Public Works (1897) Department.

G.O., No. 161965

Dated 14th June 1897

[Despatch Abstract.]

Calcutta Municipality: Proc: Ltr. to Dept recording with remarks the Deputy Sanitary Commissioner's Inspection Note on the — Contract to the S.E. IV Circle for a full report on the delay complained of in the Construction of an incinerator.

[P.W. 25. 5,000—30-11-96.]

V. 6.97

Indexed. 16/6

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Public Works (1897) Department

Warrant No: 5445

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

No. 2543 W dy 2-9-96
1668 W dy 5-6-96
1354 W dy 28-4-96
1293 Conf 7-3-96
2164 W dy 29-8-95
2597 W dy 16-10-94
2415 W dy 26-9-94
1214 W dy 17-5-94

Recd. 2 — 6 — } 1897.
Regd. — " — }

Enclosures

Spare copies 8

G.O., No. 1166 M., 11th May 1897.

B No: 1619 W dy 14. 6. 94

MAY.

Communicated to the Inspecting IV Circle, who will report fully on the delay complained of in the construction of the incinerator.

Cr Cir Dis.

Inspection Notes.

S. S. 5/6/97. IV Circle with 3 Sc 2/7/97

Recording, with remarks, the Deputy Sanitary Commissioner's — on the Calicut Municipality.

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o. L.S. 18h
R 9/6

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

Inspection Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras.

MALABAR DISTRICT.

CALICUT MUNICIPALITY.

Inspected 16th, 17th, 18th, 19th and 21st September 1896.

Population as per census of { 1881 57,085
1891 66,078

Inspection Notes.

This town is situated on sandy soil, overlying laterite, and near the coast; water is found within a few feet of the surface, though further inland the wells are of considerable depth, as, for example, at the Asylum and Jail.

Chairman's Remarks.

2. *Roads.*—Some of the main roads had been newly repaired and were in excellent order, but the majority of them were by no means pleasant to drive over. Doubtless the monsoon rains had something to do with this, but if granite metal were more used they would not have such an effect on the surface as at present, where laterite gravel is so largely employed.

Nearly half the maintenance allotment is spent in metalling the road with granite. Granite is very costly and the municipal finances do not at present permit of laying out more money in macadamizing roads.

3. *Drainage.*—In the streets there are square-sectioned laterite drains for rain water and the sewage from houses. In the more thinly-populated parts where the inhabitants live in parambas, drainage is provided for by means of deep lanes separating the various compounds. Neither of these systems however serves to convey sewage water outside the inhabited area, so that all finds its way into the sub-soil and ultimately doubtless into the numerous shallow wells existing throughout the town. In many places sewage is allowed to run out on the streets; this should be prevented under section 222 and the offenders compelled to build and maintain proper impervious cesspools. In Gujarati street the sewage from the upper stories is conveyed away through bamboo downright pipes which

In the present state of the municipal finances, nothing could be done regarding the question of general drainage. Notice has been given to persons who allow sewage water to run out into the streets to build impervious cesspools which will be emptied at the cost of the owners.

Inspection Notes.

discharge on to the street, where in many cases there is not even an earthen drain to receive it! In some cases the walls of the houses are dripping with sewage—a most insanitary state of affairs.

Chairman's Remarks.

4. *Conservancy.*—(*a*) There are 140 dust-bins, of which 120 are of corrugated iron. This, though an increase of 99 since last inspection, is an utterly inadequate number. No steps appear to have been taken on the suggestion of the Sanitary Commissioner in last inspection notes that separate receptacles for household rubbish might be adopted. There are fifteen rubbish carts capable of holding about $\frac{1}{4}$ ton each; this is, of course, an utterly inadequate number for a town of this size, so it is to be hoped that the tramway scheme will be pushed on so that the rubbish may be economically conveyed to the cinerator now being built on the beach. This cinerator has been under construction for a long time and it is reported that the overseer entrusted with the work does not understand the plans; it would be as well to take expert opinion in the matter and get the work finished without further delay. There does not appear to be any sale for the rubbish as manure, but a sum of Rs. 117-6-0 was realised by its sale for use in reclaiming land from the river. The rubbish is still used for this purpose, but the place to which it is now removed is beyond the limits of the municipality. Some of it was at the time of my inspection being deposited on the beach near the old Custom house: this should be stopped as the locality is a crowded one. In the portion of the town where parambas are found the greater part of the rubbish and household sewage is disposed of around the roots of cocoanut and other trees.

More dust-bins will be purchased as funds become available.

The tramway question is before Government and the council has resolved to give every facility to push on with it.

The cinerator work is in the hands of the Public Works Department, and in his letter, No. 1298, dated 31st August 1896, the Executive Engineer intimated to me that the work would be completed on receipt of further information from Messrs. T. E. Thompson & Co., Calcutta, who supplied the materials, and to whom a reference had been made on the subject.

The rubbish is now carted beyond the municipal limits, and strict orders have been issued not to deposit them anywhere in the town.

(*b*) *Public Latrines.* — There are fourteen latrines, of which eleven are mainly composed of metal. As has often before been pointed out, this is an absurdly inadequate number for the requirements of a population of 66,000, even when a large deduction is made for the number of people who resort to the parambas. Ten new latrines are, however, about to be put up, but even then the number might well be doubled. Some of the latrines are much resorted to, *e.g.*, the one near the private fish market in F Division, which at the time of my visit had all the buckets full to overflowing, so

There is considerable difficulty in acquiring suitable sites for putting up public latrines. Unlike the other coast, there are no Government waste lands within the town, and even when sites are acquired under the Act the neighbours obtain injunction from courts against putting up latrines. Suitable sites have been selected in several cases and some of the new latrines have been put up. The council is still indebted to Messrs. D. Raju & Co. for latrines already supplied and provision will be made for more latrines in the budget for 1898-99.

Inspection Notes.

much so as to be a source of nuisance to the neighbourhood. I would recommend that another latrine be erected here and that a special toty be stationed in readiness to remove accumulations to an air-tight receptacle behind, so that the present cause of complaint may be removed. The above abundantly proves that the people are willing to use public latrines if provided for them, and I would therefore again urge on the attention of the council the desirability of steadily increasing the numbers of latrines in crowded localities, as has often been recommended by successive inspecting officers. The night-soil is removed in buckets mounted on wheels to a spot on the beach behind the Volunteers' Rifle butts. As pointed out by the Sanitary Commissioner, this is a most insanitary and wasteful way of disposal and the smells caused are very bad, for the fæcal matter does not undergo the change required to convert it into manure. I had one of the pits opened which had been filled three years ago and found that no change had taken place but that the pit was full of black slime of the most offensive character. I would again urge the council to adopt the suggestions offered by the Sanitary Commissioner in his last two inspection notes, viz., to have poudrette made as is done in the neighbouring town of Mangalore, where the same climatic conditions prevail. In this connection I may mention that a coffee planter, whom I met during my visit, said he would be glad to try the effect of poudrette on his estate and report on the matter to the council, if they would provide him with some free of cost. He was of opinion that it would suit coffee well, so I would suggest that his offer be accepted as likely to open a good outlet for this product. The ground near the gallows would be a suitable locality for the manufacture, or, better still, a spot adjacent to the new cinerator, the ashes of which could be used in the poudrette mauufacture.

(*c*) *Private Scavenging.*—There are 1,183 privies cleaned once daily by municipal agency—a very small number when it is considered that there are upwards of 11,000 houses in the town. In Tiruvanur, where the aristocracy live, I was told that "not a single privy was cleaned"! The method of getting rid of night-soil here is

Chairman's Remarks.

The night-soil is now taken beyond the channel behind the Madras Volunteers' Rifle butts. It is buried deep in the ground and there is no complaint of any offensive smell since.

Nothing could be done in the matter of making poudrette till the night-soil could be taken by tram-cars near the cinerator which is in course of construction.

The Revenue Divisional officer selected the old gallows site for the night-soil depôt, but the council proposes to utilize it for a Roman Catholic burial-ground. No other suitable site being available for a night-soil depôt, the matter must be left *in statu quo* till the tramway is constructed.

Private scavenging is extended as far as possible. The owners of parambas which are not kept in a sanitary condition are prosecuted.

Inspection Notes.

to have pits dug close to the houses, into which all the fæcal matter of the occupiers drops. This is not cleaned out for years, and when at length the uncomplaining ground refuses to accommodate any more, a new pit is dug and the whole horrible process is again begun. Thus the whole of that large quarter is honeycombed with these pits, in the vicinity of which the wells of the households are dug. It is therefore most necessary that, as soon as possible, a water-supply should be introduced. In the Mappilla quarter also this system is largely used, and no doubt is accountable for the dreadful mortality which takes place when cholera obtains a footing in their midst.

