7th Division.

AHMED MOIDEEN KHAN BAHADUR, vacated office under
Section 27 of the Act.

M. R. Ry. P. RUNGIAH NAYUDU GARU, elected 15th
August 1879.

„ G. RAJAGOPAL NAYUDU GARU.

F. ROWLANDSON, Esq.

DR. MOIDEEN SHARIEF KHAN BAHADUR.

8th Division.

THE HONORABLE MIR HUMAYUN JAH BAHADUR.

SIR W. W. ARBUTHNOT, Bart.

J. G. FERRAND, Esq.

Since the 24th June there were four General and nine Special Meetings of the Commissioners, and twenty-eight Meetings of the Standing Committee.

Subsequent to the elections the Standing Committee consisted of:—

OFFICIAL MEMBERS.

L. R. BURROWS, Esq., *President*.

J. A. JONES, Esq., *Vice-President*, Public Works and Conservancy.

M. R. Ry. P. RAMASAWMY CHETTYAR AVARGAL, *Vice-President*, Revenue.

NON-OFFICIAL MEMBERS.

THE HONORABLE J. G. COLEMAN.

M. R. Ry. C. V. SUNDARAM SASTRIYAR AVARGAL, resigned 14th October 1879.

„ P. RUNGIAH NAYUDU GARU, elected 31st October 1879.

„ P. VINAYARANGA MUDALIYAR AVARGAL.

„ V. KRISHNAMA CHARIYAR AVARGAL.

„ Y. VENKATARAMAYA GARU.

The following is a concise abstract of the Receipts and Disbursements in the year, prepared in accordance with the form prescribed by the Government of India.

Receipts.		RS.	AS.	P.	RS.	A.	P.
Balance	...	50,840	5	7			
Tax on Horses and Land	...	3,35,773	13	4			
Water Tax on do.	...	1,25,360	1	9			
Lighting Tax on do.	...	33,373	12	0			
Licenses on Trades	...	1,34,849	6	7			
Taxes on Spring Carriages and Animals, and on Carts and other Vehicles without Springs	...	57,535	5	4			
Tolls	...	44,116	10	8			
Total Income from Taxation	...	7,37,003	1	8			
Ground and other Rents	...	30,156	15	1			
Fines and Fees	...	9,517	14	6			
Miscellaneous	...	23,569	12	9			
Payments for Municipal services rendered to Individuals and Government—Water supply, House-services	...	10,791	1	0			
Grants-in-Aid from Provincial Funds	...	15,058	0	0			
Total Income of year excluding Balance	...	8,31,101	13	9			
Six per cent. Debenture Loan of 1879	...	20,000	0	0			
Deposits	...	4,302	4	3			
Advances and Suspenses	...	1,18,091	9	4			
Imperial License Tax	...	12,981	4	7			
Total including Balance	...				10,37,317	5	6
Disbursements.							
Interest on Debt	...	62,842	8	11			
Head Office Establishment	...	91,750	14	3			
Conservancy and Cleaning	...	1,99,658	9	8			
Registration of Births and Deaths	...	5,513	1	1			
Lighting	...	33,414	3	10			
Construction and Maintenance of Roads	...	1,13,521	4	9			
Watering Roads	...	5,552	15	5			
Drainage Works	...	4,748	5	11			
Water supply	...	21,812	6	5			
Other Public Works, including Gardens and Sanitary Improvements	...	51,956	8	3			
Tools and Plant	...	24,310	6	4			
Sanitary and Charitable Establishments and Vaccination	...	62,992	1	2			
Education	...	8,530	12	10			
Miscellaneous	...	25,955	15	11			
Payment of Debt (Sinking Fund)	...	31,421	4	4			
Payments for Arrears	...	42,561	11	7			
Payment on account of the purchase of a Market	...	17,000	0	0			
Advances and Suspenses	...	1,13,841	14	8			
					9,17,710	1	4
Balance at close of year...	{ General Fund ... 99,061 10 7 Water Works Fund ... 18,363 13 3 Lighting do... 2,181 12 4						
					1,19,607	4	2

The opening balance in the above Statement, Rs. 50,840-5-7, was the actual cash balance in the Bank; the funds of the Imperial License Tax collected on account of Government (Rs. 38,087-6-7) merged in the same, if separated, left an actual cash balance to the credit of the Municipal Fund of Rs. 12,752-15-0.

The closing balance of Rs. 1,19,607-4-2 as shown in the Statement, is also the cash balance in the Bank; Rs. 51,060-11-2 of the same is to the credit of the Imperial License Tax, and Rs. 68,538-9-0 to the credit of the Municipal Fund.

The income under taxation during the year amounts to Rs. 7,41,996-8-4, the incidence of which, as calculated by the last census data, is Rs. 1-9-10 per head of population.

In this year the Commissioners raised a loan, with the sanction of Government, of Rs. 20,000 on their debentures of Rs. 100 each, running at interest at the rate of six per cent. per annum payable half-yearly, and guaranteeing the re-payment of the debt in thirty years. The object of raising this loan was with the view of purchasing a market, the property of a private individual, situated in a desirable locality, formerly known as the Smithfield Market, thereby giving the Commissioners the means long felt, of suppressing, on sanitary grounds, a private market in the immediate neighbourhood.

The purchase of Smithfield Market was effected for Rs. 18,000, repairs and improvements being done to the same with the remainder of the money.

The competition for the taking up of the debentures did not quite realize anticipations, the result being as follows:—

Debentures.	Amount.	Rate.	Premium.
100	Rs. 10,000	at 2 per cent.	Rs. 200
20	" 2,000	at $\frac{1}{4}$ per cent.	" 5
20	" 2,000	at par.	0
50	" 5,000	at par.	0
10	" 1,000	at par.	0
200	" 20,000		" 205

Rs. 205 only being realized as premium.

The three first were taken by parties in the Mofussil, the two latter locally.

The Assets and Liabilities as shown in the books on 31st December 1879, are as follows:—

List of Liabilities or Credit Balances.				List of Assets or Debit Balances.			
ES.	A. P.	RS.	A. P.	ES.	A. P.	RS.	A. P.
The Municipal Fund	...	...	...	Bank of Madras	...	1,10,607	4 2
Imperial License Tax	...	...	...	Sinking Fund for the Liquidation of the Water Works Loan	...	2,57,322	10 8
Six per cent. Debenture Loan of 1879	...	...	...	Choolay Market	...	17,000	0 0
Government Grant towards Elementary Education	...	...	...	Office Premises	...	22,697	8 0
Deposits	...	...	...	Embezzlement by a Conicopilly	...	6,715	5 1
Strand Rents	...	...	...	Workshops	...	3,579	8 10
Composition of Tolls	...	...	...	Stores	...	18,794	2 2
Electric Light	...	...	...	Standing Advances:—			
Band Fund	...	...	...	Manager, General Department	300	0 0	
				Storekeeper	100	0 0	
				Deputy Inspector of Vaccination	200	0 0	
				Superintendent, People's Park	25	0 0	
				License Tax Department	10	0 0	
						685	0 0
				Advances Recoverable:—			
				Mr. G. H. Smith	31	14 0	
				Vice President, Revenue Department	1,113	4 0	
				Vice President, Public Works and Conservancy Department	817	6 6	
				Storekeeper	85	9 4	
				Superintendent, People's Park	50	0 0	
				Ramasawmy Pillay	1	4 8	
						2,099	6 6
						2,734	6 6
						4,78,450	13 5
						4,78,450	13 5

Liabilities.—Of the sum of Rs. 1,79,690-5-1 that stood due to Government at the close of 1878, as follows:—

Balance of Interest on Water Works Loan due 30th June 1878.	7,514	14	4
Interest do. 31st Dec. 1878.	43,252	9	8
	50,767	8	0

Unpaid instalments on account of the following:—

Hospitals, from July 1877 to March 1878	28,441	8	0
Do. from April to December 1878	29,511	12	0
	57,953	4	0
Contagious Diseases, from July 1877 to March 1878	6,591	0	0
Do. from April to December 1878	6,591	0	0
	13,182	0	0

Arrears on account of Red Hills Water.

Balance for 1875-76	8,903	14	2
Do. for 1876-77	5,698	5	1
Do. for 1877-78	2,304	1	1
Do. from April to December 1878	4,371	9	2
	21,277	13	6

Bills for pumping water at the Red Hills Tank	22,130	10	3
Bills for dismantling pump, &c.	1,082	14	0
	23,213	8	3

Arrears of Quit Rent (claimed)	13,296	3	4
--------------------------------	--------	---	---

Rs. 1,79,690 5 1

the arrears of interest and unpaid instalments on account of Hospitals, both due up to 31st December 1878, amounting to Rs. 1,08,720-12-0, were paid during the year, the liabilities to Government being thus reduced to Rs. 70,969-9-1. This sum was further reduced, by the Government being pleased to relieve the Municipality with the charge of Rs. 23,213-8-3 on account of the pumping of water at the Red Hills Tank, also Rs. 13,182 due on account of the working of the Contagious Diseases Act, leaving, therefore, as dues of 1878; the arrears on account of Red Hills Water, Rs. 21,277-13-6, and the amount claimed by Government on account of arrears of Quit Rent, Rs. 13,296-3-4, making together Rs. 34,574-0-10.

The liabilities as they stand due to Government at the close of the present year are as follows:—

Hospitals and Dispensaries—

Contribution for Dispensaries from January to Dec. 1879	41,700	4	0
Do. for Medical College	4,185	0	0
Do. for Lock Hospital	8,788	0	0
	54,673	4	0

Interest on Water Works Loan due 31st December 1879...	43,252	9	8
--	--------	---	---

On account of Red Hills Water—

Arrears to 31st December 1878	21,277	13	6
Do. for 1879	6,000	0	0
	27,277	13	6

Arrears of Quit Rent (claimed)	16,000	0	0
--------------------------------	--------	---	---

Rs. 1,41,203 11 2

Thus a sum of Rs. 1,41,203-11-2 was due to Government at the close of the year.

A further concession Government have been pleased subsequently to make (G. O. dated 7th April 1880, No. 715) in respect to these outstandings, by waiving their claim of Rs. 8,788, the amount due for Lock Hospital, thereby reducing the liabilities to Rs. 1,32,415-11-2; a further reduction of this amount will also be effected when the item for arrears of Quit Rent is revised.

Water Works Loan.—The following statement shows the amount paid to the Sinking Fund for the liquidation of the loan up to 31st December 1879.

Balance to 31st December 1878.			Receipts during 1879.			Total.			Payments.			Balance			Remarks.
In Government Securities.	In Cash.		In Government Securities.	In Cash.		In Government Securities.	In Cash.		In Government Securities.	In Cash.		In Government Securities.	In Cash.		
RS.	RS.	A. P.	RS.	RS.	A. P.	RS.	RS.	A. P.	RS.	RS.	A. P.	RS.	RS.	A. P.	
2,01,600	11,922	7	55,600	41,199	0	2,57,200	53,421	7	53,298	13	2,57,200	122	10	8	

The amount of the loan is Rs. 14,30,000, bearing interest at six per cent. per annum, four per cent. of which is credited to Government, and two per cent. to a Sinking Fund for the liquidation of the loan.

The payments towards this fund during the year are as follows :—

From Municipal Fund...	...	...	31,421	4	4
Interest realized on investment	...	...	10,077	11	9
Rupees...	41,499	0	1		

The above statement exhibits a sum of Rs. 2,57,322-10-8 paid up in all to the said Fund : of this sum, investments in Government Securities to the extent of Rupees 2,57,200, have been effected ; during the year under review the investments have been Rs. 55,600.

The balance of the loan stands at Rs. 11,72,677-5-4.

Stores.—The following statement shows the transactions under this head during the year :—

	RS.	A. P.
Balance from previous year	46,640	4 1
Cost of Stores imported from England	31,795	7 7
Purchase of Stores in Local Market	9,813	15 9
Stores issued and returned	2,584	0 3
	90,833	11 8
Deduct issues	42,039	9 6
Balance	48,794	2 2

Public Parks.—At the People's Park, the year opened with the last day of the Madras Fair of 1878, on the evening of which day, a grand display of fireworks, the cost of which was borne by M. R. Ry. C. V. Cunniah Chetty Garu, took place ; and the year terminated with the first day of the Fair held during the Christmas vacation last year.

Grass and Hay.—513·60 square feet of ground was dug up, manured, and planted with grass roots at a cost of Rs. 397-6-2 ; the income derived from the sale of grass and hay during the year under review amounted to Rs. 2,095-11-1.

Gymnasium.—The gymnasium started last year near the Vepery gate of the Park has been completed.

Electric Light.—This light was introduced into the Park for the first time on the 16th August last, and with a view to meet, to some extent, the cost of its up-keep, it was thought expedient to levy a small fee of annas 2 from each adult desirous of entering the band stand enclosure on the nights the light was used. By this means a sum of Rs. 310-6-0 was realized.

Zoological.—The following additions were made to the Zoological and other collections.

3	Guinea Fowls presented by L. R. Burrows, Esq.	
1	Turtle	do.
1	Python	do.
2	Common tree Cats	do.
1	Hill Goat	S. Ottman Esq.
1	Fox	Hunter, Esq.
1	Bald-headed Vulture caught in the Park.	
2	Koels	do.
2	Jackals purchased.	
1	Fox purchased.	
3	Spotted deer born 12th February, 25th March, and 23rd September 1879.	
1	Sambur	24th September 1879.

The Zoological collections yielded an income of Rs. 1,512-0-0 being the rate at which the admission fees had been let out on contract. The use of the Elephant by visitors brought in Rs. 75-9-0, while the fees received from people using the swimming bath amounted to Rs. 176-13-6.

The cage intended for the Bears has been completed.

The Band Stand.—A band played at the Park 3 times a week, the attendance on Saturdays being particularly good. A few members of the Police force were always present on band days to assist in preserving order.

The boats and canoes so largely used by visitors were maintained by a contractor.

The list of the Zoological collection in the Park on the 1st January 1880, and the statement of Receipts and Disbursements for the year 1879 are hereto attached.

ZOOLOGICAL COLLECTION.

No.	English Names.	Scientific Names.
1	Lion	Felis Leo.
1	Lioness	Felis Tigris.
2	Tigers	Felis pardus
2	Tigresses	Felis pardus
2	Leopards or Cheetahs, male	Felis pardus (Niger)
1	Do. do. female	Felis pardus.
1	Black Panther	Hyena striata
1	Spotted do	Hystria leucura.
2	Striped Hyenas	Ursus labiatus.
2	Common Porcupines	
2	Bears (Juggler)	

No.	English Names.	Scientific Names.
1	Malay Bear	<i>Ursus Malayanus.</i>
1	Rhinoceros	<i>Rhinoceros indicus.</i>
1	Elephant (Asiatic)	<i>Elephas indicus.</i>
16	Rabbits	<i>Lepus cuniculus.</i>
22	Common Cavy or Guinea Pigs	<i>Cavia Cobaya.</i>
1	Jungle Cat	<i>Felis chaus.</i>
4	Common tree Cats	<i>Paradoxurus musanga.</i>
2	Civet Cats	<i>Viverra Malaccensis.</i>
1	Opossum	<i>Didelphis. Sp?</i>
7	White Rats	<i>Mus decumanus (Var alb)</i>
16	Axis or Spotted Deer	<i>Axis maculatus.</i>
1	Rangoon Deer	<i>Rucervus Durancelli.</i>
4	Samburs	<i>Rusa Aristotelis.</i>
3	Jackals	<i>Canis aureus.</i>
1	Ratel	<i>Mellivora Indica.</i>
1	Wild Boar	<i>Sus Indicus.</i>
1	Sacred Abyssinian Baboon	<i>Cynocephalus Hamadryas</i>
2	Lion-like Monkeys or Wanderoo	<i>Inuus silenus.</i>
1	Indian Antelope	<i>Antelope bezoartica.</i>
3	Pig-tailed Monkeys	<i>Macacus nemestrinus.</i>
1	Ceylon Bonnet Monkey	<i>Macacus pileatus.</i>
17	Common Monkeys	<i>Macacus radiatus.</i>
1	Antelope	<i>Antilope. Sp?</i>
1	Starred Tortoise	<i>Testudo elegans.</i>
1	Fox	<i>Vulpes Bengalensis.</i>
1	Wolf	<i>Canis lupus.</i>
3	Crocodiles	<i>Crocodylus palustris.</i>
1	Entellus or Madras Langur	<i>Presbytis priamus.</i>
1	Lemur	<i>Loris gracilis.</i>
2	Kangaroos	<i>Macropus. Sp?</i>
1	Wild Dog	<i>Canis dingo.</i>
2	Hill Goats	<i>Capra hircas.</i>
1	Python	<i>Python.</i>
1	Stork	<i>Mycteria Australis.</i>
1	Ostrich	<i>Struthio camelus.</i>
1	Eagle	<i>Aquila. Sp?</i>
2	Pelicans	<i>Pelecanus onocrotalus.</i>
3	Pea-Cocks	<i>Pavo cristatus.</i>
5	Do Hens	<i>Gallus Sonneratii.</i>
3	Jungle Fowls	<i>Cygnus atratus.</i>
2	Black Swans	<i>Numida meleagris.</i>
3	Guinea Fowls	<i>Columba. Sp?</i>
16	Malta Pigeons	<i>Columba intermedia.</i>
52	Common Pigeons	<i>Columba. Sp?</i>
6	White-headed Pigeons	<i>Centropus rufipennis.</i>
1	Concal	<i>Dromains Nova Hollandae.</i>
2	Emu	<i>Cacatua Galerita.</i>
2	Greater Sulphur-crested Cockatoos	<i>Larus. Sp?</i>
1	Pacific Gull	<i>Xema brunicephala.</i>
3	Brown-headed Gulls	<i>Ardea cinerea.</i>
1	Heron Common	<i>Eudynamis orientalis.</i>
4	Koels	<i>Ortygornis Pontianus.</i>
1	Partridge	<i>Tortur. Sp?</i>
3	Doves	<i>Grus entellus.</i>
1	Sarus	<i>Otoggys calvus.</i>
1	Bald-headed Vulture	<i>Nyctiorax griseus.</i>
12	Vackas or Night-herons	<i>Psittacius. Sp?</i>
1	Black Parrot	

Statement of Receipts and Disbursements on account of the People's Park, from 1st January to 31st December 1879.

Receipts.	Amount.			Disbursements.	Amount.		
	RS.	A.	P.		RS.	A.	P.
Proceeds of sale of hay and grass.	2,095	11	1	Establishment	4,140	12	0
Tiger collection	Rs. 1,794			Feeding bullocks of the Park	119	2	10
Deduct amount paid in advance in December 1879	282	1,512	0	Carts, candles, &c., for the Band on Band days	78	14	0
Swimming bath	176	13	0	Cutting and weeding	855	9	10
Elephant	75	9	0	Maintenance of Zoological collection and Establishment	5,796	13	3
Miscellaneous	49	14	9	Swimming bath Establishment	24	0	0
	3,910	0	4	IMPROVEMENTS.			
Met from the Municipal Fund	11,307	13	2	Erecting Bears' cage	649	14	5
				Putting fence for Kangaroos	363	5	4
				" for Hill goats	44	5	3
				" round the Band stand	717	12	5
				Repairing wild animals' cages	578	3	3
				" rails and gates round the Park	352	2	10
				" well at the rhinoceros' enclosure	18	5	10
				" wooden bridge at the wild animals' enclosure	155	7	3
				" rails round the wild animals' cages	165	9	6
				" and painting lanterns	29	10	0
				" hand cart	18	7	10
				Making a jhool, &c., for howdah for Elephant	68	13	5
				Boat hire for bringing Kangaroos, &c.	12	12	0
				Lanterns and burners purchased	85	2	8
				Colored lanterns do.	94	10	6
				Clothing to Serjeants and Peons	108	0	0
				Kerosine oil, &c., for lighting	148	7	0
				Casuarina wood supplied for the Electric lights' Engine	10	0	0
				Ploughing and manuring	397	6	2
				Painting inside of Band stand, seats, and rails round the Band stand, &c.	99	5	6
				Sundries	84	12	2
Total Rupees...	15,217	13	6	Total Rupees...	15,217	13	6

GENERAL DEPARTMENT.

The formation of a new garden with flower beds and gravel walks near the north gate of the Park was commenced by my predecessor. The ground, however, is not fit for flower beds or avenues, but for grass only.

The two islands named "Band-stand Island" and "Date Island" are much improved. A temporary bridge leading to the latter was built for the convenience of respectable persons living in the neighbourhood of the Park.

The cocoanut top in the Band-stand Island is let out on contract for toddy, and to preserve the trees from injury.

A portion of the Park has been irrigated with sewage and Red Hills water, and supplies 1,500 lbs. of grass daily. If the remaining area is also irrigated, it will no doubt yield double the quantity, and meet the demands of several applicants for grass, and thus form an additional source of revenue.

In December 1878 there were several kinds of plants in the nursery, most of which have been transplanted in various roads.

At the close of the year 1879 the nursery contained 1,900 young trees of different kinds, besides 400 young Neem, 300 Portio, 150 Asoka, 50 Peepul, 50 Mangoe, and 50 Sumack, all which are intended to meet future demands.

The cattle found trespassing in the Park and impounded were as follows:—

Description of Animals.	No.	Reward.		
		RS.	A.	P.
Horses	15	3	12	0
Cows and Bullocks	147	36	12	0
Buffaloes	112	28	0	0
Asses	25	6	4	0
Goats	60	7	8	0
Total...	...	82	4	0

The quantity of grass sold during the year was 199 tons 4 cwts. 5 lbs. for Rupees 2,231-4-7, and of hay 36 tons for Rupees 1,080-0-0.

The quantity of hay which remained in hand was 10 tons 5 cwts. valued Rupees 307-8-0:—

Receipts.				
Cash receipts	...	Rs.	3,311	4 7
Value of hay in stock	...	"	307	8 0
Total Rupees...			3,618	12 7

Charges.				
Establishment	...	Rs.	655	1 9
Working Picottah and weeding	...	"	746	3 1
Reward for pounding cattle	...	"	82	4 0
Manure	...	"	30	0 0
Quit Rent	...	"	200	0 0
Constructing open drain in Park	...	"	86	4 0
Rebuilding old wall of water-cistern	...	"	4	8 0
Fixed rails in front of Mr. Green's house situated in Park	...	"	109	14 9
Twelve new benches to the Park	...	"	72	0 0
Repairing trollies and box carts	...	"	326	14 4
Sundries	...	"	85	9 4
Total Rupees...			2,398	11 3

GENERAL DEPARTMENT.

Avenues.—The following statement shows the description and number of young trees planted in previous years, and which having been watered and protected throughout the year, remained in good condition at its close with few exceptions:—

Description of Trees.	No.	Locality.
Large-leaf Banyan	177	Popham's Esplanade Road.
Do.	120	Evening Bazaar Road.
Do.	171	China Bazaar Road.
Do.	32	Around Memorial Hall.
Do.	82	General Hospital Road.
Neem	13	Mount Road.
Large-leaf Banyan	508	Do.
Small do.	31	Do.
Asoka	6	Do.
Peepul	3	Do.
Large-leaf Banyan	245	Edward Elliott's Road.
Small do.	111	Do.
Do.	163	Græme's Road.
Large-leaf Banyan	38	College Road.
Tamarind	33	Do.
Peepul	16	Do.
Do.	150	Spur Tank Road.
Do.	200	Pantheon Road.
Do.	165	Harris's Road.
Do.	87	Monteith's Road.
Neem	84	Marshall's Road.
Do.	12	Commander-in-Chief's Road.
Do.	161	Coom Road, Comaleswarenpettah.
Large-leaf Banyan	86	Pycroft's Road.
Peepul	11	Egmore High Road.
Do.	12	Scotch Kirk Road.
Neem	10	Whannel's Road.
Large-leaf Banyan	37	Do.
Neem	4	Binnie's Road.
Do.	36	Madaveram Road.
Do.	50	Wall Tax Road.
Portio	52	Do.
Peepul	50	Do.
Rani trees	59	Nungumbaukum Road.
Neem	74	Bell's Road.
Do.	23	Lying-in Hospital Road.
Asoka	12	Club House Road.
Peepul	2	Do.
Neem	57	Theroovatoor Road.
Large-leaf Banyan	93	Do.
Asoka	62	Do.
Portio	64	Elephant Gate Bridge Road.
Neem	29	Lang's Garden Road.
Do.	76	Wallajah Gate Road.
Do.	76	Do.
Do.	11	Monegar Choultry Road.
Acacia	21	Do.
Neem	61	Male Asylum Road.
Large-leaf Banyan	11	Do.
Portio	23	Wallajah Bridge Road.
Large-leaf Banyan	35	Do.
Total	3755	

Of the above, 69 withered in the course of the year and 100 remained at its close in a very precarious state.

The following is a statement of trees planted during the year :—

Description of Trees.	No.	Locality.
Large-leaf Banyan	22	General Hospital Road.
Neem	13	Mount Road.
Asoka	6	Do.
Neem	26	Male Asylum Road.
Do.	33	Wall Tax Road.
Portio	9	Do.
Do.	64	Brickkiln Road.
Neem	864	Theroovateer High Road.
Large-leaf Banyan	86	Do.
Asoka	62	Do.
Large-leaf Banyan	7	Popham's East Road.
Do.	1	Evening Bazaar East Road.
Do.	2	China Bazaar East Road.
Neem	16	Lang's Garden Road.
Do.	74	Bell's Road.
Do.	76	Wallajah Gate Road.
Total	651	

The number of trees conserved by watering and fencing were :—

Those of previous years' planting (minus 86 dried ones)...	3,204
Planted in lieu of dried ones	86
Additional	465
	551
	3,755

These 551 newly planted trees necessitated the putting up of as many fences of bamboo thorns; and there were, besides, 300 fences either replaced or partially reformed, belonging to old trees.

The following represents expense incurred :—

	Rs.	A.	P.
Inspector's salary	600	0	0
Watching Peons and Coolies	3,017	13	4
Repairing Water Carts and Trolleys	194	12	8
Fencing Materials.	85	1	3
Sundries	60	11	10
Total Rs...	3,958	7	1

Education.—The Deputy Inspector of Schools reports as follows upon the elementary instruction maintained by the Municipality during the year :—

“ The staff of Inspecting Schoolmasters remained the same at the end of the year as at the beginning. The names, salaries, and ranges of these officers are given below :—

Name.	Examination passed.	Salary including batta of Rs. 10.	Range.
M. Jaffer Hussain Sahib	Matriculation.	RS. A. P. 45 0 0	The whole of the Madras Municipality.
A. V. Parasurama Aiyar	Do.	45 0 0	Black Town (1st, 2nd, 3rd & 4th Municipal Divns.)
M. A. Janakiram Aiyar	Do.	45 0 0	Triplicane (5th, 6th, 7th & 8th Municipal Divisions.)

“ The new Municipal Act called ‘ The City of Madras Municipal Act of 1878 ’ came into force on the 1st January 1879. Under the old Act of 1867, or rather under Act V of 1871 amending that Act, all elementary schools in the town used to be aided by the Municipality. In 1875 the Government relieved the corporation of all grants to girls' schools. Up to 31st December 1878 grants were paid by the Municipality to elementary schools for boys only. In the new Act the educational purpose for which Municipal Funds could be appropriated, was directed to be

- (1.) Construction and repair of school-houses for the poor.
- (2.) Elementary instruction of the poor.

“ It was therefore thought necessary to limit Municipal expenditure to grants on account of the 1st, 2nd, and 3rd Standards of the Results Grant Rules in schools intended for the education of poor boys and girls; and Government undertook to pay from Provincial Funds grants not only on account of the 4th and higher standards in poor schools, but also on account of all standards in schools intended for the education of other than poor boys and girls. Accordingly a list of the poor schools in the town of Madras was prepared by the Educational Department, and approved of by the President of the Municipal Commissioners. The list, however, was not considered perfect, and was liable to be revised as opportunities offered.

“ On the 31st December 1879 there were 200 poor schools in the town of Madras under inspection, giving instruction to 7,314 pupils. The different agencies by which these schools were superintended are shewn below :—

Agency.	Number of	
	Schools.	Pupils.
M. Jaffer Hussain Sahib	43	1,163
A. V. Parasurama Aiyar	56	1,748
M. A. Janakiram Aiyar	51	1,596
Mission Agencies	50	2,807
Total	200	7,314

"These schools and pupils were distributed among the different Municipal Divisions as shown below :—

Municipal Division.	Number of	
	Schools.	Pupils.
I	21	764
II	33	1,138
III	35	1,319
IV	4	165
V	25	1,589
VI	7	203
VII	11	1,927
VIII	24	797
Total...	200	7,814

"Of the 200 schools under inspection,

46 taught Tamil.	5 taught Telugu and English.
29 " Telugu.	29 " Tamil, Telugu, and English.
18 " Hindustani.	24 " Hindustani and Persian.
5 " English.	1 " Hindustani, Persian, and Arabic.
6 " Tamil and Telugu.	
37 " Tamil and English.	

"170 of these schools were for boys and the remaining 30 for girls. The number of boys under inspection was 6,285 and that of girls 1,029.

"Classifying the boys according to race or creed there were

3,395 Hindus.	401 Europeans and East Indians.
1,218 Mahomedans.	560 Others.
711 Native Christians.	

"Classifying the girls in the same way, there were

275 Hindus.	104 Europeans and East Indians.
28 Mahomedans.	363 Others.
259 Native Christians.	

"Of the 200 schools under inspection, 132 were aided, and the remaining 68 unaided. Of the aided schools, 120 were for boys, and 12 for girls.

"The following table shows the numbers of pupils presented for examination and passed under the different standards of the Results Grant Rules :—

IV.		III.		II.		I.		Total.	
Presented.	Passed.	Presented.	Passed.	Presented.	Passed.	Presented.	Passed.	Presented.	Passed.
191	157	553	418	823	600	933	741	2,500	1,916

"The total amount of grant passed in aid of these schools was Rs. 4,816-10-3, of which the sum of Rs. 32-15-0 remained undrawn at the end of the year. Addin-

to this the amount drawn during the year on account of examinations held in the previous year, viz., Rs. 1,987-2-8, the sum actually paid by the Municipality in grants to poor schools during the year under report amounted to Rs. 6,770-13-11. The salaries, &c., of the three Inspecting Schoolmasters and contingencies amounted to Rs. 1,759-14-11, making the total expenditure on education incurred by the Municipality during the year 1879, Rs. 8,530-12-10. The amount budgeted for was Rs. 10,000, that is, Rs. 1,469-3-2 more than the actual sum expended."

STATEMENT OF EDUCATIONAL GRANTS PAID TO THE SCHOOLS AIDED BY THE MUNICIPALITY DURING THE YEAR 1879.

Names of Schools.	Division.	Locality.	No. of Pupils Examined.	Amount of Grant.		
				RS.	A.	P.
Abdool Guffoor Saib's	2	Black Town	11	8	4	0
Adinarayaniah's, V.	3	Linghi Chetty Street	40	56	9	9
Adiseshiah's, M.	2	Seven Wells' Street	13	29	6	0
Ananda Vathyar's, P.	7	Tiruvataswarampet	8	12	14	0
Andrew's, A.	5	Pariamet	22	41	14	0
Annamalay Mudali's, M.	8	Mylapore	12	11	2	0
"	"	do.	12	16	6	0
Appiah's, R.	2	Govindappa Naick Street.	6	9	1	3
Arimoothoo Naicker's, S.	7	Chintadripet	17	38	11	0
Arumuga Mudali's, P.	8	Mylapore	8	8	3	0
"	"	do.	6	7	7	0
Arumuga Mudali's, V.	2	Iyah Mudali Street	16	28	8	0
Arunachella Pillay's, P.	5	Choolay	6	14	10	0
Balakistnasawmy Chetty's	"	do.	16	23	5	0
Bashiakarlah's, C.	2	Veerappen Street	31	77	15	9
Catholic Boy's	5	Mattukara Veerabudren St.	9	30	8	0
"	"	do.	6	11	3	6
Checkalinga Chetty's, R.	2	Ponnappa Chetty Street	23	32	0	0
Church Mission Society's	1	Tinnevely Settlement	29	73	8	0
"	"	do.	27	75	10	0
"	"	Cassimode	14	15	5	0
"	"	Korukupett	20	94	5	0
"	"	Royapooram	19	32	5	0
"	"	Meenatcheammanpett	18	34	10	9
"	2	Kondi Tope	9	11	10	0
"	"	do.	11	12	2	6
"	"	Seven Wells' Street	24	54	5	0
"	"	do.	34	84	12	0
"	"	John Pereira's (Jesson's St.)	12	26	15	3
"	"	Elephant Gate Street	4	19	12	0
"	"	Mint Street	5	29	10	0
"	3	Black Town	20	35	7	0
"	3	do.	21	57	2	0
"	5	Egmore	16	25	3	0
"	"	do.	24	34	13	3
"	"	New Town	17	39	2	0
"	"	do.	12	56	0	0
"	"	Poodoopett	46	97	14	3
"	6	Chetput	4	2	13	0
"	"	Kilpauk	8	10	12	0
"	"	do.	9	5	6	0
"	"	Taylor's Road	8	13	15	0
"	"	do.	21	46	7	6
"	"	Thousand Lights	41	96	8	0
Carried over...			735	1,544	5	9

Name of School.	Division.	Locality.	No. of Pupils Examined.	Amount of Grant.		
				RS.	A.	P.
		Brought forward...	2,720	5,739	14	11
Syed Kndbudeen's	7	Triplicane	25	63	0	0
S. P. G. School	8	do.	22	88	12	0
"	"	St. Thomé	19	40	0	3
"	"	Sullivan's Gardens	18	35	0	0
"	"	Bishop's Compound	12	5	14	0
"	6	Kutti Street	37	98	11	6
Thanappa Mudali's, C.	8	Royapett	6	15	5	0
"	"	do.	6	9	5	0
Theagaraya Mudali's, K.	1	Jandrapett	19	39	7	0
Thiagiah's, M.	3	Linghi Chetty Street	20	54	12	0
Tiruvengadiah's, T.	5	Erungundrum	18	36	3	0
Tulasinga Mudali's, P.	7	Poodoopankam	9	16	11	0
"	"	do.	15	18	12	0
Vadivelu Mudali's, M.	8	Mylapore	26	43	8	0
"	"	do.	19	64	5	0
Varamanah's, P.	3	Mumtazsawmy Covil Lane	15	35	13	3
Vasoodaya Pillay's, P.	5	Poodoopett	9	7	8	0
Veeriah's, C.	3	Thyappa Mudali Street	13	21	10	0
"	"	do.	13	23	15	0
Veerasawmiah's, B.	3	Pursawalkum	16	25	7	0
Velu Mudali's, C.	3	Pedariar Covil Street	7	11	12	0
Vencatasawmy Naick's, C.	5	Pursawalkum	33	83	6	0
"	"	Komalaswarumpet	6	12	15	0
Vencatasobbiah's, K.	2	Strotten Moothia Moodly St.	17	32	3	0
Venoyaga Mudali's, P.	8	Mylapore	14	36	4	0
"	"	do.	18	48	4	0
Vepery Mission Tope	5	Vepery	51	49	15	0
Vydenada Mudali's, V.	2	Mint Street	10	18	15	0
"	"	do.	17	20	6	0
Total...			3,232	6,770	13	11

Vaccination.—The expenditure on account of Vaccination was Rs. 4,657-13-2 made up of Rs. 3,191-5-0 for Establishment and Rs. 1,466-8-2 for Contingencies.

The Establishment consists of:—

1 1st Class Deputy Inspector	Rs. 70	0	0	per mensem.
4 Do. Vaccinators each at	„ 18	0	0	
9 Second Class Male do.	} „ 10	0	0	
3 Do. Female do.				
1 Peon	„ 7	0	0	

There were 3 Peons during the first three months, but on the recommendation of the Inspector of Vaccination, the services of 2 were dispensed with from April.

The item, Rs. 1,466-8-2, for Contingencies consists of:—

Children's batta at 3 pies each,	Rs. 169	10	2
Batta to mothers for arm lymph at			
4 annas each, maximum	„ 1,079	12	5

Stationery, Office Furniture, &c. ...	1,249	6	7
	217	1	7

1,466 8 2

The operations and their results are shown in the following statements:—
Under 1 year.

Months.	Males.	Females.	Total of Males and Females.	Results.		
				Successful.	Unsuccessful.	Unknown.
January	186	181	367	342	12	13
February	229	275	504	467	19	18
March	445	377	822	787	8	27
April	337	305	642	604	16	22
May	217	249	466	434	11	21
June	204	170	374	343	16	15
July	218	182	400	363	15	22
August	197	162	359	321	5	33
September	200	230	430	396	18	16
October	278	238	516	479	15	22
November	245	222	467	434	10	23
December	309	251	560	525	16	19
Total...	3,065	2,842	5,907	5,495	161	251

From 1 to under 6 years.

Months.	Males.	Females.	Total of Males and Females.	Results.		
				Success.	Unsuccessful.	Unknown.
January	257	244	501	432	24	45
February	296	267	563	486	30	47
March	446	372	818	682	41	95
April	364	311	675	571	28	76
May	367	245	612	489	34	89
June	242	201	443	341	39	63
July	232	208	440	379	28	33
August	258	215	473	388	36	49
September	247	225	472	405	31	36
October	230	237	467	380	54	33
November	238	224	462	369	44	49
December	300	260	560	480	34	46
Total...	3,477	3,009	6,486	5,402	423	661

APPENDIX II.
GENERAL DEPARTMENT.
6 years and above.

Months.	Males.	Females.	Total of Males and Females.	Results.		
				Successful.	Unsuccessful.	Unknown.
January	439	286	725	541	52	132
February	393	313	706	589	61	103
March	553	363	921	600	123	198
April	522	264	786	435	103	248
May	514	233	747	574	57	166
June	573	350	923	607	93	223
July	546	345	891	672	88	131
August	475	337	812	561	114	137
September	412	296	708	515	99	94
October	332	208	540	336	104	100
November	335	224	559	363	76	115
December	333	212	545	364	88	93
Total...	5,427	3,486	8,913	6,112	1,061	1,740

Total of all Ages.

Months.	Males.	Females.	Total of Males and Females.	Results.		
				Successful.	Unsuccessful.	Unknown.
January	882	711	1,593	1,315	88	190
February	918	855	1,773	1,492	113	168
March	1,444	1,117	2,561	2,069	172	320
April	1,223	880	2,103	1,610	147	346
May	1,098	777	1,875	1,497	102	276
June	1,019	721	1,740	1,291	148	301
July	996	735	1,731	1,414	131	186
August	930	714	1,644	1,270	155	219
September	859	751	1,610	1,316	143	146
October	840	683	1,523	1,195	173	155
November	818	670	1,488	1,171	130	187
December	942	723	1,665	1,369	138	158
Total...	11,969	9,337	21,306	17,009	1,645	2,652

APPENDIX II.
GENERAL DEPARTMENT.

A summary of which is as follows :—

	Under one year.			1 and under 6 years.			6 years and above.			Total.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Europeans and Eurasians.	140	114	254	77	67	144	190	209	486	407	477	884
Mohamedans	285	256	541	466	319	785	402	206	608	1,153	781	1,934
Hindoes	2,640	2,472	5,112	2,934	2,623	5,557	4,835	2,954	7,819	10,409	8,079	18,488
Total...	3,065	2,842	5,907	3,477	3,009	6,486	5,427	3,486	8,913	11,969	9,337	21,306
Successful...	5,495			5,402			6,112			17,009		
Unsuccessful	161			423			1,061			1,645		
Unknown	251			661			1,740			2,652		

The total number 21,306 includes primary vaccination 19,797, and re-vaccination 1,509; the results of the latter being 660 successful, 301 unsuccessful, and 548 unknown. The extent of operations compare unfavourably with those of the preceding year, when they numbered 39,376, the difference being 18,070 excess in 1878.

The excess in 1878 as compared with 1879 is due to the fact that vaccination was carried out in the day-nurseries and relief camps up to the end of March. The total number of persons vaccinated during the first three months of 1878 was 19,249. During the remaining nine months of the year 18,127 were vaccinated.

Attention was successfully directed to the vaccination of infants and the number more than doubled among those "Under 1 year" as compared with 1878 :—

Under one year.

	Male.	Female.	Total.
In 1879	3,065	2,842	5,907
„ 1878	1,505	1,119	2,624
Excess in 1879	1,560	1,723	3,283

The ratio of number of infants vaccinated to number of births registered shews a satisfactory improvement :—

	Births registered.	Number vaccinated under 1 year.	Number vaccinated to births.
In 1878...	15,104	2,624	17.37
„ 1879...	16,629	5,907	35.52

APPENDIX II.

GENERAL DEPARTMENT.

The cause of the falling off in the number of children and adults has already been explained. The following comparative Statement gives more detailed information on this point :—

	1 to 6 years.			6 years and above.		
	Males.	Females.	Total.	Males.	Females.	Total.
In 1878	4,676	4,050	8,726	16,762	11,264	28,026
„ 1879	3,477	3,009	6,486	5,427	3,486	8,913
Deficiency in 1879...	1,199	1,041	2,240	11,335	7,778	19,113

The operations of 1879 show an improvement in another particular, namely as to results, the proportion to number vaccinated being :—

	In 1878.	In 1879.
Successful	51.02	79.88
Unsuccessful	4.12	7.72
Unknown	44.86	12.45

Comparing results with the whole population it appears that little over 5 per cent. of the population were vaccinated. The Mohamedans contributed only 3.79. The several classes show as follows :—

	Europeans and Russians.	Mohamedans.	Hindoos and Native Christians.	Total.
Under 1 year... ..	254	541	5,112	5,907
1 to under 6 years	144	785	5,557	6,486
6 years and above	486	608	7,819	8,913
	884	1,934	18,488	21,306
Population	15,626	50,964	330,962	397,552
Number vaccinated to population..	5.66	3.79	5.59	36

APPENDIX III.

R. No. 149.

REVENUE DEPARTMENT,
MUNICIPAL OFFICE,
MADRAS, 15th April 1880.

From

P. RAMASAWMY CHETTY,
Vice-President, Municipal Commission.

To

A. T. ARUNDEL, Esq., M. C. S.,
Acting President Municipal Commission.

Sir,

I have the honor hereby to submit the First Annual Report of the administration of this Department under "The City of Madras Municipal Act, 1878," which came into operation on the 1st of January 1879, rendering the calendar year the year of taxation and accounts alike.

2. The introduction of the elective system, the settlement of Forms and the reorganization of the Department, under the new law, the levy for the first time of the Water and Lighting Taxes, and the elaborate procedure with respect to those, as well as the House and Profession Taxes, together with the searching enquiries, which the embezzlement by a House Tax Conicpillay of Municipal moneys, necessitated, have made the working one of an extraordinary character.

Elections of Commissioners.

3. The preparation of the lists of persons qualified to be elected and to vote, required by Section 19 of the Act, and their revision under Section 20, involved considerable labor, and occupied the attention of this Department during the first four months and upwards of the year. Such lists, as finally revised, comprised

271 persons possessing the qualifications detailed in Section 7, to be elected Commissioners, and

185 persons qualified under Section 9 to vote for Commissioners to be elected for the 1st Division.

414 do. 2nd do.

633 do. 3rd do.

44 do. 4th do.

313 do. 5th do.

222 do. 6th do.

195 do. 7th do.

and 190 do. 8th do.

4. The first election was held on the 29th of April in accordance with the Rules approved of by Government under Section 11, and the following elections were made by virtue of Section 14, viz. :—

2 Commissioners for the 1st Division.

3 do. do. 2nd do.

3 do. do. 3rd do.

2 do. do. 5th do.

1 do. do. 6th do.

2 do. do. 7th do.

and 2 do. do. 8th do.

No Commissioner having been elected for the 4th Division, the alternative power conferred by Section 13 was exercised by Government in the nomination of a Commissioner for that Division, which made up the complement of 16 elected Com-

missioners contemplated by Section 9. In consequence, however, of one and the same person, elected for both the Second and Third Divisions, having chosen to represent the latter division in the exercise of the option given by Section 16, a second election was rendered necessary under the provisions of Section 16 to supply his place in the former, and took place on the 10th of May. A third election was made on the 15th of August, to fill up a vacancy caused under Section 27 by the insolvency of a Commissioner of the 7th Division. Excepting one Polling Officer, whom we had to find in a Police Inspector for the general election of the 29th April, the whole of the staff that conducted the elections was composed of Municipal Officers and Employés.

Taxation.

5. All the Taxes, Tolls and Payment for occupation of lands contemplated by the Act, with the exception of the Tax on Military Professions under Section 114, were levied; and the sums collected under the respective heads are hereunder set forth in contrast with those of the previous year.

	1878.			1879.		
	Arrear.	Current.	Total.	Arrear.	Current.	Total.
I. Tax on Arts, &c...	RS. 26,222	RS. 63,521	RS. 89,743	RS. 34,825	RS. 77,864	RS. 1,12,699
II. Tax on Houses, Buildings and Lands	49,627	3,32,002	3,81,629	10,902	3,24,936	3,35,838
III. Payments for occupation of Municipal Lands	1,904	5,888	7,292	425	9,285	9,710
IV. Water Tax	.....	.....	.....	.....	1,25,360	1,25,360
V. Lighting Tax	.....	.....	.....	.....	39,379	39,379
*VI. Tax on Vehicles on Springs and Animals	1,896	35,448	37,344	409	42,465	42,874
VII. Tax on Carts and other Vehicles without Springs	16	15,556	15,612	43	13,722	13,765
VIII. Tolls on Vehicles and Animals	.....	40,200	40,200	3,600	40,517	44,117
IX. Tax upon places used for the sale by retail of spirituous and intoxicating liquors	485	16,780	17,265	248	13,220	13,468
X. Demand and Warrant Fees	.....	7,111	7,111	.....	4,192	4,192
Total...	80,150	5,10,046	5,90,196	50,452	6,30,310	7,21,392

* The figures against VI for 1878 are those of 1877, the 1878 actuals bearing no comparison in consequence of a portion of the demand for that year having been given up, owing to change in the year of taxation under the new Act.