(*d*) The sanitary arrangements at the mosques are, as a rule, very faulty: at Piapalli the urinal is within two yards of the well; at Mohidin Palli the urine stagnates beside and above the road and oozes out through the wall to the annoyance of the passers-by. Here a urine cart ought to be placed in a recess and the pipe so arranged as to discharge into it; this cart could be removed twice a day by the municipal sweepers and a small fee charged for the service. At Kuttichera mosque, one of the largest in the town, the arrangements are somewhat better, but much improvement might be effected by the placing of an automatic flushing tank at the head of the drain to receive the ablution water which would be periodically discharged down the urinal drain with a gush, and not merely dribble along it as at present.

(*e*) The council would do well to enforce the provisions of section 207 under which they have power to insist on the owners of parambas providing latrine accommodation for the inhabitants.

5. *Water-supply.*—(*a*) This is in the same condition as at last inspection. An experimental well has been sunk at the side of the Mananchera tank to ascertain whether a properly-protected water-supply might not be obtained from thence, but the strata dug through up to date do not, in my opinion, afford a sufficient protection from contamination from the surrounding inhabited area to warrant the carrying out of the scheme. I would therefore recommend that spring water from the Pullur hills be tried as recommended by the Sanitary Engineer.

Chairman's Remarks.

Notice will be given to the musaliars in charge of the mosques to make the necessary improvements as suggested.

Notices are being issued under this section.

The Sanitary Engineer has asked the council to report on the strata and this is being attended to. The council is fully alive to the necessity of supplying good water to some of the overcrowded divisions and has made a small provision to meet the preliminary and other charges in the next year's budget.

Inspection Notes.	Chairman's Remarks.
(*b*) *Ratinabai Memorial well* is now closed as recommended in last inspection notes; the owner of it, however, is very anxious to have the water examined, on the ground that the graveyard near it has not been used for twenty years. In order to satisfy him, I think a sample might be sent for analysis.	This will be done at once.
(*c*) *Surji Sait's well*, near the beach, is largely used by the shipping. It has been lately repaired and plastered with cement, but should also be provided with a platform round the mouth. I would suggest that this water also be submitted to analysis as the surroundings are by no means immaculate.	This will be attended to.
(*d*) *Nadakanan Cart-stand well* is in need of repair; it should be cemented down to the water level and be provided with a proper platform.	This will be attended to. Estimates have been called for.
(*e*) *Kuttichera tank* was cleaned out last year, but the water was again in a very dirty state as it is freely used for bathing.	A urinal will be put up, if possible.
(*f*) *Zamorin's talli tank* is also freely used for bathing and is very dirty; a corner behind the well was used as a urinal. This should be stopped and a urinal erected for the use of the bathers.	The council is not in a position at present to meet the charges of filling up the tank. It will have no objection if somebody would do so. There are one or two other tanks which the council will be very glad to see filled up with sea sand.
(*g*) A tank at the hill to the west of the barracks has been fenced in, as the military complained of it being a nuisance. I would recommend that it be filled up altogether by the Public Works Department as it is of no use and is certainly a nuisance in the hot weather.	
6. *Markets.*—Nothing has been done in the matter of providing a new central market, though the council noted in last inspection notes that "proposals are now before the Collector in regard to this subject." The general market consists of a collection of tumble-down sheds; no repairs apparently are contemplated, pending the erection of a market on sanitary principles; it is to be hoped therefore that the matter will soon be taken in hand. The private fish market in F Division has sheds round two sides of an unpaved space; the whole area should be paved with locally-made tiles pointed with cement, and the stalls plastered with the same material. This might be made a condition of license next year.	The council is fully alive to the necessity of a good market, but nothing has been done for want of funds. The council at its meeting held on the 16th December 1896 has resolved that the Chairman be requested to ascertain if a loan for the construction of a good market can be raised in open market by advertisement.
	Notice will be given to the lessee of the private fish market to improve it as suggested by the Deputy Sanitary Commissioner.
7. *Slaughter-house.*— (*a*) The sheep slaughter-house is still in the same rented building, which, as has been pointed out	The owner of the ground will be requested to repair the floor.

Inspection Notes.	Chairman's Remarks.
for the last three or four years, is quite unsuited for the purpose. The asphalte floor is out of repair; there are two tubs for the offal which appears to be disposed of in the vicinity, judging by the smell. The grounds surrounding the house are in an insanitary state and smell disagreeably.	An estimate has been received, and the repairs will be done. The owner of the slaughter-house will be requested to provide the hooks. The lessee will be made to remove the washings to unobjectionable sites.
(*b*) The cattle slaughter-house has not been improved either and is in a disgraceful condition. The floor is out of repair and there are no hooks to hang the meat by, string being used for this purpose. Iron hooks should be provided. The washings are received in wooden tubs which are said to be emptied at the night-soil depôt. I would recommend the council to treat this matter as an urgent one and to apply to the Sanitary Board for standard plans for slaughter-houses and forthwith to begin their construction on sites selected in consultation with the District Medical and Sanitary Officer. I was informed by a planter from Wynaad that he was prepared to give a good price for dried blood from the slaughter-houses for use as manure. I would, therefore, recommend the council to try the experiment of drying the blood in shallow trays in the sun and selling it to this gentleman.	The council regrets that, in its present financial condition, it is not in a position to make provision for constructing a new slaughter-house, but steps will be taken to improve the existing one.
	This will be tried.
8. *Graveyards.*—The vexed question of the Mappilla burial-grounds seems now in a fair way of settlement. The Kannen Paramba has houses between it and the sea which might be removed as they are situated on the sub-soil water-flow from the graveyard. A new well should be dug at some distance to the south, from which the mosque should be supplied by pumping; the present ruinous well in this direction, at present used by the public, being filled up as being too near the proposed graveyard. In the same way if a burial-ground is made at the old Elephant lines, the well there should be filled up and a new one dug beyond the stream that bounds one side of the place, the water being supplied to the ablution tank in the mosque by pumping.	The council considers that the existing wells are in fair condition, and in its present financial condition will leave the matter *in statu quo*. When the finances improve, the matter will be taken up.
There appears also to be room near the old Elephant lines for a burial-ground for Roman Catholics, if the site formerly selected for them is considered too far away.	The Roman Catholics object to this site on the score of distance.
Nothing has been done to carry out the suggestion of the Sanitary Commissioner made in last notes that the practice of burying in parambas should be stopped. During the recent outbreak of cholera all	The question of providing burial-grounds for Hindus is pending with a sub-committee consisting of councillors Messrs. M. A. Subramania Iyer, T. M. Appu Nedungadi, P. A. Krishna Menon

Inspection Notes.

the corpses were buried in the paramba where they died, even though the Chairman offered to pay all expenses of their burial at a distance.

9. *Infectious Diseases Hospital.*—No repairs to this building appear to have been made; the floor is in a very bad state and the walls should be white-washed. The out-buildings are also in a very neglected condition.

10. *Offensive Trades.*—(*a*) The licenses issued for these are worded in the vaguest terms. I advised the Chairman to apply to the Sanitary Commissioner for proper instructions in the matter.

(*b*) Nothing has been done to carry out the suggestion of the Sanitary Commissioner for the improvement of the dhobies' tank, though this need not cost very much.

(*c*) The bone factory belonging to Messrs. Arbuthnot is a great nuisance to the neighbourhood, and I should recommend the council to refuse to license this place unless the bones are kept under cover. At present, there are heaps of bones 20 feet high and 50 feet long exposed to view at the side of the public road and defiling the soil by soakage and the air by abominable emanations. This would, to a large extent, be avoided if the bones were kept dry and not exposed to the weather as at present.

11. *Vaccination.*—(*a*) There are still a large number of children of school-going age unprotected. Out of 71 examined, 44 were vaccinated, 15 bore marks of small-pox and 12 were unprotected; *i.e*, 16·9 per cent. of the youthful population are still liable to be attacked by small-pox. Although only two deaths from small-pox were registered in the town last year, yet a glance at the diagram at the end of the report on vaccination in the Madras Presidency for the year 1895–96 will show that during the last ten years it has shown the highest rate of mortality from this disease of any municipality in the Presidency, with the single exception of the neighbouring town of Cochin. In last inspection notes the Sanitary Commissioner remarked "that efforts to reach *children* below ten years of age should at once be made." It is therefore not from want of advice that the

Chairman's Remarks.

and P. P. Karunakara Menon—for report. The matter will be taken up as soon as the report is received.

An estimate has been called for.

The Sanitary Commissioner has been addressed.

Mr. H. W. Brown, municipal councillor, has kindly offered to sink a well and to erect an air-motor steel tower on the bund of the tank. If this proves a success, the tank will be closed and arrangements will be made to pump water from the well. The washings will be done on the bund of the tank.

Notice will be issued to Messrs. Arbuthnot & Co. that license for the next year will be issued only if the conditions laid down by the Deputy Sanitary Commissioner are satisfied.