Tax on Arts, Professions, Trades, Callings, Offices and Appointments, (other than Military Profession) under Section 103.

6. The gross demand of this tax assessed for the year is Rs. 1,35,633 distributed as follows, viz:—

Locality.	Classified Assessment.												Total.
	I.						II.	III.	IV.	V.	VI.	VII.	
	A.	B1.	B2	C	D	D. pro.							
1st Division ...	RS. 500	...	...	...	RS. 750	...	RS. 1,300	RS. 250	RS. 1,100	RS. 795	RS. 648	RS. 1,461	RS. 6,804
2nd do ...	...	...	...	...	3,450	...	3,400	4,450	5,100	3,780	4,632	2,844	27,656
3rd do ...	7,500	2,000	350	600	13,500	650	14,400	8,100	9,775	5,115	6,840	4,689	73,519
4th do ...	...	...	...	...	...	...	100	200	175	75	128	339	1,017
5th do ...	...	...	350	...	750	...	1,900	750	1,100	570	1,064	1,845	7,729
6th do ...	...	...	...	...	1,350	...	1,600	500	175	235	256	309	4,445
7th do ...	...	...	...	...	3,300	...	2,500	1,400	675	570	1,360	2,289	12,094
8th do ...	...	...	...	...	...	...	1,300	200	50	45	144	630	2,360
Total...	8,000	2,000	700	600	23,100	650	25,900	15,850	18,150	11,205	15,972	14,466	1,35,633

It compares favorably with the average of the previous three years, though it slightly falls short of 1877 and 1878 respectively as hereunder shewn:—

Locality.	Assessment for			Total of the three years.	Average.	Assessment for 1879.
	1876.	1877.	1878.			
1st Division	6,282	6,020	5,711	18,013	6,004	6,804
2nd do.	21,272	22,289	25,704	69,265	23,088	27,656
3rd do.	52,023	87,536	88,440	2,27,999	75,999	73,519
4th do.	1,023	2,257	1,958	5,238	1,746	1,017
5th do.	9,213	8,575	8,083	25,871	8,623	7,729
6th do.	3,836	3,575	3,979	11,390	3,796	4,445
7th do.	10,334	9,169	10,297	29,800	9,933	12,094
8th do.	1,897	1,947	2,044	5,888	1,962	2,369
Total...	1,05,880	1,41,368	1,46,216	3,93,464	1,31,151	1,35,633

It will be remembered that the demands of 1877, 1878 and 1879 were rendered conspicuous by the taxation of foreign Joint Stock Companies carrying on business through local Agencies.

7. The number of persons and Companies assessed in each Division to each class, shewing a comparison with the previous three years' figures, is exhibited in Appendix I, Appendix II classifying them according to nationality, followed by Appendix III, in which such classification is compared with the classifications of the prior three years, and by Appendix IV which discloses numerically the various professions taxed in each Division.

8. These assessments were made, (except in cases where Schedule A to the Act specially provided otherwise) upon the principle heretofore adopted by the Commissioners, of taxing the professions relatively, and thereby bringing within the clutch of taxation all but the poorest of each profession, whether they made gain or sustained loss, thus treating the Tax as one of License divested of all the odious features of an Income Tax. But the terms of Schedule A gave so wide a scope for objections, that no less than 2,312 revisions were applied for, and 1,582 made, under Clause 2 of Section 104, involving much correspondence and discussion; and a good number of applications stood over at the end of the year, with the certainty of its being abundantly added to subsequently, as has, indeed, been the case. Forty-nine of these revisions, together with 115 other original classifications were heard and decided at 8 several sittings of the Commissioners under Section 189. Seven of the said decisions were made the subject of appeal to the Presidency Magistrates under Section 191 by certain Vakils and Pleaders of the High, Small Cause, and Presidency Magistrates' Courts, their contention, which the Commissioners did not see their way clear to uphold, being that the Salary test was unqualifiedly applicable as well to Offices and appointments as to all other professions. One of these appeals by a leading native member of the profession, was taken as a representative case and discussed by Counsel on behalf of the Municipality, in the first instance, before the Presidency Magistrates, and afterwards, on a reference by them under Section 192 at the instance of the Commissioners, before the Ap-

pellate High Court, and the contention was held good by both the Courts. This decision has in effect settled the other appeals, one of which had, however, been withdrawn before hearing, and been, of course, freely adopted in subsequent departmental revisions, involving a considerable deficit in the Revenue. The revisions thus severally made, result, on the whole, in 659 persons being confirmed in their original assessment, 609 being reduced to lower classes, and the remaining 429 being exempted and compare with those of the previous three years as follows: viz.

	Confirmations.	Reductions.	Exemptions.	Total.
1876 ...	574	1,262	238	2,074
1877 ...	371	321	683	1,375
1878 ...	296	357	482	1,135
Total...	1,241	1,940	1,403	4,584
Average ...	414	647	468	1,528
1879 ...	659	609	429	1,697
Increase ...	245	...	...	169
Decrease ...	...	38	39	...

Their financial effect is a remission in the aggregated of Rs. 19,688-8-0 in the following divisional proportions, viz. —

1st Division...	...	...	...	Rs. 630 8 0
2nd do. ...	...	...	...	„ 4,978 8 0
3rd do. ...	...	...	...	„ 10,952 8 0
4th do. ...	...	...	...	„ 138 8 0
5th do. ...	...	...	...	„ 862 8 0
6th do. ...	...	...	...	„ 962 8 0
7th do. ...	...	...	...	„ 836 0 0
8th do. ...	...	...	...	„ 327 8 0
Total Rs. 19,688 8 0				

The collections made, in the course of the year, amounted to Rs. 77,864 against Rs. 60,665 in 1876, Rs. 65,273 in 1877 and Rs. 63,520 in 1878, and exceed the average, viz., Rs. 63,153 by Rs. 14,711.

9. The realization necessitated, besides the summary departmental process, 3,606 Magisterial prosecutions in respect of the first, and 2,467 in respect of the second half year's demand under Section 106. 5,553 of these prosecutions were compromised by settlement out of Court; 153 resulted in convictions under Section 107, accompanied by penalties amounting in the aggregate to Rs. 80 (exclusive of Tax) which form part of the Fines realized; and the remaining 367 stand over, chiefly on account of the absence from Madras of the parties prosecuted. These prosecutions instituted, as they were, for each half year, are not comparable with the procedure of the previous years, when only one prosecution lay for the whole year. The resort to Notices of Demand and Distress Warrants under the 197 and following Sections was very limited.

10. The last mentioned processes were, however, more largely made use of,

270 of the former and 120 of the latter in addition to Magisterial proceedings, for the realization of arrears, of which

Rupees	269	were got in for 1875,
„	204	for 1876,
„	4,250	for 1877, and
„	30,101-8	for 1878, making
together „	34,824-8	against Rs. 27,282 in 1876, Rs. 7,040 in 1877 and Rs. 5,665 in 1878.

11. Thus a gross sum of Rs. 1,12,688-8 was collected for arrears and current, against

Rupees 1,17,276 in 1876,
„ 94,658 in 1877 and
„ 89,743 in 1878.

12. Appendix V exhibits the Demands assessed for 1876, 1877 and 1878 respectively, the remissions allowed against, and the Collections made on account of them respectively, up to the end of the year under report and the balances then remaining unadjusted respectively, compared with the Demand, Remission, Collection and balance for the past year. It will be observed that the expectations as regards realizations of the former two years have been more than reached. All but a very small proportion of the balances are irrecoverable and only await to be written off after the lapse of the usual period allowed for tracing defaulters. The out-turn of the year under report, will ultimately fall below the average, much of the remaining balance of that year having to be sacrificed under the ruling of the High Court above adverted to.

Vide page 15 of the Administration Report for 1875-76.

Tax on Houses Buildings and Lands under Sections 119 and 120.

13. In the course of the revision of this Tax, levied at the maximum rate of 10 per cent. on the annual valuation, except in a small number of cases where the area-rate under Section 120 was adopted, 374 fresh assessments were made on buildings newly constructed or improved, amounting to Rs. 2,137-12-11; and, owing to total or partial demolition, or depreciation of value from other causes in 233 cases, an aggregate reduction of Rs. 1,374-4-3 was made, resulting in a net increase of Rs. 763-8-8 as appears by Appendix VI. This, added to the net demand of 1878 viz., Rs. 3,52,426, decreased by reductions to the extent of Rs. 3,399-10-8 on the disposal of complaints under Section 189, formed the net demand of 1879 at Rs. 3,49,789-12-8 as shewn in Appendix VII, against Rs. 3,41,608 for 1876 (levied at 7½ per cent. but taken at 10 per cent. for comparison) Rs. 3,48,730 for 1877 and Rs. 3,52,426 for 1878, which are also exhibited in detail in Appendix VIII.

14. Appendix IX represents a graduated scale of the valuations as they appear on the Registers at the end of the year under report.

15. The extent of the revision of assessments is compared with the operations in that direction of the previous three years in Appendix X. It will be observed that, whilst the number of appeals against fresh assessments is comparatively small,

complaints against standing assessments were much in excess of the average, owing, it is believed, to the imposition of Water and Lighting Taxes (which increased the liability of House property by more than 50 per cent. of what it had been before) and to the general depreciation of the value of House property in the City.

16. Unlike former years, this tax was collectable under Section 121 by two half-yearly instalments. Of the demand of the year, a sum of

Rs. 3,24,868-12-0 was collected, besides an over-payment of Rs. 68-2-3.
 „ 3,509-11-9 was written off as remission under Sections 133 and 135, and
 „ 21,411-4-11 remains over for this year: and of arrears
 „ 10,870-4-11 was collected, besides an excess of Rs. 32-0-6.
 „ 2,654-4-10 was written off, and
 „ 7,619-5-6 remains over.

Thus a total collection of Rs. 3,35,739-0-11 was made against a total arrears and current demand of Rs. 3,70,983-11-11, leaving, after deducting remissions as above to the aggregate amount of Rs. 6,164-0-7, a balance of Rs. 29,030-10-5 as per details given in Appendix XI.

17. The demand, remission, collection and balance of the year are compared with their correspondents of the three previous years in Appendix XII.

18. I had to depend wholly on Departmental processes for the recovery of this Tax and the extent to which they have been resorted to is as follows, viz. :—

Notices issued under Section 196...	64,163
Notices of Demand issued do. 197...	31,914
Warrants of Distress do. ...	12,489
Unexecuted Warrants of previous years ...	1,530
Warrants of Distress adjusted before execution	6,624
Do. do. after execution	
and before Sale of Distress	4,399
Do. adjusted by 40 Sales of Distress	
under Section 201—Arrears 161	
Rs. 1,159-11-11	716
Current 555	
Rs. 2,975 6 4	

Deficiency owing to insufficient Distress ... { Arrears Rs. 670 8 4
 „ Current „ 1,676 11 8

Surplus of Distress... { Arrears „ 43 12 4
 „ Current „ 153 8 3

Warrants pending execution and adjustment at the end of the year 2,280.

The coercive processes issued in the course of the year, relate to the classes of property described below :—

890 Warrants as to property of the annual value of Rs.	14.
2,696 do. ...	24
3,522 do. ...	43
3,069 do. ...	96
1,401 do. ...	192
512 do. ...	384
191 do. ...	786
83 do. ...	1,536
20 do. ...	3,072
5 do. ...	6,144

Payment for Occupation of Municipal Lands under Section 137.

19. This source of revenue arises out of unauthorized occupation of lands which is charged at rates ranging from Rs. 7 to 35 per ground per mensem and fluctuates according to occupation by itinerant dealers. The demand of the year consisted of

Arrears of former years.	4th Qr. of 1878.	1st Qr. of 1879.	2nd Qr. of 1879.	3rd Qr. of 1879.	4th Qr. of 1879.	Total.
2,838-7-4	2,250-3-2	2,325-5-8	2,368-15-11	2,504-0-9	2,234-8-6	14,491-9-4

Remissions were granted as follows, viz. :—

1,222-11-0	45-11-1	...	...	...	...	1,268-6-1
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The following collections were made, viz. :—

425-6-10	1,835-7-10	1,890-3-0	2,078-0-5	1,965-0-6	1,516-0-9	9,710-3-4
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and the balances given below remain over

1,190-5-6	369-0-3	435-2-8	290-15-6	539-0-3	718-7-9	3,512-15-11
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20. The demand, collection, and balance of the year under report compare favorably with those of the former three years as shown below :—

	Demand.	Collection.	Balance.
	Rs.	Rs.	Rs.
1876 ...	7,071	2,162	4,909
1877 ...	7,267	6,275	922
1878 ...	3,811	7,024	1,787
Total ...	23,149	15,461	7,688
Average.	7,716	5,154	2,563
1879 ...	9,433	7,449	1,984
Increase..	1,717	2,295	...
Decrease.	...	...	579

21. Like the House Tax, these payments owe their collection to the following processes, viz. :—

Notices under Section 196	...	...	...	No. 13,095
Warrants of Distress issued under Section 197	...	...	...	6,269
Unexecuted Warrants of previous years...	...	...	...	281
Warrants adjusted before execution	...	...	...	4,029
Do. after execution and before sale of distress	...	...	...	754
Do. adjusted by 18 sales of distress	...	Arrears 6	Rs. 9-13-6	29
		Current 23	Rs. 23-2-6	

Deficiency owing to insufficiency of distress... { Arrears Rs. 3 0 10
 „ Current „ 4 1 6

Surplus of distress... { Arrears „ 6 12 2
 „ Current „ 7 7 3

Warrants pending execution... No. 1,738

Water Tax under Section 139.

22. This tax is leviable on the same principle, and payable in the same manner, at the same times, and subject to the same conditions, as the House Tax, except that the rate levied is 4 per centum upon the annual valuation of property,

which is the maximum rate authorized by the Act, and that the minimum taxable value is Rs. 24 against Rs. 14, in the case of the House Tax. The assessed demand of the year, based on the valuation finally settled for the purposes of the House Tax, is Rs. 1,35,824-12-2, whereof Rs. 1,25,312-13-0 have been collected besides Rs. 21-0-1 received as overpayment. Rs. 1,401-1-4 have been remitted under Sections 133 and 135, and there remain Rs. 9,110-13-10 outstanding at the end of the year, as will be seen from the detailed particulars given in Appendix XIII.

23. The processes adopted for the realization of the House Tax answered the purposes of this Tax equally well as they covered all the Taxes due at the same time; and there would hardly be any extra labor, had it not been for the redundancy of appeal created by Clause (C) of Section 190, which throws every half year's Tax open to objection within 7 days of demand, independently of the revision under Sections 130 and 132, the effect of such redundancy being that an appeal lies, with respect to a year's Water Tax not only along with House Tax, under Section 130 or 132, but also separately on each half year's demand under Section 196. This superfluity of procedure, combined with the provisions of Section 141 and of Section 211 defining the Water-supply area, has, in addition to retarding the progress of realization, given rise to much extra correspondence, besides the appeals, which fortunately have not been more than 80 in number, others having been thrown out as not being within time. At the first sitting held under Section 189 for the disposal of 30 of these appeals, a strong opposition was started to the right of the Municipality to levy Water Tax on property not coming within the area defined by Section 211; but was overruled by the sitting Commissioners. The decision in one of these cases was appealed against to the Presidency Magistrates under Section 191, who upheld the Commissioners' view, which was afterwards confirmed by the High Court on a reference made by the Magistrates at the instance of the appellant under Section 192. The decision thus confirmed was, of course, followed in the disposal of the remaining complaints.

Lighting Tax under Section 151.

24. This imposition differs from the Water Tax in the Rate, which is $1\frac{1}{4}$ per cent. on the annual value of property, the maximum being 2 per cent. The procedure in other respects, including the redundant provision for appeals, is precisely the same as the Water Tax, and the processes adopted for collection were concurrent with those of the House and Water Taxes. The demand assessed on the settled basis of the House Tax was Rs. 42,455-9-6, remissions were allowed under Sections 133 and 135 aggregating Rs. 438-14-2; a sum of Rs. 39,362-6-4, exclusive of an overpayment Rs. 6-14-8, was collected; and a balance of Rs. 2,654-5-0 remained uncollected at the end of the year as per particulars disclosed in Appendix XIV.

25. There were but 23 appeals under Clause (C) of Section 190 which were disallowed, and correspondence with parties objecting to pay the Tax on the ground of their not being near any Municipal light, caused much friction in the realization of the Budget Estimate.

26. In connection with the Taxes on Houses it is, perhaps, not out of place to notice the embezzlement which one of the men employed for their collection fraudulently committed. Continuing honestly in the Municipal service for upwards of 10 years, he stopped away at the end of August last under the pretence

of a reliable Medical Certificate and disappeared from Madras after having, as it is believed, with the aid of 2 accomplices, secured by collection within a short time, Rs. 6,715, which have been credited in account *pro forma*. A charge was laid before the Magistrates; and one of the accomplices that lately turned up, stands for trial. The principal offender, with the other accomplice, is still undetected.

27. On minute investigation of the matter, one of the examining clerks, P. Kistnasawmy Moodelly, has been found guilty of suppressing facts, the disclosure whereof in time would have prevented the malpractice to such an irrecoverably serious extent, as it has proved to be, and has been dismissed from the service; and a distraining officer, P. Theroovengada Moodelly, the father of the said clerk, has been suspended pending further enquiry, on suspicion of his having been a party to the mischief.

28. The elaborate enquiries which the embezzlement led to and the restrictions which have been laid down in consequence for the guidance and management of the collecting staff, have caused a general friction in the collection work, but for which the results would have undoubtedly far exceeded the estimates of all the Taxes imposed on Buildings and Lands.

Tax on Vehicles on Springs and Animals under Section 155.

29. The new Act changed the half-yearly period of taxation from May to October and November to April to January to June and July to December respectively; and, though the revised rates of Tax are slightly higher than the former ones with respect to first class carriages and horses, but little improvement is noticeable in the demand, which, according to the particulars contained in Appendices XV and XVI, amounts to Rs. 43,595 for the year against Rs. 44,562-12-0 for 1876-77, and Rs. 42,203-8 for 1877-78, the circumstances of 1878 being exceptional and, therefore, incomparable. Appendix XVII exhibits a comparison of these sums in detail, the difference being unworthy of special notice.

30. As shewn in Appendix XVIII, Rs. 42,464-8 of the demand has been collected, besides Rs. 55-8 in arrears for 1877 and Rs. 353-8 for 1878, making an aggregate of Rs. 409, against Rs. 38,295 for current and Rs. 2,505-4 for arrears collected in 1876-77 and Rs. 35,447-8 and Rs. 1,396 in 1877-78, which are also compared with Appendix XVIII in Appendix XIX.

31. Several revisions were applied for and made under Section 162, and a sum of Rs. 799-12 has been remitted on exemptions and as bad and uncollectable items, leaving a remainder of Rs. 330-12-0.

32. The processes availed of for the collection of this Tax were—
 4,759 Forms under Section 160.
 2,024 Bills under Section 162
 34 Summons under Section 164.
 1,128 Prosecutions under Section 167.

Scarcely any distraint was rendered necessary, and all prosecutions were compromised out of Court and, therefore, not proceeded with to the last, excepting 28 under Section 167, which resulted in convictions and fines, irrespective of Taxes, amounting to Rs. 9-6-0, realized and credited to that account.

33. Until the repeal by the Hackney Carriages Act III of 1879, of Sections 158 and 159, 891 Hackney carriages of all descriptions were registered for the year at a uniform fee of one Rupee each; and the registration was transferred to

the Commissioner of Police under the provisions of the said Act on the 15th of June 1879.

Tax on Carts and other Vehicles without Springs under Section 168.

34. This was about the easiest of all Taxes to recover, since no further action was necessary to enforce payment than the seizure and detention under the power conferred by Section 172, of unregistered carts. Carts registered in the year under such circumstances amounted to 2,221, which plus 4,642 voluntary registrations, make an aggregate of 6,863 for both half years (the registration being as before half-yearly) against 6,591 in 1876, 8,879 in 1877, and 7,820 in 1878. The Taxes collected on such registrations amount to Rs. 13,722-7-0, besides Rs. 42-12-4 for arrears of 1878, totalling Rs. 13,765-3-4, against Rs. 13,229 in 1876, Rs. 17,817 in 1877 and Rs. 15,684 in 1878. It should not be forgotten that 1877 was exceptional in that it was the Famine year.

35. No other coercion was exercised in the case of this Tax than the sale, under Section 173, of 19 carts seized and detained under Section 172, the proceeds leaving a surplus of Rs. 37-7-2 to be dealt with under Section 173.

Tolls on Vehicles and Animals entering the Municipal limits under Section 174.

36. The only part that this office took in realizing the revenue from this source, was the exercise, as usual, of the power given by Section 174, in farming it for Rs. 44,200 for the year, against Rs. 40,100 for 1876, Rs. 45,000 for 1877 and Rs. 43,200 for 1878; and realizing it by monthly instalments of Rs. 3,683-5-4 in arrear. It is believed that the fall is owing to the diminution of traffic by the trunk road leading to Saidapet caused by the South Indian Railway. The difference between the amount realized and that quoted as the contract sum for the year is accounted for by the fact of the last instalment of the previous year viz., Rs. 3,600 being received in January of the last year, against the last instalment of the year under report remaining over to be paid in arrear.

37. We have compounded for the convenience of the outside public, but for the benefit of the Toll Farmers, under Section 179 for the carriages and animals, which with their correspondents of the three previous years are described in Appendix XX.

Tax upon places used for the sale of Spirituous and Intoxicating Liquors under Section 183.

38. As usual, the demand was based chiefly upon the Collector of Madras, dowlas. It differed from its predecessors in that the shops for the sale of European Liquors were confined to the two higher classes of Schedule E, whilst the repealed Act treated shops of all kinds in each class. There were altogether 510 shops holding retail licenses assessed at Rs. 15,100, as per details given below,

Description of Shops.	Class.				Total Number of Shops.	Amount of Assessment.
	I.	II.	III.	IV.		
Puttai Arrack	2	3	15	33	53	1,071
Columbo Arrack	5	23	16	5	49	1,985
Beer, Wine and Spirits	8	98	...	...	106	5,500
Toddy	...	57	58	187	302	6,544
Total...	15	181	89	225	510	15,100

against 504 at Rs. 11,300 in 1876, 498 at Rs. 11,200 in 1877, and 510 at Rs. 11,500 in 1878. The excess is owing, as above pointed out, to the standard of Tax for European Liquor shops being raised. A divisional arrangement of the shops as classified for taxation, with the population and its ratio to each shop, is contained in Appendix XXI and their comparison in detail with the shops assessed in the previous three years will be found in Appendix XXII.

39. Applications for revision were extraordinarily numerous especially from dealers in European Liquors; but as the Schedule left no option, they were rejected except in 7 cases where there was an alternative. Thus, in the disposal of 9 applications under Sections 184 and 185 assessments were revised by lowering the classification at an aggregate reduction of Rs. 301.

40. A collection of Rs. 13,196 was made for current demand and Rs. 160 for arrears of 1878, Rs. 12 for 1877, Rs. 50 for 1876 and Rs. 50 for 1875, making a gross sum of Rs. 13,468, against Rs. 11,645 in 1876, Rs. 10,504 in 1877 and Rs. 10,457 in 1878.

41. I append a statement XXIII shewing the Demand, Remission, Collection and Balance of the year under report compared with the result of the operations of the previous three years. A very little proportion of the balance is recoverable, if at all, owing to the parties liable not forthcoming, in consequence whereof, I have had, in a few cases, to resort to the provisions of Section 197, independent of the prosecutions instituted under Section 187, which was availed of in no less than 376 cases of which 300 were settled out of Court and 34 were tried and convicted, the penalty inflicted being on the whole Rs. 122-8, which has been credited to Fines, and the remnants are pending.

Demand and Warrant Fees.

42. The sum of Rs. 4,191-10-0 realized is composed of fees levied under Sections 198 and 202, in all cases in which the processes to which those Sections refer to, were used with effect and forms part of Miscellanea in the general account.

I have the honor to be,

Sir,

Your most obedient Servant,

P. RAMASAWMY CHETTY,

Vice President.

APPENDIX III.

Number of persons classified for 1879 in																																	
Locality.	I.										II.	III.	IV.	V.	VI.	VII.	Total assessed.	Percentage of the assessed to total population.	Total for 1876.	Total for 1877.	Total for 1878.	Average of the last 3 years	Percentage of the average to total population.										
	A.					B.																		C.					D.				
	A.	B1.	B2.	C.	D.	D. pro.	B1.	B2.	C.	D.														D. pro.	B1.	B2.	C.	D.	D. pro.	B1.	B2.	C.	D.	D. pro.
1st Division	1	...	...	...	...	...	...	...	...	...	13	5	44	53	81	487	689	588	577	527	564	86											
2nd do	...	...	...	...	...	...	...	...	...	...	31	89	204	252	579	946	2,129	1,980	1,806	2,172	2,016	267											
3rd do	13	8	1	3	90	13	...	...	...	...	144	162	391	341	855	1,563	3,586	3,184	3,646	3,793	3,541	694											
4th do	...	...	...	...	...	...	...	...	...	...	1	4	7	5	16	113	146	113	181	163	152	135											
5th do	...	...	1	...	5	...	...	...	...	...	13	15	44	38	133	615	864	909	881	922	924	141											
6th do	...	...	...	...	9	...	...	...	...	...	16	10	7	17	32	103	194	200	215	223	213	109											
7th do	...	...	...	...	22	...	...	...	...	...	25	28	27	38	170	763	1,073	1,045	955	1,092	1,081	148											
8th do	...	...	...	...	...	...	...	...	...	...	12	4	2	3	18	210	250	239	245	241	241	58											
Total...	16	8	2	3	154	13	...	...	...	...	250	317	726	747	1,884	4,802	8,931	8,317	8,506	9,133	8,682	219											

APPENDIX I.
Assessments of Profession &c. Taxes for 1879, compared with those of 1876, 1877 and 1878.

APPENDIX III.

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APPENDIX II.

Divisional distribution of Nationality of persons assessed to Profession, &c. Taxes for 1879.

Locality.	Hindus.	Mahome-dans.	Others.	Joint Stock Companies.	Total.
1st Division	586	27	73	3	689
2nd do	2,027	50	42	10	2,129
3rd do	2,568	447	510	61	3,586
4th do	109	23	14	.....	146
5th do	681	89	84	10	864
6th do	121	18	55	.....	194
7th do	729	187	152	5	1,073
8th do	215	14	20	1	250
Total...	7,036	855	950	90	8,931

APPENDIX III.

Statement showing the Nationality of persons assessed to Profession, &c. Taxes for 1879, compared with those of the previous three years.

Period.	Hindus.	Mahome-dans.	Others.	Joint Stock Companies.	Total.
1876	6,243	838	1,179	57	8,317
1877	6,495	823	1,144	135	8,597
1878	7,044	826	1,130	133	9,133
Total...	19,782	2,487	3,453	325	26,047
Average	6,594	829	1,151	108	8,682
1879	7,036	855	950	90	8,931
Increase	442	26	.....	.....	249
Decrease	.....	.....	201	18	219

Abstract of Professions assessed for 1879.

No.	Profession.	Division.								Total.
		1st	2nd	3rd	4th	5th	6th	7th	8th	
1	Salaried persons	74	58	483	15	80	36	160	21	927
2	Joint Stock Companies	3	12	61	10	...	...	5	1	92
3	Auctioneers	...	...	3	...	...	...	...	...	...
4	Merchants, Agents and Sowcars	80	331	530	8	52	2	14	4	1,021
5	Traders	260	1,139	1,576	69	424	90	561	101	4,220
6	Brokers and Dallals	3	35	225	11	10	1	35	3	343
7	Manufacturers	140	64	140	9	20	1	23	14	420
8	Artizans	24	302	150	11	119	17	123	17	772
9	Owners of Markets	7	3	4	1	4	1	5	4	29
10	Practising Surgeons and Physicians	...	...	4	...	1	...	1	...	6
11	Boarding House keepers & Hotel keepers	2	21	31	...	5	5	7	5	76
12	Videans	1	9	9	2	7	...	6	6	40
13	Petty money lenders & Traders in money	2	19	51	5	39	1	41	13	171
14	Practising Barristers-at-Law, Vakils and Attorneys, High Court	...	...	66	...	1	...	1	2	70
15	Civil Engineers	2	...	18	...	4	...	6	...	50
16	Owners of Printing Press	3	15	6	...	...	...	...	...	6
17	Editors of Newspapers	...	...	14	...	4	2	...	...	28
18	Contractors	3	5	18	...	...	...	...	...	18
19	Dealers in Carriages & Horses	...	...	9	...	...	...	...	...	10
20	Boat Owners	1	...	5	...	2	...	6	...	13
21	Hakeems	...	...	...	...	1	...	...	...	1
22	Apothecaries	...	...	1	...	...	...	...	...	1
23	Native Medical Practitioners	...	...	11	...	1	...	11	...	74
24	Dancers and Musicians	...	51	2	...	...	...	...	...	2
25	Photographers	...	...	...	...	...	...	...	...	1
26	Dentists	...	...	...	...	...	...	...	...	1
27	Shopkeepers	81	45	118	15	78	33	63	59	492
28	Dubashes	...	...	28	...	...	...	...	...	28
29	Builders	3	...	3	...	2	...	...	...	8
30	Actors...	...	...	2	...	...	...	...	...	2
Total..		639	2,129	3,586	146	864	194	1,073	250	8,931

APPENDIX V.

Statement of Demand, Collection, Remission and Balance of Profession, &c. Taxes for 1879, compared with 1876, 1877 and 1878.

Period.	Gross Assessment	Collected up to 31st Dec. 1879.	Remissions granted up to 31st Dec. 1879.	Balance on 31st Dec. 1879.	Remarks.
1876 ...	RS. 1,05,880	RS. 79,225	RS. 18,210	RS. 8,415	
1877 ...	1,41,368	94,774	31,443	15,146	
1878 ...	1,46,216	93,743	29,290	23,178	
Total...	3,93,464	2,67,747	78,948	46,769	
Average ...	1,31,155	89,249	26,316	15,590	
1879 ...	1,35,633	77,864	19,689	38,080	

APPENDIX VI.

Abstract of New and Increased Assessments, Exemptions and Reductions of House Tax made in the course of the preparation of Registers for the calendar year 1879.

Locality.	Increase.												Decrease.												Net Increase.												
	New Assessment.						Increase of Assessment.						Total.						Exemption.							Reduction.						Total.					
	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.		Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.	Rate at 10 per cent.	Number of cases.	Valuation.		Rate at 10 per cent.											
				RS.	A. P.																						RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.
1st Division	31	1,269	0	129	14	5	41	3,106	0	310	9	7	72	4,405	0	440	8	0	20	3,551	0	355	1	7	793	0	434	0	434	6	4	+	6	1	8		
2nd do	11	977	0	97	11	2	51	1,975	0	197	8	0	63	2,952	0	295	3	2	8	519	0	51	14	7	3	1,002	0	1,521	0	152	1	7	+	143	1	7	
3rd do	3	378	0	37	12	10	29	1,540	0	154	0	32	1,918	0	191	12	10	3	165	0	16	8	0	11	2,438	12	2,603	12	260	5	11	—	68	9	1		
4th do	8	243	0	24	4	10	5	76	0	7	9	7	13	319	0	31	14	5	6	136	0	13	0	7	2	230	0	366	0	36	9	7	—	4	11	2	
5th do	31	1,185	0	118	8	0	22	2,153	0	215	4	10	53	3,338	0	333	12	10	41	1,140	8	114	0	10	10	206	0	1,346	8	134	10	5	+	199	2	5	
6th do	22	474	0	47	6	5	9	534	0	53	6	5	31	1,008	0	100	12	10	24	569	4	56	14	10	2	411	0	980	4	98	0	5	+	2	12	5	
7th do	47	1,880	0	188	0	0	31	3,394	0	339	6	5	78	5,274	0	527	6	5	42	1,101	12	110	2	9	11	238	0	1,339	12	132	15	7	+	394	6	10	
8th do	15	575	0	57	8	0	18	1,589	0	158	14	5	33	2,164	0	216	6	5	33	971	0	97	1	7	10	280	8	1,251	8	125	2	5	+	91	4	0	
Total..	163	7,011	0	701	1	8,206	14,367	0	1,436	11	3,374	8,153	8	815	5	7	56	5,589	4	538	14	8,233	13,742	12	1,374	4	8	763	8	8							

APPENDIX VII.

Abstract showing the assessed and net demand of House Tax for the calendar year 1879

Locality.	Area in square miles.	Number of premises not liable to rate and therefore not assessed.	Number of rateable premises.	Population.	Ratio of population to holdings.	Proportion of space occupied by each individual in square yards.	Demand levied.			Number of appeals admitted and heard.	Reduction granted on disposal of such appeals by Commissioners.			Net demand after allowing such reduction.			Incidence of rate per head of population.			Budget.	
							Rate at 10 per cent.				Rate at 10 per cent.			Rate at 10 per cent.							
							Rs.	A.	P.		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		Rs.	A.	P.
1st Division	5.31	841	3,325	65,547	15.40	250.53	3,11,472	8	31,148	2	67	1,533	8	153	5	8,309,889	30,987	0	7	6	31,000
2nd "	1.02	639	6,881	75,326	9.95	41.94	6,71,729	8	67,172	10	101	4,050	0	405	0	6,67,679	66,757	10	0	14	67,000
3rd "	0.91	744	5,744	50,957	6.96	55.12	8,65,798	0	86,580	1	79	12,335	8	1,233	8	8,33,463	85,346	8	1	10	*1,12,000
4th "	3.88	311	551	9,791	10.95	1,227.53	98,200	0	9,819	11	9	155	0	15	8	98,015	9,801	3	1	0	9,000
5th "	2.81	1,149	4,923	65,491	10.78	132.90	5,22,405	4	52,239	14	71	3,088	8	308	13	5,19,316	51,931	0	10	8	52,000
6th "	4.16	473	1,200	19,800	11.52	664.00	3,07,602	12	30,765	12	43	2,854	0	285	6	3,04,808	30,480	6	2	9	31,000
7th "	2.19	1,902	6,985	69,568	9.42	97.54	4,59,137	0	45,913	2	214	3,861	8	386	2	4,55,275	45,527	0	2	5	45,000
8th "	6.51	1,220	3,597	41,482	8.54	486.36	2,95,524	12	29,532	0	120	6,038	8	603	13	3,03,486	29,949	3	0	11	29,000
Total...	26.63	6,679	32,404	3,97,552	9.94	208.97	35,91,929	12	3,53,189	74	710	33,993	8	3,399	10	34,97,983	3,49,789	12	6	14	3,76,000

Part included.

* Port included.

APPENDIX VIII.

Statement of House Tax assessed for the calendar year 1879 as contrasted with the three preceding years.

Locality.	Net Demand of 1876.						Net Demand of 1877.						Net Demand of 1878.					
	Number of premises not liable to rate and therefore not assessed.			Valuation.			Number of premises not liable to rate and therefore not assessed.			Valuation.			Number of premises not liable to rate and therefore not assessed.			Valuation.		
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
1st Division	902	3,478	3,04,234	8	22,818	2	793	3,485	3,03,432	0	30,848	0	817	3,513	3,11,619	0	31,162	11
2nd do.	661	6,813	6,55,621	8	49,171	15	664	6,862	6,59,918	8	65,991	7	690	6,891	6,70,334	0	67,032	15
3rd do.	604	5,469	8,35,084	4	62,631	7	802	5,425	8,54,123	8	85,188	5	784	5,475	8,66,102	0	86,498	11
4th do.	322	557	90,817	8	6,811	5	320	573	90,723	0	9,072	4	311	577	98,947	0	9,824	14
5th do.	1,106	4,780	4,84,338	4	36,327	7	913	4,899	5,21,122	8	52,111	12	1,060	4,939	5,20,509	4	52,051	11
6th do.	450	1,172	3,12,905	4	23,468	2	457	1,207	3,12,051	4	31,205	1	450	1,244	3,07,335	0	30,763	13
7th do.	1,381	5,863	4,40,273	0	33,021	0	1,292	6,050	4,47,951	12	44,794	8	1,226	6,068	4,56,397	12	45,641	2
8th do.	1,214	3,476	2,92,751	4	21,950	0	1,200	3,527	2,95,191	4	29,518	9	1,183	3,529	2,94,451	4	29,448	15
At 7 1/2 per cent.	6,700	31,562	34,16,078	8	2,56,208	12	...	...	...	...	...	...	...	...	...	...	...	...
At 10 per cent.	6,790	31,562	34,16,078	8	3,41,607	13	6,476	32,028	34,89,568	12	3,48,730	1	6,591	32,236	35,25,396	4	3,52,423	14
Net assessment for 1879 at 10 per cent.	6,679	33,335	34,97,933	4	3,49,789	12	6,679	33,335	34,97,933	4	3,49,789	12	6,679	33,335	34,97,933	4	3,49,789	12
Increase in 1879...	...	1,773	81,854	12	8,191	15	203	1,907	8,364	8	1,059	11	88	1,009	...	...	...	...
Decrease in 1879...	111	...	...	...	...	...	...	...	...	...	...	...	...	...	27,399	0	2,636	2

APPENDIX III.

APPENDIX III.

APPENDIX X.

Statement showing the extent of revision of House assessment for the year 1879, compared with the three preceding years.

Year.	Fresh assess- ments.	Increase of assessments.	Total exemp- tions.	Reductions other than those allowed by Com- mittees on appeals.	Appeals admit- ted.	Number of sittings.	Result of Appeals.					
							Confirmed.			Reduction allowed.		
							Fresh as- sessments.	Increase of assessments	Standing assessments	Fresh as- sessments.	Increase of assessments	Standing assessments
1876 ...	215	637	169	236	481	10	19	64	157	9	68	290
1877 ...	617	1,251	157	251	745	15	109	201	266	14	163	134
1878 ...	284	667	200	354	570	12	28	152	263	8	58	227
Total...	1,116	2,555	526	841	1,796	37	156	417	686	31	289	651
Average ...	372	851	175	280	598	12	52	139	228	10	96	217
1879 ...	168	206	177	56	*710	10	14	20	294	10	16	594

* Of the 710 appeals or 948 cases admitted and heard, 24 cases were against fresh assessments, 36 against increased assessments, and the remaining 888 against standing valuations.

APPENDIX IX.

Graduated scale of Valuations of Houses, Buildings and Lands assessed for the year 1879.

[illegible]

APPENDIX XI.

Abstract of Demand, Remission, Collection, and Balance on account of House Tax, for the year 1879.

	1st Division.	2nd Division.	3rd Division.	4th Division.	5th Division.	6th Division.	7th Division.	8th Division.	Total.
DEMAND.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Of arrears of and anterior to 1878	1,081 0 8	4,026 4 8	3,720 13 5	1,728 8 0	3,559 7 5	1,936 0 1	2,011 1 1	2,503 2 4	*21,538 5 8
Less further reduction allowed as against	...	93 0 0	...	20 0 0	1 6 5	...	390 0 0	...	414 6 5
Of 1879 ... { 1st half year ...	1,081 0 8	3,933 4 8	3,720 13 5	1,708 8 0	3,558 1 0	1,935 0 1	2,011 1 1	2,505 2 4	21,143 15 3
Of 1879 ... { 2nd half year ...	15,193 14 3	33,383 13 0	42,673 4 4	4,900 9 8	25,965 8 5	15,230 3 1	22,763 8 1	14,473 1 6	174,884 14 4
Total...	16,274 15 1	37,317 17 8	46,393 17 9	6,608 7 8	29,523 9 5	17,165 3 2	24,774 9 2	16,978 4 0	196,028 19 7
REMISSION.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Against arrears of and anterior to 1878	...	...	42 0 0	435 9 6	39 2 3	231 14 3	18 0 6	49 0 1	595 10 1
Against demand of 1879 ... { 1st half	134 3 10	51 4 10	243 5 1	3 2 5	189 4 4	101 0 5	155 7 9	163 7 2	1,009 3 10
Against demand of 1879 ... { 2nd half	72 12 6	29 8 11	234 15 8	15 0 0	272 1 2	201 4 2	111 4 1	201 0 10	1,137 15 4
Total...	207 0 4	80 13 9	520 4 9	448 11 11	590 7 9	534 2 10	284 11 10	402 8 1	3,053 13 3
REMISSION BY WAY OF REFUND.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
In respect of arrears of and anterior to 1878	321 2 4	39 3 11	441 4 8	22 0 8	167 7 11	290 4 2	279 6 4	268 12 9	1,818 10 9
In respect of arrears of and anterior to 1879 ... { 1st half	94 2 2	91 5 2	239 4 9	35 7 0	146 10 5	206 14 5	14 11 6	236 8 3	1,655 15 11
In respect of arrears of and anterior to 1879 ... { 2nd half	19 12 10	15 9 11	21 8 8	15 0 0	40 6 9	37 6 11	2 1 7	63 10 0	222 8 8
Total...	435 1 4	147 3 0	702 2 1	72 7 8	354 9 1	433 9 6	296 3 7	668 15 1	3,490 3 4
COLLECTION LESS REFUND.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
On account of arrears of and anterior to 1878	265 4 11	2753 3 8	2,581 5 2	859 15 7	1,811 14 7	1,804 0 0	973 10 5	820 14 7	10,370 2 11
Do. Demand of 1879 ... { 1st half	14,628 3 2	32,843 15 7	41,451 7 7	4,773 0 4	24,765 15 10	14,430 13 2	22,005 15 2	13,715 5 4	168,904 12 2
Do. Demand of 1879 ... { 2nd half	12,051 10 6	31,029 0 7	37,653 14 6	4,733 15 6	23,023 6 5	14,031 3 11	21,009 6 11	12,702 5 4	156,763 15 19
Total...	28,684 8 9	64,665 9 5	81,686 11 5	10,366 15 5	49,601 4 10	29,475 1 1	43,988 0 6	27,098 9 3	3,557,739 0 11
BALANCE.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
In respect of arrears of and anterior to 1878	494 9 5	1,140 13 1	656 3 7	400 14 3	1,539 8 3	400 13 8	1,310 0 4	1,556 6 11	7,619 5 6
Do. Demand of 1879 ... { 1st half	637 5 1	397 3 5	730 2 11	88 15 11	863 9 10	431 7 1	587 5 6	875 12 5	4,126 12 5
Do. Demand of 1879 ... { 2nd half	3,329 10 5	2,808 9 7	4,762 13 4	136 10 2	2,629 10 1	930 4 1	1,641 11 6	1,501 1 5	17,270 8 6
Total...	4,471 8 11	3,846 10 1	6,153 8 10	636 8 4	5,032 12 2	1,832 8 10	3,562 1 4	3,433 4 11	25,030 10 5
OVERPAYMENTS HELD IN SUSPENSE.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
In respect of arrears of and anterior to 1878	...	...	27 4 3	...	...	7 14 9	1 1 4	7 12 2	32 0 6
In respect of arrears of and anterior to 1879 ... { 1st half	16 8 1	5 1 7	12 7 7	...	10 11 4	2 11 3	3 8 0	11 10 5	62 10 3
In respect of arrears of and anterior to 1879 ... { 2nd half	...	...	...	...	0 12 0	...	1 7 2	3 4 10	5 8 0
Total...	16 8 1	5 1 7	39 11 10	...	11 7 4	4 10 0	6 0 6	16 11 5	100 2 9

* The difference of Rs. 155-3-0 between this and the balance exhibited in the Administration Report of 1878 has arisen from an adjustment of old accounts.

APPENDIX XII.

Statement showing the Demand, Remission, Collection and Balance of House Tax for the year 1879 as compared with the three preceding years.

	Demand.	Remission.	Collection.	Balance.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
For the year 1876...	3,41,608 0 0	7,000 0 0	2,95,939 0 0	38,669 0 0
Do. 1877...	3,48,730 0 0	2,177 0 0	3,09,070 0 0	37,483 0 0
Do. 1878...	3,52,426 0 0	3,755 0 0	3,31,889 0 0	16,782 0 0
Total...	10,42,764 0 0	12,932 0 0	9,36,898 0 0	92,934 0 0
Average	3,47,588 0 0	4,311 0 0	3,12,299 0 0	30,978 0 0
1879...	3,49,790 0 0	3,510 0 0	3,24,869 0 0	21,411 0 0
Increase	2,202 0 0	...	12,570 0 0	...
Decrease	...	801 0 0	...	9,567 0 0

APPENDIX XIII.

Abstract of Demand, Remission, Collection and Balance on account of Water Tax, for the year 1879.

	1st Division.	2nd Division.	3rd Division.	4th Division.	5th Division.	6th Division.	7th Division.	8th Division.	Total.
DEMAND.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Of 1879... { 1st half 1879 ...	5,880 6 9	13,219 8 9	16,993 1 4	1,886 15 10	9,993 11 6	5,956 11 0	8,539 15 4	5,441 15 7	67,912 6 1
Of 1879... { 2nd half 1879 ...	5,880 6 9	13,219 8 9	16,993 1 4	1,886 15 10	9,993 11 6	5,956 11 0	8,539 15 4	5,441 15 7	67,912 6 1
Total...	11,760 13 6	26,439 1 6	33,986 2 8	3,773 15 8	19,987 7 0	11,913 6 0	17,079 14 8	10,883 15 2	1,35,824 12 2
REMISSION.									
Against demand of 1879... { 1st half	53 11 1	20 5 1	97 4 7	1 4 2	75 8 7	68 14 9	62 2 9	60 10 6	429 13 6
Against demand of 1879... { 2nd half	28 15 10	11 12 11	53 11 5	6 0 0	108 13 0	80 8 0	44 5 6	80 6 8	454 9 4
Total...	82 10 11	32 2 0	151 0 0	7 4 2	184 5 7	149 6 9	106 8 3	141 1 2	884 6 10
REMISSION BY WAY OF REFUND.									
In respect of 1879 ... { 1st half	37 10 4	36 2 7	95 10 1	14 2 10	58 10 6	78 3 8	5 2 9	92 3 1	417 13 10
In respect of 1879 ... { 2nd half	7 14 8	6 7 1	8 9 8	6 0 0	16 2 8	14 15 7	0 13 5	27 13 7	88 13 8
Total...	45 9 0	42 9 8	104 3 9	20 2 10	74 13 2	93 3 3	6 0 2	120 0 8	506 10 6
COLLECTION LESS REFUND.									
On account of 1879 ... { 1st half	5,542 8 9	12,997 11 10	16,416 14 9	1,846 1 6	9,821 0 2	5,405 14 5	8,263 12 3	5,054 1 7	65,048 1 3
On account of 1879 ... { 2nd half	4,436 15 11	12,236 10 5	14,980 9 1	1,830 13 9	8,821 3 11	5,315 12 8	7,870 7 3	4,722 2 9	60,264 11 9
Total...	9,979 8 8	25,234 0 3	31,397 7 10	3,676 15 3	18,642 4 1	10,721 11 1	16,134 3 6	9,776 4 4	1,25,312 13 0
BALANCE.									
In respect of 1879 ... { 1st half	246 8 7	165 5 3	283 3 11	25 7 4	538 8 3	403 10 2	208 13 7	235 0 5	2,005 9 6
In respect of 1879 ... { 2nd half	1,406 8 4	914 10 4	1,910 3 2	44 2 1	1,017 7 11	545 6 9	624 5 2	611 9 7	7,104 4 4
Total...	1,653 0 11	1,079 15 7	2,293 7 1	69 9 5	1,556 0 2	949 0 11	833 2 9	846 9 0	9,110 13 10
OVERPAYMENTS HELD IN SUSPENSE.									
On account of 1879 ... { 1st half	6 9 6	0 15 4	2 6 6	...	3 5 8	0 10 7	1 1 11	3 9 6	18 11 0
On account of 1879 ... { 2nd half	...	...	...	...	...	...	1 0 0	1 5 1	2 5 1
Total...	6 9 6	0 15 4	2 6 6	...	3 5 8	0 10 7	2 1 11	4 14 7	21 0 1

APPENDIX XIV.

Abstract of Demand, Remission, Collection and Balance on account of Lighting Tax for the year 1879.

	1st Division.	2nd Division.	3rd Division.	4th Division.	5th Division.	6th Division.	7th Division.	8th Division.	Total.
DEMAND.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Of 1879... { 1st half 1879 ...	1,838 4 3	4,132 4 7	5,311 2 4	589 12 9	3,123 10 6	1,861 10 5	2,669 11 9	1,701 4 2	21,227 12 9
Of 1879... { 2nd half 1879 ...	1,838 4 3	4,132 4 7	5,311 2 4	589 12 9	3,123 10 6	1,861 10 5	2,669 11 9	1,701 4 2	21,227 12 9
Total...	3,676 8 6	8,264 9 2	10,622 4 8	1,179 9 6	6,247 5 9	3,723 4 10	5,339 7 6	3,403 8 4	42,455 9 6
REMISSION.									
Against demand of 1879... { 1st half	16 12 4	6 5 3	30 6 1	0 6 3	23 9 8	20 2 0	19 6 8	18 15 2	135 15 5
Against demand of 1879... { 2nd half	9 0 10	3 11 0	25 8 10	1 14 0	33 15 10	25 2 7	13 13 8	25 2 2	141 15 11
Total...	25 13 2	10 0 3	55 9 11	2 4 3	57 9 6	45 4 7	33 4 4	44 1 4	277 15 4
REMISSION BY WAY OF REFUND.									
In respect of 1879 ... { 1st half 1879 ...	11 12 0	11 4 6	30 0 5	4 6 10	18 5 2	26 14 7	1 9 8	28 13 0	133 2 2
In respect of 1879 ... { 2nd half 1879 ...	2 8 6	2 0 2	2 11 0	1 14 0	5 0 10	4 10 10	0 4 2	8 11 2	27 12 8
Total...	14 4 6	13 4 8	32 11 5	6 4 10	23 6 0	31 9 5	1 13 10	37 8 2	160 14 10
COLLECTION LESS REFUND.									
On account of 1879 ... { 1st half	1,734 2 4	4,057 8 0	5,130 6 10	576 14 6	2,979 10 4	1,757 8 10	2,583 1 1	1,608 12 8	20,438 0 7
On account of 1879 ... { 2nd half	1,421 12 11	3,839 3 9	4,883 1 2	572 4 2	2,762 13 4	1,713 12 3	2,459 7 0	1,381 15 2	18,934 5 9
Total...	3,155 15 3	7,896 11 9	9,913 8 0	1,149 2 8	5,742 7 8	3,471 5 1	5,042 8 1	3,090 11 10	39,362 6 4
BALANCE.									
In respect of 1879 ... { 1st half	75 9 7	57 2 10	120 5 0	8 1 2	102 1 4	57 1 0	65 10 4	44 11 4	330 10 7
In respect of 1879 ... { 2nd half	404 14 0	287 5 8	586 2 4	13 12 7	321 12 6	118 0 9	196 2 11	185 7 8	2,123 10 5
Total...	480 7 7	344 8 6	716 7 4	21 13 9	423 13 10	175 1 9	261 13 3	230 3 0	2,654 5 0
OVERPAYMENTS HELD IN SUSPENSE.									
On account of 1879 ... { 1st half	2 0 5	0 4 10	1 2 0	...	1 0 9	0 3 4	0 5 7	1 2 2	6 3 1
On account of 1879 ... { 2nd half	...	...	...	...	...	...	0 5 0	0 6 7	0 11 7
Total...	2 0 5	0 4 10	1 2 0	...	1 0 9	0 3 4	0 10 7	1 8 9	6 14 8

APPENDIX III.

APPENDIX XV.

Vehicles on springs and Animals assessed for the half-year ending 30th June 1879.

Division.	4-wheeled carriages drawn by 2 horses.		4-wheeled carriages drawn by 1 horse.		2-wheeled carriages.		Horses over 13 hands.		Horses under 13 hands.		Horses under 11 hands.		Bullocks or bulls.		Male buffaloes.		Asses.		Dogs.		Amount.		Persons charged.		Total amount.										
	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.									
1	10	100	0	119	595	0	138	414	0	92	490	0	106	159	0	17	8	413	209	0	11	5	8	9	2	4	61	30	8	428	1,983	12			
2	7	70	0	157	785	0	184	552	0	77	335	0	169	253	8	29	14	8	415	207	8	...	...	...	...	...	21	10	8	442	2,278	0			
3	10	100	0	248	1,240	0	160	480	0	167	835	0	171	256	8	38	19	0	350	175	0	...	...	...	...	...	24	12	0	467	3,117	8			
4	...	...	...	38	190	0	23	84	0	24	120	0	24	36	0	13	6	8	29	49	8	1	0	8	2	0	8	27	13	8	165	509	8		
5	28	280	0	287	1,435	0	118	354	0	271	1,355	0	113	169	8	24	12	0	314	137	0	2	1	0	4	1	9	156	79	0	544	3,312	5		
6	76	760	0	222	1,110	0	46	138	0	300	1,500	0	111	166	8	14	7	0	186	98	0	...	...	...	...	...	2	0	111	55	8	302	3,832	0	
7	34	340	0	198	980	0	306	918	0	276	1,350	0	249	373	8	36	18	8	440	230	0	1	0	8	18	4	8	37	18	8	635	4,263	0		
8	54	540	0	122	610	0	144	432	0	161	805	0	124	186	0	31	15	0	286	143	0	...	...	...	...	...	3	0	12	67	33	8	462	2,765	12
Total...	219	2,190	0	1,391	6,555	0	1,124	3,372	0	1,338	6,949	0	1,067	1,600	8	202	101	0	2,508	1,254	0	15	7	8	44	11	0	504	252	0	3,415	22,568	0		

APPENDIX III.

APPENDIX XVI.

Vehicles on springs and Animals assessed for the half-year ending 31st December 1879.

Division.	4-wheeled carriages drawn by 2 horses.	4-wheeled carriages drawn by 1 horse.	2-wheeled carriages.	Horses over 13 hands.	Horses under 13 hands.	Horses under 13 hands.	Horses under 11 hands.	Bullocks or bulls.	Male buffaloes.	Asses.	Dogs.	Amount.	Persons charged.	Total amount.																			
	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.	Rs.	A.																			
1	15	150	0	127	635	0	120	360	0	102	510	0	104	156	0	17	8	364	182	0	6	3	0	...	...	...	...	...	...	...	...	...	
2	5	50	0	151	755	0	157	471	0	82	415	0	121	186	0	21	10	8	324	162	0	...	...	...	...	...	...	...	...	...	...	...	
3	11	110	0	221	1,105	0	155	465	0	172	830	0	163	244	8	32	16	0	310	155	0	...	...	...	...	...	...	...	...	...	...	...	
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	29	290	0	277	1,385	0	120	360	0	252	1,260	0	143	214	8	19	9	8	277	138	8	...	...	...	...	...	...	...	...	...	...	...	
6	72	720	0	101	505	0	49	147	0	291	1,455	0	74	111	0	9	4	8	187	93	8	...	...	...	...	...	...	...	...	...	...	...	
7	29	290	0	183	940	0	207	631	0	346	1,730	0	213	364	8	36	18	0	408	204	0	1	0	8	18	4	8	49	24	8	611	3,067	0
8	22	220	0	121	605	0	145	435	0	113	560	0	128	192	0	22	11	0	295	147	8	5	2	8	1	0	4	22	26	0	622	2,219	4
Total...	183	1,830	0	1,310	6,550	0	1,070	3,210	0	1,299	6,450	0	1,067	1,510	8	161	80	8	2,270	1,135	0	12	6	0	28	7	0	466	253	0	3,165	21,012	0

APPENDIX XVII.

Abstract of Assessment of Tax on Vehicles on Springs and Animals for 1879, compared with 1876-77 and 1877-78.

	1-wheeled carriages drawn by 2 horses.		4-wheeled carriages drawn by 1 horse.		2-wheeled carriages.		Horses over 13 hands.		Horses under 13 hands.		Elephants.		Ponties under 11 hands.		Bullocks or Bulls.		Buffaloes.		Asses.		Dogs.		Total amount.
	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	No.	Amount.	
For 1876-77	414	3,998	2,815	12,667½	2,310	6,980	2,983	13,450½	2,285	3,427½	2	24	477	238½	6,298	3,149	44	22	109	27½	1,261	639½	44,562 12
1877-78	411	3,630	2,804	12,618	2,183	6,369	2,842	12,789	2,171	3,256½	2	24	407	203½	6,273	2,636½	17	8½	94	23½	1,092	546	42,203 8
Total...	855	7,635	5,619	25,285½	4,493	13,349	5,825	26,230½	4,456	6,684	4	48	884	442	11,571	5,785½	61	30½	203	50½	2,353	1,176½	86,766 4
Average...	428	3,852	2,810	12,645	2,222	6,666	2,916	13,122	2,228	3,342	2	24	442	221	6,756	2,803	31	15½	102	25½	1,117	588½	43,391 8
For 1879	402	4,020	2,701	13,505	2,194	6,582	2,658	13,200	2,074	3,111	...	...	363	181½	4,778	2,380	27	13½	72	18	970	485	43,535 0
More...	...	168	...	860	...	...	...	168	...	...	...	...	...	...	...	...	...	...	...	...	...	200	8
Less...	...	...	...	...	...	64	...	...	...	231	...	24	...	38½	...	504	...	...	2	7½	...	103½	...

APPENDIX XVIII.
Vehicles on springs and Animals licensed for the year 1879.

Divisions.	4-wheeled carriages drawn by 2 horses.		Amount.		4-wheeled carriages drawn by 1 horse.		Amount.		2-wheeled carriages.		Amount.		Horses over 13 hands.		Amount.		Horses under 13 hands.		Amount.		Horses under 11 hands.		Amount.		Bullocks or bulls.		Amount.		Male buffaloes.		Amount.		Asses.		Amount.		Dogs.		Amount.		Total amount.
	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.	ES.	A.					
For First half of 1879 ...	199	1,990	0	1,374	6,870	0	1,110	3,830	0	1,325	6,625	0	1,047	1,570	8,236	118	0	2,417	1,208	8	9	4	8	42	10	8	554	277	0	22,005	0	22,005	0	22,005	0	22,005	0	22,005	0		
For Second half of 1879.	178	1,780	0	1,278	6,300	0	1,037	3,111	0	1,240	6,200	0	1,001	1,501	8,204	102	0	2,253	1,120	8	8	4	0	30	7	8	511	255	8	20,478	0	20,478	0	20,478	0	20,478	0	20,478	0		
Total...	377	3,770	0	2,652	13,260	0	2,147	6,441	0	2,565	12,825	0	2,048	3,072	0	440	220	0	4,670	2,335	0	17	8	8	72	18	0	1,065	532	8	42,483	0	42,483	0	42,483	0	42,483	0			

APPENDIX III.
APPENDIX XIX.

Statement of Taxes on Vehicles on springs and Animals collected in 1879, compared with 1876-77 and 1877-78.

Period.				Collections.							
				Arrears.		Current.		Total.			
				RS.	A. P.	RS.	A. P.	RS.	A. P.		
1876-77	...	...	...	2,505	4 0	38,295	0 0	40,800	4 0		
1877-78	...	...	...	1,899	0 0	35,447	8 0	37,343	8 0		
Total...				4,401	4 0	73,742	8 0	78,143	12 0		
Average	...	...	...	2,200	10 0	36,871	4 0	39,071	14 0		
1879	...	...	...	409	0 0	42,464	8 0	42,873	0 0		
Difference.											
More	...	...	...	.....	.....	5,593	4 0	3,801	2 0		
Less	...	...	...	1,791	10 0	.....	.....	.....	.....		

APPENDIX III.

APPENDIX XX.
Carriages and Animals compounded for during 1879, compared with those of 1875, 1876 and 1877.

	1-wheeled carriages on springs drawn by 2 horses.		4-wheeled carriages drawn by 1 horse.		Amount.		2-wheeled carriages.		Amount.		Horses over 13 hands.		Amount.		Horses under 13 hands.		Amount.		Ponies under 11 hands.		Amount.		Bulls or bullocks.		Amount.		Buffaloes.		Amount.		Asses.		Amount.		Dogs.		Amount.		Total amount.				
	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.	No.	RS.	A.				
For 1875	18	162	0	43	133	8	141	423	0	49	163	8	111	228	0	111	228	0	17	8	17	163	8	77	38	8	8	38	8	8	111	228	0	17	8	17	163	8	1,209	933	8		
For 1876	16	144	0	35	157	8	169	327	0	49	111	0	74	228	0	74	228	0	11	5	11	111	0	56	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	933	749	8	
For 1877	15	135	0	23	94	8	80	240	0	38	61	0	54	171	0	54	171	0	8	4	8	61	0	42	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	749	2,932	8	
Total...	49	441	0	101	445	8	320	990	0	136	355	8	239	627	0	239	627	0	36	18	36	355	8	175	87	8	8	87	8	8	114	29	0	12	6	12	114	29	0	2,932	979	8	
Average...	16	144	0	34	153	0	110	320	0	45	114	0	80	202	8	80	202	8	12	6	12	114	0	58	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	979	1,053	8	
For 1879	13	139	0	38	190	0	116	343	0	47	114	0	76	235	0	76	235	0	17	8	17	114	0	55	27	8	8	27	8	8	114	27	5	5	17	114	27	5	5	1,053	74	8	
More...	...	...	...	4	...	...	6	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Less...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

APPENDIX III.

APPENDIX XXI.

Classified abstract of Liquor shops assessed for 1879.

Locality.	Beer, Wines & Spirits Shops.					Puttai Arrack Shops.					Colombo Arrack Shops.					Toddy Shops.					Total.					Amount assessed.	Population.	Rates of Population to each shop.
	Assessed in Class.					Assessed in Class.					Assessed in Class.					Assessed in Class.					Class.							
	I.	II.	III.	IV.	Total.	I.	II.	III.	IV.	Total.	I.	II.	III.	IV.	Total.	I.	II.	III.	IV.	Total.	I.	II.	III.	IV.	Total.			
1st Divn.	3				3	1	2	5	8	1	1	1		3	28	55	53	1	5	31	60	97	1,820	65,547	676			
2nd do.	14				14	1	1	4	6	4	6			10	20		20	5	41	4		50	2,525	75,326	1,507			
3rd do.	450				54	1	1	1	2	5		8	2	2	12	23		28	5	57	3	4	99	4,848	50,957	515		
4th do.							1	1	2			1		1		1	12	13			3	13	16	231	9,791	612		
5th do.	10				10		6	6	11		4	5	2	11		3	19	29	51		17	29	37	83	2,019	65,491	739	
6th do.	11				11			1	1	2						1	2	7	10		12	3	8	23	771	19,390	843	
7th do.	4	6			10			1	10	11		3	6	1	10		5	8	32	45	4	14	15	43	76	1,891	60,568	915
8th do.	4				4				8	8		1	1		2				52	52		5	1	60	66	995	41,482	630
Total.	898				106	2	3	15	33	53	5	23	16	5	49	57	53	187	302	15	181	59	225	510	15,100	3,97,552	6,486	

APPENDIX XXII.

Statement of Liquor shops assessed for 1879, compared with 1876, 1877 and 1878.

Period.	Beer, &c., Shops.	Puttai Arrack Shops.	Colombo Arrack Shops.	Toddy Shops.	Total.
1876	101	55	49	299	504
1877	99	53	48	298	498
1878	107	54	52	297	510
Total...	307	162	149	894	1,512
Average...	102	54	50	298	504
1879	106	53	49	302	510

APPENDIX XXIII.

Statement of Demand, Remission, Collection and Balance of Liquor Tax for 1879, compared with those of 1876, 1877 and 1878.

Period.	Demand.	Remission up to 31st December 1879.	Collection up to 31st December 1879.	Balance.
1876	11,521	152	10,439	930
1877	11,372	38	11,101	233
1878	11,593	90	10,964	539
Total...	34,486	280	32,504	1,702
Average...	11,495	93	10,835	567
1879	15,100	32	13,196	1,578

APPENDIX IV.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

MUNICIPAL OFFICE,
PUBLIC WORKS AND CONSERVANCY DEPARTMENTS,
MADRAS, February 1880.

From

J. A. JONES, Esq.,

Vice President.

To

J. R. BURROWS, Esq.,

President.

SIR,

The year now concluded was the first during which the affairs of the city of Madras were regulated by the new Municipal Act V of 1878, and accordingly it has been one which has thrown many further burdens and imposed fresh responsibilities on this department. It has been a year in which we have had carefully to feel our way, so that while using any new powers conferred on us, the results of our action might fall as lightly as possible on the rate-payers.

Notwithstanding this however, I regret to say that we have not met with uniform support in our efforts to improve sanitary matters in the city, and in fact have met with considerable opposition.

The conservative ideas, as well as the habits of the native community, have been in some instances the great obstacles, and no doubt it must take considerable time to carry to completion and perfection any schemes of sanitation which might be devised to ameliorate public health and public convenience.

In many matters, however, it would seem that we have been acting, as it were, *ultra vires*, and as many cases in dispute were carried to the various Courts in the city, this added another obstacle and further delayed some of the actions of this department.

No doubt such circumstances were to be expected in following the introduction of a new Municipal Act, and if less has been done during the year than might have been expected, allowance must be made for the difficulties which were encountered.

The chief works to which this department turned its attention during the year were as follows :—

The Improvement of Drainage.

Do. of Water Supply.

Do. of Public and Private Markets.

The collection of night-soil from private houses, &c.

Improvement of Parcherries.

Extension of Sewage Farms.

Storage of Inflammable Oils.

DRAINAGE SCHEME.

It will be remembered that in June 1878 a sketch of a scheme for the drainage of Black Town was submitted to Government after being approved of by the Commissioners. The Government passed the following order:—

Order, 6th August 1879, No. 1506.

"In their Proceedings, 11th July 1878, No. 1212, the Government informed the Commissioners that the drainage scheme for Black Town, proposed by Mr. Jones would be considered by them along with Mr. Clarke's scheme, regarding which the Commissioners in their Proceedings, 19th December 1877, had stated their opinion that it was too costly and also unsuited to the requirements of the city. Later in their order, 18th January 1879, No. 82, the Government stated that orders would be passed on the above schemes.

2. The Commissioners now submit an application for a loan of 3,00,000 Rupees for an extension of the works for the distribution of water in the city. His Grace the Governor in Council however considers that it would be unadvisable to forward an application for a loan for carrying out works which would be incomplete; the one object which would justify a considerable Government loan under existing circumstances is a radical improvement in the drainage system of the city. Apart from this most important consideration, His Grace in Council considers it would be useless to submit to the Government of India, proposals for a loan for a partial extension of the water arrangements, and will not therefore transmit this application until a complete scheme for the drainage, as well as for the extension of water-distribution, has been submitted for his approval. He concurs with the Commissioners in thinking that Mr. Clarke's proposals are unsuited to the requirements of the city, and is of opinion that Mr. Jones' prospectus for the surface drainage of Black Town may be favourably entertained. It will, however, be necessary that complete plans and estimates should be framed.

3. As it is doubtful whether an application to the Government of India for a large loan will succeed in the present financial condition of the country, the Commissioners will also take into consideration the question of raising the money in the market."

A sum had been entered in the Budget for preparing detailed plans and sections of that part of Black Town which lies between the esplanades and the Canal, and these were completed in September and submitted to Government, when the following order was passed:—

G. O., No. 2698W of 27th October 1879.

"The President of the Madras Municipality will convey to Mr. Jones the approval by Government of the care with which the details of the scheme of surface drainage have been worked out.

2. Endeavours will be made for placing at the disposal of the Financial Department an Officer of the Public Works Department for the purpose of examining the scheme and considering its suitability to the town. The Chief Engineer will arrange to submit for approval, as early as possible, the name of the Engineer whose services he proposes to make available for this duty.

3. In the meanwhile, with a view that the merits of the scheme of Mr. Jones may be actually tested, and looking to the fact that the area to which it is suggested at present to apply surface drainage is divided into several wholly

independent areas, the Government see no reason why one or more of these sections should not be at once taken up according to the plan submitted, by which means some knowledge of the exact cost, and the materials most suitable, would be promptly gained.

4. The Government would suggest the selection for these experiments of areas in which the drainage is proposed to be entirely surface, as they would still hope that plans may be devised for entirely dispensing with covered drains, excepting so far as concerns the crossings of streets.

5. With respect to the sewer near the hospital bridge, it is remarked that the hospital drainage has already been disconnected from it and diverted to purely surface drainage, so that the small area remaining, probably on further consideration, be similarly treated.

6. This order will be communicated to the President of the Municipality through the Financial Department."

With regard to para. 3 of the order, the specifications and estimates were prepared for a selected portion, and at the time I write (February 1880) the work is just about being begun. The question of the drainage of Black Town will now, I hope, receive a final settlement. The plans and sections for the remaining portions of it are pretty far advanced.

Before leaving this matter, it is but right that reference should be made to the remarks of the Army Sanitary Commissioner, dated 11th July 1879, which are as follows:—

"Nothing effectual had been done to remedy the foul state of the city and its subsoil, long ago described by the late Mr. Gover; into this unwholesome place thousands of suffering poor were crowded. It would have been a great benefit to them if they had been kept out of it; together with the townspeople, they died in such numbers as to raise the general death-rate to nearly 10 per cent., and, nevertheless, one of the first statements made in the present report is the expression of a hope that the Government will not force the authorities to drain and sewer the city.

As will be presently seen, certain details of sanitary work had been done, but all they could accomplish, even if perfectly carried out, would leave the subsoil as it is.

For sweeping, removing dirt, clearing drains and public latrines, they employed during the year 987 men, women, boys and girls, and 300 carts with bullocks and drivers, and 87 peons. About 340,445 cartloads were removed in the year, and used for filling and reclaiming swampy land.

The annual cost of this work is £15,000, of which £203 was recovered by sales. Under the head "Main drain" occurs the following entry:—"About 6,000 cubic yards of solid matter was removed from the "Black Town main drain at a cost of Rs. 2,260-3-8." We have often called attention to this useless work and its cost. If the town were properly drained this item would disappear. A few public latrines have been put up, but in two divisions of the city, between 50,000 and 60,000 people have no latrine accommodation and have to resort elsewhere for natural purposes, and hence to fouling of the streets."

The first remark which it is necessary to make, is that the subsoil of the city is not in the state described by the late Mr. Gover; no doubt Mr. Gover believed

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PUBLIC WORKS CONSERVANCY DEPARTMENTS.

that he had reasons for making the remarks he did, but these were really without any foundation whatever, and what he took for "subsoil saturated with sewage," is what can be found all over Madras—nothing less than black sand mixed with a little clay, the sand being so fine as to have the character of tin sand. The subsoil is remarkably little polluted. Throughout the town there are drains of a kind, and as the houses with their backyards are paved, as a rule, except in parcherries and similar places, the water after use does to a very great extent reach the drains. In the most crowded portions of Madras there are underground drains of considerable length and capacity, to carry off storm and subsoil waters, though these are not fit for the purpose of carrying sewage; and this is one of the evils I propose to remedy.

The general features of my scheme for draining Madras are these:—

To provide open sewers along the streets for surface water, house-drainage, &c.

To provide sewers in the valleys and other necessary places to carry off the sewage alone, any storm waters being divided from it and carried to other outlets.

To improve the present sewers to make them more efficient for the carrying off of the storm and subsoil waters.

To pump the sewage collected and place it on land at some distance to the north of the town.

In addition to this, the house to house collection of night-soil and other conservancy arrangements, hereafter detailed, should make a marked improvement on the health of the town.

The main drain will not then receive sewage, but it will still receive a considerable quantity of road grit which, in fact, forms the greater part of the solid matter requiring to be cleared out of it at present. Unless a very radical improvement is made in the fall of this drain, and unless its outfall can be improved, I fear that even after Madras is well drained some annual cleaning to the drain will require to be done. At present it is found that we cannot keep the mouth of the drain open from its being continually blocked with sand, and because of the gases which evolve from it and which are perfectly unbearable to those who live in its vicinity, but after all sewage is diverted from it such latter nuisance will cease to exist, and when the present sewage drains which flow into it are improved, it may be possible to improve the gradient and the outfall, and investigations on this point are now being made.

The Commissioners have not, I believe, hesitated about draining the city, but have so regarding the adoption of any one scheme, and it was necessary that full investigation should be made, as the city could not bear the result of failure. The unsatisfactory state of Calcutta after the completion of its drainage was one of the causes which militated against the adoption of the late Mr. Clarke's scheme.

The water supply certainly needs improvement, but before this can be extended better drainage must exist. There is now, however, sufficient water in Black Town to enable the drainage now to be undertaken to be effectual.

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PUBLIC WORKS CONSERVANCY DEPARTMENTS.

WATER SUPPLY.

The question of the water supply has been one which has repeatedly come before the Commissioners.

To extend the water supply over all the large area of what is included in the Municipal limits of the city of Madras would be impossible on account of the cost, and it would be at the same time injudicious, unprofitable and needless on account of the very scattered character of the population.

To what area therefore the water supply should be extended has been the question; and this, I think, has nearly received a solution; and I have received orders to make an estimate for completing the scheme according to the requirements of the Act within this area, and at the same time to include the cost of substituting a closed pipe for the open channel which now conveys the water from the Red Hills to Madras.

MARKETS.

The improvements in public and private Markets has been one which has occupied a considerable portion of attention. The Act gave extended powers with regard to public and private Markets, and efforts were made to make improvements in both classes.

The Municipality purchased for Rs. 18,000 during the year the Smithfield Market, which has a central position for the western portion of Madras. A good market was much needed in this locality, the private markets here being of a very inferior description.

Before licenses were granted to any private market all these markets were inspected, and it was proposed to refuse licenses to those not fit for a market, but it was found that where the market could be made fit for a market, licenses had to be granted and order given for their repair; and I may say that extensive repairs are now being executed in all the markets thus called on.

In two cases it was found necessary to suppress the private markets on account of the position and construction, viz., one in Choolay and another in Trivatoor High Road.

The owners of both markets have refused to obey the order of the Commissioners, and the former has appealed to the High Court, which matter is still undecided.

The idea of building a new central market has been abandoned for the more politic idea of having smaller markets in such parts as they may be found to be necessary, or of purchasing markets which are in existence and improving them.

I can report with much satisfaction that the action of this department during the year has caused a very great improvement in the private markets of Madras, and further endeavours will be made to complete what has been so successfully begun.

NIGHT-SOIL COLLECTION.

Sections 307 and 308 of the Act made it imperative, first on account of the limited time, and also because all night-soil had to be removed in covered carts, that some separate system of the removal of night soil should be adopted.

The system in force in the 6th division during 1878 was extended to all houses and continued; this was explained in an Appendix to the Report for that year.

A system of removal was also adopted in the 2nd and 3rd divisions, and is being gradually extended to other divisions.

PUBLIC WORKS CONSERVANCY DEPARTMENTS.

This removal has caused a considerable addition to the expenditure under conservancy; and this will be noticed as a separate item in the accounts.

An endeavour to profit by the night-soil thus collected was made, and Messrs. Shaw and Winch paid for sometime 4 annas a cartload of about 14 c. ft. and manufactured the night-soil into manure for coffee estates. These experiments were unsuccessful owing to the large quantity of sand collected with the night-soil.

A Committee was then appointed to enquire into the matter and their report appears as an appendix. In it will be found a full account of the methods employed in the removal of night-soil and suggestions made for its utilization. Photographs of the carts employed will also be found in this report.

PARCHERRIES.

The question of the improvement of Parcherries was also attended to.

About 204 huts are now in course of removal from Cochrane Basin Road. This place was always a hot-bed of disease. The hut owners will receive compensation for their huts, and the ground will be levelled, the drainage improved, and the huts then again allowed to be built in regular lines.

The plans for the improvement of Tinnevely settlement are ready, but no funds have been allotted for carrying out this much-called for improvement.

SEWAGE FARM.

The Triplicane sewage farm has been considerably extended during the year and the Kishnampett farm slightly.

A new farm was constructed in Royapooram where the sewage from the Tinnevely settlement used to empty itself and thence run into a tank close at hand. The ground around was usually undescribably filthy. This place is now a very flourishing sewage farm, the cost of construction being little more than Rs. 1,000, and it now pays all its expenses with a large surplus.

ROBINSON'S PARK.

A large space of ground near the above Farm has been given over to a Committee for the purpose of forming a Park, and the receipts from the farm are being devoted to forming the Park. The sewage farm will form a portion of the Park when it is complete. A report regarding this Park will also be found further on. Dr. Thompson, C.I.E., who is the Secretary of the Park Committee, takes considerable trouble in its construction.

KEROSENE OIL.

Madras imports a large quantity of Kerosene oil, and its storage in crowded parts of the town in places not well suited for the purpose, called for serious attention.

A proposal was made to erect public stores, but no suitable site could be obtained during the year. The danger has now (February 1880) been obviated by the temporarily leasing of a large store-house apart from any houses for the purpose, where persons will be required to store any oil over 200 gallons in amount unless special places are provided for it by the owners. This matter belongs more particularly to this year (1880), and therefore further mention in this report is not called for.

These have been the chief calls on this department, and I shall now proceed to report on its administration in detail, making such further remarks as may be necessary.

PUBLIC WORKS CONSERVANCY DEPARTMENTS.

PUBLIC WORKS.

NEW WORKS.

In preparing the budget for 1879, Rupees 30,000 were originally allotted for such works as might be found necessary during the year. Government, however, called for a revision of the Budget and the greater part of this grant was excluded.

The following shews the total amount expended at the end of the year :—

Extension of Workshop.....	Rs.	1,184	2	2
Dust bin.....	„	6	0	0
Wall Tax Road Cart-stand.....	„	511	7	6
Drainage.....	„	5,436	11	0
Water Supply.....	„	13,181	15	2
Hydrants for Fire Engines.....	„	4,447	0	0

The extension of the Workshop was much needed, and has been a considerable improvement as affording more covered space for the execution of work and repairs. Only one dust bin was erected, but this fact is capable of explanation. No grant was made eventually for dust bins and this one was urgently called for. It is not very creditable to report that only one dust bin was erected during the year when, as I reported in my last year's report, that 2,900 are still required, but such is due to no fault in this department, as no money was allotted for the purpose.

The cart-stand in Wall Tax Road is an improvement. Carts used to collect on open ground here and the place was of course not in a very sanitary condition. An area has now been fenced in and metalled with a slope towards an open drain. It has become a source of income; its revenue this year will amount to Rs. 880.

In well selected places more of these might be erected and conserved as they are a source of income to the Municipality.

DRAINAGE IN SATANA NAIK STREET, THACKER'S AND POONAPA MOODELLY STREET.

The amount of Rs. 5,436 spent on drainage is not one by which any considerable improvement to the town drainage could be effected, and I have on a previous occasion called attention to this expenditure which, though one urgently called for is not spent in a profitable manner. This annual expenditure at 6 per cent. represents Rs. 90,000, and had this amount been borrowed a considerable portion of the drainage could have been done. Steps are now being taken to put a complete scheme of drainage in hand for Black Town, and the above amount of Rs. 5,436 was spent as far as possible in other portions of the town than that shortly to be taken in hand.

I have already recapitulated generally the present position of the drainage question, and I trust that before another year passes away that some considerable portion will have been executed and money available for the remainder.

WATER SUPPLY.

The new works done under the heading of Water Supply I shall refer to when I take up "Water Works" as a whole, and I shall mention the "New Hydrants" in that portion of my report also.

LATRINES.

No additional latrines have been constructed this year, but four or five latrines have been enclosed by mud walls instead of bamboo mats, and this of course is a slight improvement. New latrines are sadly wanted and of an improved description, but this means extra labor and increased expense in construction, the former a permanent burden which can but ill be afforded.

Latrines, Dust Bins and Drainage are the works which are most urgently called for, and for these should larger amounts be allotted.

MAINTENANCE.

The following were the amounts appropriated up to the end of the year :

Roads.....	1,14,484
Buildings.....	4,436
Drainage.....	3,388

The tables included in this report fully shew the amount of work done on each road which was reformed or repaired. A separate table shews the amount spent on roads such as only received ordinary maintenance :—

Table No. 11 shews that the M. F. Yards.

Number of miles reformed was.....	47 5 200
Number of squares.....	42,927-94
The average cost per square was.....	Rs. 2 2 5

					Cost.		
					RS.	A.	P.
The number of squares reformed, 6" thick was ...	835-85						
Do. do. 5" do. ...	3,179-05						
Do. do. 4" do. ...	33,042-10	92,415	1	7			
Do. do. 3" do. ...	3,773-94						
Do. do. 2" do. ...	2,097-00						

Total squares and total cost..... 42,927-94 92,415 1 7

giving the average cost as above.

The cost per square last year was ... Rs. 2 6 11

and the cost per mile last year was ... „ 2,188 6 0

Deducting the length reformed, viz., 47m. 5ft. 200yds. miles, from the total of 271 miles maintained, the cost of pure maintenance this year was Rs. 92 per mile, as per items 4 to 9 of the following table :

	RS.	A.	P.	RS.	A.	P.
1. Amount paid for work done on Estimate of 1879 during the year ...	92,054	3	2	...	...	...
2. Do. unpaid... do. do. ...	360	14	5	...	...	...
3. Do. for work done in 1879 on Estimates of 78-79 ...	...	...	...	5,652	10	2
4. Do. for levelling, &c., in 1879 on do. of 1879. ...	989	2	9	...	...	...
5. Do. unpaid... do. do. ...	365	6	4	...	...	...
6. Do. paid for materials used during the year for emergent repairs... do. do. ...	10,881	0	9	...	...	...
7. Do. unpaid do. do. ...	2,469	7	3	...	...	...
8. Do. paid for labour and sundries ...	4,168	11	8	...	...	...
9. Do. unpaid do. do. ...	1,722	0	1	...	...	...
10. Do. paid for materials used in 1878-79... do. do. ...	...	...	...	2,659	10	9
11. Do. for labour and sundries... do. do. ...	...	...	...	1,345	8	5

As above the total for 1879 is Rs. 113,010-14-5 and the total of items, Nos. 1 and 2 is Rs. 92,415-1-7. The quantity of work done for this latter amount is as under :—

Thickness.	Number of squares of 100 square feet.	Length.		
		Miles.	F.	Yds.
Inch				
2	2,097-00	2	3	122
3	3,773-94	4	1	59
4	33,042-10	35	5	194
5	3,179-05	3	1	18
6	835-85	2	2	27
Total	42,927-94	47	5	200

This gives a rate per square of Rs. 2-2-5 against Rs. 2-6-11 for last year (1878) and per mile Rs. 1,935-13-8 against Rs. 2,188-6-0.

The cost of maintaining and reforming of the 271 miles was Rs. 422 per mile.

The Contractors during the year were—

1st and 3rd Divisions.....	A Moonesawmy Moodelly.
2nd, 4th and 5th do.	Ramasawmy Pillay and Veerasawmy Pillay.
6th, 7th and 8th do.	P. Yellayalwar Naidoo.

I here insert a report which may be of some value as to the results, of an enquiry made into the composition and defects in our roads in reply to a Memorandum from you.

The conclusions come to in that report have been, after one or two trials, generally found correct with one exception, and that is, that the proportion between the clay and the gravel should be in the ratio of 2 to 3 instead of 3 to 2 : in fact the proportion should be reverse. The following table shews the proportions which should in future be adopted for the roads.

Inches thick.	Parahs Laterite.	Gravel.	Clay.
6	21	7½	2½
4	14	5	1½
3	10½	3½	1¼
2	7	2½	¾

The following is the report above referred to :

“There is no doubt but that the roads, the liability period of which is now expiring, are in a worse state than they were at the end of former liability periods, and are thus less repairable, and that a less time lapses between the end of their liability and their reformation. This is accounted for thus :—first, that these roads were formed during the famine, at a time when traffic was very heavy, and part of their liability period was during such time ; and, secondly, that the average of rainfall on which the durability of our roads so much depend was greatly below the average.

“To the deficient beating and rolling of the road may be due in some measure the short life of the roadway, and I have frequently called attention to this matter.

“The state of the roads does not depend entirely on the total of rainfall, but also in the manner in which it is distributed throughout the year.

“The rainfall has been thus during the last 9 years :—

Year.	Rainfall.	Days.
1870 ...	74-10	98
1871 ...	56-35	94
1872 ...	73-77	110
1873 ...	51-92	96
1874 ...	62-90	105
1875 ...	37-11	93
1876 ...	21-60	73
1877 ...	66-20	98
1878 ...	24-48	71

“It will be observed that the year 1873 was a very bad year, and that although the amount of rainfall in 1877 was 66-20, about 23" of this fell in 23 hours, so that

the remainder spread over the 97 days was very much below the average. 1876 again was a very bad year. An average quantity of rain spread over a large number of days keeps the roads in good condition. A large quantity of rain in a short time destroys the roads, and a small quantity spread over a large number of days of course renders them so dry that they break up very easily.

"There is no doubt this is the true reason of the short life of the roads now running out of liability.

"With reference to the other parts of your Memo. I think that some improvement is necessary with regard to the execution of road-works. I refer chiefly to laterite roads.

"The Contract (para. 9) states that the following are to be the proportions of materials (Table A) which are to be used in the construction of roads.

A

—	Thickness.	Laterite.	Gravel.	Clay.	Total.	Cubic inches in a square of each.	Quantity allowed by Municipality (Laterite only.)
Roads	6"	18	$\frac{3}{4}$	3	$21\frac{3}{4}$	86,400	72,000
Do.	4"	$12\frac{3}{4}$	$\frac{3}{4}$	$1\frac{1}{4}$	$14\frac{7}{8}$	57,600	49,500
Do.	3"	$8\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$	$11\frac{1}{2}$	43,200	35,500
Do.	2"	6	$\frac{3}{4}$	$1\frac{1}{4}$	8	28,800	24,000

"I am not aware on what principle the proportions were laid down, but it must be evident that the quantity necessary for a road should be in proportion to the thickness, and that therefore the laterite should be (say that the quantity for 6. is correct.)

6"	18 parabs
4"	12 "
3"	9 "
2"	6 "

but the 4" road has more than this proportion and the 3" has less.

"Then again it must, I presume, be supposed that the gravel and clay were intended to fill up the interstices left in laying down the laterite.

"From the quantities this apparently is not the case.

"The totals of gravel and clay in proportion to the laterite stand thus:—

	L.	Total G. & C.	Proportion.
6"	18	$3\frac{1}{4}$	48 : 1
4"	$12\frac{3}{4}$	$2\frac{1}{2}$	5 : 1
3"	$8\frac{1}{2}$	$2\frac{1}{4}$	4 : 1
2"	6	2	3 : 1

Thus except, in a 6" road, the thinner the road a greater proportion of clay and gravel is used.

"If the clay and gravel are intended to be mixed throughout with the laterite this is evidently incorrect; if the clay and gravel are intended to be mixed with only the top layer of the road it is also evidently wrong; as then the total of clay and gravel would remain the same in all roads. Another point is that the same

amount of gravel is put for all roads and the amount of clay varies, but not in proportion to the thickness of the road thus:—

	L.	C.	Proportion.
6"	18	3	6 : 1
4"	$12\frac{3}{4}$	$1\frac{1}{4}$	7 : 1
3"	$8\frac{1}{2}$	$1\frac{1}{2}$	6 : 1
2"	6	$1\frac{1}{4}$	4.8 : 1

and so, except in 6" road, the thinner the road the greater the proportion of clay.

"It is evident that in every quantity of laterite laid down there is a certain proportion of space to be filled up with smaller material.

"The question is what is the proportion of space to be filled up.

"The D. P. W. roads have the following proportions:—

	L.	G.	
6"	18	9	or 2 to 1
4"	12	6	or 2 to 1
3"	9	$4\frac{1}{2}$	or 2 to 1

In the above no clay is used.

After a personal trial I find that the interstices per parah amount to 2,300 cubic inches or 4,000 to 2,300, say 2 to 1, and therefore the total of gravel and clay should amount to this.

Referring again to table A, it is necessary to point out that the quantity of laterite only can be calculated when taking the quantity of material required for the formation of a certain thickness of road. Giving the calculation in cubic inches as required and as allowed by the table, we have:—

Thickness of Road.	Quantity really required.		At present.	
	Laterite—cubic inches necessary.	Proportion of clay and gravel at half.	Quantity of laterite allowed cubic inches.	Thickness of road (real).
6"	86,400	43,200	72,000	5
4"	57,600	28,800	49,500	$3\frac{1}{2}$
3"	43,200	21,600	35,000	$2\frac{1}{2}$
2"	28,800	14,400	24,000	$1\frac{1}{2}$

"The first column shows the contents in a square of each thickness of road.

"The second the amount of gravel and clay required to consolidate the amount of laterite in column 1.

"The third column shows the amount of laterite at present used, and the 4th what thickness of road this would really give if it had a proper proportion of clay in it, but which at present is not the case.

"The proportion of gravel to clay is an important matter. Were the weather always of an average character it would be easily determined, but in this country there are long periods of drought and at other times sharp downfalls of rain. There is not often a long continuance of wet weather, and I am therefore of opinion that a larger proportion of clay might be used in the roads than at present with advantage.

"In a six-inch road a proportion of 4 clay to 1 gravel is used, and in a three-inch 2 to 1; probably a mean between these would be correct, and laying down the rule thus:—

"That the amount of laterite should in cubic capacity equal the amount in one square by its thickness. That the gravel and clay be in addition to this, and the total of the two be in proportion to one-half,* and that the clay be to the gravel as 3 to 1". We arrive at the following table:—

Road.	Cost with- out liabi- lity, new.	Cubic inches, laterite.	Paras.	Cubic inches, gravel.	Paras. gravel.	Cubic inches, clay.	Paras. clay.	Cost of pre- sent road per square with liabi- lity.
6"	RS. A. P. 3 1 10	86,400	21	10,800	2½	32,400	7½	RS. A. P. 2 9 0
4"	2 1 9	57,600	14	7,200	1¾	21,600	5	1 14 11
3"	1 9 4	43,200	10½	5,400	1¼	16,200	3¾	1 11 4
2"	1 0 11	28,800	7	3,600	¾	10,800	2½	0 13 1

"This would give a road really the thickness stated, and would give a truly homogeneous road which is a thing desired, so that it will wear evenly from top to bottom.

"Referring again to the agreement para. 9, it states that—

"The under layer is to consist of pieces weighing not more than $\frac{3}{4}$ of a lb., and the middle layer not more than $\frac{2}{3}$ of a lb., and the top layer of smaller pieces.

"Laterite does not usually split into square lumps but into pieces, the shapes of half cubes.

"If the laterite broke into square lumps the pieces would be about $2\frac{1}{4}$ " square for the under layer and $1\frac{1}{2}$ " for the upper. Now as laterite breaks into half cubical shapes, it is evident that if the Contractor kept strictly within his contract, the pieces in one layer only would extend above the surface of the road. The specified sizes are therefore much too large and a specification by size would be much better than a specification by weight. The size should vary with the thickness of the roads.