Inspection Notes.

municipality has failed in this manner. There are four operators employed—three male and one female. For the purposes of vaccination the town is divided into three divisions, in each of which are five depôts where vaccination is carried on. The vaccinatrix has no division assigned to her, but operates wherever her services are required. It will be seen that in this way there can practically be no supervision over the work of the vaccinators as very few of the cases are brought to hospital and the District Medical and Sanitary Officer has no time to visit widely scattered booths for this purpose. I would, therefore, suggest that a Deputy Inspector of Vaccination be appointed for this town and Palghat, where much the same state of affairs exists, as in no other way can any check be imposed on the vaccinators. At present the addresses of children are not noted in the vaccination registers, but only the depôt in which the operation was performed; it was therefore with extreme difficulty that I was enabled to verify 68 cases. Of these I found 47 successful, 2 unsuccessful and 9 absent. Six cases were wrongly entered, pointing to supervision being necessary.

(*b*) The first-class vaccinator was absent on leave. Pay, Rs. 15. Eleven of his cases were inspected; ten were successful, one was unsuccessful and four were wrongly entered.

(*c*) Second-class vaccinator V. Achutan has eleven years' service. Pay, Rs. 10. Speaks English and keeps the monthly returns, as the first-class vaccinator does not know enough English. Of his cases, fourteen were verified; ten were successful and four absent, all were correctly entered. As this man seems to do the bulk of the work, he might be promoted.

(*d*) Second-class vaccinator P. T. Kumara Nair has five years' service. Pay, Rs. 10. Of his cases, twenty-four were examined; eighteen were found to be successful, one unsuccessful and five absent. Of these one was wrongly entered.

(*e*) Vaccinatrix Eliya has four years' service. Pay, Rs. 10. Of her cases, nine were examined; all were found successful, but one which was marked "unsuccessful" was found to have six cicatrices.

Chairman's Remarks.

The President, District Board, will be requested to order the Deputy Inspector of Vaccination, Calicut Circle, to supervise vaccine cases within municipal limits on payment of a reasonable remuneration.

This will be done when the new registers are brought into force.

Inspection Notes. Chairman's Remarks.

(*f*) The following statement shows the progress of vaccination during the last four years :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Number vaccinated	4,453	4,647	6,869	6,042	4,403
,, ,, successfully	3,466	4,006	6,622	5,742	3,924
,, ,, under one year of age ..	658	623	1,335	2,223	1,532
Births	2,008	2,294	2,255	2,536	1,727

(*g*) The following shows the working of G.O., No. 1502 M., dated 19th October 1894, for the half-year ending 31st December 1895 :—

Name of Municipality.	Total births during preceding six months, *i.e.*, from 1st January to 30th June 1895.	Number vaccinated.		Number vaccinated a second time, because first operation proved unsuccessful.		Number postponed under medical certificate at the end of six months.	Number died.	Number left the town.	Number unaccounted for.	Ratio of successful vaccination to total births per cent.
		Successfully in the first instance.	Unsuccessfully in the first instance.	Successfully.	Unsuccessfully.					
Calicut ..	1,363	532	..	..	..	278	174	285	69	39·03

12. *Registration.*—There is one registrar on Rs. 15. He keeps the books in English. All the outdoor establishments are instructed to collect information, and there are two special peons to help the registrar. A considerable improvement has taken place since last inspection, though the birth-rate is still below the average.

The following table shows the results obtained :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Deaths from—					
Cholera	439	1	137	1	1
Small-pox	369	84	16	1	1
Fevers	252	207	200	324	216
Dysentery and Diarrhœa	359	272	182	370	241
Other causes	1,084	1,285	1,123	1,394	803
Total ..	2,503	1,799	1,658	2,090	1,262
Death-rate per mille ..	37·9	27·2	25·1	31·6	28·6
Births	2,008	2,294	2,255	2,536	1,727
Birth-rate per mille ..	30·4	34·7	34·1	38·4	39·2

FORT ST. GEORGE, 17*th November* 1896. (Signed) W. B. BANNERMAN, Surgn.-Major, *Inspr. of Vaccn. and Dy. Sany. Commr., Madras.*

No. 2194–S.

Forwarded to the Chairman, Municipal Council, Calicut.

2. Attention is requested to paragraph 2 of G.O., No. 1765 M., dated 23rd December 1893.

KUMBAKONAM, 22*nd November* 1896. (Signed) W. G. KING, Surgn.-Lieut.-Col., *Sanitary Commissioner for Madras.*

Endt. C. No. 363–M.

Forwarded.

2*nd December* 1896. (Signed) G. W. DANCE, *Acting Collector.*

From M.R.Ry. S. SWAMINATHA AIYAR Avargal, Rao Sahib, B.A., Chairman, Municipal Council, Calicut, to the Secretary to Government, Local and Municipal Department (through the Collector of Malabar), dated 24th February 1897, No. 436.

I have the honour to forward herewith the inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality together with the replies thereon.

2. A copy of the resolution of the municipal council passed at its meeting held on the 19th instant on the subject is herewith submitted.

ENCLOSURE.

EXTRACT from the Proceedings of the Municipal Council, Calicut, at a meeting held on the 19th February 1897.

* * * * *

5. Read again resolution, No. 5, of the municipal council, dated 10th February 1897.

Read also inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality, and the Chairman's replies thereon.

Resolution.—The Chairman's replies are approved with certain modifications. The inspection notes will be submitted to Government through the Collector.

Dis. No. 46–M.

Submitted.

2. I think the Calicut municipal roads are in very fair order. They do not, in my opinion, require metalling.

3. I submit that it is useless to insist on the manufacture of poudrette. I gave it a fair trial for some years at Palghat, but could never induce any one—even the neighbouring European planters—to take it as a gift. The proper way to dispose of night-soil in Malabar is to burn it. The Chairman would have arranged to have this done long ago at my instance but for the delay caused by the Public Works Department, who have taken two years to build a cinerator and have not finished the work yet.

4. The vexed question of the Mappilla burial-grounds was most tactfully settled by the Chairman. But if the Sanitary Board delay his plans and estimates much longer, the question will be re-opened. Meanwhile, cholera corpses, &c., are being buried in the old grounds to the detriment of the public health.

CALICUT, 4*th March* 1897. (Signed) G. W. DANCE, *Acting Collector.*

Order—No. 1166 M., dated 11th May 1897.

Recorded with the following remarks :—

(1) The action which the municipal council proposes to take for improving the condition of the latrine near the private fish-market in the F Division and the grounds surrounding the slaughter-house, and the council's decision on the report of the sub-committee regarding the provision of burial-grounds for Hindus, should be reported to Government without delay.

(2) The attention of the Public Works Department will be drawn to the delay in constructing the incinerator noticed in paragraph 3 of the Collector's endorsement.

(3) The Chairman should report to whom the tanks referred to in his remarks on paragraph 5 (*g*) of the inspection notes belong.

(True Extract.)

A. D. Macpherson

for Secretary to Government.

To the Chairman, Municipal Council, Calicut.
" Collector of Malabar.
" Sanitary Board.
" Sanitary Commissioner.
" Sanitary Engineer.
" Public Works Department.
Editors' Table.

Exd. A. Raitt.

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

Recd.
Regd. } 1897.

Enclosures
Spare copies

G.O., No. 1166 M., 11th May 1897.

No. 1619 W & M. 697
Communicated to the Superintending Engineer IV Circle who will report fully on the delay complained of in the construction of the incinerators.

S. E. IV Circle (S) C H S & B

MAY.

Inspection Notes.

Recording, with remarks, the Deputy Sanitary Commissioner's — on the Calicut Municipality.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

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CALICUT MUNICIPALITY.

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Population as per census of { 1881 57,085
1891 66,078

Inspection Notes.

This town is situated on sandy soil, overlying laterite, and near the coast; water is found within a few feet of the surface, though further inland the wells are of considerable depth, as, for example, at the Asylum and Jail.

Chairman's Remarks.

2. *Roads.*—Some of the main roads had been newly repaired and were in excellent order, but the majority of them were by no means pleasant to drive over. Doubtless the monsoon rains had something to do with this, but if granite metal were more used they would not have such an effect on the surface as at present, where laterite gravel is so largely employed.

Nearly half the maintenance allotment is spent in metalling the road with granite. Granite is very costly and the municipal finances do not at present permit of laying out more money in macadamizing roads.

3. *Drainage.*—In the streets there are square-sectioned laterite drains for rain water and the sewage from houses. In the more thinly-populated parts where the inhabitants live in parambas, drainage is provided for by means of deep lanes separating the various compounds. Neither of these systems however serves to convey sewage water outside the inhabited area, so that all finds its way into the sub-soil and ultimately doubtless into the numerous shallow wells existing throughout the town. In many places sewage is allowed to run out on the streets; this should be prevented under section 222 and the offenders compelled to build and maintain proper impervious cesspools. In Gujarati street the sewage from the upper stories is conveyed away through bamboo downright pipes which

In the present state of the municipal finances, nothing could be done regarding the question of general drainage. Notice has been given to persons who allow sewage water to run out into the streets to build impervious cesspools which will be emptied at the cost of the owners.

Inspection Notes.

discharge on to the street, where in many cases there is not even an earthen drain to receive it! In some cases the walls of the houses are dripping with sewage—a most insanitary state of affairs.