"I do not see the necessity in roads already formed of having pieces at the bottom of a different size from the other parts of the road, and it is evident that when the road has worn down to these large pieces, especially if the interstices between them was not properly filled, it would be no longer a fit road.

"I think no pieces of laterite which will not pass on any axis through a 2" ring should be allowed to be used.

"As due consolidation in addition to homogeneousness is one of the results to be desired in the construction, I believe that much heavier rollers than are at present in use are required. The slow and tedious method of rolling roads by rollers of a weight of about 3 tons, being dragged by a number of women needs to be superseded by much heavier rollers, 8 to 10 tons in weight, and driven by steam-

* This is found to give a very soft road in monsoon weather, and that it would be better to adopt the proportion of—gravel : clay :: 3 to 2. See table preceding report.

power, and I would therefore recommend that one be got out from England at the beginning of next year.

"The question of "liability" is one which will take a little more time to consider and report on, and as I wish to get the drainage scheme out of hands I will delay that question meantime.

26th June 1879.

J. A. JONES.

"P.S.—I have omitted to state that all the present Road Contractors agree with me as regards the desirability of having more binding material in the roads."

J. A. J.

MEMO. BY PRESIDENT.

"In the above report Mr. Jones shows that the materials used by the Municipality for re-metalling the roads (laterite gravel and clay) are not applied in sufficient quantities to produce the thickness of metalling which is entered in the estimate. This, however, is a matter of no great importance, and could be put right if thought necessary by correcting our present assumed thickness so as to make them the same as the real; e.g., our assumed 6-inch thickness of metalling might in future be called 5-inch, 4-inch, 3½-inch, and so on. I see no objection to this alteration being made when the present contracts are run out.

It is also shewn that the quantities of gravel and clay bears the following proportion to laterite in the different thicknesses at present assumed by the Municipality:—

Assumed thickness.	Gravel and Clay.	Laterite.
6"	1	4.8
4"	1	5
3"	1	4
2"	1	3

and Mr. Jones argues from a personal trial, that in order to fill up the interstices properly the proportions should be 1 of gravel and clay to 2 of laterite.

It is also recommended that an uniform proportion of 3 to 1 as between clay and gravel should be adopted for all thicknesses.

Mr. Jones goes on to point out another condition of our present agreement which he considers open to objection, and recommends that instead of the size of the pieces being limited by weight (to $\frac{3}{4}$ lb. for bottom layer) as at present, they should be limited by their size, and says that he does not "see the necessity of having the pieces at the bottom of a different size from the other parts of the road," and would have all the laterite so broken up as to pass through a 2" ring on any axis. Finally, Mr. Jones recommends the use of much heavier rollers.

Before committing the Municipality to a system of road-making so different from that now existing, and which is the result of great experience, I should prefer to see Mr. Jones' recommendation tried on a piece of road specially selected for the purpose, and which would afford a fair comparison with other roads reformed about the same time on the old system.

I quite agree in the recommendation that heavier rolling should be applied and it is intended to include in next year's budget, shortly to be laid before the Committee, the charge for a steam roller of 8 or 10 tons. I think it will very likely be found that the roller will suffice to make our roads all that they should be.

I fear that the large increases of gravel and clay proposed would be found very

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

conducive to slush in wet weather, and before any general addition is made to the proportion of these materials, I should like to see what the effect of breaking the laterite smaller would be. There is always a quantity of small stuff in laterite which runs very compactly when well beaten and watered.

In reforming the Poonamallee Road I shall be glad to see a portion (say 400 feet) repaired on the plan suggested by the Vice-President; but for the remainder I prefer a 2" reform of the centre on the old plan, only insisting on the Contractor breaking the stones small according to his contract."

27th June 1879.

L. R. BURROWS.

BUILDINGS.

Table Nos. 4 to 8 & 10 shows in detail the cost of maintenance of the several buildings noted; they are, as will be seen, chiefly Latrines, Toll-gates, Slaughter-houses, Dust Bins and Municipal Office.

DRAINS.

For the maintenance of existing drains Rs. 3,000 were allotted, but at the end of the year it had been found necessary to exceed this amount by Rs. 600 partly required for repairing the arch of the Triplicane Main drain which was found to be unsafe. The appropriations were:—

	Rs.	A.	P.
Black Town Main Drain	...	...	...
Triplicane	...	...	...
Street Drains	...	...	...
Total	3,688	9	4

TANKS AND WELLS.

For the repairs of tanks and wells Rs. 306-6-6 were appropriated, and Rs. 1,619-7-9 for the repairs of the fences along the banks of the Cooum: these are now in good repair.

PEOPLE'S PARK.

The following works were done in the People's Park out of the grant of Rs. 1,800 for that purpose.

	Rs.	A.	P.
Repairing gates	...	...	...
Do.	...	...	...
Bear enclosure	...	...	...
Rhinoceros enclosure	...	...	...
Repairing wooden bridge of wild animals' enclosures	...	...	...
Elephant shed	...	...	...
Bears' cage	...	...	...
Wicket gate at Vepery gate	...	...	...
Converting Elephant shed into Crocodile enclosure	...	...	...

CONSERVANCY.

The allotment for Conservancy was Rs. 2,09,379-0-0, and the amount paid during the year was 1,99,658.

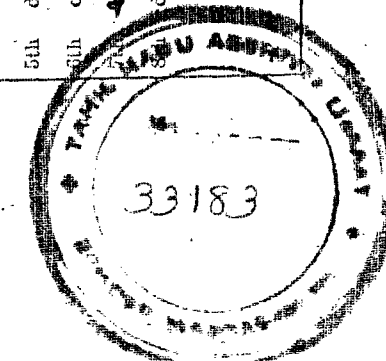
The following table shows the staff employed.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

Table showing the Conservancy Staff attached to each Division on the 31st December 1879.

Divisions.	STREET CONSERVANCY.														HOUSE CONSERVANCY.																	
	Labour.										Bullocks.				Contractors' Carts, Rubbish, Sawage and Latrine.				Municipal Box Carts.	Municipal Iron single Bullock Carts.	Municipal Barrel Carts drawn by Man.	Pairs of Bullocks.				Single Bullocks.	Drivers.	Coolies.	Contractors' Carts.	Municipal Box Carts.	Municipal Trophies.	Municipal S. B. Carts.
	Side Coolies.	Box Cartmen.	Cesspool Boys.	Sweepers.	Latrine Men.	Latrine Women.	Latrine Boys.	Latrine Girls.	R. D. Coolies.	Beach Coolies.	Hand Cartmen.	Bullocks.		Drivers.	Contractors' Carts, Rubbish, Sawage and Latrine.	Municipal Box Carts.	Municipal Iron single Bullock Carts.	Municipal Barrel Carts drawn by Man.	Pairs of Bullocks.	Single Bullocks.	Drivers.	Coolies.	Contractors' Carts.	Municipal Box Carts.	Municipal Trophies.	Municipal S. B. Carts.						
												Bullock, Pairs.	Bullocks, Single.																			
1st Division	47	4	7	30	18	14	1	1	4	...	...	42	2	44	41	1	2	...	...	12	...	12	24	...	...	...	...	...				
2nd do.	44	23	13	44	10	8	...	...	...	...	...	70	...	70	70	...	...	...	...	12	...	12	24	...	...	...	...	...				
3rd do.	43	21	15	39	15	2	1	1	...	6	...	61	1	62	61	...	1	...	...	10	...	10	24	...	...	...	...	...				
4th do.	8	3	3	6	4	4	...	...	...	...	...	10	...	10	7	3	...	...	...	10	...	10	24	...	...	...	...	...				
5th do.	49	16	18	34	24	17	...	...	...	...	6	51	3	54	49	2	3	4	...	...	...	...	...	...	...	...	...	...				
6th do.	20	1	5	14	13	11	...	...	3	...	2	13	1	14	13	...	1	1	...	...	...	...	...	...	...	...	...	...				
7th do.	49	22	25	46	17	9	1	2	1	1	...	68	3	71	65	3	3	...	...	...	...	...	...	...	...	...	...	...				
8th do.	26	12	11	19	14	10	2	1	3	...	...	34	...	44	30	4	...	...	...	...	...	...	...	...	...	...	...	...				
Total...	283	102	98	232	115	75	6	5	11	7	8	349	10	359	336	13	10	5	...	24	6	82	60	1	1	22	8	...				

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PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

It will be noted that the system of house conservancy or daily collection of night-soil was being gradually introduced during the year, and that at the end of the year it was in force in 6th, the 2nd and 3rd Divisions.

The supervising establishment has not been increased with the exception of the peons.

It is not necessary to enter here into particulars regarding the collection of night-soil. The Committee's report, to which I have before alluded, seems to give sufficient information on the principal points which might be discussed.

It will be noticed that there was an increased allotment for conservancy during this year over the previous, the increase being Rs. 67,083. The chief reason for this increase was the establishment of the house-to-house night-soil collection.

CARTS.

During the year the Municipality built 10 iron box carts which were added to the force in use, and there were also built by contract 208 hand-carts and buckets of the description given in the report of the Night-Soil Committee; of these 176 were added to the force and 22 iron lorries for conveying the buckets when collected from these hand-carts were also constructed and put into use.

Photographs are attached of these lorries and hand-carts which makes further explanation as to the construction unnecessary—considerable attention was given during the latter part of 1878 as to what system and what class of carts it was advisable to adopt for the collection of night-soil, and after careful enquiry and calculation it was found that in sparsely populated districts the single bullock iron carts were best for crowded localities and the collection could be more cheaply made by men with hand-carts going through each street, and when the buckets were full taking them to places where lorries were centrally situated. Again sometime in 1879 it was found that as the night-soil depot was some distance from the town, and on the banks of the canal that the night-soil in the buckets could be transhipped into boats which take from 4 to 6 Lorrie-loads and more cheaply conveyed to the depot than by the lorries proceeding there themselves, and this system has now been advantageously in force for some time.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

RUBBISH AND NIGHT SOIL DEPOTS.

The following are the places for the reception of the filth of the town. During the year 3,69,779 carts of filth, &c., have been received and deposited as follows:—

The following Statement shows the places where Rubbish, Sewage and Latrine Carts have been depositing during the year 1879.

Places of Deposit.	Rubbish.	Silt.	Night soil.	Total.	REMARKS.
Washermenpett Esplanade ...	18,611	...	...	18,611	
Branches on Beach Road ...	...	2,693	...	2,693	
Rubbish Shoot ...	29,524	396	16,725	46,639	
Rope Godown Parcherry ...	...	2,851	...	2,851	
Lalagoontah Lane... ..	...	1,193	...	1,193	
Wall Tax Road, Lowground... ..	...	14,686	...	14,686	
Basin Road ...	24,849	15,565	...	39,914	
Corookoopett ...	35,966	...	...	35,966	
Eadgah Mosque ...	...	6,107	...	6,107	
Ettapoliyam ...	...	6,494	...	6,494	
Cuttivankum Road... ..	8,587	...	...	8,587	
Mofiskhan's Gardens... ..	...	4,518	...	4,518	
Brick-kiln Road, R. Depot ...	41,220	8,216	3,477	52,913	
Perimbore Slaughter House... ..	917	...	...	917	
Lowgrounds ...	...	6,849	...	6,849	
Manally Depot ...	...	...	1,007	1,007	
D'Mellow's Road Farm ...	...	1,466	...	1,466	
People's Park ...	...	749	...	749	
Low places in Choolay and Pursowaukum ...	...	8,510	...	8,510	
Do. in 5th D. South Ward... ..	...	102	...	102	
Sterling's Road Depot... ..	143	...	3,575	3,718	
Victoria Hotel Grounds ...	6,326	...	...	6,326	
Mackay's Parcherry... ..	1,380	...	...	1,380	
Munnarsawmy Covel... ..	...	1,149	...	1,149	
Low places in Chintadripettah ...	...	3,967	...	3,967	
Naval Hospital Road... ..	1,270	...	...	1,270	
Barber's Bridge, R. D... ..	29,424	...	6,875	36,299	
Tank behind Big Mosque ...	...	10,541	...	10,541	
Chunam Tank ...	...	216	...	216	
Low places in 7th D. South Ward ...	...	216	...	216	
Kistnapillay's Garden ...	...	156	...	156	
Ico House Road ...	...	8,584	...	8,584	
Triplicane Nullah ...	...	...	1,007	1,007	
Tank in Begum Saib Street ...	...	5,208	...	5,208	
Low places in 8th D. North Ward ...	...	3,813	...	3,813	
St. Thomé High Road, R. D... ..	7,500	...	...	7,500	
Low places in 8th D. South Ward ...	...	6,359	...	6,359	
Low places in 5th D. Centre Ward ...	...	11,581	...	11,581	
Triplicane Sewage Farm ...	517	...	...	517	
Total...	199,934	132,179	87,666	369,779	

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

The expenditure and income of the Rubbish Depots are as follows:—

Locality.	Expenditure.			Income.		
	RS.	A.	P.	RS.	A.	P.
Munnally	3,081	15	8	1,802	12	0
Wall Tax Road	1,551	2	9			
Basin Road	519	4	5			
Barber's Bridge Road	982	7	8			
Brick Kiln	1,314	1	8	2,964	3	0
Sterling's Road	128	5	3	71	4	0
Victoria Hotel	199	0	6			
St. Thomé High Road	220	6	2			
Morgan's Cement Work	217	10	3	108	0	0
Mackey's Parchery	37	0	0			
Kistnampet				38	15	0
Robinson Park	350	7	0			
Washermanpettah Esplanade	367	14	5			
Other places	85	8	0			

CLEANING MAIN DRAINS.

The Black Town Main Drain was not cleaned during the year in consequence of the heavy rains which fell and scoured out the Drain. The Triplicane Main Drain from Pycroft's Road to Cooum River was cleaned in the usual manner at a cost of Rs. 380-11-5.

531 carts load or 455 $\frac{1}{2}$ cubic yards of silt were removed to a little more than half a mile on an average.

The cost of cleaning other drains is Rs. 170-13-7.

SANDING LATRINES.

During the year 133 Latrines were sanded with fresh sand at a cost of Rs. 880-12-0.

1st Division C. W.	Latrines	2 =	Rs. 16 14- 0	—
" "	"	5 =	70 5 0	
" "	"	2 =	18 12 0	
" "	W. W.	5 =	126 9 0	
2d " "	C. W.	3 =	112 8 0	
3d " "	N. W.	2 =	14 1 0	
4th " "	"	2 =	16 14 0	
5th " "	S. W.	8 =	28 2 0	
" "	C. W.	2 =	7 0 6	
" "	"	8 =	91 0 6	
6th " "	N. W.	2 =	3 7 0	
" "	"	2 =	4 3 6	
" "	S. W.	15 =	5 12 9	
" "	S. W.	10 =	40 5 0	
7th " "	N. W.	14 =	158 3 3	
" "	"	10 =	85 15 0	
" "	S. W.	8 =	22 8 0	
8th " "	N. W.	2 =	9 6 0	
" "	"	2 =	7 8 9	
" "	S. W.	2 =	9 6 0	
" "	"	4 =	10 1 0	
" "	"	3 =	11 11 16	
" "	"	4 =	10 8 8	
" "	"	4 =	10 1 0	
" "	"	3 =	9 6 0	
" "	"	2 =	4 11 0	
" "	"	4 =	10 1 0	
" "	"	4 =	10 1 0	
133 =				880 12 0

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

Arrears paid during 1879.

2d Division	Rs. 33 14 0
3rd & 7th "	22 8 0
4th "	47 13 0
5th "	32 12 3
7th "	22 8 0
8th "	3 8 3
Rs...	162 15 6

KILLING DOGS.

The destruction of dogs found straying in the streets was as usual conducted under the orders of the Commissioner of Police. The expenditure under this head was Rs. 1,145-1-4.

The dogs so destroyed were used as food for the wild animals in the People's Park and also for manuring the trees.

SEWAGE FARMS.

The following are the Sewage Farms which were in existence during the year:—

1st Division, Royapooram.	7th Division, Triplicane.
4th " D'Mellow's Road.	8th " Kistnampett.
5th " Egmore.	" " Royapett.

As stated in last report the small Farms at Egmore and Royapett cannot well be classed under the head of Farms; they have however been found very useful as plots on which the sewage of a small area could be disposed of. Their working has not cost the Municipality any money. During the year the Royapooram farm was handed over to the Robinson Park Committee as it will form portion of the Park. It is now being worked at a profit and increases the fund for the formation of the Park.

The cost of working the Farms and the receipts from each is as follows:—

ROYAPOORAM.

Sale of hay and grass	Rs. 127 7 11	Superintendent	Rs. 14 0 0
Loss	263 12 7	Labour	377 1 6
Rupees...	391 4 6	Rupees...	391 4 6

DEMELLOW'S ROAD.

Sale of hay and grass	Rs. 2,640 8 10	Superintendent	Rs. 180 0 1
Stock on hand 27 tons, 15 cwt., 1 Qr. 20 lbs.	672 0 0	Labour	1,416 11 10
	3,612 8 10	Carting hay to Body Guard	5 0 1
Deduct value of stock in hand on 31st Dec. 1879	845 9 4	Repairing Superintendent's quarter	20 3 4
	Rs. 2,766 15 6	Stores	39 2 6
		Profit	1,660 2 5
			1,105 13 8
		Rs. 2,766 15 6	Rs. 2,766 15 6

TRIPPLICANE.

Sale of hay and grass	Rs. 2,116 15 3	Superintendent	Rs. 144 0 0
Stock on hand 15 tons, 9 cwt., 1 Qr. 27 lbs.	541 9 9	Labour	1,382 15 3
	2,658 9 0	Carting hay to Mount	129 4 0
Deduct value of stock in hand on 31st Dec. 1879	727 5 6	Constructing a new support wall and refixing the Picottah	77 0 0
	1,931 3 6	Substituting an upright post of Picottah No. 1	13 0 0
Loss	14 6 0	Erecting a Watchman's shed	6 14 0
	1,915 9 6	Cartage hire paid to Surveyor for taking levels	0 14 0
		Stores	191 10 3
			1,915 9 6

APPENDIX IV.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

There was also an expenditure for extending the farm as follows:—

Constructing support wall and refixing Picottah	...	...	...	63	1	7
Erecting a thatched shed for the Superintendent	...	...	...	42	10	0
Levelling and putting beds in South Beach Mussulmen Burial Ground	...	...	...	157	12	6
Levelling grounds and forming beds	...	...	...	40	7	9
Do. do. do.	...	...	...	159	15	4

KISTNAMPETT.

	Rs.	A.	P.		Rs.	A.	P.
Sale of hay and grass	3,710	7	11	Superintendent	180	0	0
Stock on hand 38 tons, 5 cwt., 1 Qr. 6 lbs.	1,334	13	1	Labour	1,664	1	4
				Carting hay to Mount	167	3	6
	5,045	5	0	Repairing Superintendent's shed	15	11	0
Defect value of stock in hand 31st Dec. 1879	985	5	5	Tiles	31	0	0
				Carriage hire paid to Surveyor for taking levels	0	14	0
				Stores	79	12	8
					2,141	15	6
				Profit	1,918	0	1
					Rs. 4,059	15	7

EGMORE.

	Rs.	A.	P.		Rs.	A.	P.
Sale of hay and grass	24	2	8	For tools supplied	11	4	0
				Profit	12	14	8
	Rs. 24	2	8		Rs. 24	2	8

The amount of rent paid on lands occupied as Sewage Farms during the year is

Kistnampett Sewage Farm	Rs. 2,736	10	4
Triplicane	" 409	14	7
Royapett	" 36	0	0
	Rs. 3,182	8	11

PRIVATE MARKETS.

The state of the Markets on the coming into operation of the Act, I have previously referred to and I will now insert Lists of all those in existence during the year with the remarks of the President on their conditions at the time of inspection:—

Statement of Applications for Private Markets under Section 350 of Act V of 1878, with President's Recommendation.

No.	Division and Ward.	Locality of Market.	Street.	Village.	Name of applicant for license.	Date of application.	President's Recommendation.
1	East	4 Kulmuntapur Road	...	Attapaulam	P. Rajagopal Naick	27 1 1879	I recommend that this market be licensed for the current year, but that information be given to the owner that the license will not be renewed unless all the requirements of the Act and Bye-Laws relating to markets are observed, and complied with.
2	"	102 Ghows Moideen Street	...	Tondiarpettah	M. Subbaraya Chetty	11 2 1879	This is quite unfit for a market and should be refused a license. It has no latrines, no drains, and is very dirty and mal-odorous.
3	Centre	348 Trivattor High Road	...	Washermenpettah	V. Venkiah Nattar	13 2 1879	This is the market about which Dr. Thompson recently wrote to the Commissioners recommending that it be closed, and the new market belonging to P. Munisamy Chetty licensed in its stead. It is not a fit place for a market, and I recommend it being closed.
4	"	83 Narainapah Naick Street	...	Royapuram	T. Margasagaya Nattar	31 3 1879	This is a very dirty place in the Timmavelli Settlement. It is not a fit place for a market and should be closed. If Munisamy Chetty's market is opened, it will suffice for this locality.
5	"	123 Audon Salt Street	...	do.	C. Cotapah Naidoo	4 3 1879	This and the following market are in close proximity. They are both in an incomplete state. I recommend licenses being granted to them with an intimation that they will not be renewed next year, unless the markets shall in the meantime have been completed, and be kept in every respect in accordance with the requirements of the Act and Bye-laws.
6	"	14 do.	...	do.	P. Valodia Chetty	19 2 1879	
7	Centre	246 Varathapa Maistry Street	...	Washermenpettah	Varadapah Maistry	26 5 1879	Not at all a fit place for a market. See my report endorsed on application. License should be refused. This application must be disposed of by the Commissioners under Section 317.
8	West	237 T. Venkattor High Road	...	do.	T. Moudhoosarany Moodhelly	31 3 1879	This is a new market and may be licensed in accordance with the terms proposed in my report endorsed on the application. Must be referred to Commissioners under Section 347.
9	Centre	85 Nattar Pillar Corral Street	...	Peddu Naick's Pettah	Gnanu Doss	No date	This market may be licensed provided that intimation be at the same time made to the owner that he must carry out all the alterations and improvements required by the President before next year, otherwise the license will not be renewed.
10	South	14 Munnaroo Street	...	John Pereira's	Venkatasubbayya Chetty	25 2 1879	This market has been frequently the cause of legal proceedings. Some improvements have been made, but only the other day the Sanitary Inspector found a quantity of offal concealed in a godown and giving off a most offensive smell. It is a market which could be well dispensed without much inconvenience to the public. I therefore recommend that a license be refused.
11	North	111 Govindapah Naick Street	...	Peddu Naick's Pettah	Affir Mohamed Ghows Satt	30 1 1879	License has already been granted through oversight. There is, however, no reason for withdrawing a license, and the Committee are requested to confirm the license.

No.	Division and Ward.	Locality of Market.		Name of applicant for license.	Date of application.	President's Recommendation.
		Door No.	Street.			
12	3 North	170	Unnapah Naick Street	M. Soobroya Chetty	8/3/879	This is a very dirty ill-kept place. I recommend that license be refused. It is not a fit place for a market.
13	3 "	88-90	Munnady Street	Janakumall	10/3/879	This may be licensed conditionally for the current year. Some improvements are being effected which are in an incomplete state.
14	3 North	24	Parish Venkatachella Iyer Street	Venatasawmy Chetty	10/3/879	May be licensed, provided the persons occupying a portion of the Market be rejected; and all necessary improvements carried out at once, otherwise license should be refused and the Market closed.
15	3 South	1	Andrapah Naicken Street	Kistnasawmy Chetty	8/3/879	This is the Market known as the Cutwal Bazaar. I consider it unfit for a Market both by construction and arrangement, and recommend that a license be refused and steps taken for erecting a new Market on the ground near Elephant Gate Bridge.
16	4 "	2-53	DeMellow's Road	A. Chinatombay Moodally	3/4/879	This is not a fit place for a Market and a license should not in my opinion be granted.
17	5 North	40	Choolay Bazaar Road	P. Soobaroya Chetty	18/3/879	I consider this an unfit place for a Market for reasons stated in my report.
18	5 Centre	16	Poorasavakum High Road.	Manicka Moodally	6/3/879	A license may be granted conditionally on the Market being put in proper order.
19	5 Centre	21	Nariyana Chetty Street	Chengalroya Chetty and Perommal Chetty	7/3/879	A license may be granted for current year conditionally in the place being put in good order as required by the President, vide my inspection report.
20	5 South	29	Saalla Moodally Street	V. Rungasawmy Naidu	10/3/879	This is rather a dirty little place. It is not fit in my opinion for a Market, but I would offer a license this year, provided the owner undertook to have it put in proper order before next year.
21	6 South	45	Mount Road	Godam Nabec Oollah Ahmed Khan Bahadur	11/3/879	This is a miserable place, but was in fair condition as regards cleanliness. It would be well to give the license for this year with an intimation that the license would be withdrawn as soon as the Municipality were in a position to erect a Market in the locality.
22	7 North	17-18	Aroonachella Naick Street	M. Pooliah	17/3/879	License recommended.
23	7 "		Waller's Road	Syed Mohamed Banker Saib	7/3/879	License recommended for this year. He should be warned to complete the building without delay, otherwise a license will be refused next year.
24	7 Centre	41 & 43	Pycroft's Road	Hazari null Laula	12/2/879	Licenses recommended for this year subject to withdrawal in 1880, should the defects existing and have been remedied previously in accordance with the orders of the President.
25	7 "	2-34	Triplacane High Road	Jamall Khan Saib	13/3/879	I consider this and the following three places all unfit for being used as Markets, and recommend that a license be granted them for this year only with an intimation that the Municipality will take steps for providing a new public Market and will thereupon close theirs.
26	7 "	188-9	Do.	Rahathoonnissa Begum	26/3/879	
27	8 North	80	Bazaar Road	Nazeraly Khan Bahadur	31/3/879	
28	8 North	136	Venatachella Moodally Street	Luchmana Row	23/3/879	Vide remarks in preceding number.
29	8 "	19	Royapettah High Road	Mohamed Nazir ad Din Khan	26/3/879	
30	8 South	28	Mundavally Street	M. S. Coomarasawmy Moodally	21/3/879	

The Standing Committee when considering this matter resolved the following :
That licenses be granted to the several applicants to keep the undermentioned places as markets, conditionally that they are to be put into a state of thorough repair and in accordance with the requirements of the Act and Bye-Laws :—

Kalmantapam Road	Attapauliam	P. Rajagopal Naick.
Andon Saib Street..	Royapuram	C. Cotapah Naidoo.
Do.	Do.	P. Valodia Chetty.
Nanteo Pilliar Covil Street..	Peddoo Naick's Pettah	Gocull Doss.
Gorundepa Naick Street	Do.	Offiz Mahomed Ghouse Saib.
Munnady Street	Mosthealpettah	Janakumall.
Parish Venkatachella Iyer Street	Peddoo Naick's Pettah	Venatasawmy Chetty.
Purawalkum High Road	Purawalkum	Manicka Moodally.
Narayana Chetty Street	Periyamett	Chengalroy Chetty and Perommal Chetty.
Sesla Moodaly Street	Poodoopett	V. Rungasawmy Naidoo.
Mount Road	Thousand Lights	Godam Nabec Oollah Ahmed Khan Bahadur.
Aroonachella Naick Street..	Chintadripettah	M. Pooliah.
Waller's Road	Nagathia Covil	Syed Mahomed Bankiz Saib.
Pycroft's Road	Trivetteeswarenpettah	Hazari null Laula.
Do.	Triplacane	Jamall Khan Saib.
Triplacane High Road	Do.	Rahathoonnissa Begum.

The applications from the owners of the undermentioned markets are ordered to lie over :

Ghouse Moideen Street	Tondiarpettah	M. Soobaroya Chetty.
Trivattoor High Road	Washermanpettah	V. Periana Nattan.
Narayanapah Naick Street	Royapuram..	T. Margasawmy Nattan.
Mannaroo Street	Jolin Pereira's	Venatasawmy Chetty.
Unnapah Naick Street	Black Town	M. Soobaroya Chetty.
Andrapa Naick Street	Peddoo Naick's Pettah	Kistnasawmy Chetty.
DeMellow's Road	Choolay..	A. Chintatombay Moodally.
Choolay Bazaar Road	Do.	P. Soobaroya Chetty.
Bazaar Road	Mylapore	Nazeraly Khan Bahadur.
Venatachella Moodally Street	Meersaibpettah	Lutchmana Rao.
Royapettah High Road	Royapettah	Mohamed Nazarad Din Khan.
Mundavally Street	Mylapore	M. S. Coomarasawmy Moodally.

The following applications were again brought on for consideration at an adjourned Meeting of the Standing Committee on the 11th September :—

No. 15. The Cutwal Bazaar Market...	3d Division.
" 16. The DeMellow's Road Market...	4th "
" 17. The Choolay Bazaar do.	5th "
" 27. The Market in Bazaar Road, Mylapore	8th "
" 28. The Market in Meeg Saibpettah...	8th "
" 29. The Market in Royapettah High Road	8th "
" 30. The small Market in Mundavally Street, Mylapore	8th "

The numbers refer to the Schedule which accompanied the President's report of the 24th of July. These are the only applications still remaining undisposed of.

No. 15. *The Cutwal Bazaar Market.*—At the first consideration of this application the Standing Committee were unable to concur with the recommendation of the President in respect of this market as given in the Schedule which was to the following effect :—

" I consider it unfit for a market both by construction and arrangement, and recommend that license be refused and steps taken for erecting a new market on the ground near Elephant Gate Bridge." The reasons of the President are more fully stated in the Report.

The Committee are fully prepared to admit that the market is badly constructed and badly arranged, and that it is over-crowded and dirty. But by its position in the midst of the town it affords facilities for the purchase of daily necessities

superior to any market situated outside the town, and the Committee would be sorry to sacrifice this advantage. They think that the defects of construction and arrangement can be remedied by issuing judicious detailed orders to the person in charge; and for the over-crowding, they propose the following arrangement for the approval of the Commissioners:—

- (a) To forbid the sale of vegetables and fruits in the Cutwal Bazaar Market.
- (b) To close the Municipal General Market as a market for meat, poultry, fish, and all other articles of animal food, and to transfer the vegetable and fruit stalls from the Cutwal Bazaar to the General Market.
- (c) To build a new model General Market for fish, meat, poultry, European vegetables, &c., on a suitable site at a cost not exceeding Rupees 50,000.
- (d) To strictly prohibit and put a stop to the present objectionable practice of selling vegetables by the street sides, at the places mentioned in the following list, or at any other place after the completion of the above arrangement:—

Division.	Ward.	Name of Street.
2nd	North	Govindappah Naick Street, on the West side from house Nos. 110 to 111. Govindappah Naick Street, on the East side from house Nos. 118 to 122. Ummen Covil Street.. .. } At the junction. Anacara Conan Street } Seven Wells Street }
	Centre	Naltee Pillayar Covil Street, in front of house Nos. 1 to 6. Anna Pillayar Street, from house Nos. 120 to 123 and 5 to 3. Vurthamootheappen Street, from Nos. 126 and 127.
	South	Mint Street from Rassappah Chetty Street to Ponnappah Chetty Street, from Door Nos. 46 to 62 and from Nos. 172 to 485.
	North	Wall Tax Road in front of Pagoda No. 50—five bazaars, Linghy Chetty Street, in front of house Nos. 287 and 288 Do. do. Nos. 183 to 187.
3rd	Centre	Annah Pillay Street, from the junction of Vurthamootheappen Street to Andeappah Naick Street. Davidson Street } At the junction. Annah Pillay Street }
	South	Annah Pillay Street, in front of Door No. 6.

The Committee being unanimous as to the propriety of the above proposals

Resolved that a license for the Cutwal Bazaar Market be issued to the applicant, Kistnasawmy Chetty, for the present year.

No. 16. The DeMellow's Road Market.—The President recommends refusal of a license. The following is extracted from his inspection report of the 2nd May 1879:—"No portion of the market is either drained or metalled or paved. The buildings are very dilapidated. No latrines. No well or other water-supply. The floors of the meat and fish stalls are covered with dirt and saturated with water or blood, and give off a bad smell. They are also much broken up and out of repair. Generally the market presents a dirty and dilapidated appearance. The license should certainly be refused."

The Committee concur with the President in refusing a license for this market, as there will be accommodation at the new Municipal market lately purchased from Mr. Lee.

No. 17. The Choolay Bazaar Market.—The President recommends the refusal of a license to this market on the ground that it is not a fit place for a market. The market is divided into two portions by the Choolay Main Drain. This is an open drain, and has to be cleaned out daily, this necessary operation being attended with a bad smell.

The following is the President's report on this market:—

1st part.—Bounded by the open drains on the south and east, by back-yards on the west and by Vijaya Vigneswarer Covil Road on the north.

Entrances from Choolay Bazaar Road, Vijaya Vigneswarer Covil Road, and a communication with second part over the open drain.

In the first part only dry grain, earthenware pots, and vegetables are sold. All the buildings and pial pavements are dilapidated and dirty. The metalling of the gangways is broken up: there are no drains, and no water-supply.

This part is generally very dirty.

There is one open latrine without pavement of any kind or floor. It was in a most disgustingly dirty state. It has no proper attention.

In this part I see no great objection to the sale of pots and dry grains, but fruit and vegetables should not be sold in so dirty a place.

2nd part.—Bounded by the open drain, Choolay Bazaar Road and Vijaya Vigneswarer Covil Road.

The pial pavements are in fair order in a small portion; in the greater portion broken up and requiring pointing. Floor where butchers' meat and fish are sold was very dirty. The roofs of the sheds are generally in bad order, and the pillars and posts dirty and dilapidated, requiring plaster and white-washing. The metalling of the gangways fair in parts, broken up in parts, in other parts altogether wanting. One corner of the market was made use of as an open latrine.

There is one well with brackish water, but the Municipality have recently erected two wall taps against the outer wall of the market in Vijaya Vigneswarer Covil Street.

There is no separate latrine for this part which accounts for the disgusting state of the portion above alluded to.

Drains (open brick) require repair, but are in fair order.

The cleaning of the Municipal Main Drain is attended with a very powerful odour which is not only extremely objectionable to persons frequenting the market, but taints meat and vegetables exposed to it.

On this ground alone I consider that even the best kept market would be objectionable; but, when added to this, the market is badly kept, the case for refusing a license is much stronger. As a market for meat, fish, and vegetables, this place should at once be closed."

The market purchased from Mr. Lee is within 6 furlongs of this place. There is, therefore, no necessity on the ground of the public convenience for licensing the market, and the Committee accordingly concur with the President in refusing a license.

With respect to applications Nos. 27, 28, 29, and 30 the Committee concur with the President in granting a license for the current year.

The Committee direct that all owners of markets licensed this year be as soon as possible furnished with an order showing in detail the works necessary to be carried out, and that a copy of the order so furnished to each market-owner with a report showing the manner in which it has been attended to, be attached to the application for a license for 1880.

The Committee further direct that all owners of licensed markets be furnished *gratis* with a Tamil copy of the Bye-laws relating to markets.

The Committee are of opinion that the President should summon, as early as possible, a general Meeting of the Commissioners for the consideration of the Committee's Proceedings on the President's report on existing markets of the 24th July, and with reference to G. O., dated 5th September 1879, No. 1699, Financial, sanctioning the raising of a debenture loan for purchasing Mr. Lee's market.

3. Read letter, dated 6th September 1879, from Messrs. Branson and Branson, calling attention to a letter, dated 15th ultimo, from C. Ven-
Market at John Pereira's. catasoboo Chetty to the President, to the effect that he had withdrawn his connection with the market at John Pereira's, and to the fact that the other trustee, M. Casavooloo Chetty had, they believed, for some time past ceased to interest himself in the market; and requesting again to be furnished with reasons for refusing a license for the said market.

Read the President's draft reply to the effect that it is necessary for the trustees to conduct the business of the trust estate either jointly or by some duly authorized agent, and that the transactions of any one of them singly or of any two could be repudiated by the three jointly if it were found desirable; and considering it objectionable to correspond with them (Messrs. Branson and Branson) until they were properly instructed.

The President's draft reply was approved.

MUNICIPAL MARKETS.

GENERAL MARKET.

The Revenue which this market was calculated to realize during the year was Rs. 6,115 but the actuals were as follows:—

By rent of Stalls	...	Rs. 5,677	0	0
Petty Collections	...	„ 612	7	3

The cost of the Establishment attached to this market was Rs. 994-7-2.

The amount spent upon repairs will be found elsewhere under the head of maintenance (P. Works.)

VEPERY MARKET.

I have already alluded to this market before and need now only refer to the cost of Establishment attached to it and the amount realized by the rent of Stalls for one month October 1879; no rent was charged for the months of November and December 1879, as it was considered that it would not be fair to charge rent while the repairs, &c., to the market were in progress and the Vendors could not conveniently occupy the Stalls.

Establishments	...	Rs. 64	0	0
By Rent	...	„ 126	7	6

SLAUGHTER HOUSES.

The Municipal Slaughter Houses alluded to in former reports were repaired and kept in order at a cost of Rs. 805-1-4.

The Establishment employed at each is as follows:—

	Superintendents.	Sweepers.
Monegar Choultry Slaughter House	1	7
Perambore do.	1	5
Choolay do.	1	4
Triplicane do.	1	2

The number of animals Slaughtered at

The Monegar Choultry Slaughter House	No. 176,257 Sheep
Perambore do.	„ 9,072 Cattle
Choolay do.	„ 142,729 Sheep
Triplicane do.	„ 23,028 Sheep

which gives a total of 342,014 sheep and 9,072 cattle during the year.

CART STANDS.

The following shows the Municipal and Private Cart Stands. The income and expenditure of the Municipal Cart Stand is as follows:—

	Income.			Expenditure.			
	RS.	A.	P.	RS.	A.	P.	
at Wall Tax Road	698	0	0	571	7	6	Expenditure on construction.
at Stephenson's Road.	100	0	0	0	0	0	
Total...	798	0	0	571	7	6	

PRIVATE.

1 at Trivatoor High Road	...	1st Division.
1 at Mint Street	...	} 2nd „
1 at Wall Tax Road	...	
1 at Strachan's Road	...	} 5th „
1 at Sydenham's Road	...	
1 at Vathiar Candapillay Street	...	
1 at Poonamallee Road	...	
1 at Lang's Garden Road	...	} 6th „
1 at Codumbakum Road	...	
1 at Triplicane High Road	...	} 7th „
1 at Audeappah Chetty Street	...	
1 at Cooum Road	...	
1 at Peter's Road	...	} 8th „
1 at Cabaleswarer Covil Eastward St.	...	

One Cart Stand at Poonamallee Road in the 6th Division had been closed during the year as it was found not to pay.

BURIAL GROUNDS.

As required under Section 356, 357, 358 of Act V of 1878, a register has been opened and kept in this Office of all public as well as private Burial and Burning Grounds, and the provisions of the sections strictly carried out.

The public and private Burning and Burial Grounds are as follows:—

LIST of BURIAL and BURNING Grounds registered under the City of Madras Municipal Act No. V of 1878, and published in the *Fort St. George Gazette* in accordance with Section 358 of the said Act.

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.		Class of Persons Buried or Burned.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Square Feet.			
East.	Koyapooram	Do.	West Madala Church, Main Road	34 & 35	Burial	1	944½	Parses	Edujee Dinsaw	Edujee Dinsaw.
	Tondiarpet	Do.	Ghouse Moiteenpettah Road	40	Do.	4	1,724	Mahomedans	M. Jafarjee Tyahally	M. Jafarjee Tyahally.
	Do.	Do.	Shank Malsary Street	38 & 46	Do.	2	583	Do.	Causee Goolam Mahomed Saib	Causee Goolam Mahomed Saib.
	Do.	Do.	Do.	52 & 53	Do.	2	1,980	Do.	Achingee Saib alias H. Thadmean Saib.	Achingee Saib alias H. Thadmean Saib.
Centre.	Washermenpettah	Do.	Monagar Choultry Road	2	Do.	1	1,908	Roman Catholics	Rev. T. D. Doyle	Rev. T. D. Doyle.
	Tondiarpet	Do.	Shank Malsary Street	...	Do. and Burning	2	1,829	Hindoes of all classes	Owner, Madras Municipal Commissioners; Controller, Over-seer of the Ward.	Sanitary Inspector, North Range.
	Do.	Do.	Monagar Choultry Road	...	Burial	...	1,176	Europeans and East Indians.	M. W. C. VanDerwart.	M. W. C. VanDerwart.
	Washermenpettah	Do.	Soliappa Street	5	Burning	...	1,440	Vesias	Admunk Vurthappa Chetty	Admunk Vurthappa Chetty.
West.	Tondiarpet	Do.	Monagar Choultry Road	...	Burial	8	1,813	Native Roman Catholics	P. Nallathambi Moodelly	P. Nallathambi Moodelly.
	Washermenpettah	Do.	Cemetery Road	...	Do.	...	9,381	Presbyterians, London Wesleyan, Lutheran and Baptist Missions, Roman Catholics, Mahomedans.	Owner, Madras Municipal Commissioners; Controller, Over-seer of the Ward.	Sanitary Inspector, North Range.
	Pondiarpet	Do.	Thivattor High Road	...	Burning	19	1,650	Owner's family	P. Veeraparamoud Pillay	P. Veeraparamoud Pillay.
	Korotkoopettah	Do.	Guduvankam Road	...	Burial and Burning	...	618	Hindoes of all classes	Owner, Madras Municipal Commissioners; Controller, Over-seer in charge of the Ward.	Sanitary Inspector, North Range.
4th	Perambur	Do.	Srahan's Road	...	Burial Ground	...	1,865	Mahomedans	Speed Saibah Namsoolah Saib	Speed Saibah Namsoolah Saib.
	Do.	Do.	Do.	...	Do.	1	1,504	Do.	Kawder Saib.	Do.
	Choolay	Do.	DeMellow's Road	...	Burial and Burning	...	24	Baniuns	Yacumbra Pandaram	Yacumbra Pandaram.
	Veyasarpady	Do.	North of the Perambur Churchley Patham	...	Do.	1	2,324	Chucklers	Owner, Madras Municipal Commissioners; Controller, Over-seer of the Division.	Sanitary Inspector, North Range.
5th	Choolay	Do.	DeMellow's Road	...	Do.	...	600	Baniuns	Adampully Venkatarama Chetty	A. Venkatarama Chetty.
	Do.	Do.	Do.	...	Do.	...	1,582½	Hindus	Municipal Commissioners; Controller, Over-seer of the Division.	Sanitary Inspector, North Range.
	Do.	Do.	Basin Road	...	Burial Ground	...	126½	Do.	Do.	Do.
	Do.	Do.	DeMellow's Road	...	Do. and Burning	...	166	Do.	Do.	Do.
6th	Do.	Do.	Do.	...	Do.	...	144	Brahmins	Do.	Do.
	Do.	Do.	Do.	...	Do.	...	229	Rajapatis	Do.	Do.
	Do.	Do.	Do.	...	Do.	...	...	...	Do.	Do.
	Do.	Do.	Do.	...	Do.	...	...	...	Do.	Do.

APPENDIX IV.

APPENDIX IV.

LIST of BURIAL and BURNING Grounds registered under the City of Madras, &c.—(Continued.)