Chairman's Remarks.

4. *Conservancy.*—(*a*) There are 140 dust-bins, of which 120 are of corrugated iron. This, though an increase of 99 since last inspection, is an utterly inadequate number. No steps appear to have been taken on the suggestion of the Sanitary Commissioner in last inspection notes that separate receptacles for household rubbish might be adopted. There are fifteen rubbish carts capable of holding about ¼ ton each; this is, of course, an utterly inadequate number for a town of this size, so it is to be hoped that the tramway scheme will be pushed on so that the rubbish may be economically conveyed to the cinerator now being built on the beach. This cinerator has been under construction for a long time and it is reported that the overseer entrusted with the work does not understand the plans; it would be as well to take expert opinion in the matter and get the work finished without further delay. There does not appear to be any sale for the rubbish as manure, but a sum of Rs. 117-6-0 was realised by its sale for use in reclaiming land from the river. The rubbish is still used for this purpose, but the place to which it is now removed is beyond the limits of the municipality. Some of it was at the time of my inspection being deposited on the beach near the old Custom house: this should be stopped as the locality is a crowded one. In the portion of the town where parambas are found the greater part of the rubbish and household sewage is disposed of around the roots of cocoanut and other trees.

More dust-bins will be purchased as funds become available.

The tramway question is before Government and the council has resolved to give every facility to push on with it.

The cinerator work is in the hands of the Public Works Department, and in his letter, No. 1298, dated 31st August 1896, the Executive Engineer intimated to me that the work would be completed on receipt of further information from Messrs. T. E. Thompson & Co., Calcutta, who supplied the materials, and to whom a reference had been made on the subject.

(*b*) *Public Latrines.* — There are fourteen latrines, of which eleven are mainly composed of metal. As has often before been pointed out, this is an absurdly inadequate number for the requirements of a population of 66,000, even when a large deduction is made for the number of people who resort to the parambas. Ten new latrines are, however, about to be put up, but even then the number might well be doubled. Some of the latrines are much resorted to, *e.g.*, the one near the private fish market in F Division, which at the time of my visit had all the buckets full to overflowing, so

The rubbish is now carted beyond the municipal limits, and strict orders have been issued not to deposit them anywhere in the town.

There is considerable difficulty in acquiring suitable sites for putting up public latrines. Unlike the other coast, there are no Government waste lands within the town, and even when sites are acquired under the Act the neighbours obtain injunction from courts against putting up latrines. Suitable sites have been selected in several cases and some of the new latrines have been put up. The council is still indebted to Messrs. D. Raju & Co. for latrines already supplied and provision will be made for more latrines in the budget for 1898-99.

Inspection Notes.

much so as to be a source of nuisance to the neighbourhood. I would recommend that another latrine be erected here and that a special toty be stationed in readiness to remove accumulations to an air-tight receptacle behind, so that the present cause of complaint may be removed. The above abundantly proves that the people are willing to use public latrines if provided for them, and I would therefore again urge on the attention of the council the desirability of steadily increasing the numbers of latrines in crowded localities, as has often been recommended by successive inspecting officers. The night-soil is removed in buckets mounted on wheels to a spot on the beach behind the Volunteers' Rifle butts. As pointed out by the Sanitary Commissioner, this is a most insanitary and wasteful way of disposal and the smells caused are very bad, for the fæcal matter does not undergo the change required to convert it into manure. I had one of the pits opened which had been filled three years ago and found that no change had taken place but that the pit was full of black slime of the most offensive character. I would again urge the council to adopt the suggestions offered by the Sanitary Commissioner in his last two inspection notes, viz., to have poudrette made as is done in the neighbouring town of Mangalore, where the same climatic conditions prevail. In this connection I may mention that a coffee planter, whom I met during my visit, said he would be glad to try the effect of poudrette on his estate and report on the matter to the council, if they would provide him with some free of cost. He was of opinion that it would suit coffee well, so I would suggest that his offer be accepted as likely to open a good outlet for this product. The ground near the gallows would be a suitable locality for the manufacture, or, better still, a spot adjacent to the new cinerator, the ashes of which could be used in the poudrette manufacture.

(*c*) *Private Scavenging.*—There are 1,183 privies cleaned once daily by municipal agency—a very small number when it is considered that there are upwards of 11,000 houses in the town. In Tiruvanur, where the aristocracy live, I was told that "not a single privy was cleaned"! The method of getting rid of night-soil here is

Chairman's Remarks.

The night-soil is now taken beyond the channel behind the Madras Volunteers' Rifle butts. It is buried deep in the ground and there is no complaint of any offensive smell since.

Nothing could be done in the matter of making poudrette till the night-soil could be taken by tram-cars near the cinerator which is in course of construction.

The Revenue Divisional officer selected the old gallows site for the night-soil depôt, but the council proposes to utilize it for a Roman Catholic burial-ground. No other suitable site being available for a night-soil depôt, the matter must be left *in statu quo* till the tramway is constructed.

Private scavenging is extended as far as possible. The owners of parambas which are not kept in a sanitary condition are prosecuted.

Inspection Notes.

to have pits dug close to the houses, into which all the fæcal matter of the occupiers drops. This is not cleaned out for years, and when at length the uncomplaining ground refuses to accommodate any more, a new pit is dug and the whole horrible process is again begun. Thus the whole of that large quarter is honeycombed with these pits, in the vicinity of which the wells of the households are dug. It is therefore most necessary that, as soon as possible, a water-supply should be introduced. In the Mappilla quarter also this system is largely used, and no doubt is accountable for the dreadful mortality which takes place when cholera obtains a footing in their midst.

(*d*) The sanitary arrangements at the mosques are, as a rule, very faulty: at Piapalli the urinal is within two yards of the well; at Mohidin Palli the urine stagnates beside and above the road and oozes out through the wall to the annoyance of the passers-by. Here a urine cart ought to be placed in a recess and the pipe so arranged as to discharge into it; this cart could be removed twice a day by the municipal sweepers and a small fee charged for the service. At Kuttichera mosque, one of the largest in the town, the arrangements are somewhat better, but much improvement might be effected by the placing of an automatic flushing tank at the head of the drain to receive the ablution water which would be periodically discharged down the urinal drain with a gush, and not merely dribble along it as at present.

(*e*) The council would do well to enforce the provisions of section 207 under which they have power to insist on the owners of parambas providing latrine accommodation for the inhabitants.

5. *Water-supply.*—(*a*) This is in the same condition as at last inspection. An experimental well has been sunk at the side of the Mananchera tank to ascertain whether a properly-protected water-supply might not be obtained from thence, but the strata dug through up to date do not, in my opinion, afford a sufficient protection from contamination from the surrounding inhabited area to warrant the carrying out of the scheme. I would therefore recommend that spring water from the Pullur hills be tried as recommended by the Sanitary Engineer.

Chairman's Remarks.

Notice will be given to the musaliars in charge of the mosques to make the necessary improvements as suggested.

Notices are being issued under this section.

The Sanitary Engineer has asked the council to report on the strata and this is being attended to. The council is fully alive to the necessity of supplying good water to some of the overcrowded divisions and has made a small provision to meet the preliminary and other charges in the next year's budget.

Inspection Notes.	Chairman's Remarks.
(*b*) *Ratinabai Memorial well* is now closed as recommended in last inspection notes; the owner of it, however, is very anxious to have the water examined, on the ground that the graveyard near it has not been used for twenty years. In order to satisfy him, I think a sample might be sent for analysis.	This will be done at once.
(*c*) *Surji Soit's well*, near the beach, is largely used by the shipping. It has been lately repaired and plastered with cement, but should also be provided with a platform round the mouth. I would suggest that this water also be submitted to analysis as the surroundings are by no means immaculate.	This will be attended to.
(*d*) *Nadakanan Cart-stand well* is in need of repair; it should be cemented down to the water level and be provided with a proper platform.	This will be attended to. Estimates have been called for.
(*e*) *Kuttichera tank* was cleaned out last year, but the water was again in a very dirty state as it is freely used for bathing.	
(*f*) *Zamorin's talli tank* is also freely used for bathing and is very dirty; a corner behind the well was used as a urinal. This should be stopped and a urinal erected for the use of the bathers.	A urinal will be put up, if possible.
(*g*) A tank at the hill to the west of the barracks has been fenced in, as the military complained of it being a nuisance. I would recommend that it be filled up altogether by the Public Works Department as it is of no use and is certainly a nuisance in the hot weather.	The council is not in a position at present to meet the charges of filling up the tank. It will have no objection if somebody would do so. There are one or two other tanks which the council will be very glad to see filled up with sea sand.
6. *Markets.*—Nothing has been done in the matter of providing a new central market, though the council noted in last inspection notes that "proposals are now before the Collector in regard to this subject." The general market consists of a collection of tumble-down sheds; no repairs apparently are contemplated, pending the erection of a market on sanitary principles; it is to be hoped therefore that the matter will soon be taken in hand. The private fish market in F Division has sheds round two sides of an unpaved space; the whole area should be paved with locally-made tiles pointed with cement, and the stalls plastered with the same material. This might be made a condition of license next year.	The council is fully alive to the necessity of a good market, but nothing has been done for want of funds. The council at its meeting held on the 16th December 1896 has resolved that the Chairman be requested to ascertain if a loan for the construction of a good market can be raised in open market by advertisement.
7. *Slaughter-house.*— (*a*) The sheep slaughter-house is still in the same rented building, which, as has been pointed out	Notice will be given to the lessee of the private fish market to improve it as suggested by the Deputy Sanitary Commissioner.
	The owner of the ground will be requested to repair the floor.

Inspection Notes.	Chairman's Remarks.
for the last three or four years, is quite unsuited for the purpose. The asphalte floor is out of repair; there are two tubs for the offal which appears to be disposed of in the vicinity, judging by the smell. The grounds surrounding the house are in an insanitary state and smell disagreeably.	
(*b*) The cattle slaughter-house has not been improved either and is in a disgraceful condition. The floor is out of repair and there are no hooks to hang the meat by, string being used for this purpose. Iron hooks should be provided. The washings are received in wooden tubs which are said to be emptied at the night-soil depôt. I would recommend the council to treat this matter as an urgent one and to apply to the Sanitary Board for standard plans for slaughter-houses and forthwith to begin their construction on sites selected in consultation with the District Medical and Sanitary Officer. I was informed by a planter from Wynaad that he was prepared to give a good price for dried blood from the slaughter-houses for use as manure. I would, therefore, recommend the council to try the experiment of drying the blood in shallow trays in the sun and selling it to this gentleman.	An estimate has been received, and the repairs will be done. The owner of the slaughter-house will be requested to provide the hooks. The lessee will be made to remove the washings to unobjectionable sites. The council regrets that, in its present financial condition, it is not in a position to make provision for constructing a new slaughter-house, but steps will be taken to improve the existing one. This will be tried.
8. *Graveyards.*—The vexed question of the Mappilla burial-grounds seems now in a fair way of settlement. The Kannen Paramba has houses between it and the sea which might be removed as they are situated on the sub-soil water-flow from the graveyard. A new well should be dug at some distance to the south, from which the mosque should be supplied by pumping; the present ruinous well in this direction, at present used by the public, being filled up as being too near the proposed graveyard. In the same way if a burial-ground is made at the old Elephant lines, the well there should be filled up and a new one dug beyond the stream that bounds one side of the place, the water being supplied to the ablution tank in the mosque by pumping.	The council considers that the existing wells are in fair condition, and in its present financial condition will leave the matter *in statu quo*. When the finances improve, the matter will be taken up.
There appears also to be room near the old Elephant lines for a burial-ground for Roman Catholics, if the site formerly selected for them is considered too far away.	The Roman Catholics object to this site on the score of distance.
Nothing has been done to carry out the suggestion of the Sanitary Commissioner made in last notes that the practice of burying in parambas should be stopped. During the recent outbreak of cholera all	The question of providing burial-grounds for Hindus is pending with a sub-committee consisting of councillors Messrs. M. A. Subramania Iyer, T. M. Appu Nedungadi, P. A. Krishna Menon

Inspection Notes.

the corpses were buried in the paramba where they died, even though the Chairman offered to pay all expenses of their burial at a distance.

9. *Infectious Diseases Hospital.*—No repairs to this building appear to have been made; the floor is in a very bad state and the walls should be white-washed. The out-buildings are also in a very neglected condition.

10. *Offensive Trades.*—(*a*) The licenses issued for these are worded in the vaguest terms. I advised the Chairman to apply to the Sanitary Commissioner for proper instructions in the matter.

(*b*) Nothing has been done to carry out the suggestion of the Sanitary Commissioner for the improvement of the dhobies' tank, though this need not cost very much.

(*c*) The bone factory belonging to Messrs. Arbuthnot is a great nuisance to the neighbourhood, and I should recommend the council to refuse to license this place unless the bones are kept under cover. At present, there are heaps of bones 20 feet high and 50 feet long exposed to view at the side of the public road and defiling the soil by soakage and the air by abominable emanations. This would, to a large extent, be avoided if the bones were kept dry and not exposed to the weather as at present.

11. *Vaccination.*—(*a*) There are still a large number of children of school-going age unprotected. Out of 71 examined, 44 were vaccinated, 15 bore marks of small-pox and 12 were unprotected; *i.e*, 16·9 per cent. of the youthful population are still liable to be attacked by small-pox. Although only two deaths from small-pox were registered in the town last year, yet a glance at the diagram at the end of the report on vaccination in the Madras Presidency for the year 1895–96 will show that during the last ten years it has shown the highest rate of mortality from this disease of any municipality in the Presidency, with the single exception of the neighbouring town of Cochin. In last inspection notes the Sanitary Commissioner remarked "that efforts to reach *children* below ten years of age should at once be made." It is therefore not from want of advice that the

Chairman's Remarks.

and P. P. Karunakara Menon—for report. The matter will be taken up as soon as the report is received.

An estimate has been called for.

The Sanitary Commissioner has been addressed.

Mr. H. W. Brown, municipal councillor, has kindly offered to sink a well and to erect an air-motor steel tower on the bund of the tank. If this proves a success, the tank will be closed and arrangements will be made to pump water from the well. The washings will be done on the bund of the tank.

Notice will be issued to Messrs. Arbuthnot & Co. that license for the next year will be issued only if the conditions laid down by the Deputy Sanitary Commissioner are satisfied.

Inspection Notes.

municipality has failed in this manner. There are four operators employed—three male and one female. For the purposes of vaccination the town is divided into three divisions, in each of which are five depôts where vaccination is carried on. The vaccinatrix has no division assigned to her, but operates wherever her services are required. It will be seen that in this way there can practically be no supervision over the work of the vaccinators as very few of the cases are brought to hospital and the District Medical and Sanitary Officer has no time to visit widely scattered booths for this purpose. I would, therefore, suggest that a Deputy Inspector of Vaccination be appointed for this town and Palghat, where much the same state of affairs exists, as in no other way can any check be imposed on the vaccinators. At present the addresses of children are not noted in the vaccination registers, but only the depôt in which the operation was performed; it was therefore with extreme difficulty that I was enabled to verify 68 cases. Of these I found 47 successful, 2 unsuccessful and 9 absent. Six cases were wrongly entered, pointing to supervision being necessary.

(*b*) The first-class vaccinator was absent on leave. Pay, Rs. 15. Eleven of his cases were inspected; ten were successful, one was unsuccessful and four were wrongly entered.

(*c*) Second-class vaccinator V. Achutan has eleven years' service. Pay, Rs. 10. Speaks English and keeps the monthly returns, as the first-class vaccinator does not know enough English. Of his cases, fourteen were verified; ten were successful and four absent, all were correctly entered. As this man seems to do the bulk of the work, he might be promoted.

(*d*) Second-class vaccinator P. T. Kumara Nair has five years' service. Pay, Rs. 10. Of his cases, twenty-four were examined; eighteen were found to be successful, one unsuccessful and five absent. Of these one was wrongly entered.

(*e*) Vaccinatrix Eliya has four years' service. Pay, Rs. 10. Of her cases, nine were examined; all were found successful, but one which was marked "unsuccessful" was found to have six cicatrices.

Chairman's Remarks.

The President, District Board, will be requested to order the Deputy Inspector of Vaccination, Calicut Circle, to supervise vaccine cases within municipal limits on payment of a reasonable remuneration.

This will be done when the new registers are brought into force.

Inspection Notes. Chairman's Remarks.

(*f*) The following statement shows the progress of vaccination during the last four years :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Number vaccinated	4,453	4,647	6,869	6,042	4,403
,, ,, successfully	3,466	4,006	6,622	5,742	3,924
,, ,, under one year of age ..	658	623	1,335	2,223	1,532
Births	2,008	2,294	2,255	2,536	1,727

(*g*) The following shows the working of G.O., No. 1502 M., dated 19th October 1894, for the half-year ending 31st December 1895 :—

Name of Municipality.	Total births during preceding six months, *i.e.*, from 1st January to 30th June 1895.	Number vaccinated.		Number vaccinated a second time, because first operation proved unsuccessful.		Number postponed under medical certificate at the end of six months.	Number died.	Number left the town.	Number unaccounted for.	Ratio of successful vaccination to total births per cent.
		Successfully in the first instance.	Unsuccessfully in the first instance.	Successfully.	Unsuccessfully.					
Calicut ..	1,363	532	..	..	..	278	174	285	69	39·03

12. *Registration.*—There is one registrar on Rs. 15. He keeps the books in English. All the outdoor establishments are instructed to collect information, and there are two special peons to help the registrar. A considerable improvement has taken place since last inspection, though the birth-rate is still below the average.