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.		Class of Persons Buried or Burned.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Square Feet.			
North.	Pursowankum	Do.	Vadmalay Street	22	Burial Ground	4	1,972	Europeans, Eurasians, and Native Christians, Catholic Christians, Europeans, East Indians, and Natives.	Rev. A. C. Taylor, Chaplain	Rev. A. C. Taylor, Chaplain.
	Do.	Do.	Calathesuppa Moodelly Street	...	Do.	1	2,064	Do.	Rev. Henry Hennessey	Rev. Henry Hennessey.
	Do.	Do.	Brick-kiln Road	...	Burial Ground	...	2,038	Christians belonging to the Evangelical Lutheran Church.	Evangelical Lutheran Community of Pursowankum; Controller, Rev. R. Handman.	Rev. R. Handman.
	Do.	Do.	Venottammal Ganady Street, Perambur Barracks Road	1	Do.	2	1824	Veddas and Bages	G. Seetharama Naidu	P. Ethenajulu Naidu.
South.	Do.	Do.	Thandaroya Moodelly Lane	8	Do.	...	2,178	Europeans, Eurasians, and Native Christians, Mahomedans, Soonee Sect.	Rev. G. M. Cobban, Secretary and Manager.	Rev. G. M. Cobban, Secretary and Manager.
	Do.	Do.	Do.	...	Do.	...	1,190	Do.	Zinlee Kawder Beebe	Zinlee Kawder Beebe.
	Do.	Do.	Cundapah Moodelly High Road	...	Do.	...	352	Europeans, Eurasians, and Natives.	T. Wilkinson	T. Wilkinson.
	Do.	Do.	DeMellow's Road	...	Burial and Burning	...	460	Owner's family	Annamalai Moodelliar	M. Soobhooraya Moodelly.
Centre.	Do.	Do.	Main Road	62	Burial Ground	...	680	Unitarians, Christians, East Indians, and Natives.	Rev. William Roberts	Rev. William Roberts.
	Do.	Do.	Madavakam Tank	...	Burial Ground	...	3,000	Siva Sect and Vishnu Sect.	Vardiah Maistry	Vardiah Maistry.
	Do.	Do.	Brick-kiln Road	...	Burial and Burning	...	105	Hindus	Owner, Municipal Commissioners; Controller, Over-seer of the Ward.	Sanitary Inspector, South Range.
	Do.	Do.	Mount Road	...	Burial Ground	...	555	Mahomedan, Sea Sect.	Goolam Nabee Moolah Ahmed Saib.	Goolam Nabee Moolah Ahmed Saib.
7th	Do.	Do.	Stirling's Road	...	Do.	2	1,935	Hindus of all classes	Municipal Commissioners; Owner, Controller, Over-seer of the Ward.	Sanitary Inspector, South Range.
	Do.	Do.	Chinnathumby Moodelly Street	29	Do.	...	1,399	Family of the owner	Mahomed Hoseman Saib	Mahomed Hoseman Saib.
	Do.	Do.	Yadala Agraram Street	10	Do.	...	420	Do.	Ibramkhan, Sahadar	Ibramkhan, Sahadar.
	Do.	Do.	Chinnathumby Moodelly Street	...	Do.	...	1,764	Do.	Office Mahomed Arab	Office Mahomed Arab.
8th	Do.	Do.	Do.	...	Do.	...	70½	Do.	Office Goolam Moideen Saib	Office Goolam Moideen Saib.
	Do.	Do.	Do.	...	Do.	...	119	Do.	Syathannur Saib	Syathannur Saib.
	Do.	Do.	Do.	...	Do.	...	387	Do.	Thayood Saib	Thayood Saib.
	Do.	Do.	Do.	...	Do.	...	661½	Do.	Bada Saib	Bada Saib.
9th	Do.	Do.	Do.	...	Do.	...	644	Do.	Keethapath Khan Bahadur Saib	Keethapath Khan Bahadur Saib.
	Do.	Do.	Do.	...	Do.	...	198	Do.	Augustaltee Saib	Augustaltee Saib.
	Do.	Do.	Do.	...	Do.	...	540	Do.	Mahomed Yathaythoola Saib	Mahomed Yathaythoola Saib.
	Do.	Do.	Do.	...	Do.	...	2,211	Do.	Very Rev. J. Colgan	Very Rev. J. Colgan.
10th	Do.	Do.	Body Guard Road	4	Do.	2	...	Roman Catholic Soldiers and some others.	Kawder Bachu	Kawder Bachu.
	Do.	Do.	Towillan Bahadar Street	7	Do.	...	209	Owner's family	Annoothabee Saib	Annoothabee Saib.
	Do.	Do.	Chinnathumby Moodelly	...	Do.	...	670	Do.	...	...
	Do.	Do.	...	...	Do.	...	...	...	...	...

LIST OF BURIAL AND BURNING GROUNDS registered under the City of Madras, &c.—(Continued).

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.		Class of Persons Buried or Buried.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Square Feet.			
7th	Centre.	Theerovatteson- respectful.	Chinnathunby Moodley Street	...	Burial Ground	...	63	Mahomedana, Soonee Sect. Do.	Adasen Mahomed Hussain Saib	Adasen Mahomed Hussain Saib
		Do.	Veerugova Street	...	Do.	...	...	Do.	His Highness The Prince of Arcot.	Abdullah Moideen Khan Bahadur.
		Do.	Chinnathunby Moodley Street	...	Do.	...	245	Presbyterians	Mahomed Woomer Saib	Mahomed Woomer Saib.
		Do.	Wadiah Esplanade Road	...	Do.	...	2,335	Mahomedana of the Soonee Sect.	Govind W. A. Liston.	Govind W. A. Liston.
		Do.	Chinnathunby Moodley Street	...	Do.	...	36	Do.	Shaik Davood Saib.	Shaik Davood Saib.
		Do.	Do.	...	Do.	...	272	Do.	Syed Easack	Syed Easack
		Do.	Do.	...	Do.	...	224	Do.	Mahomed Hussain Saib.	Mahomed Hussain Saib.
		Do.	Do.	...	Do.	...	650	Do.	Ali Hussain Khan Bahadur.	Ali Hussain Khan Bahadur.
		Do.	Do.	...	Do.	...	2,031	Owner's family	Right Rev. Dr. S. Kennedy	Rev. B. M. Angelo.
		Do.	Do.	...	Do.	...	1,701	Europeans, East Indians, and Natives.	Agge Mahomed Bacha Saib	Agge Mahomed Bacha Saib.
8th	North.	Triplicane	Triplicane High Road	...	Do.	...	203	Owner's family	Syed Ahmed Saib	Syed Ahmed Saib.
		Do.	Do.	...	Do.	...	1,540	Mahomedana	Do.	Do.
		Do.	Do.	...	Do.	...	702	Do.	M. A. Theerumayana Achar-	M. A. Parthasarathy Iyengar
		Do.	Do.	...	Do.	...	4,290	Select Mahomedans, Christians, Thelgy Viahn-	ry and others.	and others.
		Do.	Do.	...	Do.	...	323	Hindus of all classes	Owner, Municipal Commission-	Sanitary Inspector, South
		Do.	Do.	...	Do.	...	...	...	ers; Controller, Overseer of the Ward.	Range.
		Do.	Do.	...	Do.	...	...	...	Agge Mahomed Ali Saib.	Agge Mahomed Ali Saib.
		Do.	Do.	...	Do.	...	...	...	Govind W. A. Liston.	Govind W. A. Liston.
		Do.	Do.	...	Do.	...	...	...	Govind W. A. Liston.	Govind W. A. Liston.
		Do.	Do.	...	Do.	...	...	...	Govind W. A. Liston.	Govind W. A. Liston.
		Do.	Do.	...	Do.	...	...	...	Govind W. A. Liston.	Govind W. A. Liston.

LIST OF BURIAL AND BURNING GROUNDS registered under the City of Madras, &c.—(Continued).

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.		Class of Persons Buried or Buried.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Square Feet.			
8th	North.	St. Thome High Road	St. Thome High Road	2 & 12	Burial Ground	...	1,480	East Indians and Natives	Rev. J. B. Gonsalves	Rev. J. B. Gonsalves.
		Do.	Do.	...	Do.	...	2,085	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	624	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	893	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	716	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	875	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,088	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	532	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	2,550	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	2,070	Do.	Do.	Do.
9th	North.	Do.	Do.	...	Do.	...	2,070	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,200	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	110	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,800	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	95	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	2,305	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,303	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	2,159	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,475	Do.	Do.	Do.
		Do.	Do.	...	Do.	...	1,681	Do.	Do.	Do.

List of BURIAL and BURNING GROUNDS registered under the City of Madras, &c.—(Continued.)

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.			Class of Persons Buried or Burned.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Grounds.	Square Feet.			
8th.	North.	Kistnampet	Barber's Bridge Road		Burial Ground		1	1,811	Mahomedians	Mahomed Abdool Rasool Saib	Mahomed Abdool Rasool Saib.
		Mylapoor	Do.		Do.			461	Do.	Kawderally Khan Bahadur.	Kawderally Khan Bahadur.
		Kistnampet	Do.		Do.			673	Do.	Mahomed Abdol Rasool Saib	Mahomed Abdol Rasool Saib.
		Do.	Do.		Do.			8,001	Soonee Sect.	Mahomeddeen Saib	Mahomed Azeel.
		Do.	Do.		Do.			1,200	Do.	Mahomed Cansim Saib	Mahomed Cansim Saib.
		Mylapoor	Do.		Do.			118	Do.	Abdul Cawder Saib	Abdul Cawder Saib.
		Kistnampet	Do.		Do.			2,177	Do.	Ameer Naras Jung	Ameer Naras Jung.
		Do.	Do.		Do.			473	Do.	Do.	Do.
		Do.	Do.	81	Do.		51	10	Do.	Agge Mowlee Mahomed. Cawder	Agge Mowlee Mahomed Cawder
		Do.	Do.		Do.			716'915	Do.	Mahomed Zinda Saib Mooligar.	Mahomed Zinda Saib Mooligar.
		Mylapoor	Do.		Do.			307	Do.	Zynoolathien Saib Blakee	Zynoolathien Saib Blakee.
		Do.	Do.		Do.			283	Do.	Goolam Dushagheer Saib	Goolam Dushagheer Saib.
		Do.	Geanes North Lane		Do.		1	830	Mahomedians	Akeem Meer Mahomed Bakalam Saib.	Akeem Meer Mahomed Bakalam Saib.
		Do.	Barber's Bridge Road		Do.			1,102	Do. of Soonee Sect.	Mahuk Mahomed Thabee Alikan Saib.	Mahuk Mahomed Thabee Alikan Saib.
		Kistnampet	Do.		Do.		1	405	Do.	Rubutjung Bahadur.	Rubutjung Bahadur.
		Mylapoor	Do.		Do.			590	Do.	Surfazeol Dowlah Bahadur	Surfazeol Dowlah Bahadur.
		Kistnampet	Do.		Do.		1	1,461	Do.	Agge Mowlee Mahomed Hossain Saib.	Agge Mowlee Mahomed Hossain Saib.
		Do.	Do.		Do.		7	471	Mahomedians	Goolam Mahomed Khan	Goolam Mahomed Khan.
		Do.	Do.		Do.			150	Do. of Soonee Sect.	Laul Mahomed Saib Jerrah	Laul Mahomed Saib Jerrah.
		Do.	Do.		Do.			181	Do.	Do.	Do.
		Nadococoppam	None		Do.		4		Mahomedians	Syed Mahomed Moosa Saib and another.	Syed Mahomed Moosa Saib.
		St. Thomas, Nadococoppam, Kistnampet.	Venkutaramba Pillay Street.	4,230	Do.	1	13	1,261	Do.	Fabber Allyshaw Mokandar	Fabber Allyshaw Mokandar.
		Kistnampet, Mylapoor.	Do.		Do.		1	46	Do.	Hajee Ahmed Hossain Saib	Hajee Ahmed Hossain Saib.
		Kistnampet	St. Thomé		Do.			740	Do.	Agge Akeem Ally Moosa Raza Saib.	Agge Akeem Ally Moosa Raza Saib.
		St. Thomé	Venkutaramba Pillay Street.		Do.			1,112	Do.	Fikoor Ahmed Saib	Fikoor Ahmed Saib.
		Kistnampet	Barber's Bridge Road		Do.		2	153	Mahomedians	Mahomed Sherif and another	Mahomed Sherif and another.
		Mylapoor	Do.		Do.		5	404	Do.	Davoolkan Saib	Davoolkan Saib.
		Do.	Venkutaramba Pillay Street.		Do.		14	463	Do.	Azeem Hossain Saib	Azeem Hossain Saib.
		St. Thomé	Barber's Bridge Road		Do.		1	245	Do.	Azeem Dowlah Bahadur	Azeem Dowlah Bahadur.
		Mylapoor	Do.	63	Do.		3	1,700	Do.	Mahomed Nooroodien	Mahomed Nooroodien.
		Do.	Do.		Do.			571	Owner's family	Mahomed Kawder Hossain Saib	Mahomed Kawder Hossain Saib.
		Do.	Do.		Do.			740	Do.	Mahomed Hamnootheen Hossain Bahadur.	Mahomed Hamnootheen Hossain Bahadur.
		Do.	Do.		Do.			1,125	Do.	Do.	Do.
		Kistnampet	Do.		Do.		2	1,563	Do.	Abdaveeth Mahomed Arookcey Saib.	Abdaveeth Mahomed Arookcey Saib.

List of BURIAL and BURNING GROUNDS registered under the City of Madras, &c.—(Continued.)

Division.	Ward.	Village.	Street.	Door Number.	Whether Burial or Burning Ground.	Measurement of the Ground.			Class of Persons Buried or Burned.	Name of the Owner or the Person having the control thereof.	Name of the Party who registered.
						Cavities.	Grounds.	Square Feet.			
8th.	South.	St. Thomé	St. Thomé High Road	24	Burial Ground	1	5	900	Europeans, Eurasians, and Natives.	Rev. Dr. J. M. Strachan	Rev. Dr. J. M. Strachan.
		Mylapoor	Yelapatha Madah Coril Road.	1	Do.		22	750	Mahomedians of Soonee Sect.	Mushrafashaw Sirgroo	Mushrafashaw Sirgroo.
		St. Thomé	Greenway's Road	34	Do.	1	4	1,653	Europeans, East Indians, and Natives.	Owner, Right Rev. Dr. S. Fennelly; Controller, Rev. E. M. Angelo.	Rev. E. M. Angelo.
		Mylapoor	Apparoo Moollely	8	Do.		6	1,005	Mahomedians, Soonee Sect.	Syed Goolam Hossain and Syed Vahab Hossain Saib.	Syed Goolam Hossain and Syed Vahab Hossain Saib.
		Do.	Appoo Moollely's Choultry Street.		Do.		4	600	Owner's family	Abdulvalah Khan Bahadur.	Abdulvalah Khan Bahadur.
		Alwarpet	Alwarpet Street		Burial and Burning Ground.		6	560	Hindus of all classes	Owner, Municipal Commissioner; Controller, Overseer of the Ward.	Sanitary Inspector, South Range.

J. A. JONES, C.E.,
Vice-President.

LIGHTING.

The lighting throughout the year was done on contract by C. Balakistna Moodelly and Co., at a rate per lamp of Rs. 1-3-9 for each lighting season which is 20 days. The rate in 1878 was Rs. 0-15-3.

The contract on the whole has been fairly carried out and the increased rate over 1878 was due to the introduction of larger burners and consequently a greater consumption of oil.

The following table shows the lamps in each division at the beginning and at the end of the year, the net increase being 55 lamps. Lamps were reduced on the Government House, and Wallajah Bridges and in Napier Park Gate.

Division.	No. of lamps on 31-12-78.	No. fixed during 1879.	No. of lamps removed.	Total on 31-12-79.	Remarks.
1	123	14	...	137	
2	360	16	...	376	
3	315	8	...	323	
4	66	1	...	67	
5	301	12	...	313	
6	116	7	*...	123	Wallajah Bridge... 8.
7	322	13	22	313	Govt. House ,, ... 10.
8	222	6	...	228	Napier Park Gate. 4.
Total ...	1825	77	22	1880	

There were 12 lighting seasons and the inspection of the lighting was as in previous years carried out by 10 Inspectors.

The following table shows the amount of payments to and the fines levied on the Contractors during the year

Season.	Amount of Bill.			Fines.		
January	2,183	9	9	*95	0	0
February	2,184	13	6	26	8	0
March	2,188	2	2	38	15	0
April	2,196	4	5	45	5	0
May	2,231	8	10	29	13	0
June	2,230	4	11	71	8	0
July	2,215	7	1	29	10	0
August	2,219	6	6	34	8	0
September	2,216	15	0	29	2	0
October	2,233	4	2	28	6	0
November	2,239	2	6	107	6	0
December	2,250	2	1	52	2	0
Total...	26,589	0	11	588	3	0

The lighting in many places is still deficient and lamp posts are being erected from time to time in places where they seem most urgently called for.

The suburban districts are very sparsely lit but it is very uncertain whether they ever will be well lit owing to their great extent and small population. The main places which require lights are the smaller and hence darker streets of the densely populated parts of the city and to these must our attention be first devoted

* Excused as being first month of contract.

FIRE ENGINES.

There has been no increase in the number of the Engines since last year, and it is to be regretted that funds were not available for substituting some of the smaller Engines by larger and more powerful ones. The same Engines mentioned in last report were maintained at a cost of Rs 1,345-14-7. This amount includes a sum of about Rs. 12 paid monthly to the Police for exercising trained coolies who live in the neighbourhood of the Stations, in working the Engines, as in cases of emergency these coolies would be of great use.

No alteration has been made in the Stations and they are as follows :--

Municipal Office	...	...	...	1
Elephant Gate near Police Tannah	...	...	...	1
Vepery Central Police Station	...	...	...	2
Triplicane Vencatasawmy Naidoo's Market	...	...	...	1
Mylapore Cutcherry Road near Tannah...	...	...	...	1

The only Fire which occurred during the year was at the Fire works shops in Wall Tax Road on the 12th February last.

REPORT UPON THE PROGRESS OF WORK IN THE ROBINSON PARK.

At a meeting on the 2nd May 1879 of the Chairman, the Hon'ble J. G. Coleman, and Members of the Robinson Park Committee, it was resolved that J. A. Jones, Esq., Executive Engineer, Madras Municipality, and Dr. D. R. Thompson, Secretary to the Park Committee, should undertake the arrangements for laying out the grounds as planned by the former Officer, and approved by the Committee.

The funds collected since by subscription amount to Rs. 907-6-0. This sum has been set apart for more particular purposes, and no other funds being available, the Grass Sewage Farm, forming a part of the Park—was handed over to the Secretary, with power to employ the proceeds from the sale of Grass for the maintenance of the Farm, and the purposes of the Park.

Since the Sewage Farm was made over to the Secretary on the 14th August 1879, the quantity of Grass sold up to the 30th June 1880 amounts to 257,780 pounds, which at the rate of 30 pounds for Annas 2, realized Rupees 1,079-5-1.

With this money coolies and gardeners were employed, and the following works were executed.

The situation of the gates has been properly defined and marked out; and the broad roads for carriage drives through the Park traced and definitely skirted by grass ridges, thus forming the plots intended for ornamental grounds, flower beds, sites for the excavation of tanks, and construction of Islands.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

The main road through the Park has been planted with an avenue of Mahogany trees, and small triangular grass plot—the first plot laid out in the Park, was planted on the 12th September by a lady with a “Rain Tree.”

The large plot adjacent to the main gate of the Western entrance to the Park, has been levelled, grass planted throughout, skirted by “Jack Trees” planted 30 feet apart, and studded by other fruit trees of varieties, calculated to afford shade and to be productive. Another plot of very nearly the same size as the one above, and like it requiring much labour to complete it, has been carefully levelled and grass planted throughout.

The most ornamental plot on the plan, formed of prettily shaped flower beds, and divided by garden walks has been carefully levelled and laid out. This piece which was very irregular and low lying, required much labor for its completion and cost 90 Rupees, towards the payment of which a sum of Rupees 60 was received from Native gentlemen who visited the place at the time the work was undertaken. The soil for laying out and levelling this place was taken from another plot where a tank has to be dug, and so much earth was required for this purpose, that the tank has been excavated to the depth of 4 feet, which work in itself, is worth the Rupees 90 paid for the levelling of the grounds.

The Band Stand, position for the new tanks, the plot on which the Superintendent's quarter is to be built, and that on which the flag staff is to be erected have been laid out, and the two former brought to the road level and planted with grass.

All the paths entering into the formation of the maze have been marked out, two of these fenced by a Korakapoly hedge, and a tree planted in the centre.

The old tank situated on the north side of the ground, has been marked, and a broad road which is at its western end, has been planted on both sides with Mango and Jack trees 30 feet apart. The earth taken from this tank for the embankment is sloped at 2 to 1.

The Sewage Farm has been extended a hundred feet, and planted with grass. Shady trees of varieties have been planted 30 feet apart along the boundaries of the Park, and the side curves fenced with Korakapoly plants. Other works are in steady progress.

D. R. THOMPSON, M.D.,
Secretary, Robinson Park Committee

MADRAS,
8th July 1880.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

Statement showing the amount of subscriptions received on account of Robinson Park, for 1879.

Names.	Amount.		
	Rs.	a.	p.
M. Percy, Esq.	18	6	0
A. P. Begbie, Esq.	17	8	0
Mr. J. Norman, Apothecary	31	8	0
P. S. Ramasawmy Moodelliar, Esq.	100	0	0
P. Moonesawmy Chettiar, Esq.	100	0	0
Hon'ble J. G. Coleman	100	0	0
A. M. Hooper, Esq.	100	0	0
A. Arroomoogum Moodelliar, Esq.	30	0	0
Dr. D. R. Thompson, M.D., C.I.E.	50	0	0
Through Dr. D. R. Thompson, M.D., C.I.E.	100	0	0
L. R. Burrows, Esq.	100	0	0
A. M. Saunders, Esq.	100	0	0
Rupees...	847	6	0

D. R. THOMPSON, M.D.,

MADRAS, February 1880.

Secretary, Robinson Park Committee.

Statement showing the Expenditure incurred on account of Robinson Park, from July to December 1879.

	July.		August.		September.		October.		November.		December.		Total.	
	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.	RS.	A. P.
On servants' wages	...	...	50	12 5	83	6 2	123	1 1	122	13 10	114	10 6	494	12 0
On contracts	...	...	...	...	...	...	58	0 0	...	...	...	...	58	0 0
On miscellaneous charges	5	0 0	17	4 0	17	14 11	0	2 0	...	...	2	8 0	42	12 11
Total	5	0 0	68	0 5	101	5 11	181	3 1	122	13 10	117	2 6	595	8 11

MADRAS,
February 1880.

D. R. THOMPSON, M.D.,

Secretary, Robinson Park Committee.

Dr. Cash Account of Robinson Park, from July to December 1879.

Dr.				Cr.			
1879		RS.	A. P.	1879		RS.	A. P.
Dec. 31	To Subscriptions received	847	6 0	Dec. 31	By expenditure on servants	494	12 0
	„ Grass sold	526	15 4		„ Do. contracts	58	0 0
					„ Miscellaneous expenses	42	12 11
					Total Rs...	595	8 11
					Outstanding bills	28 7 1	
					Balance in hand	750 5 4	
						778	12 5
					Total Rs...	1,374	5 4

MADRAS,
13th February 1880.

D. R. THOMPSON, M.D.,

Secretary, Robinson Park Committee.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

Statement showing the quantity of Grass sold in each month and the amount realized from Robinson Park Sewage Farm from August to December 1879.

Months.	Quantity of Grass sold.	Amount realized.		
	Pounds.	Rs.	A.	P.
August 1879	7,300	36	0	5
September "	30,205	125	13	8
October "	39,800	165	13	4
November "	41,758	174	0	6
December "	6,051	25	3	5
	125,124	526	15	4

MADRAS, February 1880.

D. R. THOMPSON, M.D.,

Secretary, Robinson Park Committee.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

TABLE No. 1.

NEW WORKS IMPROVEMENTS.

- Buildings.

	RS.	A.	P.
Constructing shed for the Workshop in Cart Depot, Annapillay Street	796	15	10
do Brick and Mud wall for the workshop in lieu of the Bamboo Fence	126	15	9
Fixing broken bottles over the compound wall around the Workshop at Trevelyan Water Works	10	7	2
Constructing compound wall to the cart stand in Wall Tax Road	511	7	6
Erecting a gate in the West compound wall and altering the gate in the East wall of the Workshop	21	6	9
do a male and female latrines Chetput Parichery	114	0	0
do do do Chetput village	114	0	0
Total...	1,695	5	0

TABLE No. 2.

Dust Bins.

	RS.	A.	P.
Erecting masonry 1 dust bin in Kistna Pillay Street	6	0	0

TABLE No. 3.

New Drains.

Length Feet.		RS.	A.	P.
405	Constructing a underground drain with 5 cess pits in North Beach Road from Jaffer Serang lane to Gopaul Chetty lane...	496	15	1
5½	do a cesspit, &c., at the South West Angle of Avadanam Paupier Street joining Perambore Barracks Road	29	2	1
8½	do a cistern water-course and a facing wall at the Junction of the main drain and Regimental drain near Monegar Choultry Slaughter House	76	14	3
117	do a tile drain at the north end of Appasawmy Moodelly Street	65	12	0
4½	do 2 stink traps in Davidson's Street	57	4	0
210	do 4 tile drains with concrete both sides in lieu of centre drain in Mooneappa Alley, Black Town	42	2	0
863	do side drain in the Narasimalala Street, &c., Triplicane...	290	14	10
26	do cross drains in Jana Jan Khan Bahadoor lane joining Andeappen Street and Farose Hoossain Saib Street	29	13	2
273	do a masonry covered drain in Chellamoothoo Moodelly Street from Coral Merchant Street to Ramaswamy Street	151	8	10
150	do a masonry covered drain in Salavenayagar Covil Street	81	6	0
180	do side drain in Colundavalen Street, North	128	15	0
150	do do adjoining Choolay Slaughter House	91	0	0
335	do do in east Madah Church Road and Ammen Covil Street	648	0	0
72	do do at the north end of Annoomantharayen Covil Street	23	4	10
1385	do do in Sathana Naik Street	1,024	0	0
480	do do Avadanam Paupier Road	241	0	0
31½	do do Cesspit with an Iron grating and an underground drain at the east end of Jaffer Seerong Street adjoining north Beach	39	8	1
12	do a cross drain Perambore High Road & Chucklypalyam	16	14	0
	Paid to Mr. Moore for preparing Plans, taking levels and sundries	1,189	12	8
	Land purchased	655	4	0
	Total...	5,379	6	10

APPENDIX IV.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

TABLE No. 4.

MAINTENANCE OF BUILDINGS.

Slaughter Houses.

	RS.	A.	P.
Repairing the Superintendent's Quarters of the Slaughter House at Perambore	50	0	0
Do. the Triplicane Slaughter House at Chetty's Garden	278	0	0
Do. do. do. Superintendent's Quarter	10	15	5
Total...	338	15	5

TABLE No. 5.

General Market.

	RS.	A.	P.
Constructing Cesspit, raising granite floor and repairing side drains in General Market	47	9	7
Pointing the granite floor of the foot-paths in General Market, Black Town	464	6	4
Erecting Bamboo Tatty Pandall over stall occupied by Mr. Brown	6	7	6
Repairing the tiled portion of a room in General Market	2	14	10
Total..	521	6	3

TABLE No. 6.

Table showing the Latrines and Urinals that were repaired.

	RS.	A.	P.
Raising and plastering side walls of the male latrine in Mootam Coopum	165	10	7
Erecting mud wall latrines in Lalagunta Lane, and Cochrane Basin Road	152	12	6
Rebuilding the western wall of the female latrine in Chellappa Moodelly Street, Cosapettah	114	0	0
Do. the male and female latrines in the Beach, opposite to Clive's Battery	41	13	0
Erecting a masonry pillar near the latrine at Washermenpettah, Esplanade, for holding a Bucket	13	3	11
Repairing male and female latrines at Alwarpet	54	5	2
Constructing male and female latrines at Ponnappa Moodelly Street and Saravanaperoomal Street	239	5	0
Do. male and female mud wall latrines in the Perambore Chucklia Palliam	154	15	2
Repairing male and female latrines in Mathalamcherry Street	116	6	6
Do. do. in Notchee Cooppan	98	0	0
Do. do. in Ice House Cooppan	75	0	0
Constructing 2 cisterns for a male latrine in Annomonthuroyon Covil Street, Triplicane	11	8	9
Plastering and whitewashing the latrines in the Washermenpettah Esplanade and Lalagunta Lane	105	2	7
Constructing masonry platforms near the latrines at Basin Bridge Road, Cochrane Basin Road and Lalagunta Lane	52	7	0
Repairing and making new openings to the latrines in Singana Chetty Street, Chintadrepettah	70	0	0
Rebuilding the male and female tatty latrines in the Beach near Clive's Battery	60	4	0
Repairing the male latrines in Riverside Road	46	0	0
Plastering the walls of latrines in Lang's Garden Road	69	0	0
Constructing a female latrine in Veera Chetty Samady Street	110	6	0
Do. a male latrine in Pole Naick Street, Pooliamtope	144	7	10
Do. a female latrine in Coottenthumbooran Street, Pooliamtope.	144	3	8
Repairing the latrine in Cemetery Road, Washermenpettah	138	0	0
Erecting a screen wall inside of the model male latrine in Mount Road.	2	9	6

APPENDIX IV.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

TABLE No. 6.

Table showing the Latrines and Urinals that were repaired.—continued.

	RS.	A.	P.
Repairing the male and female latrine in Codumbaukum Road	6	0	0
Do. tatty latrines in Codumbaukum Road	6	14	0
Do. do. in South Beach Coopum	8	0	0
Do. do. in Ice House Road.	2	3	10
Constructing a cistern for the use of the latrine in Veukata-runga Pillay Street	8	10	11
Do. cisterns for the use of the male latrines in Veukata-runga Pillay Street	8	10	11
Do. new cisterns to the latrines in Davaraja Moodelly Street	8	10	11
Raising the floors and repairing cisterns of male latrine in Sydenham's Road	7	12	6
Repairing the cisterns of the male and female latrines at Sawmy Naick Parcherry	7	12	6
Rebuilding a portion of the parapet wall of well attached to latrines in Snudra Pillay Street	3	8	9
Repairing tatty latrines in Madancooppam	9	4	0
Raising floor of latrines in Sydenham's Road	8	15	9
Repairing tatty latrines in Simmon Parcherry	19	12	0
Do. do. Codumbaukum Road	6	8	0
Do. do. Saravara Perunal Street	34	8	0
Do. do. Ponnappa Moodelly Street	48	6	9
Do. side walls of latrines in Vassapoornode Parcherry	6	1	0
Total...	2,377	10	1

TABLE No. 7.

Table showing the repairs, &c. done to Office Premises.

	RS.	A.	P.
Repairing and whitewashing Municipal Office	469	7	10
Breaking down the verandah, erecting the parapet wall of the well, and repairing the latrine	44	2	10
Repairing and painting the doors and windows of the Municipal Office	152	0	0
Repairing the Record room of the Municipal Office	30	11	0
Total...	696	5	8

TABLE No. 8.

Toll Gates.

	RS.	A.	P.
Repairing the wooden Toll Gate in Sterling's Road	26	13	2
do Toll Gates of Terevatoor and 2 other Gates	21	12	6
do do Codumbaukum Road	10	9	6
Total...	59	3	2

TABLE No. 9.

Stores and Workshops.

	RS.	A.	P.
Repairing Municipal Store Rooms in the Trevelyan Water works, Black Town	142	6	2
do do do do	24	14	3
Total...	167	4	5

TABLE No. 10.

Table shewing the number of Dust Bins repaired.

	RS.	A.	P.
Repairing dust bins in Sawmy Naik Road, Iyah Moodelly Street and Kalava Chetty Street...	135	0	0
do 1 dust bin in Nariyangadoo Parchery ...	1	15	7
do 1 do Vceraragavan Parchery Street ...	4	13	1
do 1 do Sawmy Chetty Street, Komaleeswaranpettah ...	1	2	4
do 1 do General Pater's Road ...	1	5	0
do 1 do Front of house No. 2 and 3 Ice House Road ...	1	0	0
do 2 do Narainappa Naick Street and Nyncappen Street ...	2	11	3
Constructing masonry dust bin in Kistna Pillay Street ...	4	8	6
Repairing 3 dust bins in Colunda Gramany Street, Ponnappa Moodelly Street and Taucker's Street ...	2	8	0
do 2 masonry dust bins in Gosa Saib lane, Black Town ...	5	7	1
Shifting 1 Cuddapah stone dust bin from Perambore Barracks Road to Moocathal Road, Pursevaikum ...	2	7	10
Repairing 5 masonry dust bins in Culmundapam Road, Gouse Moideen Street, and Cemetery Road ...	9	11	11
do 1 masonry dust bin in Triplicane High Road ...	4	13	3
do 5 dust bins in Mint Street ...	8	13	5
do 5 do do ...	8	10	6
do 1 do Vengoo Pillay Street ...	2	4	9
do 5 do Govindappa Naik Street ...	9	7	9
do 1 do DeMellow's Road near Spinning Mills ...	5	0	0
do 5 do Govindappa Naick Street ...	10	0	0
do 1 do Sawmy Chetty Street ...	1	13	0
Total...	223	9	3

TABLE No. 11.

MAINTENANCE OF ROADS.

The quantity of work done during the year is shown in the table annexed in detail, thus:—

	Squares.	Mileage.
		M. E. Yds.
Laterite Gravel and Clay ...	24,715.60	27 3 29
Laterite and Gravel ...	5,906.43	6 6 148
Granite and Gravel ...	11,107.31	11 0 131
Brick Jelly ...	541.65	0 5 7
Gravel ...	656.95	1 6 105
Total...	42,927.94	47 5 200

TABLE No. 12.

Table shewing the number of squares and length of Roads repaired in each Division.

Divisions.	Inch.	Laterite, Gravel and Clay.				Laterite and Gravel.				Granite and Gravel.				Total.		Remarks.		
		Squares.	Rate.	Length.	Yds.	Squares.	Rate.	Length.	Yds.	Squares.	Rate.	Length.	Yds.	M.	F.		Yds.	
1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with old bricks and clay.
		5,640	61	2	0	0	6	1	105	218	...	...	...	...	...	...	...	...
2	3	243	69	1	7	8	...	...	...	...	...	...	...	...	...	...	...	Reformed with brick and clay.
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	3	303	77	1	5	10	...	...	...	...	...	...	...	...	...	...	...	Reformed with brick
		1,943	43	1	12	3	2	...	...	...	...	...	...	...	...	...	...	...
3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with brick
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	4	...	18	...	1	7	8	...	...	...	...	...	...	...	...	...	...	Reformed with brick
		3,088	99	2	0	0	3	0	11	411	36	...	...	...	...	...	...	...
4	6	4,436	40	1	11	9	4	4	55	...	...	...	...	...	...	...	...	Reformed with brick
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	3	...	57	...	1	5	9	...	...	...	...	...	...	...	...	...	...	Reformed with brick
		...	60	...	1	9	7	...	...	...	...	...	...	...	...	...	...	...
5	2	636	50	...	1	5	5	...	6	157	...	...	...	...	...	...	...	Reformed with brick
		3,510	90	1	11	9	4	...	...	...	...	...	...	...	...	...	...	...
5	5	351	55	2	0	0	...	3	111	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	3	241	80	...	1	11	8	...	2	86	...	...	...	...	...	...	...	Reformed with gravel
		1,162	90	2	2	0	1	...	...	...	...	...	...	...	...	...	...	...
6	5	1,047	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	3	243	...	...	1	11	8	...	1	185	...	...	...	...	...	...	...	Reformed with gravel
		1,740	45	2	3	0	1	...	...	...	...	...	...	...	...	...	...	...
8	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot	...	24,715	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Reformed with gravel
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE No. 13.
MAINTENANCE OF ROADS.
Statement of works completed during 1879 from January to December.

Estimate Number.	Division.	Name of Road.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
1879	1st	Reforming Kattirankum High Road between Mannally Road and the limits of 1st Division westward	Rs. 2,032 12 9	A. P. 2,032 12 9	Rs. 2,032 12 9	A. P. 2,032 12 9	M. 4 183 12	Ft. 4	In. 4	1018-40
7	...	Do. Mannally Sewage Farm Road between Mannally Road and unfinished portion South of Wooden Bridge	132 0 0	132 0 0	132 0 0	132 0 0	...	...	...	66-
64	...	Do. Mannally Road from Kattirankum Road to Mannally Sewage Farm Road.	532 6 0	532 6 0	532 6 0	532 6 0	...	...	...	266-21
65	...	Forming Roadway near canal bank at Mannally Sewage Farm between Mannally Bridge and Wooden Bridge	296 15 1	296 15 1	296 15 1	296 15 1	...	...	...	81-84
85	...	Reforming centre of Thiruvikore High Road from Cumbalankum Street to limit	2,221 3 2	2,221 3 2	2,221 3 2	2,221 3 2	...	...	...	1110-60
106	...	Do. Munarsamy Civil Street, from Thiruvikore Sab Street to Cemetery Road, Royapuram	1,315 15 8	1,313 2 2	1,313 2 2	1,313 2 2	...	...	...	447-20
107	...	Do. East Madah Church Road from North Railway Terminus to North Madah Church Road	525 0 0	525 0 0	525 0 0	525 0 0	...	...	...	263-50
108	...	Do. Southside Madah Church Road from Westside of Madah Church Road to East Madah Church Road, Royapuram	221 9 7	221 9 7	221 9 7	221 9 7	...	...	...	110-80
130	...	Do. A portion of West Madah Church from North Madah Church Road to North Railway Terminus Road, Royapuram	515 6 5	515 6 5	515 6 5	515 6 5	...	...	...	257-70
131	...	Do. West Madah Church Road from north Madah Church to Calumundapur Road	413 1 11	413 1 11	413 1 11	413 1 11	...	...	...	205-55
132	...	Do. Gause Moiten Road from Calumundapur to Flag Staff Road, Royapuram	562 6 5	562 6 5	562 6 5	562 6 5	...	...	...	281-20
133	...	Do. The Road over East approaches from Road over Railway Bridge to north Railway Terminus Road, Royapuram	311 3 2	311 3 2	311 3 2	311 3 2	...	...	...	155-60
134	...	Do. North Railway Terminus Road from East approaches to East Railway Terminus Road, Royapuram	335 0 0	335 0 0	335 0 0	335 0 0	...	...	...	167-50
137	...	Do. Gollawar Agrarum Road from Cumbalankum Civil Road to house No. 26 at Thondayarpett	732 11 9	731 12 9	731 12 9	731 12 9	...	...	...	240-
138	...	Do. Cochrane Rasin Road from Resin Bridge to Kuttivankum Road Junction	1,439 11 6	1,439 11 6	1,439 11 6	1,439 11 6	...	...	...	712-86
155	...	Do. Pothalavignaswar Civil Road from Audiappa Granary Street to Calumundapur Road	447 1 11	447 1 11	447 1 11	447 1 11	...	...	...	223-50
		Carried over...	12,034 10 1	12,030 13 7	12,030 13 7	12,030 13 7	6 7 216	...	...	562-553

MAINTENANCE OF ROADS—(continued).
Statement of works completed during 1879 from April to December.—(continued.)

Estimate Number.	Division.	Names of Roads.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
157	1st	Reforming the Centre of Audiappa Granary Road from West Madah Church to Munarsamy Civil Road	Rs. 12,034 10 1	A. P. 12,030 13 7	Rs. 12,030 13 7	A. P. 12,030 13 7	M. 6 7 216	Ft. 4	In. 4	562-553
178	...	Do. Munarsamy Civil Road	237 5 9	237 5 9	237 5 9	237 5 9	...	...	...	143-68
185	...	Do. Kamanaypettah Esplanade Road from Mint Gate to Esplanade limit	648 0 0	648 0 0	648 0 0	648 0 0	...	...	...	321-
186	...	Do. Kamanaypettah Esplanade Road from Gollawar Agrarum Street to Thiruvikore High Road	487 3 2	487 3 2	437 3 2	437 3 2	...	...	...	243-60
		Do. Sangeevyayen Civil Street, Sangeevyayenpettah, from Barloo Monday Street to Jandrapilliar Civil Street	360 5 2	360 5 2	360 5 2	360 5 2	...	...	...	243-60
26	2nd	Do. Thieving Bazaar Esplanade Road from Broosuppah Maistry Street to Lamp-post near Nysseppah Naick Street	472 8 0	472 8 0	472 8 0	472 8 0	...	...	...	150-
27	...	Do. the centre of Broosuppah Maistry Street from Jamadars Tannah to Thieving Bazaar Esplanade Road	564 4 6	564 4 6	564 4 6	564 4 6	...	...	...	323-25
41	...	Do. Pasupathi Chetty Street from Wall Tax Road to Mint Street	748 2 0	748 2 0	748 2 0	748 2 0	...	...	...	255-
42	...	Do. Rasappa Chetty Street from Mint Street to China Bazaar Esplanade Road	458 5 2	458 5 2	458 5 2	458 5 2	...	...	...	174-60
47	...	Do. China Bazaar Esplanade Road from Lamp-post to General Hospital Gate Road	960 12 0	960 12 0	960 12 0	960 12 0	...	...	...	366-
63	...	Do. Mint Street from China Bazaar Street to Motha Saib Lane, Black Town.	775 10 3	775 10 3	775 10 3	775 10 3	...	...	...	439-30
76	...	Forming the centre of Audiappa Naick Lane from Wall Tax Road to Trevelyan Bean Street, East	184 10 4	184 10 4	184 10 4	184 10 4	...	...	...	94-60
77	...	Reforming the centre of Varaha Mothiappan Street from Thatha Mothiappan Street to Ummen Civil Street	378 0 0	378 0 0	378 0 0	378 0 0	...	...	...	144-
78	...	Do. Mint Street from Thiruvikore Street to Ummen Civil Street	222 7 6	222 7 6	222 7 6	222 7 6	...	...	...	126-
79	...	Forming the centre Veeraswamy Pillay Street from Anacarasom Street to Baruck Street	119 6 3	119 6 3	119 6 3	119 6 3	...	...	...	67-63
90	...	Reforming the centre of Kistappa Naick Agrarum Street from Ummen Civil Street to Coopoo Iyer Street	154 10 8	154 10 8	154 10 8	154 10 8	...	...	...	87-60
91	...	Do. Venkatarain Street from Coopoo Iyer Street to Paddoo Naick Street.	113 0 0	113 0 0	113 0 0	113 0 0	...	...	...	64-
92	...	Forming the Centre of Ummen Civil Street from Kistappa Naicks Tunk Street to Wall Tax Road	293 12 10	293 12 10	293 12 10	293 12 10	...	...	...	155-40
		Carried over...	19,563 1 8	19,559 0 4	19,559 0 4	19,559 0 4	10 5 105	...	...	9083-79

MAINTENANCE OF ROADS—(continued).
Statement of works completed during 1879, from January to December.—(continued.)

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.		Amount of Bill.		Amount paid during the year.		Amount not paid.		Length.		Breadth.	Thickness.	Squares.
			Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	M.	F.			
1879		Brought forward ..	19,563	1 8	19,559	0 4	19,559	0 4			10	5	105	...	3,008.79
99	2nd	Forming the centre of Peddoo Naick Street, from Moodookistman Street to Wall Tax Road	397	6 2	397	6 2	397	6 2					15	12	4
109	...	Reforming the centre of Mint Street from General Hospital Road to Isaack Street	148	5 0	148	5 0	148	5 0					186	15	4
110	...	Do. Mint Street, from Isaack Street to China Bazaar Street	369	6 7	369	6 7	369	6 7					3	56	15
111	...	Do. Stringer's Street, from Wall Tax Road to Nynceppa Maistry Street	90	0 9	90	0 9	90	0 9					150	10	4
112	...	Do. Isaack Street, from Wall Tax Road to Mint Street	210	12 10	210	15 10	210	15 10					1	16	15
128	...	Forming the wing of Ramanen Street to Wall Tax Road, Black Town	50	12 6	50	12 6	50	12 6					43	20	4
131	...	Do. the Cart Stand in Wall Tax Road	651	4 3	651	4 3	651	4 3					162	19	3
181	...	Reforming the centre of Elephant Gate Bridge Road, from the East approach of the Bridge to Wall Tax Road	214	6 8	211	7 2	211	7 2					190	20	4
184	...	Forming the centre of Venkatarumier Street from Peddoo Naick Street to a lane on the north	39	3 1	39	3 1	39	3 1					74	10	4
187	...	Reforming the 2 approaches of the gates of the Central Railway Station, from General Hospital Road	82	8 11	82	8 11	82	8 11					22	38	3
6	3rd	Reforming the centre of Erraballoo Chetty Street, from Sembodoss Street to Beach Road	638	11 3	638	11 3	638	11 3					85	15	4
35	...	Forming Appon Maistry Street from Parish Venkatchella Iyer Street to Pennelly Street	257	8 3	257	8 3	257	8 3					1	53	12
36	...	Reforming the centre of Chinustambly Street, from Annappilly Street to Thachamothappa Street	234	0 0	234	0 0	234	0 0					1	132	12
40	...	Do. Pannun Street, from Erraballoo Chetty Street to Moora Nullamootoo Street	129	9 7	129	9 7	129	9 7					176	12	4
45	...	Do. Popham's Broadway, from Erraballoo Chetty Street to China Bazaar Esplanade Road	507	0 0	507	0 0	507	0 0					1	155	28
48	...	Do. Light House Esplanade Road, from China Bazaar Esplanade Road to Thieving Bazaar Esplanade Road	1,249	2 10	1,249	2 13	1,249	2 10					1	218	30
		Carried over...	25,003	10 4	25,086	6 3	25,086	6 3			12	1	92	...	11,018.30

MAINTENANCE OF ROADS—(continued).

Statement of works completed during 1879 from April to December.—(continued.)

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.		Amount of Bill.		Amount paid during the year.		Amount not paid.		Length.		Breadth.	Thickness.	Squares.
			Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	M.	F.			
54	2nd	Reforming the centre of Venkatesa Naick Street from Francis Turin Street to Unnen Pagoda Street	25,003	10 4	25,086	6 3	25,086	6 3			12	1	92	...	11,018.30
56	...	Do. Cundappa Chetty Street from Annappilly Street to Thachamothappa Street	142	7 8	142	7 8	142	7 8					194	12	4
63	...	Do. Beachfield's Bridge Road from Beachfield's Esplanade Road to Hospital Esplanade Road	225	9 7	225	9 7	225	9 7					1	77	12
67	...	Raising and re-laying Moora Nullamootoo Street from Popham's Broadway to Singana Naick Street	388	7 0	388	7 0	388	7 0					1	20	4
72	...	Reforming the centre of Singana Naick Street from Moora Nullamootoo Street to Erraballoo Chetty Street	262	6 1	262	6 1	262	6 1					2	10	15
73	...	Do. Oil Menger's Street from Moora Nullamootoo Street to Thachamothappa Chetty Street	150	9 6	150	9 6	150	9 6					191	12	4
80	...	Do. the centre of Venkatesa Maistry Street from Mannady Street to Olakal Street	154	8 5	153	12 11	153	12 11					182	12	4
81	...	Do. Iyappan Street from Mannady Street to Olakal Street	218	6 5	217	13 11	217	13 11					1	80	12
89	...	Do. Mahaperiambly Street from Parish Venkatchella Iyer Street to Unnen Pagoda Street	218	6 5	218	6 5	218	6 5					1	80	12
94	...	Forming Shunmogaroyen Street from St. Xavier Street to Pannamunna Civil Lane	118	6 5	118	6 5	118	6 5					101	12	4
95	...	Do. Meerabai's Street from Parish Venkatchella Iyer Street to Unnen Pagoda Street	242	9 7	242	9 7	242	9 7					21	13	5
96	...	Do. Thirappa Moodelly Street from St. Xavier Street to Pannamunna Civil Lane	117	12 9	117	12 9	117	12 9					193	12	4
97	...	Do. the centre of Thirappa Moodelly Lane from Peddarur Civil Street to Shunmogaroyen Street	277	0 7	277	0 7	277	0 7					2	7	10
98	...	Do. Unnen Pagoda Street from Popham's Broadway to Pennelly Street	71	10 0	71	10 0	71	10 0					07	12	4
99	...	Reforming the centre of Mahaperiambly Street from Mannady Street to Olakal Street	134	13 8	134	13 8	134	13 8					154	11	4
100	...	Do. Savanemootoo Street from Mannady Street to Olakal Street	321	6 5	321	6 5	321	6 5					1	157	14
103	...	Do. the wings of Sembodoss Street, Pannamunna Maistry Street, and Singana Naick Street connecting Moora Nullamootoo Street	230	8 7	230	8 7	230	8 7					1	150	19
113	...		26	10 0	26	10 0	26	10 0					33	15	...
		Carried over...	28,305	2 4	28,387	1 3	28,387	1 3			11	6	56	...	13,130.79

MAINTENANCE OF ROADS—(continued).
Statement of works completed during 1879, from January to December.—(continued.)

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
1879			Rs. A.P.	Rs. A.P.	Rs. A.P.	Rs. A.P.	M. F. Yds.	Ft. In.	In.	
185	3rd	Reforming Mamuday Street from Popham's Broadway to Jufferey Street ...	28,305 2 4	28,387 1 3	28,387 1 3	...	14	5 56	...	13136.73
149	"	Do. Paranna Maistry Street from Erbbadloo Chetty Street to Noleen Street ...	1,013 0 5	1,013 0 5	1,013 0 5	...	...	2 152 13	...	290.2
153	"	Do. the centre of Davidson's Street, from Thillamoorthuppen Street to Annapillay Street ...	55 3 2	55 3 2	55 3 2	...	...	73 22	...	27.60
155	"	Do. Annapillay Street, from Popham's Broadway to Achampun Street ...	305 9 7	305 9 7	305 9 7	...	...	1 100 15	...	152.80
158	"	Do. Seonkorrana Chetty Street, from China Bazaar Road to Philip's Street ...	697 4 2	697 4 2	697 4 2	...	...	1 113 20	...	193.80
159	"	Do. Gomes' Street, Black Town, from Popham's Broadway to Condey Chetty Street ...	152 12 9	152 12 9	152 12 9	...	...	177 12	...	76.40
160	"	Do. Philip's Street, from Popham's Broadway to Condey Chetty Street ...	129 10 3	129 10 3	129 10 3	...	...	165 12	...	60.22
161	"	Do. Condey Chetty Street, from China Bazaar Esplanade Road to Philip's Street ...	122 6 5	122 6 5	122 6 5	...	...	160 12	...	61.20
162	"	Do. the centre of Francis Joseph Street, from China Bazaar Road to Philip's Street ...	180 0 0	180 0 0	180 0 0	...	...	180 12	...	90
165	"	Do. Band Beach Road, from Fort Beach Road to Victoria's Bridge ...	177 12 9	177 12 9	177 12 9	...	...	163 12	...	88.90
163	"	Do. Benfield's Esplanade Road, from Thieving Bazaar Esplanade Road to Hospital Esplanade Road ...	1,665 0 0	1,665 0 0	1,665 0 0	...	...	3 152 40	...	832.50
168	"	Do. Jaffer Secring Road, from Jaffer Secring Street to North Beach Road ...	579 7 3	579 7 3	579 7 3	...	...	4 20 20	...	270.0
169	"	Do. Jaffer Secring Street, from Narumappa Nalk Street to Kistnaswamy Cowl Street ...	236 11 3	236 11 3	236 11 3	...	...	184 15	...	64.75
177	"	Do. the wings of Seigulaneerpillayar Cowl Street, Ramaswamy Street, Carl Merchant Street, Armenian Street, and Jones' Street ...	405 6 3	405 6 3	405 6 3	...	...	196 20	...	118.50
180	"	Do. the centre of Ramaswamy Street, from Mamady Street to Salvinayagar Cowl Street ...	88 12 9	88 12 9	88 12 9	...	...	76 19	...	44.40
20	4th	Do. the approaches to the two gates of the Railway Salt Cotlar from Elephant Gate Road to the Gates of 4th Division ...	424 12 9	424 12 9	424 12 9	...	...	2 140 12	...	212.40
43	"	Do. the centre of Yerokanjary Road from the Basin Road to the Expense Magazine Road, 4th Division ...	141 5 8	141 5 8	141 5 8	...	...	69 17	...	35.90
44	"	Do. Yarokanjary Road from the Expense Magazine Road to the Toll Gate, 4th Division ...	1,163 4 0	999 12 0	999 12 0	...	...	5 4 20	...	638
		Carried forward...	1,654 8 0	883 8 0	883 8 0	...	...	4 133 20	...	608
			37,438 7 9	37,166 8 8	37,166 8 8	...	18	5 79	...	17192.28

MAINTENANCE OF ROADS—(continued).
Statement of works completed during 1879 from April to December.—(continued.)

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
			Rs. A.P.	Rs. A.P.	Rs. A.P.	Rs. A.P.	M. F. Yds.	Ft. In.	In.	
70	4th	Reforming D'Mellow's Road from the Elephant Gate Road to the Culvert, 4th Division ...	37,438 7 9	37,166 8 8	37,166 8 8	...	18	5 79	...	17192.28
71	"	Do. D'Mellow's Road from the Culvert to Cecil Patten's Road, 4th Division ...	197 11 6	197 11 6	197 11 6	...	...	196 20	...	114
82	"	Do. the centre of Cook's Road from Strahan's Bridge to Strahan's Road, 4th Division ...	938 9 6	938 9 6	938 9 6	...	...	5 166 15	...	570
83	"	Do. Under Bridge Road leading from North to South approaches of the Railway crossing on Guntz's Road, 4th Division ...	783 1 1	783 1 1	783 1 1	...	...	4 6 15	...	451.50
84	"	Do. Venkatesh Chetty Road from Guntz's Road to the Gate of Mr. Flaroon's Bazaar ...	109 4 3	109 4 3	109 4 3	...	...	210 10	...	63
118	"	Do. Poodhatope Road from the Basin Road to the Bridge, 4th Division ...	374 10 0	374 10 0	374 10 0	...	...	2 160 12	...	216
110	"	Do. Moothoo Moolally Street from Mourthing Lyer Street to Yarokanjary Road ...	175 14 6	175 14 6	175 14 6	...	...	1 7 15	...	102
120	"	Do. the centre of Connor Road from Strahan's Bridge to the Toll Gate, 4th Division ...	169 4 1	169 4 1	169 4 1	...	...	1 36 12	...	92.40
121	"	Do. Barracks Gate Street from D'Mellow's Road to Strahan's Road, 4th Division ...	718 0 6	718 0 6	718 0 6	...	...	4 40 15	...	414
170	"	Do. Perambore High Road from Cook's Road to the Toll Gate, 4th Division ...	143 1 4	143 1 4	143 1 4	...	...	1 64 15	...	82.50
179	"	Do. Madawanthoo Road from Perambore High Road to the Toll Gate, 4th Division ...	1,051 0 6	1,051 0 6	1,051 0 6	...	...	5 66 17	...	606
			744 0 9	744 0 9	744 0 9	...	...	4 73 15	...	429
13	5th	Do. the centre of Vepey Church Road from Jeremiah's Road to Runkall's Road ...	308 11 6	307 4 6	307 4 6	...	...	2 10 15	...	175
14	"	Do. 1st Salay Street from Vepey High Road to General Collin's Road ...	238 2 10	231 8 6	231 8 6	...	...	1 40 15	...	126.50
15	"	Do. Catter Sadayappan Street from Narayana Chetty Street to Alfarlon's Road ...	111 0 0	111 0 0	111 0 0	...	...	191 11	...	64
16	"	Do. Brethaupt's Road from Runkall's Road to Atkinson's Road ...	153 10 8	153 11 8	152 11 8	...	...	2 147 15	...	86.90
17	"	Do. Atkinson's Road from Gun Carriage Road to Vepey High Road ...	345 8 10	340 12 8	340 12 8	...	...	2 193 12	...	172.50
18	"	Do. Careyappah Moolally Street from Perambore Barracks Road to Gundappal Moolally High Road ...	289 8 10	289 6 10	289 6 10	...	...	2 2 12	...	166.95
		Carried forward...	44,331 10 5	44,096 8 10	44,046 8 10	...	23	6 143	...	21127.53

MAINTENANCE OF ROADS—(continued).
Statement of works completed during 1878 from April to December.—(continued.)

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.		Amount of Bill.		Amount paid during the year.		Amount not paid.		Length.		Breadth.	Thickness.	Squares.
			Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	M.	F. Yds.			
1878.		Brought forward...	44,331	10 5	44,016	8 10	44,016	8 10							211,275.3
24	5th	Reforming the centre of Vencatamah Sarnady Street, from Candappan Moodelly High Road to Brick Kiln Road	369	9 9	369	9 9	369	9 9							197.40
25		Do. Padayatharman Coril Street and north portion of Chellappa Moodelly Street joining Stralun's Road	656	15 10	656	15 10	656	15 10							354.75
28		Do. Half's Road, from Egmore High Road to Mr. De Closter's Gate	349	8 8	339	5 5	339	5 5							156.60
31		Do. Sathana Nalk, from De Mellow's Road to Angalammen Coril Gate	396	7 8	395	8 8	395	8 8							228.60
53		Do. Neelacholady Street, from Candappa Moodelly Street to Kottigangoo Thiroovenusala Moodelly Street	41	10 0	38	13 9	38	13 9							21.75
59		Do. Candappa Moodelly Street, from Vencatuchella Moodelly Street to Neelacholady Street	72	13 6	72	13 6	72	13 6							57.
60		Do. the centre of Vencatuchella Moodelly Street, from Choolay Bazar Road to Candappa Moodelly Street	247	2 4	245	0 4	245	0 4							141.60
68		Do. Choolay Bazar Road, from Sydenham's Road to Hunter's Road and Avudanam Paupiah's Road	730	7 6	730	7 6	730	7 6							275.
74		Do. Metalling the footpaths in People's Park	737	5 5	737	5 5	737	5 5							637.70
75		Reforming the centre of Whannell's Road, from Poonamallee Road to Puthiccon Road	1,205	2 3	1,204	4 11	1,204	4 11							367.
101		Do. Narayana Chetty Street, from Poonamallee Road to Eroosappan Street	115	5 4	115	2 7	115	2 7							69.40
102		Do. Veerasawmy Pillay Street, from Poonamallee Road to Eroosappan Street	127	7 8	126	15 8	126	15 8							75.50
103		Do. the centre of McFarlane's Road, from Sawmy Moodelly Street to Woorocattian Street	89	13 0	89	13 0	89	13 0							45.
104		Do. Eroosappan Street, from Patamma Marikay Street to Carpoora Moodelly Street	57	8 9	57	3 9	57	3 9							33.
105		Do. Sawmy Moodelly Street, from Vepery High Road to McFarlane's Street	90	3 0	89	12 6	89	12 6							52.
116		Do. the Road on the north side of Wild Animals' enclosure joining North Gate Road and the Farm House Road	60	11 3	60	11 3	60	11 3							35.
117		Do. the Road from South-west Gate to Vepery High Road	268	13 3	268	12 3	268	12 3							155.10
		Total...	49,948	1 7	49,615	13 11	49,615	13 11			28	4	126		24,604.33

MAINTENANCE OF ROADS—(continued).

Statement of works completed during 1879 from January to December.—(continued).

Estimate Number.	Division.	Name of Roads.	Amount of Estimate.		Amount of Bill.		Amount paid during the year.		Amount not paid.		Length.		Breadth.	Thickness.	Squares.
			Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	Rs.	A. P.	M.	F. Yds.			
1879		Brought forward...	49,948	1 7	49,615	13 11	49,615	13 11							24,604.33
142	5th	Reforming the centre of Case Major's Road from Pantheon Road to Genfoo Reddy Road	840	4 10	833	4 4	833	4 4							836.30
143		Do. Mozzeeth Road from Marshall Road to Pantheon	541	4 9	541	4 9	541	4 9							312.15
145		Do. the centre of Barracks Road East, from Stringer's Road to Vepery High Road	294	13 6	294	13 6	294	13 6							170.
146		Do. Muldoonra Veerasawmy Street from Naval Hospital Road to Pucanna Mastey Street	157	13 3	157	7 8	157	7 8							90.80
147		Forming Ramasawmy Pillay Street from Venetheetha Moodelly Street to Sarva-raperoomal Moodelly Street	107	13 6	107	5 1	107	5 1							46.35
148		Do. Andappa Moodelly Street from Saravanaperoomal Moodelly Street to Pattalam Ponnammann Civil	61	9 0	61	9 0	61	9 0							30.
152		Reforming Saravanaperoomal Street from Ramasawmy Pillay Street to Andappa Moodelly Street	290	1 6	289	11 1	289	11 1							117.20
163		Do. West river side Road from Pantheon Road to Railway wall	542	13 9	542	13 9	542	13 9							311.
201		Do. the centre of and sides of Poonamallee Road from Runder's Road to Flower's Road	902	13 10	902	13 10	902	13 10							636.50
188		Forming the centre of Veerasawmy Pillay Street from Egmore High Road to Police Office Road	380	14 5	380	14 5	380	14 5							118.80
5	6th	Reforming the centre of Putabess Road from Mount Road to White's Road	427	9 6	417	9 6	417	9 6							211.50
19		Do. Kilpattum Garden Road from Orme's Road to Unmen Coril Road	604	11 0	604	5 6	604	5 6							353.
37		Do. the centre and sides of Mount Road from Putabess Road to White's Road	3,183	12 0	3,102	11 3	3,102	11 3							1,112.
38		Do. Mount Road from White's Road to Peter's Road	1,170	0 0	1,170	0 0	1,170	0 0							416.
39		Do. Mount Road from Peter's Road to Nungunbakum High Road	1,535	10 0	1,535	10 0	1,535	10 0							546.
		Metalling the Road leading from Sterling Road Toll Gate to Pabbish Depot in 6th Division	...	...	103	5 7	103	5 7							88.40
55		Reforming the centre of Madavankum Tank Road from Ponsarakum High Road to Lunatic Hospital Gate	711	2 0	636	2 0	636	2 0							285.20
113		Do. Balfore's Road from Harley's Road to Ponsarakum High Road	278	13 3	278	13 3	278	13 3							124.50
114		Do. Kelley's Road from Balfore's Road to Orme's Road	440	6 7	440	6 0	440	6 0							173.
		Carried forward...	62,390	8 3	61,845	14 5	61,845	14 5			35	5	62		304,56.03

MAINTENANCE OF ROADS—(continued).

Statement of work completed during 1879, from January to December—(continued.)

Estimate Number.	Division.	Name of Road.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
1879			Rs.	A. P.	Rs.	A. P.	M. F. Yds.	Ft. In.		
115	6th	Brought forward...	62,200	8 3	61,846	14 5				36450.00
139		Reforming Wood's Road from Mount Road to General Pater's Road	401	1 0	401	1 0	1 35	0 62	...	133.50
154		Do. the centre of Anderson's Road, from Mr. Carter's Gate to Moore's Road.	161	4 0	161	4 0	...	...	...	72
200		Do. Old Lunatic Hospital Road from Orme's Road to Purnasurukam High Road	532	2 0	486	7 0	...	...	...	217.20
1	7th	Do. the centre and sides of Purnasurukam Road from Flower's Road to limits	1,840	0 2	1,840	0 2	1	3 12	13	2 105.5
10		Do. the centre of Mount Esplanade, from Wallajah Bridge to Government Bridge	3,019	2 4	3,019	2 4	...	...	...	1050.15
11		Do. Body Guard Road, from Mount Esplanade Road to Wallajah Road	1,007	13 0	1,007	13 0	...	...	...	450
11		Do. Wood's Road, from General Pater's Road to Pycroft's Road	452	0 4	452	0 4	...	...	...	202
12		Do. Arconachella Aachary Street, from Tiruvattisvaran Pettah Road to Wallajah Road	227	1 0	227	1 0	...	...	...	101.40
32		Do. Chella Pillayar Civil Street, from Pycroft's Road to Pillayar Civil Street	217	10 0	216	15 0	...	...	...	103.34
49		Do. the path between the Main Road to the gate of St. Patrick's Cemetery	40	5 0	40	5 0	...	...	...	51.57
61		Do. Waller's Road from Dam Road to Mount Road at Narasingapuram	462	12 11	462	12 11	...	...	...	208 6
86		Do. the centre of Triplicane High Road from Pycroft's Road to Ice House Road	293	8 0	293	8 0	...	...	...	347.20
87		Do. Triplicane High Road, from Wallajah Road to Pycroft's Road	1,418	13 0	1,418	13 0	...	...	...	439.50
88		Do. Wallajah Road, from Mount Road to Triplicane High Road	811	0 0	746	1 0	...	...	...	359.50
125		Do. South Beach Road, from Ice House Road to Pycroft's Road	1,245	5 0	1,245	5 0	...	...	...	556
172		Do. Pillayar Civil Street, from Chelambikar Civil Street to Scoopedra Street	422	8 0	322	8 0	...	...	...	144
173		Do. Scoopedra Street, from Pillayar Civil Street to Triplicane High Road	1,300	1 0	1,300	1 0	...	...	...	80.40
182		Do. Blacker's Road, from Harris' Bridge to Mount Road	412	12 5	412	12 5	...	...	...	129.50
190		Do. General Pater's Road, from Wood's Road to Mount Road	825	6 3	823	8 3	...	...	...	405
229	8th	Do. Barber's Bridge Road, from Edward Elliot's Road to Barber's Bridge	253	10 0	253	10 0	...	...	...	123
30		Do. Barber's Bridge Road, from Ice House Road to Edward Elliot's Road	1,872	4 0	1,872	4 0	...	...	...	630
33		Do. Desilva's Road from Inz Church Road to Desilva's Garden	145	4 11	145	4 11	...	...	...	75.25
34		Do. Parappilly Street from St. Thome High Road to St. Lazarus's Church	100	15 6	300	15 6	...	...	...	54
50		Do. centre and sides of Mount Road from St. George's Cathedral Road to Blacker's Gate	2,362	8 0	2,362	8 0	...	...	...	540
		Carried forward...	81,550	2 11	81,153	11 11				38431.19

MAINTENANCE OF ROADS—concluded.

Statement of work completed during 1879 from January to December—concluded.

Estimate Number.	Division.	Name of Road.	Amount of Estimate.	Amount of Bill.	Amount paid during the year.	Amount not paid.	Length.	Breadth.	Thickness.	Squares.
1879			Rs.	A. P.	Rs.	A. P.	M. F. Yds.	Ft. In.		
51	8th	Brought forward...	31,000	2 11	31,153	11 11				35431.19
52		Reforming the centre and sides of Mount Road from Blacker's Gate to Yelham's Road	3,150	0 0	3,149	11 9	...	...	...	51.120
53		Do. the centre and sides of Mount Road, from Yelham's Road to Connapah Road	1,998	12 0	1,998	12 0	...	...	...	700
62		Do. Limit ...	1,856	4 0	1,856	4 0	...	...	...	680
122		Do. the road opposite to the Church Gate at St. Thome and constructing a covered drain from Church Gate and joining with the side drain at St. Thome	110	0 0	106	2 0	...	...	...	27.50
123		Do. the centre of Bazaar Road from Nattico Soolroya Moodelly Street to Cutchery Road	628	12 3	628	12 3	...	...	...	276.25
124		Do. Prusunavayyar Civil Street, from Barber's Bridge to Nattico Soolroya Moodelly Street	234	7 0	234	7 0	...	...	...	123
149		Do. the centre of Channer's Road, from Pugh's Road to Connapah Road, Mylapore	832	8 0	832	8 0	...	...	...	360
174		Reforming the centre of Muddala Narayana Street, from Cutchery Road to the joining of East and North Malah Street	133	0 0	133	0 0	...	...	...	52.50
175		Do. the centre of St. Thome High Road, from Colonel Underwood's Gate to Adyar Bridge Road	745	13 6	603	0 2	...	...	...	322.50
		Do. St. Thome High Road, from Anthoo Street to Colonel Underwood's Gate	1,077	3 0	1,038	10 9	...	...	...	555
		Total...	53,053	13 5	52,415	1 7				49927.94

TABLE No. 16.

MAINTENANCE OF DRAINS.

Table showing the Drains that were repaired.—continued.

	Estimated Amount.			Amount Paid.		
	RS.	A.	P.	RS.	A.	P.
Constructing 2 cess pits and covering the same with sewer grate with bell and an under ground drain at the West end of Arbutnot's lane joining Jafferse-rang's Street ...	63	0	0	...	...	...
Raising walls of the side drain in Popham's Broadway ...	71	0	0	...	...	...
Petty Repairs, &c. ...	906	5	2	435	5	0
Total...	3,693	6	1	2,817	1	6

TABLE No. 17.

MAINTENANCE OF FENCES.

	RS.	A.	P.
Supplying new materials for 38 spaces now without railings at the side of Coom River Road, from Dam Road to St. Andrew's Bridge	130	11	6
Repairing old Palmyrah Railings at the side of Coom River Road, from Dam Road to Napier Park, Western Gate Chintadrepettah	51	6	0
do The Teakwood railings on the East and West of Walla-jah Bridge ...	376	0	0
do The Palmyrah Fences at Spur Tank Road...	235	13	6
do Fence in River side Road, between Colonel Law's Bridge, and Harris' Bridge ...	25	5	8
do Coom Fence, near St. Andrew's Bridge ...	3	1	6
do Coom Fences, near Harris' Bridge ...	5	9	2
do The fencing of the Municipal Cart Stand, in Stephenson's Road...	247	10	3
do A portion of the Fencing of the Municipal Cart Stand in Stephenson's Road ...	53	13	6
do The retaining Wall of Karayancootta in Sydenham's Road...	54	13	0
do Wooden Railings of the Railway/crossings, Perambore High Road ...	14	13	0
do do do Gantz Road ...	81	15	4
do do do Yerookencherry ...	22	13	4
do Parapet wall from College Bridge, to Elphinstone Hotel, and plastering the parapet wall, along Dam Road, from Harris' Bridge to Mount Road ...	108	4	0
do ...	202	14	0
Erecting Palmyrah fence at the end of the culvert in Harrington's Road...	9	8	0
Repairing Wooden Railings of the Railway crossing in Perambore High Road ...	2	8	0
do do do Yerookencherry Road ...	2	2	0
do do do do ...	4	0	0
do do do Perambore High Road ...	6	0	0
Total...	1,639	1	9

TABLE No. 18.

MAINTENANCE OF TANKS AND WELLS.

	RS.	A.	P.
Deepening the Tank of C. V. Cunniah Chettyar in Stephenson's Road and throwing the earth over the street from Perambore High Road, to Chuekly Pauliam ...	262	3	6
Repairing the parapet wall of a public well in Trevelyan Cart Depot ...	6	6	8
Clearing vegetation on banks of tanks in Rundall's Road ...	7	3	0
Repairing Public Well in Namasivaya Chetty Street ...	10	0	0
Do do do do Lane ...	10	0	0
Sinking Well at Pattalam Ponnéammam Covil Street ...	10	0	0
Total...	305	13	2

TABLE No. 19.

Statement showing the number of Markets, Depôts, Dangerous and offensive Trades Licensed and amount received during 1879.

No.	Description.	Amount.			Total.		
		RS.	A.	P.	RS.	A.	P.
350	Markets	1,825	0	0			
323	Meat Stalls.	17	0	0			
323	Salt fish Bazaars	12	0	0			
325	Hack Stables	540	0	0			
322	Cattle Yards	42	0	0			
322	Chunam Kilns	540	0	0			
322	Indigo Dyeing Yards	192	0	0			
322	Tanneries	525	0	0			
322	Oil boiling Houses	1,145	0	0			
333	Oil Mills						
325	Slaughter House	100	0	0			
323	Sheep Pens	42	0	0			
323	Blood and Bone Depôts	200	0	0			
323	Firewood and Brushwood Depôts	891	0	0			
323	Palmyrah Depôts	21	0	0			
323	Redwood do	156	0	0			
323	Timber do	832	0	0			
323	Charcoal do	132	0	0			
323	Straw do	3	0	0			
325	Carts Stands	343	0	0			
322	Brick Kilns	268	14	2			
323	Bamboo Depôts	30	0	0			
322	Cement Works	100	0	0			
322	Manufacturing fireworks..	15	0	0			
322	Storing Kerosine Oil	250	0	0			
322	Camphor Boiling Houses...	45	0	0			
322	Storing Lucifer Matches...	50	0	0			
322	Storing Skins	100	0	0			
322	Pottery Kilns	153	0	0			
350	Beef Stalls	13	0	0			
311	Latrine for Market	3	0	0			
282	Hoards and fences	57	15	1			
Total...		8,643	13	3			

TABLE No. 20.

Statement showing the particulars of the lands sold during the year 1879.

Extent of Land.	LOCALITY.	NAMES OF PURCHASERS.	Purchase Amount.	
			RS.	A. P.
273	Sawmy Unnen Covil Street	T. Casava Moodelly	12	0 0
16	D'Mellow's Road	A. C. Ponnosawmy Moodelly	8	0 0
297	Davaraga Moodelly Street	C. Seobrayaloo Iyah	90	0 0
125	Narrainsawmy Moodelly Street	G. Gopaul Chetty	21	0 0
229	Oyaloo Moothia Moodelly Street	N. C. Moorooogo Soobraya Moodelly	29	0 0
16	Washernanpet Burial	C. Rajarathna Moodelly	8	0 0
232	Thunboo Chetty Street	Chunoo Canapa Chetty	59	0 0
132	Munnarsawmy Covil Street	Narayanasawmy Chetty	11	0 0
106	Narayana Moodelly Street	Gooroopa Chetty	18	0 0
	Triplicane	J. Lutchmancanth Raw	40	8 0
155	Moothappan Street	Theroovangadathan Chetty	65	0 0
266	Govindapa Naick Street	C. Cundapa Chetty	89	0 0
16	Burial Ground Basin Road	Coomara Chetty	8	0 0
	Poonamallee Road	W. T. Hamilton Holmes, Esq.	962	0 1
851		Deputy Collector, Madras	134	13 0
68	Thathamoothiappen Street	China Lutchmava Chetty	65	0 0
397	Vurthamoothiappen Streets	T. Varatharajooloo Chetty	198	14 0
396	Do. do.	C. Theroovangadathan Chetty	198	0 4
156	Govindapah Naick Street	Nambaroomal Chetty	52	3 0
51	Natto Pilliar Covil Street	C. Chengalvaraya Chetty	11	0 0
16	Washernanpettah	Veegammah	8	0 0
144	Mount Road	Messrs. Barrie and Co.	72	0 0
4	D'Mellow's Road	Veerasawmy	2	0 0
417	Male Asylum Road	Deputy Collector	1,717	6 4
91	Yagambr Esvarer	Messrs. T. Iyavier and Brothers	38	0 3
125	Davaraga Moodelly Street	Yalcomalay Chetty	78	3 0
210	China Bazaar Road	S. Ravanna Chetty	120	0 0
180	Thavadoo Venkatasawmy Street	C. Danalingam Moodelly	26	4 0
310	Veerasagava Moodelly Street	Cunniah Chetty	51	12 8
	Washernanpettah	Vengataragavooloo Chetty	12	8 0
90	Colanthay Street	C. Kistappa Anchary	15	0 9
79	Vencadaga Naick Street	N. B. Theroovangada Moodelly	11	9 9
99	Ramasawmy Street	Vissooranuda Sastry	16	8 0
147	Chembada Pulliar Covil Street	Moonesawmy Naidoo	49	0 0
	Govindapah Naick Street	Nambaroomaliah	8	0 0
16	Washernanpet Burial Ground	N. Sevarama Moodelly	8	0 0
73	Poorosavankum High Road	C. Manuar Chetty	15	3 4
487	Mint Street	Veerasabdra Anchary	72	0 0
92	Davaraga Moodelly Street	Vencataramoo Chetty	62	5 6
180	Peter's Road	Moostar Hoossain Saib	15	0 0
260	China Bazaar Street	A. Moonosawmy Moodelly	130	0 0
126	Avadanum Paupier Road	P. Veerasawmy Moodelly	10	8 0
43	Moothookistna Street	Gooroosawmy Naick	7	4 0
204	Govindapa Naick Street	China Lutchmano Chetty	102	3 0
165	Mottoo Street	Syed Hammed	20	11 3
299	Poonamally Road	Chengalvaraya Chetty	62	5 8
216	Do. do.	Yagambr Reddy	31	8 0
		District Engineer, Presidency	4,275	0 0
252	Vencatarunga Pillay Street	M. Singara Charry	15	12 0
72	Chengalroya Moodelly Street	Sivaprasad	4	3 2
130	Vengatarunga Pillay Street	Vencatuchella Naidoo	8	2 0
16	Staik Inam Street	C. Gopalsawmy	8	0 0
1400	Vencatakistna Street	G. Soobrayaloo Naidoo	550	0 0
180	Pareanna Maistry Street	A. Annamalai Chetty	15	0 0
65	Natto Pilliar Covil Street	Stroenevase Moodelly	16	6 6
16	Burial Burning Ground, Mylapoor	Manica Chetty	8	0 0
63	Mahada Street, Triplicane	V. Aslapoorthy Gopaulachary	5	4 0
141	Narayanapa Naick Street	Syed Cauder Saib	35	7 0
44	Triplicane High Road	Ponnanagannee Chetty	5	8 0
8	D'Mellow's Road		4	0 0
102	Neelaveera Chetty Street	B. Veerasawmy Naidoo	6	6 6
Total...			9,795	12 4

TABLE No. 21.

The following is a Table of the number of Notices served under various Sections of the Act, showing those complied with, and those not complied with, from January to December 1879.

Section.	Requisitions.	Complied with.	Not complied with.	Total.	Remarks.
263	For neglecting to give notice to the President for the erection of huts	1	...	1	
278	" " to remove projections	6	...	6	
257	" " to give notice to the President before commencing buildings	70	8	78	
266	" " to construct a drain	9	...	9	
269	" " to keep branch drains and privies in order	18	1	19	
272	" " to provide latrines for servants on land exceeding 8 grounds...	11	...	11	
290	" " to fence ruined & dangerous buildings	135	1	136	
293	" " to enclosed deserted buildings	11	...	11	
294	" " to repair or enclose dangerous places	81	4	85	
300	" " to deposit filth in provided receptacles	4	...	4	
305	" allowing sewage to flow into streets	44	13	57	
312	" neglecting to remove filth and noxious vegetation	239	30	269	
313	" " to lime wash and cleanse buildings after eight days' notice	6	1	7	
320	" " to trim hedges above 7 feet	69	1	70	
Breaches of Bye-Law.	Regarding the regulations of markets, slaughterhouses, offensive and dangerous trades, burial and burning grounds	13	9	22	
	For neglecting to license offensive trades	1	...	1	
322	Total...	718	68	786	
Last nine Months of 1878...		327	33	360	

TABLE No. 22.

Table showing the number of Prosecutions instituted from 1st January to 31st December 1879.

Sections of the Municipal Act.	Charge.	Number of summons served.	Convicted.	Acquitted.	Withdrawn.	Party not found.	Undisposed of.
220 ...	For injuring the water pipes, &c. ...	2	2	...	...	...	...
225 ...	" fouling water in Tanks ...	38	36	...	1	1	...
256 ...	" renewing huts with inflammable material without license... ..	245	96	88	51	10	...
278 ...	" neglecting to remove a projection or encroachment after being served with a notice	1	...	1	...	...	...
281 ...	" neglecting to remove obstructions on the sides of the streets	77	28	2	43	1	3
283 ...	" obstructing the public thoroughfare.	7	4	...	3	...	...
286-287 ...	" depositing building materials on the Road without license... ..	9	9	...	...	...	...
294 ...	" neglecting to enclose dangerous places	7	1	6	...	...	...
298 ...	" depositing night soil on the street... ..	45	32	2	10	1	...
299 ...	" depositing dust, dirt, ashes, &c., in the streets	24	21	...	1	2	...
304 ...	" neglecting to remove filth within 24 hours	1	1	...	...	...	...
305 ...	" allowing offensive liquid matter to run into the street	14	7	2	5	...	...
308 ...	" depositing night soil in the street... ..	45	39	6	...	...	...
308 ...	" depositing night soil into the Dust Bin	20	15	5	...	...	...
312 ...	" filthy premises	55	30	13	11	...	1
322-33 ...	" carrying on offensive trades without license	315	137	26	145	6	1
320 ...	" neglecting to trim hedges above 7 feet	2	...	1	...	...	1
325 ...	" using a place as Hack's stables without a license	122	66	10	42	3	1
328-29 ...	" using a place as timber Depot without license	226	125	25	71	5	...
350-51 ...	" do Market do	35	6	1	28	...	...
359 ...	" burying corpses in unregistered Burial Grounds	7	1	4	2	...	...
364 ...	" burying a corpse within a place of public worship	1	1	...	...	...	...
367 ...	" burying a corpse within 6 feet from the surface of the ground	4	...	2	...	...	2
407 ...	" for molesting Municipal servants in the execution of their duty	9	6	...	3	...	...
278 I.P.Code } 426 do }	" nuisance not provided for in Municipal Act... ..	4	4	...	...	...	...
Total...		1,315	667	194	416	29	9
Last nine Months of 1878...		1,686	1360	28	200	72	26

TABLE No. 23.

Table showing the revenue collected by the Public Works and Conservancy Departments from different sources.

	Rs.	A.	P.	Rs.	A.	P.
General Markets	6,296	3	6	13,573	11	6
Slaughter Houses.	7,277	8	0			
Rent of Municipal Lands and Buildings	3,390	3	0			
Sale of Rubbish and night Soil... ..	4,982	15	0			
Do. Grass and Hay from Sewage Farms Royapuram	127	7	11			
Do. Grass and Hay from Sewage Farms D'Mellows Road... ..	3,361	4	7			
Do. Grass and Hay from Sewage Farms, Egmore... ..	24	2	8			
Do. Grass and Hay from Sewage Farms, Triplicane	1,639	10	5			
Do. Grass and Hay from Sewage Farms, Kistnampett	3,552	5	4			
Do. Public Lands	9,839	11	4			
Revenue from Municipal cart-stand	789	7	10			
Grazing and Avenues	1,512	9	3			
Sale of Firewood and Bratties from Hindu Burial Ground	134	12	8			
Sale of Blood	1,360	0	0			
Licences for Markets, Depots, dangerous and offensive, Trades, &c.	8,686	14	7			
Sale of old stores	872	6	5			
Tools and Plants	307	6	0			
Electric Light	53	12	0			
Other Items	40	10	9			
Fines collected from coolies, &c.	2	4	0			
Water Works Sundries... ..	10	10	0			
Water-supply	1,285	0	10			
Services rendered to Individuals	23,960	9	1	65,874	3	8
Total...						
				79,447	15	2

WATER WORKS.

The rainfall during each month has been as follows at the Red Hills Lake whence our supply is drawn:—

Month.	Inches.	Month.	Inches.	
January	2.15	July	4.50	
February	0.00	August	5.26	
March	1.66	September	0.50	
April	0.00	October	14.76	
May	9.25	November	12.88	
June	1.86	December	2.04	
	14.02	+	40.84	During the year = 55.76s

On the 1st of January the water stood at 42.16, and on the 31st December 1879 at 42.68. The variations during the year are shown in the diagram attached, in which the rainfall also is graphically delineated.

On the 20th of May a very heavy fall of rain took place and the tank rose from 38.83, at which it then stood, to 39.97 and some water was lost owing to the failure of a ring-band at the sluices under repair. Again on the 19th December we had a heavy fall of rain when part of the ring-band was washed away, but as the flow of water into the tank at the time was as great as the out flow, and the water at the time discharging over the Calingulah, little or no water was lost.

DELIVERY CHANNEL.

A slip of about 50 feet in length took place at 6 P.M. on 30th August at 4m. 3 fur. from the Red Hills. The water was lowered in the channel and the slip repaired before dark on the 31st August. These slips are caused by rats and snakes boring holes, and by water oozing through the channel at places where it has been badly constructed, &c. The channel is a continual source of trouble to us and an obstacle to a continuous supply produces a very considerable deterioration of the water at the same time causes our pipes to be filled with fish, snails, &c., which we are unable to prevent with the best strainers as when they enter the pipes they are in almost a microscopic state.

Very little can be done to improve the channel without cutting off the supply to Madras for some considerable period, and the substitution of a pipe for the channel is urgently called for.

All the bridges and culverts on the channel have been repaired during the year, as also the sluices and basin at the Red Hills.

The water was only once shut off from the town during the year, from 6 P.M. on the 5th April until 5 A.M. on the 9th April, during which time the channel was weeded.

MAINTENANCE OF PIPES AND FOUNTAINS.

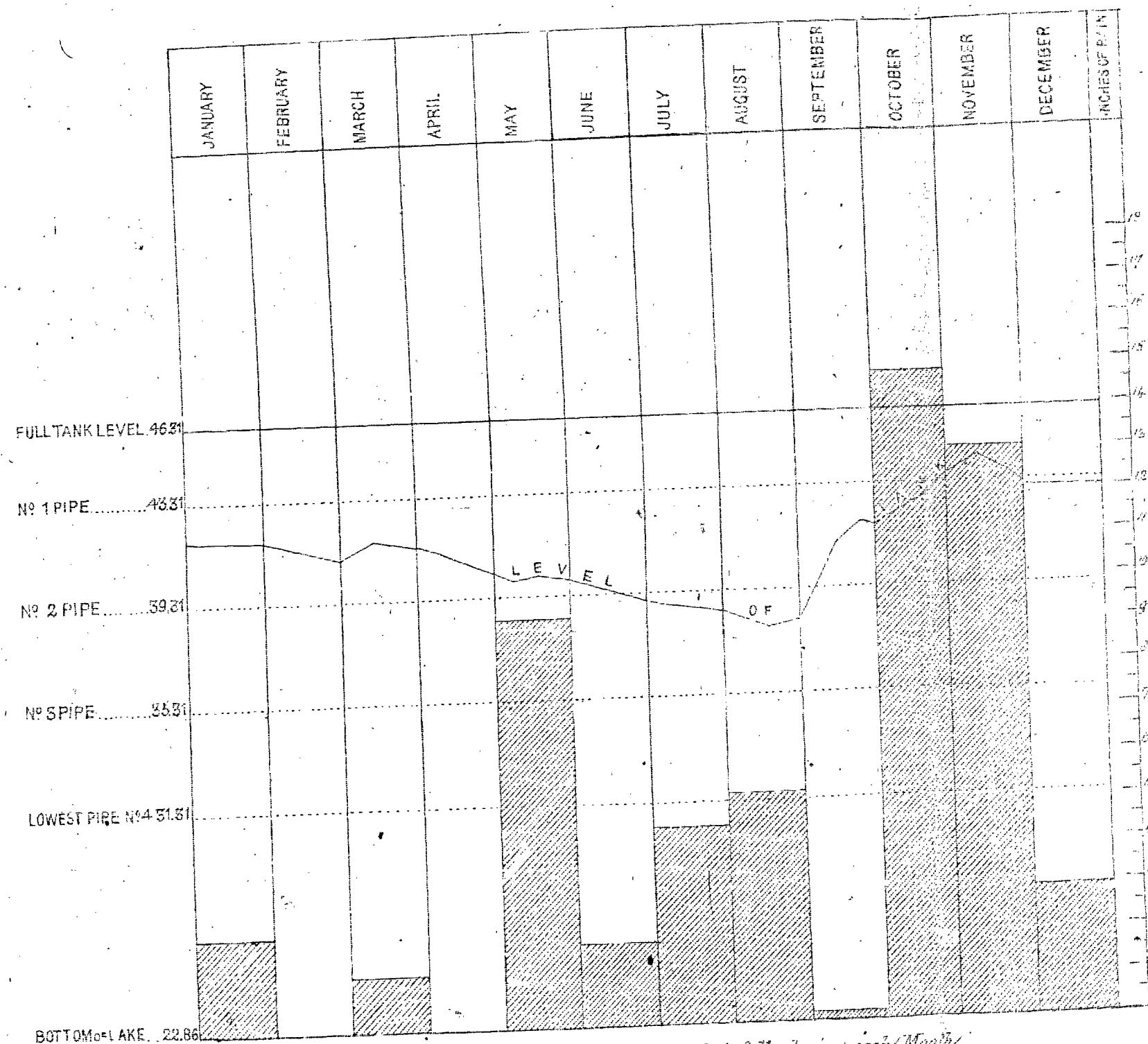
The pipes and fountains were kept in good order throughout the year as far as possible, but the condition of our pipes is anything but satisfactory. In fixing a 10in. Branch to the 27in. Main in Triplicane 6in. in depth of very offensive silt was found in our pipes. On fixing a scour pipe in Harris Road and on opening it for the first time a very large quantity of snails, rust, &c., was discharged.

TABLE SHEWING LEVEL OF WATER IN RED HILLS TANK

AND AMOUNT OF RAINFALL,

FROM JANUARY TO DECEMBER

1879.



Note. The shaded portions show the Rainfall during each Month.

LITHO? BY ROSS, BROTHERS.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

A tap in Avadanum Paupier Road was blocked with snails, and from the same tap was discharged in one hour about three or four gallons of snails.

The following report printed in the Proceedings of the Standing Committee of 28th May 1879, will shew the state of the pipes and the channel.

Report on the Red Hills channel and an examination of two mains at the time the water was last shut off from Madras.

The water was shut off from Madras from the 5th April until the 9th April, during which time the delivery channel was weeded, and a large quantity of mud removed.

Before the water was shut off, the quantity of weeds removed daily was very great as may be seen from the following, which is an average day's collection.

By	No. 1	Walkman	...	...	550 lbs.
"	" 2	"	...	...	390 "
"	" 3	"	...	...	1,304 "
"	" 4	"	...	...	1,973 "

Total ... 4,217 ,, or say 2 tons.

These weeds seriously impeded the flow of water, and though they may have acted in a manner as a filter, still removal on account of the obstruction they caused was necessary.

The following table shows the results of an analysis before the channel was cleaned and one after cleaning:—

From Basin, Red Hills.		From Masonry Shaft, Madras.		
Before.	After.	Before.	After.	
0.250	0.320	0.270	0.330	Total solids.
0.065	0.050	0.085	0.070	Volatile.
0.064	0.030	0.064	0.080	Sodium of Chloride.
4.3	5.9	3.9	5.9	Total hardness.
1.5	2.8	1.5	2.8	Permanent do.
0.12	0.80	0.12	0.80	Free Ammonia.
0.72	1.12	0.64	1.12	Albuminacid Ammonia.
0.37	0.60	0.60	0.60	Nitric Acid.

It will be seen that the amount of solids and Ammonia at the Shaft was more after the channel was cleaned than before, but as this was also the case at the Red Hills, the cleaning of the channel had little or no effect with regard to these matters.

The Chemical Examiner also states that in the analysis of water from the Shaft before the channel was cleaned, animal life was most abundant, but in the analysis after the cleaning no living animals were observed and only a few dead.

The cleaning of the channel had therefore the effect of extirpating for a time live animals.

It therefore cannot be doubted that the animals are produced in the channel; and that they enter the pipes there can be also no doubt.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

A man hole in Harris Road was opened during the time the water was shut off, and lin. of silt filled with snails was found; a pot-fall was collected. The smell was very bad and sickening. The main in the People's Park was also opened, but as the water had previously been let off into a tank no snails were found. The pipes were however found thickly encrusted with rust.

I think this state of matters is much to be regretted: the water often smells at various parts of the town, and it is no doubt, from the large quantity of animal matter in the pipes and as time goes on, this will not grow less.

We cannot, with our present channel and without filters and a closed pipe from the filter, prevent these animals getting in, but to keep our pipes as clear as possible is evidently a duty which cannot be neglected.

This can be done by means of scour pipes taken from the valleys in the plains, whither the animal matter would be washed down and then through the scour pipes into tanks, &c.

I have estimated for this work, and propose the following scour pipes meantime. It will take some time to get the necessary branches, valves, &c., out from England; and sanction should therefore be given, if my proposals are adopted, to put in the order in hands at once. The estimate includes the cost of branches, pipes, valves, &c., and laying and fixing.

List shewing the places it is proposed to fix scour pipes with valves, and the probable cost of same.