The following table shows the results obtained :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Deaths from—					
Cholera	439	1	137	1	1
Small-pox	369	34	16	1	1
Fevers	252	207	200	324	216
Dysentery and Diarrhœa	359	272	182	370	241
Other causes	1,084	1,285	1,123	1,394	803
Total ..	2,503	1,799	1,658	2,090	1,262
Death-rate per mille ..	37·9	27·2	25·1	31·6	28·6
Births	2,008	2,294	2,255	2,536	1,727
Birth-rate per mille ..	30·4	34·7	34·1	38·4	39·2

FORT ST. GEORGE, (Signed) W. B. BANNERMAN, Surgn.-Major,
17*th November* 1896. *Inspr. of Vaccn. and Dy. Sany. Commr., Madras.*

No. 2194–S.

Forwarded to the Chairman, Municipal Council, Calicut.

2. Attention is requested to paragraph 2 of G.O., No. 1765 M., dated 23rd December 1893.

KUMBAKONAM, (Signed) W. G. KING, Surgn.-Lieut.-Col.,
22*nd November* 1896. *Sanitary Commissioner for Madras.*

Endt. C. No. 363–M.

Forwarded.

(Signed) G. W. DANCE,
2*nd December* 1896. *Acting Collector.*

From M.R.Ry. S. SWAMINATHA AIYAR Avargal, Rao Sahib, B.A., Chairman, Municipal Council, Calicut, to the Secretary to Government, Local and Municipal Department (through the Collector of Malabar), dated 24th February 1897, No. 436.

I have the honour to forward herewith the inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality together with the replies thereon.

2. A copy of the resolution of the municipal council passed at its meeting held on the 19th instant on the subject is herewith submitted.

ENCLOSURE.

EXTRACT from the Proceedings of the Municipal Council, Calicut, at a meeting held on the 19th February 1897.

* * * * *

5. Read again resolution, No. 5, of the municipal council, dated 10th February 1897.

Read also inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality, and the Chairman's replies thereon.

Resolution.—The Chairman's replies are approved with certain modifications. The inspection notes will be submitted to Government through the Collector.

Dis. No. 46–M.

Submitted.

2. I think the Calicut municipal roads are in very fair order. They do not, in my opinion, require metalling.

3. I submit that it is useless to insist on the manufacture of poudrette. I gave it a fair trial for some years at Palghat, but could never induce any one—even the neighbouring European planters—to take it as a gift. The proper way to dispose of night-soil in Malabar is to burn it. The Chairman would have arranged to have this done long ago at my instance but for the delay caused by the Public Works Department, who have taken two years to build a cinerator and have not finished the work yet.

4. The vexed question of the Mappilla burial-grounds was most tactfully settled by the Chairman. But if the Sanitary Board delay his plans and estimates much longer, the question will be re-opened. Meanwhile, cholera corpses, &c., are being buried in the old grounds to the detriment of the public health.

CALICUT, (Signed) G. W. DANCE,
4*th March* 1897. *Acting Collector.*

Order—No. 1166 M., dated 11th May 1897.

Recorded with the following remarks:—

(1) The action which the municipal council proposes to take for improving the condition of the latrine near the private fish-market in the F Division and the grounds surrounding the slaughter-house, and the council's decision on the report of the sub-committee regarding the provision of burial-grounds for Hindus, should be reported to Government without delay.

(2) The attention of the Public Works Department will be drawn to the delay in constructing the incinerator noticed in paragraph 3 of the Collector's endorsement.

(3) The Chairman should report to whom the tanks referred to in his remarks on paragraph 5 (*g*) of the inspection notes belong.

(True Extract.)

G. S. FORBES,
Secretary to Government.

To the Chairman, Municipal Council, Calicut.
„ Collector of Malabar.
„ Sanitary Board.
„ Sanitary Commissioner.
„ Sanitary Engineer.
„ Public Works Department.
Editors' Table.

Exd. A. Raitt.

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

Recd. } 1897. *Enclosures*
Regd. } *Spare copies*

G.O., No. 1166 M., 11th May 1897.

MAY.

Rc: 1619 W & 14.6.97
Communicated to the Superintending Engineer IV circle, who will report fully on the delay complained of in the construction of the incinerator

S. E IV Circle (Sd) CH RB

Inspection Notes.

Recording, with remarks, the Deputy Sanitary Commissioner's — on the Calicut Municipality.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers:—

Inspection Notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras.

MALABAR DISTRICT.

CALICUT MUNICIPALITY.

Inspected 16th, 17th, 18th, 19th and 21st September 1896.

Population as per census of { 1881 57,085
1891 66,078

Inspection Notes.

This town is situated on sandy soil, overlying laterite, and near the coast; water is found within a few feet of the surface, though further inland the wells are of considerable depth, as, for example, at the Asylum and Jail.

2. *Roads.*—Some of the main roads had been newly repaired and were in excellent order, but the majority of them were by no means pleasant to drive over. Doubtless the monsoon rains had something to do with this, but if granite metal were more used they would not have such an effect on the surface as at present, where laterite gravel is so largely employed.

3. *Drainage.*—In the streets there are square-sectioned laterite drains for rain water and the sewage from houses. In the more thinly-populated parts where the inhabitants live in parambas, drainage is provided for by means of deep lanes separating the various compounds. Neither of these systems however serves to convey sewage water outside the inhabited area, so that all finds its way into the sub-soil and ultimately doubtless into the numerous shallow wells existing throughout the town. In many places sewage is allowed to run out on the streets; this should be prevented under section 222 and the offenders compelled to build and maintain proper impervious cesspools. In Gujarati street the sewage from the upper stories is conveyed away through bamboo downright pipes which

Chairman's Remarks.

Nearly half the maintenance allotment is spent in metalling the road with granite. Granite is very costly and the municipal finances do not at present permit of laying out more money in macadamizing roads.

In the present state of the municipal finances, nothing could be done regarding the question of general drainage. Notice has been given to persons who allow sewage water to run out into the streets to build impervious cesspools which will be emptied at the cost of the owners.

Inspection Notes.

discharge on to the street, where in many cases there is not even an earthen drain to receive it! In some cases the walls of the houses are dripping with sewage—a most insanitary state of affairs.

4. *Conservancy.*—(*a*) There are 140 dust-bins, of which 120 are of corrugated iron. This, though an increase of 99 since last inspection, is an utterly inadequate number. No steps appear to have been taken on the suggestion of the Sanitary Commissioner in last inspection notes that separate receptacles for household rubbish might be adopted. There are fifteen rubbish carts capable of holding about $\frac{1}{4}$ ton each; this is, of course, an utterly inadequate number for a town of this size, so it is to be hoped that the tramway scheme will be pushed on so that the rubbish may be economically conveyed to the cinerator now being built on the beach. This cinerator has been under construction for a long time and it is reported that the overseer entrusted with the work does not understand the plans; it would be as well to take expert opinion in the matter and get the work finished without further delay. There does not appear to be any sale for the rubbish as manure, but a sum of Rs. 117-6-0 was realised by its sale for use in reclaiming land from the river. The rubbish is still used for this purpose, but the place to which it is now removed is beyond the limits of the municipality. Some of it was at the time of my inspection being deposited on the beach near the old Custom house: this should be stopped as the locality is a crowded one. In the portion of the town where parambas are found the greater part of the rubbish and household sewage is disposed of around the roots of cocoanut and other trees.

(*b*) *Public Latrines.* — There are fourteen latrines, of which eleven are mainly composed of metal. As has often before been pointed out, this is an absurdly inadequate number for the requirements of a population of 66,000, even when a large deduction is made for the number of people who resort to the parambas. Ten new latrines are, however, about to be put up, but even then the number might well be doubled. Some of the latrines are much resorted to, *e.g.*, the one near the private fish market in F Division, which at the time of my visit had all the buckets full to overflowing, so

Chairman's Remarks.

More dust-bins will be purchased as funds become available.

The tramway question is before Government and the council has resolved to give every facility to push on with it.

The cinerator work is in the hands of the Public Works Department, and in his letter, No. 1298, dated 31st August 1896, the Executive Engineer intimated to me that the work would be completed on receipt of further information from Messrs. T. E. Thompson & Co., Calcutta, who supplied the materials, and to whom a reference had been made on the subject.

The rubbish is now carted beyond the municipal limits, and strict orders have been issued not to deposit them anywhere in the town.

There is considerable difficulty in acquiring suitable sites for putting up public latrines. Unlike the other coast, there are no Government waste lands within the town, and even when sites are acquired under the Act the neighbours obtain injunction from courts against putting up latrines. Suitable sites have been selected in several cases and some of the new latrines have been put up. The council is still indebted to Messrs. D. Raju & Co. for latrines already supplied and provision will be made for more latrines in the budget for 1898-99.