PARTICULARS.				Amount.		
				RS.	A.	P.
1	2 in. x 20 in.	in Ootary Nullah	...	600	0	0
1	36 " x 15 "	at Gengadra Easwarer Coyil Tank	...	450	0	0
1	30 " x 15 "	back of Commissioner of Police compound	...	400	0	0
1	27 " x 14 "	Harris Bridge	...	350	0	0
1	27 " x 14 "	Choolay Bazaar Road	...	400	0	0
1	24 " x 12 "	People's Park	...	300	0	0
1	24 " x 12 "	Ramanen Street	...	300	0	0
1	24 " x 12 "	Junction of Wallajah and Triplicane High Road	...	320	0	0
1	21 " x 10 "	Junction of Poonamallee and Sydenham's Road	...	300	0	0
1	21 " x 10 "	Benfield Esplanade	...	260	0	0
1	21 " x 10 "	Junction of Mint Street and Ramanen Street	...	300	0	0
1	20 " x 10 "	Junction of Popham's Broadway and China Bazaar Road	...	250	0	0
1	18 " x 9 "	Commander-in-Chief's Bridge	...	220	0	0
1	14 " x 7 "	St. Andrew's Bridge	...	180	0	0
1	14 " x 7 "	Woods Road	...	180	0	0
1	14 " x 7 "	Oodacall Street, Big Parcherry	...	180	0	0
1	12 " x 6 "	Elephant Tank	...	150	0	0
1	12 " x 6 "	Junction of Goundappa Naick Street and Audiappa Naick Street	...	150	0	0
1	12 " x 6 "	Junction of Mint Street and Rassappa Chetty Street	...	150	0	0
1	9 " x 6 "	North Beach Road	...	140	0	0
1	12 " x 6 "	Barber's Bridge	...	150	0	0
				5,730	0	0
Contingencies 10 per cent.				573	0	0
Total Rupees				6,303	0	0

The scour pipe fixed at Harris Road has been of considerable advantage if it

may be judged from what came out of it; and the other scour pipes, of which one or two have been fixed since the beginning of 1880, give similar satisfactory results.

An alteration was made in the manner of supporting the 24in. main which crosses the canal at the Elephant Gate Bridge. The work was done by Government to prevent the navigation of the canal being obstructed. The pipe is now hung from the bridge instead of being supported by a wooden girder underneath.

HYDRANTS.

Thirty new double Hydrants were fixed during the year. One month of these Hydrants is of the ordinary dimension of 2in. diameter and the other is 4in. to suit the steam fire-engines in use in the town. They were fixed at the following places. Twenty more will be fixed during 1880.

- 1 at Madras Railway Central Station.
- 1 " General Hospital.
- 1 " Bank of Madras.
- 1 " Popham's Broadway, between Post Office and Market.
- 1 " do. Junction at Munnady.
- 1 " do. do. Thathamootheappen Street.
- 1 " do. near 4-Tap fountain.
- 1 " do. near Industrial School.
- 1 " North Beach Road, opposite High Court.
- 1 " Jaffer Serang Street, back of Custom Office.
- 1 " North Beach Road, opposite P. and O. Office.
- 1 " Opposite Agra Bank.
- 1 " Junction of Poonamallee and Sydenham's Road.
- 1 " Poonamallee Road, opposite Gun Carriage Factory and School of Arts.
- 1 " Bottler's Lane, near Smithfield Market.
- 1 " Mount Road, opposite Orr and Sons.
- 1 " do. Junction of Blacker's Road.
- 1 " Opposite Deschamps and Co.
- 1 " do. Asylum Press.
- 1 " do. Norton and Co.
- 1 " Patter's Road, opposite Madras Club.
- 1 " Chepauk, opposite Presidency College.
- 1 " D. P. W. Offices.
- 1 " Engineering College.
- 1 " Revenue Board.
- 1 " Senate House.
- 1 " Errabauloo Chetty Street.
- 1 " North Beach Road, near Lord Clive's Redoubt.
- 1 " Mint Street Junction with Ramanen Street.
- 1 " Pantheon Road Junction with Marshall's Road.

EXTENSION OF WATER WORKS.

This question has been one which has had much attention during the year. The Act of 1878 was the first to allow of a water tax being levied without the requirement of the supply being first given, but it is a point at law still undecided whether persons paying such tax cannot claim damages for non-supply. As from the following it will be seen that to completely comply with the Act would throw burdens on the Commissioners which they have not the funds to meet, much con-

sideration was given to the question and the resolution which follows the report is the last which the Commissioners have made on the subject.

"The preparation of a complete scheme for the extension of the water distribution now called for by the Government, has been to a certain extent anticipated by the action taken by the late Commissioners. As recommended by the late Budget Committee, the Vice-President in charge of the Public Works Department was requested to furnish the Commissioners, as early as possible, with an approximate estimate of the cost of completing all the additional pipe-laying and stand-pipe erection which the Commissioners are required to carry out under

* Which requires the erection of a stand-pipe within 150 yards of every house in every public street.

Section 211* of the Act, and also of the additional works which are required to be executed before the Commissioners can be said to have discharged the obligation imposed upon them in the last clause of the same section, which is as follows :—

"It shall be the duty of the Commissioners to make adequate provision that the supply of water shall be continuous throughout the year, and that the water supplied may be at all times pure and fit for human consumption."

3. Mr. Jones' estimate for providing filtering and pumping works at the Red Hills with a 36in. main to Madras in lieu of the present open channel amounts to 13½ lakhs or 10½ lakhs, according as laterite or brick is used for the masonry work.

4. The Committee have also been supplied with the following statement of the estimated cost of the extension of the water distribution as required by the Act.

	RS.
1st Division	3,00,000
2nd do.	1,08,904
3rd do.	64,629
4th do.	2,00,000
5th do.	1,00,000
6th do.	2,00,000
7th do.	2,00,000
8th do.	3,50,000
Total Rs.	15,23,533

5. In the first three divisions the estimates have been worked out in detail. In the other five they are made roughly.

6. The Committee have not been furnished with any estimate for providing reservoirs for ensuring continuity of supply in the event of any accident occurring to the Red Hills main. But one or more of these would be necessary to meet the requirements of Section 211, in addition to the filtering and pumping works estimated for by Mr. Jones.

7. It would seem, therefore, that in order to do all that is required under the Act the Commissioners must execute the following works :—

	RS.
Filtration works, &c., say	10,60,000
Extension of distribution	15,25,000
Total	25,85,000
or say with reservoirs	30,00,000

8. Assuming that the Government of India will be prepared to advance the above sum at 4½ per cent. interest, and that an additional 2 per cent. be paid to a Sinking Fund for the extension of the loan in about 30 years, the yearly charges of the Water Works would be approximately as follows :—

	RS.
Interest and Sinking Fund of present loan of Rs. 14,30,000	85,800
Do. an additional loan of Rs. 30,00,000	1,95,000
Total	2,80,800

	RS.
Maintenance charges including pumping	73,000
Charges for Red Hills water	10,000
Establishment and General Funds charges	19,763
Total	3,83,563

9. The above is a fairly accurate estimate of the annual charges which would require to be met for putting and maintaining the Water Works in the state which is contemplated by the Act.

10. The annual revenue derivable from the 4 per cent. water rate is estimated at about Rs. 1,29,000, or about a-third of the annual charges shown above.

11. The Committee trust that it will be evident from what they have shown above that it would be merely lost labor to prepare elaborate plans for supplying the whole Municipal area with water in the mode prescribed in the Municipal Act."

12. When it is considered that the Legislature, with the view of ensuring the full performance of the duties imposed on the Commissioners under the Act, have provided in Section 433 that any person aggrieved by the failure of the Commissioners to carry out any work which they are bound to carry out under the Act may bring an action against the Commissioners, and that, if the Court finds that such work is incumbent on the Commissioners, it may direct the immediate performance of such work. It will be seen that the Commissioners are placed in a false position as regards the rate-payers in being rendered liable to carry out works which they have not the means to carry out. It appears to the Committee that the first duty of the Commissioners should be to extricate themselves as far as lies in their power from this position, and they lose no time in making what they consider a proper recommendation under the circumstances.

13. The Committee have been furnished with a plan showing the portions of the 1st, 4th, 6th and 8th Divisions, which should be permanently excluded from the water supply area of the Municipality partly because those portions are thinly populated and are sufficiently well supplied by wells, tanks, &c., but mainly because the cost of laying on pipes thereto would be out of all proportion to the revenue derivable therefrom on account of water-rate.

14. The Committee have had before them an estimate prepared by the Revenue Vice President of the loss of revenue resulting from the exemption from the water-tax of the portions abovementioned. This amounts to about Rs. 8,500 annually.

15. Pending the preparation of a complete scheme for extending and improving the water supply within the remainder of the Municipality, the Committee recommends that the Government be moved to exempt from water-tax from the commencement of 1880 the portions now proposed to be permanently excluded

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

from the water supply area, and, in order to protect the Municipal Fund from losses and the executive staff from the disturbance and pre-occupation which will probably be occasioned by the immediate commencement of a large number of law suits under Section 433 to compel the commissioners to carry out the work which they are bound to carry out under Clauses 2 and 3 of Section 211, the Committee recommends that the Government be moved to pass a short Act to rescind those clauses, or to give such other relief as the circumstances of the case seem to require.

16. The Committee are not at present in a position to make any recommendation for the further development of the Red Hills Water supply. Looking at the revenue derivable from the imposition of a 4 per cent. rate and sundry receipts connected therewith, the Committee find that in the regular estimate of the current year a sum of Rs. 1,29,039 is entered as realizable. If the amount proposed above to be remitted be deducted, the annual revenue will be reduced to about Rs. 120,000. Looking at the charges side of the regular estimate, the estimated cost of new works and improvements and the payment of arrears of interest being deducted, the estimated annual cost of maintaining the existing works will be found to be Rs. 120,107. It is manifest, therefore, that any further extension of pipe-laying or improvement of the supply must be met from the General Funds.

17. Such being the case, the question of water-supply extension must be considered along with that of drainage, and the cost of both must be brought within the means at the disposal of the Commissioners, as the settlement of the matter referred to in para. 15 appears to the Committee to admit of no delay they recommend that a representation be at once made to Government on the subject by the general body of the Commissioners.

Resolved that the President be requested to convene a special General Meeting of the Commissioners on Friday, the 10th instant to consider the recommendations contained in the above resolution."

"As regards the water works, the Committee consider that it would be unadvisable to attempt to do more than complete the distribution, in accordance with the Act, in the 2nd, 3rd, and 7th Divisions, and to extend the supply to Royapooram and Washermanpettah in the 1st Division. The 5th Division is partially supplied, but a great portion of it is comparatively thinly populated. To complete the pipe laying in this Division, in accordance with the requirements of the Act would be very expensive. Any extensions in the crowded parts of the 5th Division, which the Divisional Commissioners might specially recommend, could be estimated for. There is also a partial supply in the 4th, 6th, and 8th Divisions. The Committee recommends that no extension be undertaken in these Divisions.

"The Committee with the view of improving the quality of the water, and ensuring continuity of supply, would advise the inclusion in the estimate, of the cost of erecting a water tower for a new off-take at the Red Hills, and for laying a 36 inch Main to Madras.

"The Committee further recommend the construction of a large reservoir in the Spur Tank for use, when the supply is cut off at the Red Hills.

"The Vice-President will be requested to follow these instructions in preparing the schemes called for in the Government Order of the 6th August.

PUBLIC WORKS AND CONSERVANCY DEPARTMENTS.

A plan showing the area which is proposed to be excluded from the water supply was placed before the Commissioners and inspected by them.

Proposed by the President, and seconded by the Honorable J. G. Coleman.

"That the Commissioners are of opinion that it is not advisable to extend the water supply to those portions of the Municipal area shown in the plan as uncoloured; and that the Government be requested to exempt such portions from the water-tax by Notification under Section 139."

At the beginning of the year Rs. 14,000 were allotted for extension of the pipes to the following places which had been decided upon before the framing of the budget and the following table shews the position and cost of the extensions made—

TABLE
Shewing extension made in Water-works.

Divisions.	From	To	Size of Pipes.	Length of Pipes.	No. of Fountains.	Cost.	Fountains erected.
						RS. A.P.	
2nd	Andiappa Naick Street.	Govindappa Naick Street ...	5"	600	2	1,738	3 2 Wall fountain.
"	Mint Street	Ponnappa Chetty Street ...	4"	600	3	664	12 7 do and stand pipes.
"	Rassappa Chetty's Street	General Hospital Road ...	3"	120	1	233	10 8 Pillar fountain.
"	"	Well Tax Road ...	3"	400	1	378	1 9 Wall Tap.
3rd	"	Seven Well Street ...	"	"	1	27	9 10 do
"	Salaynayagar Street ...	Iyappan Street ...	1 1/2"	50	2	166	14 9 do
"	Goornavayyan Street ...	Sivamoothiah Moodelly Street ...	2 1/2"	600	2	414	6 7 do
"	"	Vurthamoothappa Street ...	4"	870	2	937	2 10 do
"	"	Junction of General Hospital and Benfield Esplanade Road.	1 1/2"	40	1	144	4 5 Pillar fountain.
"	Popham's Broadway ...	Old Jail Street ...	7"	600	1	1,021	4 1 do
"	China Bazaar Road ...	Popham's Broadway ...	2 1/2"	1,100	3	937	2 10 do
"	"	Junction of Soonkooram and Condy Chetty Street ...	1 1/2"	60	2	315	2 3 do
"	Kistnasawmy Pagoda...	Linga Chetty Street & Thumbu Chetty Street ...	2 1/2"	250	2	304	1 11 Wall fountain.
"	Moothoo Street	Linga Chetty Street & Thumbu Chetty Street ...	2 1/2"	150	4	408	9 8 do
"	"	Thumbu Chetty Street ...	5"	60	...	1,177	14 10 Bathing fountain.
4th	"	Linga Chetty Street ...	3"	300	1	...	...
5th	"	Gundasawmy Cevil Street ...	1 1/2"	435	1	50	6 ... Wall Tap, Stand pipe.
"	"	Junction of Astaboojiam and Perambore Barracks Road ...	1 1/2"	20	1	179	1 11 Pillar fountain.
"	Choolay Bazaar Road ...	Aradanum Panpier Street ...	4"	830	2	926	13 3 Wall Tap.
"	"	Sawmy Pillay Street ...	3"	1,200	4	973	12 ... do
"	"	Junction of Jeremiah & Vepery Church Road ...	1 1/2"	120	1	267	6 ... Pillar fountain.
"	"	Vepery High Road and at the Junction of Naval Hospital Road ...	1 1/2"	100	2	337	5 6 do
"	"	Pantheon Road ...	1"	6	1	43	13 5 Wall Tap.
"	"	Choolay Bazaar Road ...	1 1/2"	50	2	89	...
"	"	Municipal Cart Depot in Avadanum Panpier Street ...	1 1/2"	225	...	120	3 8 do
6th	"	Patter's Road ...	1 1/2"	20	2	88	10 11 Wall fountain.
7th	"	Junction Arconachalla Moodelly and Sawmy Pandaram Street.	1 1/2"	36	2	185	4 4 Wall Tap.
"	Sawmy Naick Street ...	Latrine in Soonkoowar Agrarum ...	3"	1,300	3	1,028	11 2 Wall Tap and pillar fountain.
"	"	Parthasarthi Tank ...	2"	15	3	165	14 4 Dhoby fountain.

TABLE

Shewing length of each size of piping laid during the year.

Size.	Description	Lineal Yards.
2"	piping.	88
2½"	"	700
3"	"	1,218
4"	"	847
5"	"	220
7"	"	200

The following fountains which were provided from other sources than the Municipal Fund were opened during the year.

The Maharajah's Fountain.—Given by H. H. the Maharaja of Vizianagram.

The Anderson Memorial.—Given by the Committee.

Cattle Drinking Trough.—Given by Mr. C. V. Cunniah Chetty.

PRIVATE SERVICE.

A very large proportionate increase is found in the number of House services made during the year. In the latter nine months of 1878 there were 57 added and in 1879 there were 158 this is a fact which shews that the water supply is much appreciated by the people and though it is not by any means what it ought to be yet it must be and is considerably better than many of the wells in the crowded portions of Black Town, Chintadripettah and Triplicane.

List of House Connections made in 2nd Division during 1879.

Number.	Names of Roads or Streets.	Names of Party.	Door No.	Size of Pipe in Street.	Size of connection Pipe.	Size of discharge Cock.	Number of discharge Cocks.	Amount.	Remarks.
1	Mint Street ...	T. K. Narayana Chetty	71	12"	1½"	1"	1	19 1 10	
2	Do. do. ...	Mooregappa Moodelly	196	12"	1½"	1"	2	19 10 1	
3	Do. do. ...	Mooneswamy Naidoo	175	12"	1½"	1"	2	131 8 8	
4	Do. do. ...	Ramakrishna Moodelly	229	7"	1½"	1"	2	101 8 9	
5	Do. do. ...	Yagambra Easwarer Pagoda	...	12"	1½"	1"	2	13 13 9	
6	Do. do. ...	Unbasunker Davoy	442	12"	1½"	1"	5	160 8 11	
7	Do. do. ...	S. Coolappa Chetty	29	12"	1½"	1"	2	122 6 11	
8	Do. do. ...	C. Hanoomantha Rao	132	9"	...	...	4	6 6 6	Altering the Stand Pipe.
9	Do. do. ...	M. Sozunda Iyer	111	14"	1½"	1"	2	79 8 11	
10	Do. do. ...	Roop Kishore Icojens Mull	421	9"	1½"	1"	2	93 8 1	
11	Do. do. ...	Rawdai Davoy	72	12"	1½"	1"	1	90 6 2	
12	Do. do. ...	K. Soobroya Moodelliar	393	20"	1½"	1"	1	37 5 6	
13	China Bazaar Road	C. Chinnappa Chetty	12	...	1½"	1"	1	20 2 5	
14	Do. do. ...	Do. do.	12	...	1½"	1"	1	8 5 0	Extension.
15	Yagambra Easwarer Agram	Iyahvier Brothers	18	5"	3"	1"	2	318 4 7	
16	Do. do. ...	Do. do.	18	5"	1½"	1"	2	70 6 5	Extension.
17	Do. do. ...	Do. do.	18	5"	1"	1"	1	8 6 5	Extension.
18	Cope Venkatachella Iyer Street	Lingiah Chetty	24	4"	1½"	1"	2	24 5 11	
19	Do. do. ...	Venatasawmy Chetty	29	4"	1½"	1"	1	26 1 9	Extension.
20	Do. do. ...	Vurthiah Chetty	8	4"	1½"	1"	2	126 1 6	
21	Do. do. ...	Soobiah Chetty	28	4"	1½"	1"	2	137 2 1	
22	Do. do. ...	Cotta Theroovengadathan Chetty	5	4"	1½"	1"	2	107 7 3	
23	Seven Well Street	Public Work Stores	...	4"	4"	...	...	881 9 10	
24	Do. do. ...	Do. do.	...	4"	2½"	...	...	1,320 2 11	Extension & fixing Hydrant
25	Casavier Street	Soobraya Chetty	9	3"	1½"	1"	2	97 15 2	
26	Thathamootinappa Street	Soobrayaloo Naidoo	12	4"	1½"	1"	2	25 10 11	
27	Do. do. ...	O. Lutchoomiah Chetty	51	4"	1½"	1"	2	22 15 11	
28	Andiappen Naick Street	G. Narasimooloo Chetty	32	14"	1½"	1"	2	27 9 11	
29	Do. do. ...	Pariah Chetty	135	14"	1½"	1"	1	21 1 9	
30	Do. do. ...	N. Ramalingam Pillay	115	14"	1"	1½"	1	82 6 7	
31	Moolia Saib Street	Singaravaleo Dasigar	41	4"	1½"	1"	1	155 12 10	
32	Venkier Street	C. Govindoo Moodelly Coomarragooroo Moodelly	27	7"	1½"	1"	1	214 8 0	
33	Narayana Moodelly Street	C. Ramiah	90	4"	1½"	1"	2	153 7 10	
34	Do. do. ...	Dava Rookmaney Ammal	5	4"	1½"	1"	1	96 8 5	
35	Annapillay Street	Mooneprasath	74	7"	1½"	1"	2	151 4 2	
36	Do. do. ...	P. Anthumoola Moodelly	77	7"	1½"	1"	1	33 12 10	Extension.
37	Vythianatha Moodelly Street	P. Doorasawmy Moodelly	1	4"	1½"	1"	1	67 8 7	
38	Sathany Streenevassa Iyer Street	Moonesawmy Moodelly	...	...	1½"	1"	2	111 2 7	
39	Soobramaneya Moodelly Street	T. Chinnathunaby Moodelly	36	7"	1½"	1"	2	50 15 10	
40	Rasappa Chetty Street	Mooregappa Chetty	183	4"	1½"	1"	2	19 11 10	
41	Govindappa Naick Street	Venatasoobrayaloo Chetty	41	5"	1½"	1"	3	46 4 7	
42	Do. do. ...	Venatachella Chetty	25	5"	1½"	1"	1	102 7 7	
43	Do. do. ...	Venatarama Chetty	29	5"	1½"	1"	2	39 7 11	
44	Do. do. ...	Annammal	179	7"	1½"	1"	1	75 9 2	
45	Do. do. ...	N. Venatarangam Chetty	14	5"	1½"	1"	2	23 10 1	
46	Do. do. ...	T. V. Soobloo Chetty	226	4"	1½"	1"	8	64 13 4	
47	Do. do. ...	Theroovengadathan Chetty	15	4"	1½"	1"	3	146 10 6	
48	Do. do. ...	Cundappa Chetty	224	4"	1½"	1"	2	150 10 10	
49	Do. do. ...	Numeroomal Chetty	9	5"	1½"	1"	3	112 1 8	
50	Do. do. ...	M. Goorooappa Chetty	11	4"	1½"	1"	3	39 11 8	
51	Do. do. ...	Cundappa Chetty	221	5"	1½"	...	...	26 1 3	Extension.
52	Do. do. ...	Theroovengadathan Chetty	15	4"	1"	...	...	8 6 9	Extension.
53	Do. do. ...	K. Parthasarathy Naidoo	203	5"	1½"	1"	2	22 0 6	
54	Do. do. ...	Parasoorama Chetty	28	5"	1½"	1"	1	15 15 6	
55	Do. do. ...	Venatarangiah Chetty	14	5"	1½"	1"	1	10 13 6	Extension.
56	Do. do. ...	Lutchormoo Narasoo Chetty	137	12"	1½"	1"	2	94 8 9	
57	Do. do. ...	S. Venkatakrishnaiah Chetty	10	5"	1½"	1"	2	140 4 0	
58	Do. do. ...	Do. do.	10	5"	1"	...	...	21 0 0	
59	Do. do. ...	Cottah Lutchoomiah Chetty	79	12"	1½"	1"	1	91 11 10	
59	Do. do. ...	Theroovengadathan Chetty	212	4"	1½"	1"	2	37 2 1	

The following table shews the number of house services laid each year since the commencement of the water works.

Divisions.	73-74.	74-75.	75-76.	76-77.	77-78.	Nine Months 1878.	1879.	Total.
1st	...	...	...	...	...	1	...	4
2nd	12	23	15	9	9	29	80	192
3rd	7	21	9	8	6	8	33	92
4th	2	...	...	1	...	1	2	6
5th	16	12	7	11	...	6	15	67
6th	7	3	13	8	...	2	9	37
7th	12	11	1	6	1	9	18	58
8th	...	...	1	1	...	1	1	4
	58	83	46	39	16	57	158	457
	Famine Years.							

REPAIRS.

Repairs were made during the year to 41 house services.

QUANTITY AND QUALITY OF SUPPLY.

The annexed table shews the quantity of water drawn during each month in the year.

January	...	...	12,713,000
February	...	...	11,088,000
March	...	...	12,759,000
April	...	...	11,004,000
May	...	...	12,228,000
June	...	...	11,738,000
July	...	...	14,507,000
August	...	...	13,952,000
September	...	...	14,175,000
October	...	...	12,086,000
November	...	...	9,892,000
December	...	...	8,637,000

Total Cubic feet... 144,779,000

This gives an average consumption per month of nearly 12,065,000 cubic feet. The water may be said to be used by a population of 200,000.

The average consumption per day may be taken as $\frac{12,065,000}{30} = 4,02,166$ cubic feet or per person $\frac{4,02,166}{2,00,000} = 2.0$ cubic feet = $12\frac{1}{2}$ gallons per person per day. The consumption during last year was taking the same population 13 gallons per head.

The following analysis of Red Hills water by the Chemical Examiner shows an urgent call for the improvement of supply.

Analysis of Red Hills Water.

	(1) Water taken from Dis- turb fountain at High Court.	(2) From 4 tap fountain in new Street St. Thome.	(3) From Vijaynagar Maharajah's fountain in Mount Road.	(4) From 4 tap fountain at junction of Pycroft & Triplicane High Rd.	(5) From the fountain of pipe discharging Red Hills Lake.	(6) From Masonry Shaft Clarem.	(7) From Basin, Red Hills 1873.	(8) From Masonry Shaft Clarem 1878.
Total solids grammes per litre	0.202	0.205	0.150	0.150	0.250	0.170	0.250	0.270.
Volatile	0.050	0.030	0.030	0.060	0.110	0.010	0.065	0.085
Sodium Chloride	0.06135	0.06135	0.0611	0.0665	0.06727	0.06135	0.064	0.061
Total Hardness (Clark's Scale)	3.25	3.5	3.5	3.55	3.65	3.5	4.3	3.9
Permanent	2.8	2.8	3.4	3.15	3.5	2.8	1.3	1.5
Free Ammonia Millegrammes, per litre.	0.40	0.200	0.40	0.4	0.61	0.48	0.12	0.12
Albumenoid Ammonia	0.48	0.400	0.40	0.5	0.40	0.61	0.72	0.61
Nitric Acid	0.30	0.75	0.60	0.9	0.75	0.60	0.37	0.60

Remarks.—Deposit in all cases abundant; chiefly vegetable.

Large infusoria abundant.

A few bacteria in No. 3.

In No. 5 a few small nausaroid worms, careful filtration necessary if used for drinking purposes.

The remarks shew that even when drawn from the Red Hills Lake the water is in much need of improvement by filtration.

Column Nos. 7 and 8 give the analysis for last year and compared with column Nos. 5 and 6 respectively for this year. It will be seen that the Albumenoid Ammonia is decreasing which is somewhat satisfactory.

The average amount of Free Ammonia and Albumenoid Ammonia in the samples as above given is 0.42 Millegrammes per litre of the former and 0.45 of the latter.

In analyses taken in 1867 of the various supplies to the following towns the worst samples were as follows:—

				Millegrammes per litre.	
				Free Ammonia.	Albumenoid Ammonia.
June	21...	London (New River Company)	...	0.15	0.84
August	19...	Manchester	...	0.14	0.07
September	25...	Edinburgh (Swanston Water)	...	0.03	0.10
October	3...	Glasgow Loch Katrine	...	0.04	0.08
June	...	Thames at London Bridge and	...	1.02	0.50 to 0.59
		Madras has...	...	0.42	0.45

From the above Madras can congratulate itself that its water supply contains 5 to 6 times as much Albumenoid Ammonia as any of the above water supplies in England and almost as much as the River Thames which receives a large portion of the sewage of London or did at that time.

The question of improving our supply needs serious consideration.

Expenditure in Workshop from 1st January to 31st December 1879.

Particulars.	Value completed works.		Value works in Progress.	
	RS.	A. P.	RS.	A. P.
Conservancy Contingent ...	673	15 10	8	3 0
Contingent Miscellaneous ...	326	4 6	1	5 5
Do. Office Furniture ...	204	13 5		
Stationery ...	2	13 11		
Lighting additional Lamps and Sandries ...	2,002	8 21	14	14 6
Working the Screw Pile drain ...	702	6 9		
Maintenance of Fire Engine ...	1,027	15 7	11	14 3
Do. of Lighting ...	25	15 4		
Do. of Avenues ...	194	12 8		
Do. of Roads ...	144	2 3		
Do. of Road watering ...	528	9 11	31	5 10
Do. of Slaughter House ...	11	1 10		
Do. of Latrines ...	46	6 7		
Do. of Sewage Farms ...	86	6 7		
New Shed in Stores ...	514	11 4		
New Cars ...	1,973	12 0		
People's Park ...	1,792	10 4		
Napier Park ...	342	3 10		
Tools and Plant ...	12,277	11 5		
Mortuary Department ...	0	13 6		
Water Works Extension ...	13,913	14 5		
Repairs to Office Premises ...	66	5 5		
Government Service Pipe Work ...	45	14 8		
Private Service Pipe do ...	14,206	15 4	516	13 1
Private Works ...	499	0 11	247	11 6
Maintenance of Delivery Channel ...	1,813	10 4		
Do. of Fountain ...	2,837	0 0		
Do. of Pipes ...	1,880	4 1		
Do. of Walkmen's Bangalow ...	528	4 10		
Do. of Workshop ...	36	14 9		
Do. of Toll Gates ...	79	3 7		
Do. Band Stand ...	5	7 0		
Stroke Account ...	15	5 2		
(Electric Machine) Lamp Posts ...	1,055	4 0		
Maintenance of Buildings ...	1	0 1	40	13 7
New Works and Improvements ...	4,447	9 11	460	
Conveyance of Night Soil to Manaly ...	836	2 8		
Maintenance of Main Drain ...			101	10 10
Completion of Drainage Scheme ...			5	13 2
Working Electric Light ...	499	1 1		
Total Rupees	65,749	10 6	1,370	9 2

The workshop during the year was debited with a sum of Rs. 64,874-4-5, so that the difference between this and Rs. 65,740-0-6+1,370-9-2 or Rs. 2, 236-15-3, is the balance in favor of the workshop or the gain of it had been a private workshop,

J. A. JONES, C. E.

VICE-PRESIDENT,

Madras Municipality.

REPORT OF COMMITTEE ON DISPOSAL OF NIGHT SOIL.

TO THE STANDING COMMITTEE OF THE MUNICIPALITY OF MADRAS.

GENTLEMEN,

With reference to your resolution of 6th August 1879, requesting us to report on the best method of disposing of the night-soil of Madras, and to your resolution of 10th September 1879, referring to us certain papers bearing on the same question and asking us to suggest amendments in the Sections of the Act relating to the removal of night-soil, we have the honor to lay before you the following report:—

1. The subject is one which has not only in a sanitary but also in a financial aspect an importance which can hardly be over-estimated and we have therefore deemed it proper to consider not only the disposal after collection, but the means of collection and what measures might be adopted to keep the night-soil free from deteriorating matters in order to increase its market value.

COLLECTION.

2. We find that up to July the separate collection of night-soil was confined to only one division of the Municipality, viz., the 6th Division and that since that time it was being gradually introduced into the Second and Third Divisions.

3. At the time during which this part of our subject was under consideration the separate collection had been fully introduced into only one Ward of these latter populous Divisions, viz., the South Ward of the Third Division.

4. The Sixth Division being a suburban one and the South Ward of the Third Division being a most characteristic one of a crowded portion of the town including as it does Merchants' Offices, Schools, Bazaars, Markets, East Indian and Native Houses, we have had sufficient data on which to found our conclusions as to the collection.

5. The population of Madras at present amounts to 4,00,000 and this population is scattered over the large area of 27 square miles.

6. We would remark in passing that it has been a constant error and source of expense to treat Madras as if it were a large city. This is far from the case and it might better be described as a few densely populated villages at some distance from each other and that therefore in all sanitary regulations the suburban and sparsely populated should be treated apart from populous parts.

7. We have made this remark in this part of our report so that it may be borne in mind when considering what makes the expense of collection so large in some parts as compared with others.

8. We have considered the methods which are at present in use or being brought into force in the various divisions of Madras, which, in the suburban divisions are briefly as follows:—

In divisions such as the 1st, 4th, 6th and 8th where the houses are not closely ranged together except at some few places, the system in force or to be used is that known as the "pail system." By this system all night-soil and offensive matter is retained in (the houses in) covered pails from which it is removed once in 24 hours by covered iron carts. This in the 6th Division is done at night. This system is in use in England in crowded towns such as Rochdale with the slight difference that the pails are also removed and replaced by others, which, while no doubt a more satisfactory system than the other, is, of course, much more expensive. In such

divisions as the 6th there is a large quantity of urine and other liquid matter put in the pails and this, of course, adds to the cost which we find in the 6th Division to be per month as follows:—

FOR HOUSE CONSERVANCY.—

	RS.	A.	P.
2 Duffadars	24	0	0
5 Peons	45	0	0
12 Sweepers	72	0	0
7 Single Bullocks	91	0	0
2 Pairs of Bullocks	39	0	0
2 Carts (contractors)	4	0	0
& 7 Carts (Municipal)	0	0	0
	275	0	0

9. The number of houses visited is 347, including one large asylum and the contents of 25 Latrines visited daily by 3,300 people are also removed. On the 4.16 square miles in this division there are only 1,297 rateable houses that is houses above a value of Rs. 24 per annum, and probably no house below this value has a latrine. We may therefore say that out of these 1,297 houses we collect from 347 houses. The average population for these houses is about 12 per house so that the total population served in the collection of night-soil would be

$$12 \times 347 = 4,164$$

$$\text{Using Latrines} = 3,300$$

$$\text{Total} = 7,464$$

the result then is this; that out of 19,000 people the night-soil from less than half is collected and the cost per head $\frac{\text{Rs. } 275}{7,464} = \text{As. } 0.6$ per month or $\frac{\text{As.}}{7}$ per annum, but if the actual house conservancy be taken separate from the latrine conservancy the proportionate cost is about 4 to 1 so that the cost per person per annum in the former is 5.7 As. per person and the latter 1.4 annas.

10. The total cost per month for 6th Division is Rs. 275 or Rs. 3,300 per annum. If the other suburban divisions be taken in proportion we find the expense will be for each,

Division.	Population.	Rupees.
6th.....	19,000	3,300
1st	65,000	11,229
4th	9,700	1,609
8th.....	41,400	7,269
	1,35,100	23,380

After this expenditure, taking the results of the 6th Division as correct there would still be uncollected the night-soil from 92,000 people.

11. We see no reason to doubt this fact; we are therefore fully convinced that to collect night-soil in such divisions except in such parts of these divisions where the houses are closely adjoining or at some short distance from each other is a waste of money without any advantage.

12. In such divisions the night-soil is used to much better advantage when placed in cocoanut and betel topes and other such vegetation, and to collect it is only to take away from where it is useful to some place where it may not command a ready sale and therefore become a nuisance.

13. In richer neighbourhoods where people do not cultivate, it may, no doubt, be advantageous and save trouble for the night-soil to be removed, but we feel that the burden of

such removal should fall directly on the occupier and the system of private scavenging which fell through owing to the introduction of the present Municipal Act is one which may very properly be resumed where persons are willing to pay for it, and we have introduced a new clause in the sanitary regulations which gives the President the power to make such arrangements when required and the power to levy a cess for such extra conservancy.

14. The collection in the town divisions is carried out on a different principle to that adopted in the suburban ones.

15. The actual collection is done by men who having moveable buckets on small hand-carts pass through each street and the private scavengers deposit the night-soil in the buckets. These buckets are then taken to some central place where there is a lorry which receives 8 buckets and the men putting new buckets on their carts start off again. Each man fills 4 buckets of 18 gallons each which is the collection from about 1,410 people.

16. The lorry with the 8 buckets is taken away by road to the depot which is two to three miles from Black Town.

17. This is the present system in Black Town, but we believe that as soon as arrangements can be made boats will be employed which will reduce the staff of bullocks and lorries to what is shewn in the following as furnished by the Vice-President of the Municipality.

Collecting.	{ 15 Lorries...	...	...	at Rs. 24 =	360	0	0
	{ 100 Coolies working 438 buckets	...	...	" " 6 =	600	0	0
	{ 24 Peons ...	...	...	" " 7 =	168	0	0
Loading.	{ 2 Maistries...	...	...	" " 7 =	14	0	0
	{ 12 Men ...	...	...	" " 6 =	72	0	0
Conveying.	22 Boatmen for 11 Boats ...	...	...	" " 7 =	154	0	0
Unloading.	{ 18 Men ...	...	...	" " 6 =	108	0	0
	{ 6 Women ...	...	...	" " 3.8 =	21	0	0
					1,497	0	0

This will be the total cost of collection and conveyance to Manually Depot a distance of three miles north of Black Town.

18. The population of Black Town is 1,24,000 so that the cost per person is

$$\frac{1517 \times 16}{1,24,000} = \frac{24,272}{1,24,000} = 0.2 \text{ As. per person per month or } 2.4 \text{ As. per person}$$

per annum. This is just one-third the cost in the suburban divisions. There can be but a small part of the population of Black Town from which the night-soil is not collected as from the crowded nature of the city and the very small amount of garden ground there is little opportunity of disposing of the night-soil except by Municipal agency. The total population is therefore supposed to furnish night-soil. It is also to be remembered that there is a large daily accession to the Black Town population by persons from other districts who return to their homes at night and are therefore not included in the 1,24,000.

19. Taking the proportionate cost for the other populous divisions, viz., the 5th and 7th we would have the total cost for the separate collection of night-soil as follows:—

Division.	Population.	Rs. per month.	Per Annum.
2nd & 3rd.....	1,24,000.....	1,517	18,204
5th	65,000.....	800	9,600
7th	70,000.....	860	10,320
	2,59,000	3,177	38,124
add as shewn before for suburban divisions...			23,380
			61,504

As we have before pointed out a considerable portion of this amount is being or will be expended on portions of the Municipality which are little benefited by the system and we think

that probably the populous places in the 1st, 4th, 6th and 8th Divisions might be worked annually at the cost following:—

1st.....	5,000
4th.....	1,000
6th.....	1,000
8th.....	2,000

Total...9,000

so that the total cost would then be only Rs. 38,124 + 9,000 = Rs. 47,124.

20. We generally approve of the arrangements now in force for the collection, and the carts and lorries do not seem capable of much improvement.

HOURS OF COLLECTION.

21. We do not deem it necessary that the collection should take place and be finished as early as the hours mentioned in the Act. Were such hours strictly adhered to much inconvenience would result, and in re-drafting the sanitary regulations we have omitted any specified hours and left such hours to be fixed by the Standing Committee. It is also necessary to do the work at the time most convenient to the people and so that it may not be necessary to have a second collection which would add very considerably to expense. We have considered the remarks of the Standing Committee on their minute of 10th September last in which some of the members desire to see a second removal of night-soil carried out. We are not prepared to recommend the adoption of such measure. It is not except in small houses necessary on sanitary grounds. The extra expense which would be about Rs. 10,000 yearly for the populous parts of the city is large and extra plant would have to be provided for the purpose. In order, however, to put persons to as little inconvenience as possible, we propose that for two hours in the afternoon (which may be fixed by the President and Standing Committee) buckets or carts should be stationed at certain places such as public latrines where the house sweepers could bring any night-soil which was found in too great excess in the private house latrines.

DISPOSAL OF NIGHT-SOIL.

22. With such observations on the collection we have now arrived at the point on which more particularly we were asked to report.

23. We have had placed before us by Dr. Bidie some papers shewing the manner in which the rubbish of Salford (Manchester) by passing through a closed iron cylinder at a high temperature is converted into charcoal which is then mixed with night-soil, the result being a perfectly inodorous compound and a valuable manure. We are not able to say whether the sweepings of Madras could be treated in this way, but we fear that from roads not paved and with street sweepings of a very different composition the same success might not attend the operation here as in England. It might, however, be ascertained what success the Salford Company have had to date and whether any Company would venture to come to Madras.

24. We have had our attention called to the comparatively small amount realized by the sale of rubbish and night-soil, and also the failure of Messrs. Shaw and Winch to satisfactorily make manure, from the night-soil delivered to them which was unmixed with rubbish. We have no hesitation in saying that one obstacle to a better sale of rubbish and to the greater use of night-soil after collection is the large amount of sand and debris collected therewith. We do not well see in what way the "material" of the rubbish could be improved except by having a separate collection of the sweepings deposited in dust-bins and those from streets, but we doubt whether the extra expense involved would be repaid by an increased sale of rubbish. Madras from its metalled and unpaved roads must fall short in this respect of towns where the streets are totally paved.

25. With regard to the collection of night-soil there should be no difficulty in provid-

ing for its collection separately from latrines which for the most part in Madras are floored with sand and we consider that such night-soil should be kept altogether apart from the night-soil collected from houses where no sand is used. An improvement in latrines is, we think, urgently called for, and we would point out that were pits formed into which to defecate and these covered from the rain and the night-soil as deposited covered with ashes a great improvement would result. The latrines would be much less offensive and the night-soil of some value which it is not at present.

26. The occupiers of houses should be invited to take ashes from the nearest dust-bin and use them in their houses and this we have already spoken of.

27. In order to enable the night-soil thus collected to have a ready sale it is most necessary that it should be taken as near the purchaser as possible. The night-soil from Black Town, Madras, is at present conveyed to Manally which is two miles north of the Cochrane Basin.

28. When the night-soil was collected in open carts along with the rubbish, it was deposited in heaps on this ground alongside a branch canal off the Cochrane Canal and from these heaps the ryots used to dig out the night-soil and being mixed with a small quantity of rubbish was able to cart it away in their basket carts. Since the separate collection in closed carts was commenced the night-soil has been in a too liquid state for the ryots to cart away readily and thus the sale has fallen off. This difficulty can be readily overcome. The night-soil should be deposited in pits if the soil is suitable, and if not so, enclosures three or four feet high with mud walls should be made above ground in which the night-soil should be deposited in layers. After the first two feet have been filled three or four inches of ashes should be laid over and then the remainder of the pits or enclosure filled and covered by six inches of ashes or clean earth over the top. These pits must be kept away from water. The night-soil from pits such as these, kept six months and then opened would be found very valuable and easy of transport.

29. The Municipality possess a large tract of land near Manally and hence the reason of selecting this place, but we venture to suggest whether the place where the Sattankadu Camp stood might not be a more favourable position for the sale of night-soil and more adapted for storing it than the low lying lands of Manally.

30. To the South of Madras we would select some place in the centre of Mylapore where there is a large amount of cultivation especially requiring a large quantity of night-soil and other manure. The Government Farm could utilize a small quantity of the night-soil. Some place in this direction would be convenient for ryots near Sydapet and the Mount.

31. To the west we would propose Kodumbakum as it is near the town, near the Railway and comparatively central for the Mount and Poonamallee Districts and others west of Madras. We believe that there has been an objection taken by the Railway authorities to a night-soil depot close to the Railway, but we venture to state that no nuisance would arise if the manner of storing which we propose were adopted and we also think that night-soil collected as it is in Black Town in pails might be conveyed without any nuisance by train to a siding at Kodumbakum at small cost, and we consider this a matter worthy of further enquiry by the Commissioners.

32. It will be seen that where water carriage is available we have selected places near such means of communication, and where it is not available near a Railway. We believe that either of these means is cheaper than the conveyance for long distances by cart.

33. The Collector of Chingleput District might point out other places where a sale might be found for night-soil and publish the sale among the surrounding villages. We have evidence that the ryots fully appreciate the advantages of good manure and would readily buy were it brought near them at a reasonable price and fit for transit. Government or the Board of Revenue should also be asked to assist the Commissioners in the disposal of night-soil by instructing their officers and subordinates in the various districts to publish the places of sale and to advise the ryots of the great increase of certain crops by a discreet use of the same.

34. We have had before us the advisability of removing the night-soil and depositing it at some distance at sea. At present no such course is possible; because the few and expensive means of loading such material and the probable nuisance resulting from any accident in loading into the boats are obstacles too great to be readily overcome at present. When the Harbour is completed matters will be different, but we fancy that loading in an enclosed Harbour would then prove a nuisance to the surrounding vessels. Even were such disadvantages not before us we would hesitate to recommend such a course as throwing away material, which, though perhaps, not of very great value at the present time must in time become so when the ryots are aware that it can be cheaply purchased and easily conveyed to their lands.

35. We have before alluded to the manufacture of portable and inoffensive manure made from night-soil by Messrs. Shaw and Winch, but, which from the large quantity of sand in it has not given satisfactory results.

36. There can be no doubt that if night-soil is delivered in a pure state it can be treated in such a way as to provide a cheap and portable manure, and we do not think that the former failure when its cause is known will deter others from attempting its manufacture. We therefore advise that enquiries be made as to whether any one is willing to come forward and invest capital for this purpose and in order to offer some inducement, the Municipality might provide land and deliver the night-soil free of charge during some length of time for experiments and this should be a source of income to the Municipality eventually.

SANITARY REGULATION.

37. We incorporate in this report a set of revised sanitary regulations with which we would replace Sections 296 to 309 of Act V of 1878. Some of the sections are in all respects similar to sections in the present Act, but as we thought it advisable to alter the order of some we re-arranged and revised all this part so that the revised sanitary regulations will be complete in themselves as an amended Act.

38. The chief alterations which we have proposed are these:—(1). That only in "populous" parts of the city will the separate collection of night-soil be retained as in suburban parts there is no necessity for it and the expense of collection is very great and incommensurate with any possible benefit to be derived therefrom. (2). That where separate collection of night-soil is not retained the President shall have power to arrange for the collection of night-soil from privies, latrines, &c., erected under Sections 262, 272, 273, and 274 and to collect fees for such service. (3). That garden and stable refuse will not necessarily require to be removed by the Commissioners. This was so in the old Act and worked well. Stable manure can usually be sold and at present the carts are overburdened with it and the dust-bins filled with it—garden refuse is not very offensive and may well be utilized by the proprietor. These, therefore have been omitted. (4). The use of dust-bins has been limited and more particularly described. (5). Night-soil will be collected in separate carts and it will be penal to put other matters in such cart, except in the way of deodorants. This is to prevent the deterioration of night-soil and to effect for it a ready sale. (6). The hours for the collection of night-soil has been left to be fixed by the Standing Committee.

GENERAL SANITARY REGULATIONS.

The part of the Act proposed to be repealed is Sections 296 to 309 inclusive.

The words "populous parts of the City" shall be held to mean such parts as the Governor-in-Council may, on the recommendation of the Standing Committee declare to be "populous."

1. The President shall cause the streets and foot-ways to be regularly swept and cleansed and the dust, dirt, ashes, rubbish and filth of every sort found thereon to be collected and removed.

2. The President shall provide suitable and sufficient means for the removal of all dust, dirt, ashes, kitchen refuse, filth and rubbish from the streets and houses of the City.