Inspection Notes.

much so as to be a source of nuisance to the neighbourhood. I would recommend that another latrine be erected here and that a special toty be stationed in readiness to remove accumulations to an air-tight receptacle behind, so that the present cause of complaint may be removed. The above abundantly proves that the people are willing to use public latrines if provided for them, and I would therefore again urge on the attention of the council the desirability of steadily increasing the numbers of latrines in crowded localities, as has often been recommended by successive inspecting officers. The night-soil is removed in buckets mounted on wheels to a spot on the beach behind the Volunteers' Rifle butts. As pointed out by the Sanitary Commissioner, this is a most insanitary and wasteful way of disposal and the smells caused are very bad, for the fæcal matter does not undergo the change required to convert it into manure. I had one of the pits opened which had been filled three years ago and found that no change had taken place but that the pit was full of black slime of the most offensive character. I would again urge the council to adopt the suggestions offered by the Sanitary Commissioner in his last two inspection notes, viz., to have poudrette made as is done in the neighbouring town of Mangalore, where the same climatic conditions prevail. In this connection I may mention that a coffee planter, whom I met during my visit, said he would be glad to try the effect of poudrette on his estate and report on the matter to the council, if they would provide him with some free of cost. He was of opinion that it would suit coffee well, so I would suggest that his offer be accepted as likely to open a good outlet for this product. The ground near the gallows would be a suitable locality for the manufacture, or, better still, a spot adjacent to the new cinerator, the ashes of which could be used in the poudrette manufacture.

(*c*) *Private Scavenging.*—There are 1,183 privies cleaned once daily by municipal agency—a very small number when it is considered that there are upwards of 11,000 houses in the town. In Tiruvanur, where the aristocracy live, I was told that "not a single privy was cleaned"! The method of getting rid of night-soil here is

Chairman's Remarks.

The night-soil is now taken beyond the channel behind the Madras Volunteers' Rifle butts. It is buried deep in the ground and there is no complaint of any offensive smell since.

Nothing could be done in the matter of making poudrette till the night-soil could be taken by tram-cars near the cinerator which is in course of construction.

The Revenue Divisional officer selected the old gallows site for the night-soil depôt, but the council proposes to utilize it for a Roman Catholic burial-ground. No other suitable site being available for a night-soil depôt, the matter must be left *in statu quo* till the tramway is constructed.

Private scavenging is extended as far as possible. The owners of parambas which are not kept in a sanitary condition are prosecuted.

Inspection Notes.

have pits dug close to the houses, into which all the fæcal matter of the occupiers drops. This is not cleaned out for years, and when at length the uncomplaining ground refuses to accommodate any more, a new pit is dug and the whole horrible process is again begun. Thus the whole of that large quarter is honeycombed with these pits, in the vicinity of which the wells of the households are dug. It is therefore most necessary that, as soon as possible, a water-supply should be introduced. In the Mappilla quarter also this system is largely used, and no doubt is accountable for the dreadful mortality which takes place when cholera obtains a footing in their midst.

(*d*) The sanitary arrangements at the mosques are, as a rule, very faulty: at Piapalli the urinal is within two yards of the well; at Mohidin Palli the urine stagnates beside and above the road and oozes out through the wall to the annoyance of the passers-by. Here a urine cart ought to be placed in a recess and the pipe so arranged as to discharge into it; this cart could be removed twice a day by the municipal sweepers and a small fee charged for the service. At Kuttichera mosque, one of the largest in the town, the arrangements are somewhat better, but much improvement might be effected by the placing of an automatic flushing tank at the head of the drain to receive the ablution water which would be periodically discharged down the urinal drain with a gush, and not merely dribble along it as at present.

(*e*) The council would do well to enforce the provisions of section 207 under which they have power to insist on the owners of parambas providing latrine accommodation for the inhabitants.

5. *Water-supply.*—(*a*) This is in the same condition as at last inspection. An experimental well has been sunk at the side of the Mananchera tank to ascertain whether a properly-protected water-supply might not be obtained from thence, but the strata dug through up to date do not, in my opinion, afford a sufficient protection from contamination from the surrounding inhabited area to warrant the carrying out of the scheme. I would therefore recommend that spring water from the Pullur hills be tried as recommended by the Sanitary Engineer.

Chairman's Remarks.

Notice will be given to the musaliars in charge of the mosques to make the necessary improvements as suggested.

Notices are being issued under this section.

The Sanitary Engineer has asked the council to report on the strata and this is being attended to. The council is fully alive to the necessity of supplying good water to some of the overcrowded divisions and has made a small provision to meet the preliminary and other charges in the next year's budget.

Inspection Notes.

(*b*) *Ratinabai Memorial well* is now closed as recommended in last inspection notes; the owner of it, however, is very anxious to have the water examined, on the ground that the graveyard near it has not been used for twenty years. In order to satisfy him, I think a sample might be sent for analysis.

Chairman's Remarks.

This will be done at once.

(*c*) *Surji Sait's well*, near the beach, is largely used by the shipping. It has been lately repaired and plastered with cement, but should also be provided with a platform round the mouth. I would suggest that this water also be submitted to analysis as the surroundings are by no means immaculate.

This will be attended to.

(*d*) *Nadakanan Cart-stand well* is in need of repair; it should be cemented down to the water level and be provided with a proper platform.

This will be attended to. Estimates have been called for.

(*e*) *Kuttichera tank* was cleaned out last year, but the water was again in a very dirty state as it is freely used for bathing.

(*f*) *Zamorin's talli tank* is also freely used for bathing and is very dirty; a corner behind the well was used as a urinal. This should be stopped and a urinal erected for the use of the bathers.

A urinal will be put up, if possible.

(*g*) A tank at the hill to the west of the barracks has been fenced in, as the military complained of it being a nuisance. I would recommend that it be filled up altogether by the Public Works Department as it is of no use and is certainly a nuisance in the hot weather.

The council is not in a position at present to meet the charges of filling up the tank. It will have no objection if somebody would do so. There are one or two other tanks which the council will be very glad to see filled up with sea sand.

6. *Markets.*—Nothing has been done in the matter of providing a new central market, though the council noted in last inspection notes that "proposals are now before the Collector in regard to this subject." The general market consists of a collection of tumble-down sheds; no repairs apparently are contemplated, pending the erection of a market on sanitary principles; it is to be hoped therefore that the matter will soon be taken in hand. The private fish market in F Division has sheds round two sides of an unpaved space; the whole area should be paved with locally-made tiles pointed with cement, and the stalls plastered with the same material. This might be made a condition of license next year.

The council is fully alive to the necessity of a good market, but nothing has been done for want of funds. The council at its meeting held on the 16th December 1896 has resolved that the Chairman be requested to ascertain if a loan for the construction of a good market can be raised in open market by advertisement.

Notice will be given to the lessee of the private fish market to improve it as suggested by the Deputy Sanitary Commissioner.

7. *Slaughter-house.*— (*a*) The sheep slaughter-house is still in the same rented building, which, as has been pointed out

The owner of the ground will be requested to repair the floor.

Inspection Notes.

for the last three or four years, is quite unsuited for the purpose. The asphalte floor is out of repair; there are two tubs for the offal which appears to be disposed of in the vicinity, judging by the smell. The grounds surrounding the house are in an insanitary state and smell disagreeably.

Chairman's Remarks.

(*b*) The cattle slaughter-house has not been improved either and is in a disgraceful condition. The floor is out of repair and there are no hooks to hang the meat by, string being used for this purpose. Iron hooks should be provided. The washings are received in wooden tubs which are said to be emptied at the night-soil depôt. I would recommend the council to treat this matter as an urgent one and to apply to the Sanitary Board for standard plans for slaughter-houses and forthwith to begin their construction on sites selected in consultation with the District Medical and Sanitary Officer. I was informed by a planter from Wynaad that he was prepared to give a good price for dried blood from the slaughter-houses for use as manure. I would, therefore, recommend the council to try the experiment of drying the blood in shallow trays in the sun and selling it to this gentleman.

An estimate has been received, and the repairs will be done. The owner of the slaughter-house will be requested to provide the hooks. The lessee will be made to remove the washings to unobjectionable sites.

The council regrets that, in its present financial condition, it is not in a position to make provision for constructing a new slaughter-house, but steps will be taken to improve the existing one.

This will be tried.

8. *Graveyards.*—The vexed question of the Mappilla burial-grounds seems now in a fair way of settlement. The Kannen Paramba has houses between it and the sea which might be removed as they are situated on the sub-soil water-flow from the graveyard. A new well should be dug at some distance to the south, from which the mosque should be supplied by pumping; the present ruinous well in this direction, at present used by the public, being filled up as being too near the proposed graveyard. In the same way if a burial-ground is made at the old Elephant lines, the well there should be filled up and a new one dug beyond the stream that bounds one side of the place, the water being supplied to the ablution tank in the mosque by pumping.

The council considers that the existing wells are in fair condition, and in its present financial condition will leave the matter *in statu quo*. When the finances improve, the matter will be taken up.

There appears also to be room near the old Elephant lines for a burial-ground for Roman Catholics, if the site formerly selected for them is considered too far away.

The Roman Catholics object to this site on the score of distance.