3. The President shall provide in convenient sites suitable and sufficient depots or places for the deposit of all the matters mentioned in the preceding Section and shall give notice of such provision.

4. The President shall provide in the streets of the City suitable and sufficient dust-bins for the temporary deposit of dust, dirt, ashes, kitchen refuse, and other in-offensive matter, (excepting building, stable and garden refuse which shall be removed by the owner thereof) and shall give notice of such provision.

Whoever after notice of such provision has been given, deposits any of the said matters in any street, pavement or verandah of any house, or any ground between the house and the street or any public quay, jetty or landing place or any part of a river bank, whether above or below high water mark, shall be liable to a fine not exceeding Rupees ten for each offence.

5. The President shall provide suitable and sufficient covered vehicles, carts or means for the separate removal of night-soil and other offensive matter for the houses in the populous part of the City and shall give notice of such provision.

The President shall provide in convenient sites suitable and sufficient depots or places for the deposit of the matters mentioned in this Section and shall give notice of such provision.

Whoever after such notice deposits any night-soil or offensive matter in any dust-bin or in any vehicle, cart or vessel not covered or in any Municipal cart not intended for that purpose, or in any manner otherwise than directed, shall be liable to a fine not exceeding Rupees ten for each offence.

Whoever after such notice deposits any matter other than those matters referred to in this Section in any vehicle, cart or vessel, provided under this Section for the separate removal of night-soil and other offensive matters shall be liable to a fine not exceeding Rupees ten for each offence, but no person shall be liable to such fine by reason of mixing ashes with night-soil or other offensive matter, in the manner of a deodorant.

6. The President may call by notice on all occupiers of houses within the populous parts of the City to provide within a period to be specified in such notice, moveable private receptacles of a kind to be specified in the notice for the temporary deposit in their houses of night-soil or other offensive matter.

7. After the expiration of such period, the President may provide such a moveable private receptacle for any occupier, who has failed to comply with the directions of the notice, and may recover the cost of such receptacle from such occupier as if it were a tax to be collected under this Act.

8. The President with the concurrence of the Standing Committee may appoint the time or times daily before which such moveable private receptacle shall be in readiness on the premises and screened from public view for the contents thereof to be removed by the Municipal servants.

Every occupier who after such notice fails to have the night-soil or other offensive matter of his house collected in such receptacle and ready for removal, or who deposits any other matter with the exception of ashes which may be used as a deodorant in such receptacle shall be liable to a fine not exceeding Rupees ten for each offence.

Every occupier of a building or land, who keeps or allows to be kept for more than twenty-four hours, or otherwise than in a proper receptacle, any night-soil,

rubbish, or other offensive matter in such building or upon the roof thereof or in any out-building, yard, pavement or verandah attached to or belonging to such building, or on such land, or neglects to employ proper means to remove the filth from such receptacle and to cleanse the same, in the manner directed by the President, or fails to comply with any requisition of the President as to the construction, repair, paving or cleansing of any latrine in his house or belonging thereto, shall be liable to a fine not exceeding Rupees fifty, for each offence and an additional fine not exceeding Rupees ten for every day after conviction for such offence during which the offence continues.

10. In such places as do not come within the limits of populous places as declared by the Governor-in-Council, the President may, with the sanction of the Standing Committee undertake the Conservancy of private latrines erected under the provisions of Sections 262, 272, 273 and 274 of Act V of 1878.
11. The President shall provide similar means to those mentioned in Section 5 for the removal of night-soil and other matters found in such latrines.
12. The President shall, with the concurrence of the Standing Committee, fix the rate to be paid for such Conservancy and such rate shall be in addition to any other tax or rate imposed or to be imposed under this Act.
13. Such rate shall be collected monthly and be paid in the case of a latrine erected under Section 262 by the persons receiving the rents for the Pacherry to which the latrine belongs, and under Section 272 from the occupier or owner of the property to which such latrine is attached and under Section 273 by the employer of the persons using such latrines and under Section 274 by the owner or manager of such market.
14. Such rate shall not exceed in the case of each latrine under Section 262, one anna per hut per month, and under Section 272, two per cent. on the monthly rental, under Section 273, R. 1-4-0 for each twenty men employed and for a greater number in a similar proportion and under Section 274 the rate shall be Rs. 4 for a market of the first class, Rs. 3 for a market of the 2nd Class, Rs. 2 for that of the third Class, and Rs. 1 for one of the 4th Class.
15. Every owner or occupier who allows the water of any sink, drain or privy or the drainage from any stable or place, or any other offensive liquid matter belonging to him or being on his land or in his house or in any house or land occupied by him to run down on, to, or be put upon, any street, or into any drain in or along side of any street, except in such a manner as shall prevent any avoidable nuisance from any such liquid or offensive matter soaking into the walls or ground at the side of the said drain, shall be liable to a fine not exceeding ten Rupees for each offence.
16. All rubbish, sewage, filth and other matters collected by the orders of the President under this Act shall be the property of the Commissioners, and may be sold or disposed of by them as they think proper, and the proceeds thereof shall form part of the Municipal Fund.
17. Whoever, in the removal of night-soil or other offensive matter, uses any cart or receptacle not having a covering proper for preventing the escape of the contents thereof or of the stench therefrom, or slops or spills any such offensive matter in the removal thereof, or does not carefully sweep and clean every place in which any such offensive matter has been slopped or spilled, or places, or sets down in any public place any night-soil or offensive matter whether in a vessel closed or open, shall be liable to a fine not exceeding twenty Rupees for each offence.
18. Whoever puts, or causes, to be put, any earth, dirt, ashes, garden, kitchen, or

stable refuse, broken glass, earthenware, rubbish or night-soil into any sewer or drain belonging to the Commissioners or into any drain communicating therewith, shall be liable to a fine not exceeding fifty Rupees for each offence.

This Section shall not apply to any sewer, or drain which the President by public notification declares to be intended for the reception of night-soil.

39. We have carefully considered these regulations and those we propose will, we believe, while lessening to some extent the labor at present imposed on the Municipality, not tend to depreciate the measures adopted for the sanitation of the town while at the same time the value of the night-soil will be much greater.

We have the honor to be,
Gentlemen,

Your most obedient Servants,

V. KRISTNAMA CHARRIAR.

G. BIDIE, M.B.

W. R. CORNISH, F.R.C.S.

W. E. DHANAKOTI RAJU, M.D.

C. BENSON, M.B.A.C.

J. A. JONES, C.E.

December 1879.

APPENDIX V.

VITAL STATISTICS.

Tables I to IX relate to Births.
 „ X to XXXI „ Deaths.
 „ XXXII „ Births and Deaths.

BIRTHS.

The number of births registered during the year was 16,629 as here particularized :—

Caste.	Born-Alive.			Still-Born.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.
Europeans ...	65	71	136	2	1	3	65	72	137
East Indians ...	215	174	389	5	3	10	221	177	398
Native Christians ...	315	313	628	7	2	9	322	315	637
Hindus ...	7,093	6,251	13,344	155	142	297	7,248	6,393	13,641
Mahomedans ...	697	627	1,324	27	22	49	724	649	1,373
Total...	8,617	7,644	16,261	196	172	368	8,813	7,816	16,629

From these figures the following proportions of number born-alive and still-born to the total number are deduced :—

	Males.	Females.	Total.
Born-alive ...	51.82	45.97	97.79
Still-born ...	1.18	1.03	2.21
Total...	53.00	47.00	100.00

The proportions give 9 boys to 8 girls.

The number registered in 1878 was 15,104, being less by 1,525, the proportions being very nearly the same :—

	In 1879.	In 1878.
Born-alive ...	97.79	97.74
Still-born ...	2.21	2.26
Males ...	53.00	52.16
Females ...	47.00	47.84

The year 1879 stands foremost as to the number registered. Since 1876 there has been a steady advance in the number.

1876.....	11,823
1877.....	14,384
1878.....	15,104
1879.....	16,629

indicating a more efficient management in the Registration Department as well as a better acquaintance with the law on the part of the public. Daily inspections by Registrars, public notice by beat of tom-toms and a few prosecutions for neglecting to register, appear to have effected a more perfect registration of births.

Of the 16,629 births 1,391 are from Hospitals, the Lying-in-Hospital having returned 1,363, of which 36 were still-born.

The ratio of the total number of births to 1,000 of population is 41.8, those in the several Divisions being—

	Population.	Births.	Ratio per 1,000.
1st Division...	65,121	3,456	53.0
2nd „ ...	73,738	2,464	33.4
3rd „ ...	52,545	1,906	36.4
4th „ ...	9,791	458	46.7
5th „ ...	65,491	2,154	32.9
6th „ ...	19,390	915	47.1
7th „ ...	69,568	2,386	34.2
8th „ ...	41,482	1,499	36.1
Hospitals ...	426	1,391	...
Total...	397,552	16,629	41.8

DEATHS.

The past year was the healthiest since 1872, the number of deaths registered being only 13,803, while the average of the ten previous years (excluding 1877 as being abnormal) is 14,061. The only drawback was the prevalence of Small-pox and Fevers, the deaths from which exceeded the average by 1,222:—

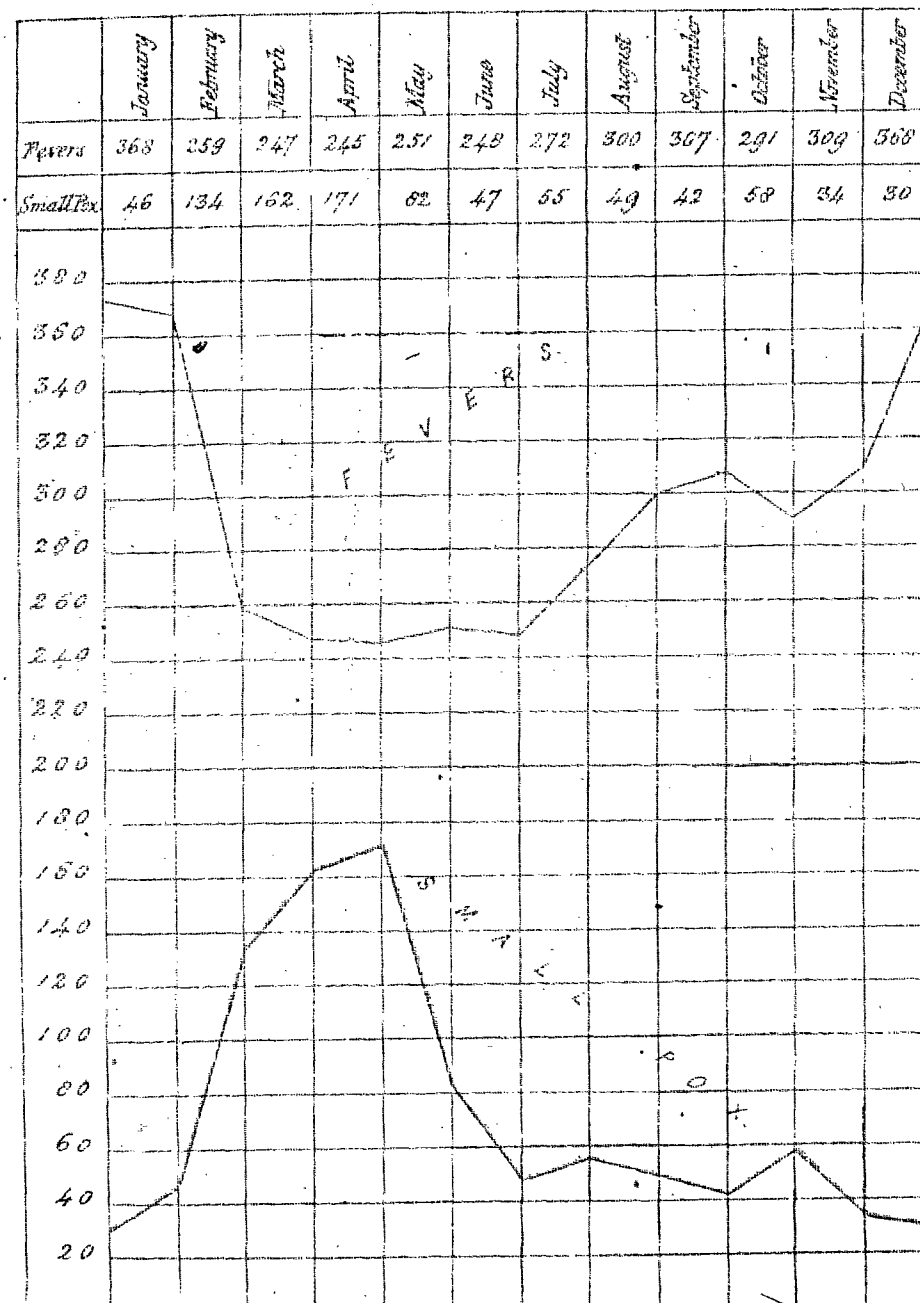
	Small-pox.	Fever.	Total.
In 1879 ...	910	3,465	4,375
Average of 10 previous years(excluding 1877)...	464	2,689	3,153
Excess in 1879 over average...	446	776	1,222

Fevers prevailed at a much higher rate than Small-pox, but it is remarkable that they rose and fell inversely as is seen in the following diagram, the wave lines showing that when Fevers were on the ascendant, Small-pox declined and *vice versa*.

There was a large diminution in deaths from Bowel Complaints as compared with those of the preceding year, the numbers being 1,757 and 4,542 severally. Cholera too declined from 85 in 1878 to only 35 in 1879.

The healthiest time of the year was from February to July when the deaths were below the monthly average 1,150, the other months having exceeded it:—

	Below the average.		Above the average.
February ...	1,064	January ...	1,272
March ...	1,023	August ...	1,234
April ...	1,072	September ...	1,238
May ...	1,025	October ...	1,229
June ...	931	November ...	1,251
July ...	1,079	December ...	1,385
	6,149		7,609



LITHOGR BY ROSS, BROTHERS

The distribution of the deaths among the several classes and the ratio per 1,000 of population are :—

Class.	Popula- tion.	Males.	Females.	Total.	Ratio per 1,000 of popu- lation.
Europeans ...	3,613	59	29	88	24.3
East Indians ...	12,013	155	146	301	25.0
Native Christians ...	21,441	300	315	615	28.6
Hindus ...	309,521	5,575	5,544	11,119	35.9
Mahomedans ...	50,964	840	840	1,680	32.9
Total...	397,552	6,929	6,874	13,803	34.7

It is remarkable that almost the same number occurred among the two sexes; but in proportion to the population, the mortality was greater among the Males—the population being 194,676 Males and 202,876 Females, the ratios are 35.6 and 33.9.

Of the 13,803 deaths, only 906 or a little more than 6.5 per cent. occurred in the Hospitals from which it appears that those Institutions are not yet sufficiently appreciated. The Hindus and Mahomedans are, owing to religious and caste prejudices, averse to becoming inmates of hospitals, and, with rare exceptions, object also to European medical treatment even in their own houses, which to a great extent accounts for so much higher death-rates among them than among the other Classes. Comparing the ratio of deaths in hospitals to the total number of each Class with the ratio per 1,000 of population above given, it will be seen that the more freely such Institutions are resorted to, the greater are the beneficial results :—

Caste.	No. of deaths.	No. died in Hospitals.	Percentage of deaths in Hos- pitals to num- ber of deaths.	Ratio per 1,000 of population.
Europeans ...	88	38	43.2	24.3
East Indians ...	301	54	17.9	25.0
Native Christians ...	615	72	11.7	28.6
Hindus ...	11,119	666	6.0	35.9
Mahomedans ...	1,680	76	4.5	32.9
Total...	13,803	906	6.6	34.7

The Sixth Division maintained its pre-eminence for healthfulness, while the First stood in its usual position—the last in the order of salubrity. The aggregate of the ratio of deaths for three years (excluding 1877-78 as being abnormal) indicate the order in which each Division stands, and it will be seen that the Third Division containing Black Town, which is traditionally reputed to be insalubrious, stands third for healthfulness. In the following Statement the Divisions are given in the order indicated by the results ;—

NOTE.—Deaths in hospitals are here excluded.

Divisions.	In 1876-77.	In 1878.	In 1879.	Total.
VI ...	22.4	25.7	13.1	61.2
VIII ...	52.5	37.8	33.0	123.3
III ...	54.7	38.5	32.9	126.1
V ...	61.5	41.4	28.2	131.1
VII ...	56.1	41.0	31.6	131.7
II ...	61.7	44.4	35.2	141.3
IV ...	70.3	48.8	29.6	148.7
I ...	96.5	57.0	36.5	190.0
Total...	62.8	43.2	32.4	138.4

The same remark as in the preceding years, that mortality among children is excessive, applies also to this year. Of the 13,803 deaths, 6,728 occurred among those under 12 years which is very nearly half the number. High as the proportion had been in 1878, namely 44.09 it rose higher still in 1879 till it reached 48.74 which is close upon 50 per cent. of the total number of deaths. The mortality among boys was somewhat in excess, the numbers being 3,449 boys and 3,279 girls which is about 20 deaths among boys to 19 among girls. Of all ages the ratios are as follow :—

	No. of deaths.	Percentage to total number of deaths.
Still-born.....	368.....	2.67
Under 1 year.....	4,361.....	31.60
1—6 „	1,925.....	13.95
6—12 „	442.....	3.20
12—20 „	598.....	4.33
20—30 „	1,193.....	8.64
30—40 „	968.....	7.01
40—50 „	859.....	6.22
50—60 „	1,021.....	7.40
Above 60 „	2,068.....	14.98
	<u>13,803</u>	

The following Table shows the chief causes of mortality among the children :—

Class.	Small-pox.		Measles.		Fever.		Bowel Complaint.		Cholera.		Other Diseases.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
Europeans...	2	...	...	...	2	1	4	4	...	...	10	8	18	18	31
East Indians	7	6	...	1	9	9	8	11	...	...	45	31	69	58	127
Native Christians	11	11	...	...	32	45	17	20	...	...	100	77	160	162	322
Hindus	383	376	2	6	568	611	276	302	6	2	1,639	1,348	2,826	2,675	5,471
Mahomedans	53	58	...	...	67	88	22	38	...	1	246	204	388	389	777
Total...	408	451	2	7	678	754	327	384	6	3	2,010	1,668	3,461	3,267	6,728
Total of Males and Females	859		9		1,432		711		9		3,708		6,728		

Of the 2,068 deaths above the age of 60 years, 805 attained 70; 686 lived to 80 and 442 to 90. Women appear to be more tenacious of life than men as out of 15 who died aged 99 years, 11 were females. The following are the particulars of ages under the several races :—

Ages.	Europeans.		East Indians.		Native Christians.		Hindus.		Mahomedans.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.&F.
60 to 70	5	3	9	11	11	18	232	394	49	73	306	409	805
70 to 80	5	2	6	8	19	21	250	250	56	39	366	320	686
80 to 90	1	...	3	2	16	7	205	156	30	22	255	187	412
90 to 94	...	...	...	...	1	...	39	3	22	1	62	4	66
95	...	...	...	...	...	...	11	16	7	9	18	25	43
96	...	...	...	...	...	1	...	2	...	...	...	3	3
97	...	...	...	1	...	...	...	1	...	...	...	2	2
98	...	...	...	...	...	...	2	...	...	...	4	2	6
99	...	...	...	...	...	...	2	8	2	3	4	11	15
Total...	11	5	18	22	47	47	773	832	166	147	1,015	1,053	2,068
Total of Males and Females	16		49		94		1,605		313		2,068		

VITAL STATISTICS.

TABLE I.—BIRTHS.

Population.	Months.	BORN ALIVE.										TOTAL BIRTHS.			
		BOYS.					STILL BORN.					Total of Males and Females.		Males and Females.	
		Euro-peans.		East Indians.		Native Christians.		Hindus.		Mahomedans.		Total.		Males.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January 1879		3	4	13	14	20	16	463	422	45	58	544	514	543	1,074
February		6	3	12	12	23	23	411	343	44	46	488	427	494	929
March		1	1	9	9	13	17	440	387	60	55	523	469	538	1,018
April		6	6	13	5	27	31	431	375	56	52	533	469	518	1,029
May		4	12	21	13	19	28	504	389	62	57	610	499	626	1,134
June		9	2	24	10	30	24	537	414	70	52	670	502	632	1,203
July		8	7	16	21	30	37	572	560	99	89	725	714	740	1,467
August		8	6	24	17	33	38	679	653	117	96	861	810	855	1,717
September		7	12	21	11	44	29	762	673	89	60	923	815	848	1,779
October		5	10	15	23	40	32	738	710	81	72	932	847	863	1,816
November		3	4	23	20	41	35	751	629	83	97	901	785	919	1,727
December		3	4	25	19	33	38	758	669	88	63	907	793	926	1,731
Total...		63	71	216	174	345	348	7,096	6,224	897	827	8,617	7,644	8,813	16,630
Total of Males and Females...		134		390		693		13,320		1,724		16,261		16,629	
Ratio per 1,000 of population.		37.0		32.4		32.3		43.0		33.8		40.9		41.8	

APPENDIX V.
VITAL STATISTICS.

TABLE X.—DEATHS.

Class.	Order.	Classification.	Europeans.		East Indians.		Native Christians.		Hindus.		Mahomedans.		Total.	
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
I	1	General Diseases.												
	2	Sub-division A.	6	3	23	32	72	90	1,500	1,972	224	221	2,130	2,318
		Do. B.	4		12	13	18	20	331	277	51	84	449	397
II		Total Diseases.	8	2	42	23	93	79	1,629	1,298	265	225	2,037	16,27
	1	Nervous System.												
	2	Eye.												
	3	Ear.												
	4	Nose.												
	5	Circulatory System.												
	6	Absorbent.												
	7	Ductless Glands.												
	8	Respiratory System.												
	9	Digestive do.												
	10	Urinary do.												
	11	Genitative do.												
	12	Organs of Locomotion.												
	13	Cellular Tissue.												
	14	Connective Tissue.												
III		Conditions, &c.												
IV	1	Debility.												
	2	Poisons.												
V		Injuries.												
	1	Battle.												
	2	Accidental.												
	3	Homicidal.												
	4	Self-inflicted.												
VI	5	Judicial.												
		Surgeon Operations.												
		No appreciable Diseases.												
		Total.	59	29	153	146	309	915	5,575	5,544	840	840	6,629	6,874
		Total of Males & Females.	88	391	815	11,119	1,680	12,503						

Return of Deaths from all causes for the year 1879, arranged according to Caste.

APPENDIX V.
VITAL STATISTICS.

TABLE XI.—DEATHS.

Return shewing the average Deaths in Madras for 10 previous years ending 1878, as contrasted with the Mortality of the year 1879.

Year.	Deaths from Special Diseases.						Deaths from other Diseases.	General Total.	Order of salubrity.
	Small-pox.	Measles.	Fevens.	Bowel Complaints.	Cholera.	Total.			
1868	799	85	2,232	1,831	13	4,960	7,242	12,202	3
1869	38	4	2,015	1,556	568	4,181	7,081	11,262	1
1870	18	12	2,296	1,589	861	4,776	7,109	11,885	2
1871	234	87	2,474	1,396	493	5,184	7,851	13,035	4
1872	624	34	2,848	2,035	5	5,546	8,472	14,018	6
1873	1,052	10	2,569	2,170	6	5,807	8,802	14,609	8
1874	819	11	2,679	2,124	...	5,633	9,127	14,760	9
1875	196	...	2,445	2,072	935	5,648	8,521	14,169	7
1876	409	12	2,351	2,295	2,105	7,172	8,587	15,759	10
1877	Omitted as being abnormal in consequence of the famine.								
1878	447	1	4,982	4,542	85	10,057	8,855	18,912	11
Total...	4,636	256	26,891	22,110	5,071	58,964	81,647	140,611	...
Average...	463.6	25.6	2689.1	2211.0	507.1	5896.4	8164.7	14061.1	...
1879...	910	10	3,465	1,757	35	6,177	7,626	13,803	5
Increase...	446.4	...	775.9	...	...	280.6	...	...	...
Decrease...	...	15.6	...	454.0	472.1	...	538.7	258.1	...

APPENDIX V.
VITAL STATISTICS.
TABLE XII.—DEATHS.

Return shewing the Deaths from Special and other Diseases among Europeans for the year 1879.

Population.		3,613.															
Months.		Cause of Death.															
		Small-pox.		Measles.		Fever.		Dysentery.		Diarrhoea.		Cholera.		Injuries.		Other Diseases.	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
January	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	1
February	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2
March	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	4
April	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	4	6
May	...	...	...	...	...	1	...	2	1	1	...	...	...	...	...	6	1
June	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	2
July	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	5	4
August	...	...	...	...	...	...	1	...	2	2	...	1	...	...	...	4	1
September	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	7	9
October	...	...	...	...	...	...	...	...	1	...	...	1	2	...	...	3	1
November	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	2
December	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	3	6
Total	...	2	...	...	...	3	3	3	2	6	6	1	...	2	2	42	16
Total of Males and Females	...	2	...	...	...	6	...	5	12	1	...	4	...	58	...	88	...
Ratio per 1,000 of Population	...	0.5	...	...	...	1.6	...	1.3	3.3	0.2	...	1.1	...	16.0	...	24.3	...
Of the foregoing Deaths, the following occurred in Hospitals:—																	
Monegar Choultry Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
General Hospital	...	...	...	...	...	1	1	...	3	1	1	...	2	2	18	225	6
Lock Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital for Women and Children	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	1
Lying-in-Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1
Penitentiary Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lunatic Asylum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Royapettah Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	1	...	...	...	1	1	1	3	1	1	...	2	2	21	330	8

VITAL STATISTICS.

TABLE XIII.—DEATHS.

Return shewing the Deaths from Special and other Diseases among East Indians, for the year 1879.

Population.		12,013															
Months.		Cause of Death.															
		Small-pox.		Measles.		Fever.		Dysentery.		Diarrhoea.		Cholera.		Injuries.		Other Diseases.	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
January	...	...	...	1	...	...	5	3	2	2	1	...	...	1	...	2	6
February	...	...	...	1	2	...	...	...	...	1	...	...	...	...	...	5	3
March	...	...	...	2	2	...	2	1	...	2	1	...	...	...	...	7	5
April	...	...	...	1	3	...	2	2	...	1	2	...	...	...	...	10	7
May	...	...	...	1	1	...	1	1	2	1	...	...	...	...	...	12	4
June	...	...	...	3	...	...	1	1	...	3	2	...	...	...	...	13	7
July	...	...	...	1	...	...	1	3	...	2	2	...	1	...	...	8	12
August	...	...	...	1	...	1	2	3	...	2	1	...	...	...	...	11	12
September	...	...	...	...	...	1	3	2	1	2	3	...	...	...	...	9	9
October	...	...	...	...	...	2	1	1	...	...	...	...	...	...	...	12	11
November	...	...	...	1	...	1	1	2	...	1	...	1	...	...	...	5	5
December	...	...	...	...	...	1	...	...	1	1	2	...	...	...	...	9	11
Total	...	8	12	...	...	1	19	19	8	8	14	14	...	3	...	103	92
Total of Males and Females	...	20	1	...	...	38	...	16	...	28	...	3	...	...	...	195	301
Ratio per 1,000 of Population	...	1.6	0.08	...	...	3.1	...	1.3	...	2.3	...	0.2	...	...	...	16.2	25.0
Of the foregoing deaths, the following occurred in Hospitals:—																	
Monegar Choultry Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...
General Hospital	...	...	...	...	...	...	3	...	1	...	3	...	...	1	...	17	...
Lock Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25
Hospital for Women & Children	...	1	...	...	...	...	2	...	1	...	...	...	...	...	...	2	7
Lying-in Hospital	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	2	2
Penitentiary Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lunatic Asylum	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	2
Royapettah Hospital	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2
Total	...	1	...	...	...	3	3	1	1	6	...	1	...	...	...	25	13

APPENDIX V.
VITAL STATISTICS.

TABLE XIV.—DEATHS.

Return shewing the Deaths from Special and other Diseases among Native Christians for the year 1879.

Population.	21,441.															
Months.	Cause of Death.															
	Small-pox.		Measles.		Fever.		Dysentery.		Diarrhoea.		Cholera.		Injuries.		Other Diseases.	
	Total.		Total.		Total.		Total.		Total.		Total.		Total.		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
January	2	...	...	...	9	7	2	3	3	...	...	...	...	...	14	10
February	...	...	...	...	1	8	4	2	...	1	...	...	...	...	6	10
March	...	...	...	...	1	9	1	3	1	2	...	...	...	...	7	10
April	1	1	...	...	1	5	4	4	1	...	...	...	...	...	9	10
May	...	...	...	...	5	9	3	3	...	1	...	...	...	...	16	11
June	...	...	...	...	9	9	2	4	...	2	...	...	...	...	9	9
July	2	1	...	...	6	5	1	4	2	2	...	...	...	...	15	14
August	3	...	...	...	5	3	4	4	3	2	...	...	...	...	13	19
September	...	...	...	...	9	5	1	6	3	3	...	...	...	...	16	17
October	2	2	...	...	3	8	6	4	1	1	...	...	...	...	29	12
November	...	...	...	...	8	3	4	7	...	...	...	...	...	...	21	19
December	1	1	...	...	3	8	5	2	1	1	...	...	...	...	23	20
Total	11	11	...	...	60	79	37	46	12	17	...	...	2	1	178	161
Total of Males and Females	22	...	...	...	139	83	29	...	...	3	...	...	...	...	339	615
Ratio per 1,000 of Population	1.2	...	...	...	6.4	3.8	1.3	...	...	0.1	...	...	...	...	15.8	28.6
Of the foregoing deaths, the following occurred in Hospitals:—																
Monegar Choultry Hospital...	...	...	...	...	4	2	...	4	...	...	...	...	6	10	10	16
General " "	...	...	...	...	1	1	...	2	...	2	...	...	14	1	20	1
Lock " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital for Women and Children	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lying-in-Hospital	...	...	...	...	1	...	2	...	...	...	...	...	4	5	4	8
Penitentiary Hospital	...	...	...	...	...	...	...	...	...	...	...	...	5	4	5	4
Lunatic Asylum	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Royapettah Hospital	...	...	...	...	1	...	...	...	...	...	...	...	2	...	3	1
Total	1	...	...	...	2	5	3	2	6	...	2	...	31	20	42	30

APPENDIX V.
VITAL STATISTICS.

TABLE XV.—DEATHS.

Return shewing the Deaths from Special and other Diseases among Mahomedans, for the year 1879.

Population.	50,964															
Months.	Cause of Death.															
	Small-pox.		Measles.		Fever.		Dysentery.		Diarrhoea.		Cholera.		Injuries.		Other Diseases.	
	Total.		Total.		Total.		Total.		Total.		Total.		Total.		Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
January	2	3	...	...	15	14	2	11	...	1	...	4	1	1	43	44
February	8	5	...	...	16	13	6	9	...	2	...	...	...	...	42	43
March	9	5	...	...	20	22	5	5	...	3	...	...	3	1	38	37
April	14	12	...	...	12	16	5	7	2	3	...	...	...	...	50	44
May	3	8	...	...	9	14	2	4	...	3	...	...	1	...	40	34
June	1	2	...	...	16	7	7	2	1	2	...	...	...	...	30	41
July	3	10	...	...	8	13	6	6	3	4	...	...	1	...	45	42
August	3	3	...	...	19	15	5	5	3	4	...	...	...	...	58	40
September	2	1	...	...	10	9	4	5	1	3	...	...	...	...	43	40
October	4	1	...	...	13	8	7	3	3	...	...	...	1	...	49	44
November	2	4	...	...	14	10	4	8	2	...	...	...	...	...	41	47
December	5	4	...	...	16	14	4	6	2	3	...	1	1	1	55	58
Total	56	58	...	...	168	155	57	72	17	23	...	5	8	3	534	519
Total of Males and Females	114	...	...	...	323	...	129	...	45	...	5	...	11	...	1,053	1,680
Ratio per 1,000 of Population	2.2	...	...	...	6.3	...	2.5	...	0.8	...	0.03	...	0.2	...	20.6	32.9
Of the foregoing deaths, the following occurred in Hospitals:—																
Monegar Choultry Hospital	...	...	...	...	1	...	2	4	...	5	...	...	2	...	5	12
General Hospital	...	...	...	...	...	...	3	...	3	...	...	...	1	...	6	...
Lock Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital for Women & Children	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...
Lying-in Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	2
Penitentiary Hospital	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Lunatic Asylum	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	2
Royapettah Hospital	...	...	...	...	1	...	...	...	...	...	...	1	...	8	6	10
Total	...	...	...	...	1	...	6	4	3	5	...	...	4	1	27	25

APPENDIX V.
VITAL STATISTICS.
TABLE XX.—DEATHS.

Return shewing the Deaths among Native Christians in each Village of the City of Madras, for the year 1879.

Municipal Divisions.	Names of Villages.	NATIVE CHRISTIANS.												Total of Males and Females.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
		M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	M. F.	
1	Tondiarpettah ...	1												1
	Washermcuppettah ...	1												1
	Royapuram ...	3	3	1	3	2	3	4	2	4	1	3	4	30
	Cadumode ...	2		1	2	1	2	2	4	6	1	2	5	36
	Total ...	8	3	2	5	7	2	4	7	9	6	8	9	77
2	Paddeo Naick's Pettah ...													
	Big Parberry ...	2												2
	John Pereira's Garden ...	1	1		1	1								3
	Total ...	3	1		1	1								4
3	Mootharpettah ...	2	4	3	1	4	2	1	3	4	5	1	1	30
	Uttapauliam ...													
	Fort Saint George ...													
	Total ...	2	4	3	1	4	2	1	3	4	5	1	1	30
4	Ganpoder Mills ...													
	Perambore ...													
	Viasurapandy ...													
	Total ...													
5	Chooly ...	1												1
	Purawalum ...	2	1	1	3	2	1	3	1	2	5	1	3	21
	Perambore ...													
	New Town ...													
	Vepery ...	1	1	2	1	1	1	1	2	1	1	1	1	8
	Poodoopettah ...	2	2	1	2	1	2	3	1	3	4	2	3	20
	Egmore ...													
	Camaleuswarapuram ...													
	Total ...	4	3	4	6	3	5	4	5	7	6	4	5	67
6	Kilpankum ...													
	Chetput ...													
	Nungumbankam ...	1	1	1										3
	Mackey's Garden ...	1												1
	Total ...	2	1	1										3
7	Poodoopankum ...	1												1
	Chintadripettah ...	1	2	2	1	1	2	2	1	1	1	1	1	10
	Narasingapuram ...													
	Triplicane ...	1												1
	Therooveteoswaranpettah ...													
8	Saint Thomé ...	1												1
	Alwarpettah ...													
	Royapettah ...	1												1
	Meer Saib's Pettah ...													
	Kistunampettah ...													
	Thanampettah ...													
	Total ...	3	1	2	2	3	3	1	5	3	3	4	5	35
Hospitals.	General Total ...	23	19	9	19	9	24	12	20	23	23	13	25	235
	Monegar Choultry Hospital ...	2	3	2	2	1								8
	General ...	2												2
	Lock ...													
	Hospital for Women and Children ...	1												1
	Lying-in Hospital ...													
	Penitentiary Hospital ...													
	Lunatic Asylum ...													
	Royapettah Hospital ...													
	Total ...	4	4	2	2	1	2	4	2	2	2	3	4	24
General Total ...		27	23	11	21	10	26	16	20	25	25	16	29	359

TABLE XXI.—DEATHS.

APPENDIX V.

VITAL STATISTICS.

TABLE XXIX.—DEATHS.—(Concluded.)

Return shewing the Deaths from Special and other Diseases among all Classes for the year 1879 arranged according to Age and Division.

Months.		Divisions.		Age at the time of Death.																Exceeding 60 years.			
				Born dead.		Not exceeding 1 year.		1 to 5.		6 to 12.		12 to 20.		20 to 30.		30 to 40.		40 to 50.				50 to 60.	
				M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			M	F
July 1879.	1st Division.	1	1	32	28	20	15	5	5	4	7	6	13	10	8	6	7	6	19	20			
	2nd do.	1	1	36	32	6	13	3	2	5	12	19	12	8	5	6	7	4	12	19			
	3rd do.	1	1	25	29	8	19	2	2	3	2	8	9	5	3	2	4	1	10	19			
	4th do.	1	1	4	6	2	1	1	1	1	1	1	3	1	1	1	1	1	1	2			
	5th do.	8	4	29	23	5	4	2	2	2	6	3	11	5	5	4	4	5	6	13			
	6th do.	1	1	2	3	4	2	2	1	1	1	1	1	1	1	1	1	1	1	2			
	7th do.	4	1	41	36	9	10	3	2	1	1	6	8	6	16	1	5	5	4	12			
	8th do.	1	2	14	18	11	11	3	4	3	2	4	7	2	6	6	3	6	3	7			
	Total.	15	13	183	180	65	68	16	18	19	31	41	63	43	45	27	29	52	63	100			
August 1879.	1st Division.	2	1	27	45	16	13	3	3	7	3	13	10	11	7	9	5	8	7	21			
	2nd do.	3	4	38	52	8	22	3	3	1	7	8	13	7	6	8	5	13	5	15			
	3rd do.	7	4	40	23	7	12	1	4	2	2	11	11	6	7	6	6	9	5	12			
	4th do.	1	1	6	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
	5th do.	8	7	49	33	12	21	1	7	2	10	3	10	4	2	5	3	5	4	15			
	6th do.	2	2	7	5	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3			
	7th do.	1	3	44	22	11	20	6	2	2	6	10	11	7	3	9	6	14	3	12			
	8th do.	1	1	17	17	10	7	1	4	2	1	6	4	3	4	5	6	1	2	9			
	Total.	24	22	223	206	65	98	14	20	18	31	32	60	39	34	46	31	51	26	87			
September 1879.	1st Division.	4	5	45	23	17	13	3	3	4	9	7	12	14	14	8	14	9	8	16			
	2nd do.	2	4	43	53	16	7	1	3	7	6	12	14	11	5	12	10	10	8	13			
	3rd do.	6	2	26	29	5	6	2	3	1	3	1	12	6	3	1	3	7	4	11			
	4th do.	1	1	7	8	1	1	1	1	1	1	1	2	1	1	1	2	1	1	1			
	5th do.	4	5	37	39	8	10	1	2	2	3	10	11	5	9	5	6	5	4	11			
	6th do.	1	1	8	4	2	2	2	2	2	2	2	4	2	1	1	2	1	1	1			
	7th do.	2	4	50	39	7	16	2	2	3	3	1	10	11	8	6	8	9	4	15			
	8th do.	1	1	23	15	8	7	2	2	1	1	3	10	6	5	9	5	3	2	9			
	Total.	20	21	217	210	64	82	11	15	18	26	34	75	56	46	41	48	41	34	75			
October 1879.	1st Division.	1	1	46	43	8	14	2	6	2	3	10	17	5	12	13	9	12	11	14			
	2nd do.	6	2	46	42	7	12	1	3	5	7	8	9	13	8	9	7	15	6	17			
	3rd do.	4	3	31	32	5	9	1	1	1	7	4	7	3	5	4	4	7	2	6			
	4th do.	1	1	6	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	5th do.	5	3	33	39	10	9	3	3	2	4	6	13	4	5	2	6	6	4	9			
	6th do.	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1			
	7th do.	3	2	55	34	25	21	6	3	1	2	4	7	3	6	4	3	10	6	14			
	8th do.	2	4	19	21	6	11	3	1	2	3	8	4	7	6	3	3	4	6	12			
	Total.	21	16	237	215	67	77	15	18	13	23	42	69	36	44	38	32	55	36	77			
November 1879.	1st Division.	3	4	39	36	11	13	6	3	5	7	17	22	6	10	14	17	16	14	24			
	2nd do.	3	7	42	30	9	7	4	3	4	9	13	10	10	4	8	8	7	12	18			
	3rd do.	1	3	26	25	5	5	1	2	1	3	1	9	3	3	1	3	3	3	6			
	4th do.	2	2	5	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	2			
	5th do.	5	4	47	43	8	13	2	4	1	6	2	9	8	6	5	5	9	6	14			
	6th do.	1	1	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	7th do.	2	2	43	45	14	23	4	3	5	1	6	6	4	4	3	5	8	8	16			
	8th do.	1	1	27	26	3	9	2	2	2	3	6	7	10	2	5	3	8	4	7			
	Total.	18	23	232	211	52	72	20	13	16	31	52	63	43	33	44	43	46	27	84			
December 1879.	1st Division.	8	5	65	42	16	20	5	4	5	11	9	15	9	14	7	6	13	7	20			
	2nd do.	3	2	51	35	11	15	4	3	4	7	10	10	9	6	9	6	11	6	23			
	3rd do.	2	1	34	18	11	6	2	2	1	4	3	6	4	8	2	3	8	6	16			
	4th do.	1	1	6	7	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1			
	5th do.	4	2	23	29	12	15	3	3	3	2	3	7	2	4	4	6	6	6	10			
	6th do.	1	1	6	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1			
	7th do.	5	2	53	42	19	17	2	4	5	8	3	8	7	9	9	4	10	9	19			
	8th do.	2	1	25	26	14	18	4	2	3	3	3	2	3	6	5	6	8	11	15			
	Total.	19	12	273	202	34	48	18	13	22	36	50	51	43	51	42	31	62	51	120			
General Total.		196	172	2,348	2,013	859	1,036	213	230	224	374	509	693	504	464	465	394	576	445	1,015			

APPENDIX V.
VITAL STATISTICS.

TABLE XXX.—DEATHS.

Return shewing the Deaths in the City of Madras, for the year 1879, arranged according to Weeks.

Number.	Weeks.	Deaths from							Total.	Ratio per Mile per annum.
		Small-pox.	Measles.	Fever.	Dysentery.	Diarrhoea.	Cholera.	Other Diseases.		
1	1st to 3rd Jan. 1879.	3	...	44	23	7	1	80	158	...
2	4th to 10th "	7	...	84	22	18	8	159	293	38.9
3	11th to 17th "	10	...	97	28	6	14	132	287	37.5
4	18th to 24th "	11	...	77	41	13	8	154	304	39.8
5	25th to 31st "	15	...	76	31	6	...	114	242	31.2
6	1st to 7th Feb.	20	2	65	22	15	1	145	270	35.3
7	8th to 14th "	33	...	59	26	14	...	138	270	35.3
8	15th to 21st "	30	...	60	20	11	...	142	263	34.4
9	22nd to 28th "	49	...	67	16	5	...	128	265	34.6
10	1st to 7th March	23	...	61	21	8	...	108	221	28.9
11	8th to 14th "	34	...	55	22	4	...	106	221	28.9
12	15th to 21st "	54	...	55	14	7	...	130	260	34.0
13	22nd to 28th "	30	1	56	21	8	...	110	226	29.5
14	29th to 4th April	43	...	57	17	6	2	94	219	28.6
15	5th to 11th "	39	...	41	17	12	...	106	215	28.1
16	12th to 18th "	25	...	71	21	11	...	149	277	36.2
17	19th to 25th "	57	...	52	17	11	...	124	261	34.1
18	26th to 2nd May	31	2	69	21	9	...	120	252	32.9
19	3rd to 9th "	19	...	72	23	5	...	112	231	30.2
20	10th to 16th "	19	...	57	16	10	...	135	237	30.9
21	17th to 23rd "	21	...	41	14	9	...	125	210	27.4
22	24th to 30th "	19	...	55	23	12	...	151	260	34.0
23	31st to 6th June	13	1	71	22	15	...	124	246	32.1
24	7th to 13th "	10	...	64	20	9	...	114	217	28.3
25	14th to 20th "	13	...	55	12	8	...	114	202	26.4
26	21st to 27th "	9	...	51	21	11	...	128	220	28.7
27	28th to 4th July	14	...	48	13	8	...	121	204	26.6
28	5th to 11th "	13	1	64	16	9	...	106	209	27.3
29	12th to 18th "	10	...	54	25	9	...	137	235	30.7
30	19th to 25th "	14	...	65	23	18	...	150	270	35.3
31	26th to 1st Aug.	13	...	65	22	15	...	163	278	36.3
32	2nd to 8th "	10	...	73	27	17	...	140	267	34.9
33	9th to 15th "	11	2	58	30	22	...	136	259	33.8
34	16th to 22nd "	11	...	76	30	8	...	143	268	35.0
35	23rd to 29th "	9	...	60	24	14	...	184	291	38.0
36	30th to 5th Sept.	10	...	81	30	16	...	189	326	42.6
37	6th to 12th "	13	...	67	23	12	...	143	258	33.7
38	13th to 19th "	10	...	69	27	17	...	180	303	39.6
39	20th to 26th "	9	...	73	22	13	...	172	289	37.7
40	27th to 3rd Oct.	8	...	67	23	13	...	150	261	34.1
41	4th to 10th "	10	1	87	24	7	...	176	305	39.9
42	11th to 17th "	17	...	64	19	12	...	157	269	35.2
43	18th to 24th "	7	...	57	33	9	...	161	267	34.9
44	25th to 31st "	19	...	56	25	11	...	180	291	38.0
45	1st to 7th Nov.	10	...	89	33	10	...	202	344	44.9
46	8th to 14th "	15	...	65	23	8	...	151	262	34.2
47	15th to 21st "	5	...	79	16	1	...	205	306	40.0
48	22nd to 28th "	4	...	63	27	9	...	159	262	34.2
49	29th to 5th Dec.	7	...	74	19	5	...	196	301	39.2
50	6th to 12th "	9	...	76	19	8	...	181	293	38.3
51	13th to 19th "	4	...	78	24	10	...	184	300	39.2
52	20th to 31st "	11	...	145	64	14	1	318	553	72.3
Total...		910	10	3,465	1,212	545	35	7,626	13,803	34.7