Nothing has been done to carry out the suggestion of the Sanitary Commissioner made in last notes that the practice of burying in parambas should be stopped. During the recent outbreak of cholera all

The question of providing burial-grounds for Hindus is pending with a sub-committee consisting of councillors Messrs. M. A. Subramania Iyer, T. M. Appu Nedungadi, P. A. Krishna Menon

Inspection Notes.

the corpses were buried in the paramba where they died, even though the Chairman offered to pay all expenses of their burial at a distance.

9. *Infectious Diseases Hospital.*—No repairs to this building appear to have been made; the floor is in a very bad state and the walls should be white-washed. The out-buildings are also in a very neglected condition.

10. *Offensive Trades.*—(*a*) The licenses issued for these are worded in the vaguest terms. I advised the Chairman to apply to the Sanitary Commissioner for proper instructions in the matter.

(*b*) Nothing has been done to carry out the suggestion of the Sanitary Commissioner for the improvement of the dhobies' tank, though this need not cost very much.

(*c*) The bone factory belonging to Messrs. Arbuthnot is a great nuisance to the neighbourhood, and I should recommend the council to refuse to license this place unless the bones are kept under cover. At present, there are heaps of bones 20 feet high and 50 feet long exposed to view at the side of the public road and defiling the soil by soakage and the air by abominable emanations. This would, to a large extent, be avoided if the bones were kept dry and not exposed to the weather as at present.

11. *Vaccination.*—(*a*) There are still a large number of children of school-going age unprotected. Out of 71 examined, 44 were vaccinated, 15 bore marks of small-pox and 12 were unprotected; *i.e*, 16·9 per cent. of the youthful population are still liable to be attacked by small-pox. Although only two deaths from small-pox were registered in the town last year, yet a glance at the diagram at the end of the report on vaccination in the Madras Presidency for the year 1895–96 will show that during the last ten years it has shown the highest rate of mortality from this disease of any municipality in the Presidency, with the single exception of the neighbouring town of Cochin. In last inspection notes the Sanitary Commissioner remarked "that efforts to reach *children* below ten years of age should at once be made." It is therefore not from want of advice that the

Chairman's Remarks.

and P. P. Karunakara Menon—for report. The matter will be taken up as soon as the report is received.

An estimate has been called for.

The Sanitary Commissioner has been addressed.

Mr. H. W. Brown, municipal councillor, has kindly offered to sink a well and to erect an air-motor steel tower on the bund of the tank. If this proves a success, the tank will be closed and arrangements will be made to pump water from the well. The washings will be done on the bund of the tank.

Notice will be issued to Messrs. Arbuthnot & Co. that license for the next year will be issued only if the conditions laid down by the Deputy Sanitary Commissioner are satisfied.

Inspection Notes.

municipality has failed in this manner. There are four operators employed—three male and one female. For the purposes of vaccination the town is divided into three divisions, in each of which are five depôts where vaccination is carried on. The vaccinatrix has no division assigned to her, but operates wherever her services are required. It will be seen that in this way there can practically be no supervision over the work of the vaccinators as very few of the cases are brought to hospital and the District Medical and Sanitary Officer has no time to visit widely scattered booths for this purpose. I would, therefore, suggest that a Deputy Inspector of Vaccination be appointed for this town and Palghat, where much the same state of affairs exists, as in no other way can any check be imposed on the vaccinators. At present the addresses of children are not noted in the vaccination registers, but only the depôt in which the operation was performed; it was therefore with extreme difficulty that I was enabled to verify 68 cases. Of these I found 47 successful, 2 unsuccessful and 9 absent. Six cases were wrongly entered, pointing to supervision being necessary.

(*b*) The first-class vaccinator was absent on leave. Pay, Rs. 15. Eleven of his cases were inspected; ten were successful, one was unsuccessful and four were wrongly entered.

(*c*) Second-class vaccinator V. Achutan has eleven years' service. Pay, Rs. 10. Speaks English and keeps the monthly returns, as the first-class vaccinator does not know enough English. Of his cases, fourteen were verified; ten were successful and four absent, all were correctly entered. As this man seems to do the bulk of the work, he might be promoted.

(*d*) Second-class vaccinator P. T. Kumara Nair has five years' service. Pay, Rs. 10. Of his cases, twenty-four were examined; eighteen were found to be successful, one unsuccessful and five absent. Of these one was wrongly entered.

(*e*) Vaccinatrix Eliya has four years' service. Pay, Rs. 10. Of her cases, nine were examined; all were found successful, but one which was marked "unsuccessful" was found to have six cicatrices.

Chairman's Remarks.

The President, District Board, will be requested to order the Deputy Inspector of Vaccination, Calicut Circle, to supervise vaccine cases within municipal limits on payment of a reasonable remuneration.

This will be done when the new registers are brought into force.

Inspection Notes. Chairman's Remarks.

(*f*) The following statement shows the progress of vaccination during the last four years :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Number vaccinated	4,453	4,647	6,869	6,042	4,403
,, ,, successfully	3,466	4,006	6,622	5,742	3,924
,, ,, under one year of age ..	658	623	1,335	2,223	1,532
Births	2,008	2,294	2,255	2,536	1,727

(*g*) The following shows the working of G.O., No. 1502 M., dated 19th October 1894, for the half-year ending 31st December 1895 :—

Name of Municipality.	Total births during preceding six months, *i.e.*, from 1st January to 30th June 1895.	Number vaccinated.		Number vaccinated a second time, because first operation proved unsuccessful.		Number postponed under medical certificate at the end of six months.	Number died.	Number left the town.	Number unaccounted for.	Ratio of successful vaccination to total births per cent.
		Successfully in the first instance.	Unsuccessfully in the first instance.	Successfully.	Unsuccessfully.					
Calicut ..	1,363	532	..	..	..	278	174	285	69	39·03

12. *Registration.*—There is one registrar on Rs. 15. He keeps the books in English. All the outdoor establishments are instructed to collect information, and there are two special peons to help the registrar. A considerable improvement has taken place since last inspection, though the birth-rate is still below the average.

The following table shows the results obtained :—

—	1892.	1893.	1894.	1895.	1896 up to end of August.
Deaths from—					
Cholera	439	1	137	1	1
Small-pox	369	34	16	1	1
Fevers	252	207	200	324	216
Dysentery and Diarrhœa	359	272	182	370	241
Other causes	1,084	1,285	1,123	1,894	803
Total ..	2,503	1,799	1,658	2,090	1,262
Death-rate per mille ..	37·9	27·2	25·1	31·6	28·6
Births	2,008	2,294	2,255	2,536	1,727
Birth-rate per mille ..	30·4	34·7	34·1	38·4	39·2

FORT ST. GEORGE, *17th November* 1896. (Signed) W. B. BANNERMAN, Surgn.-Major, *Inspr. of Vacen. and Dy. Sany. Commr., Madras.*

No. 2194–S.

Forwarded to the Chairman, Municipal Council, Calicut.

2. Attention is requested to paragraph 2 of G.O., No. 1765 M., dated 23rd December 1893.

KUMBAKONAM, *22nd November* 1896. (Signed) W. G. KING, Surgn.-Lieut.-Col., *Sanitary Commissioner for Madras.*

Endt. C. No. 363–M.

Forwarded.

2nd December 1896. (Signed) G. W. DANCE, *Acting Collector.*

From M.R.Ry. S. SWAMINATHA AIYAR Avargal, Rao Sahib, B.A., Chairman, Municipal Council, Calicut, to the Secretary to Government, Local and Municipal Department (through the Collector of Malabar), dated 24th February 1897, No. 436.

I have the honour to forward herewith the inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality together with the replies thereon.

2. A copy of the resolution of the municipal council passed at its meeting held on the 19th instant on the subject is herewith submitted.

ENCLOSURE.

EXTRACT from the Proceedings of the Municipal Council, Calicut, at a meeting held on the 19th February 1897.

* * * * *

5. Read again resolution, No. 5, of the municipal council, dated 10th February 1897.

Read also inspection notes of the Inspector of Vaccination and Deputy Sanitary Commissioner, Madras, on the Calicut Municipality, and the Chairman's replies thereon.

Resolution.—The Chairman's replies are approved with certain modifications. The inspection notes will be submitted to Government through the Collector.

Dis. No. 46–M.

Submitted.

2. I think the Calicut municipal roads are in very fair order. They do not, in my opinion, require metalling.

3. I submit that it is useless to insist on the manufacture of poudrette. I gave it a fair trial for some years at Palghat, but could never induce any one—even the neighbouring European planters—to take it as a gift. The proper way to dispose of night-soil in Malabar is to burn it. The Chairman would have arranged to have this done long ago at my instance but for the delay caused by the Public Works Department, who have taken two years to build a cinerator and have not finished the work yet.

4. The vexed question of the Mappilla burial-grounds was most tactfully settled by the Chairman. But if the Sanitary Board delay his plans and estimates much longer, the question will be re-opened. Meanwhile, cholera corpses, &c., are being buried in the old grounds to the detriment of the public health.

CALICUT, *4th March* 1897. (Signed) G. W. DANCE, *Acting Collector.*