M.R.O. 1—50,000—16-10-58.

MADRAS RECORD OFFICE.

Government of Madras.

Public DEPARTMENT.

G.O. No. 1511 Press
~~Mis.~~

Dated 23-11- 1970.

Not to be folded or roughly handled

No. 111. Read the following letter from the Sanitary Commissioner for Madras, to the President of the Municipal Commission, Coimbatore, dated Madras, 11th November 1870, No. 1040 :—

May I beg that you will do me the favour of laying before the Municipal Commissioners of Coimbatore the following notes of my recent inspection of the town.

2. Having, as Civil Surgeon of the station twelve years ago, a knowledge of the former condition of Coimbatore, I am the better able, perhaps, to appreciate what has been accomplished under the direction of the Commissioners in the way of general and sanitary improvement.

3. ROADS.—Twelve years ago the only roads in the town over which a springed carriage might be driven with comfort were those around the race course, and the streets leading to the houses of the European officials. Now the whole of the streets of the town have been metalled and repaired in so satisfactory a manner that carriages may be driven anywhere within municipal limits. The side-drains, which formerly were always choked up with rubbish, are now better contoured for the discharge of surface water, and, in many places, the sides have been substantially revetted with kunkur stone. Some attention, however, is still needed to the surface drains in a few streets of the town.

4. SURFACE DRAINAGE.—In regard to the surface drainage of the town, I may remark that an old defect still exists, viz., that the sewage or street washings is still allowed to fall into the large tank from whence a good many persons obtain their drinking water. It has occurred to me that, if the original design of Mr. W. Fraser, C.E., and approved of by Government, could be carried out so as to reclaim the shallow land of the large tank now only occasionally submerged, a drain running along the margin of the tank might be constructed to receive the town drainage and carry it into the lower reservoir, thus leaving the large tank as a drinking water supply, or free at any rate of the surface filth of the town. If this suggestion is adopted, I think that bathing and the washing of linen and cattle in the large tank should be prohibited, and provision made for the purpose along the lower tank where there is ample room for the dhobies.

5. The reclamation of land from the tank bed would, doubtless, be an expensive work, unless the Municipality could obtain jail labour for the purpose; but, for many reasons, the conservation of the margin of the large tank, and especially of the villages and parcherries that have sprung upon this low-lying piece of ground, is so important that I am induced to hope that the Commission may undertake it, and that Government may be solicited to assist in the work by permitting gangs of prisoners to be employed on it.

6. WATER SUPPLY.—The Coimbatore tanks receive their supply of water from the Bolaneputty valley during the south-west monsoon rains. The water as it is received into the tank is fairly pure as regards organic matter. The level of the water in the tanks has apparently some influence on the water level of the wells in the town. The wells in Coimbatore town are numerous, but many of them have evidently been contaminated by the surface fouling of backyards. Near the tanks water rises in the wells to within a few feet from the surface; but in the higher parts of the town the spring level of the water is only obtainable by cutting through many feet (varying from ten to fifty) of hard schistose rock. In and around the old fort,

the soil of which is largely impregnated with nitrous earth, the well water is generally bad. In one house, where I had to investigate the circumstances connected with a death from cholera, I found the well water to contain more than *five times the proportion* of putrefiable organic matter that was afforded by wells in the Centrail Jail about a mile distant. Coimbatore well waters are generally "hard" from excess of lime, and they contain "nitrates" in excess, owing, I believe, to some peculiarity of the soil which determines the conversion of organic matter into nitrous salts. The Coimbatore waters obtained on the high ground of the Central Jail, and near some of the European houses, are freer of organic matter than the water near the tank levels, though a few of the latter are pure and fit for use.

7. There would, I apprehend, be very great difficulty in bringing in a water supply to the town other than that which now exists.

8. The large tank for many months of the year yields a supply of good soft water fit for drinking and cooking; and, if care is taken to preserve it from defilement, by cutting off the town drainage and putting a stop to washing and bathing as recommended, it would be wholesome enough for general use. A few good wells, with masonry lining and raised platforms, might be built along the edge of the tank on the site proposed for reclamation. These wells by the filtration of water through the soil would yield, I think, abundantly in the dry season, and would only require to be worked steadily to supply excellent water.

9. House Privies.—The question of the conservancy of private privies came up for discussion at a meeting of the Commissioners which I attended on the 17th September. A Native Commissioner remarked that there would be great difficulty in admitting low caste scavengers through the houses of the higher caste people, and that the construction of the streets was such that the backyards of opposite houses were only separated by a single low wall. A common feature of nearly every native town is that the only entrance to the premises is through the street door, and with caste people this custom is certainly an excuse for a very filthy condition of the backyards, inasmuch as the houses would be polluted if low caste scavengers were allowed ingress in the pursuit of their calling. I may remark that, with reference to this point, the Municipal Act makes no distinction between high caste and low caste as to the duty of householders to remove offensive matter from their premises. The cesspit privy is very common in Coimbatore, and it may easily be surmised that such privies, where there is no separate approach to the backyard, are seldom, if ever, cleaned.

In two houses I examined, on account of reported deaths from cholera, the privies were in suspicious proximity to wells, and the water in one house, as I have said, was particularly charged with organic matter in a condition of decay.

10. The first thing to be done in any attempt to deal with the cesspit privy system is to obtain trustworthy data as to the extent of the evil. I would suggest to the Commissioners the desirableness of an inquiry as to the form of privy in use in each house, and, when the particulars have been thus obtained, it might be praticable to devise a special system of house scavengering which would be unobjectionable to the householders. If this is not done, I fear the Commissioners will be obliged to enforce the law more strictly in regard to foul privies, and to throw on householders the onus of depositing night soil in suitable places for daily removal.

11. Public latrines.—The public latrines at Coimbatore are the only ones I have yet seen in which my own views (originally set forth in 1861) as to the practicability of providing public necessaries arranged for the separate collection of urine and fœces have been fairly tested. The design of the Coimbatore latrine in its present shape is, I understand, due to Lieutenant-Colonel Hessey, of the Revenue Survey Department, a Member of the Commission. I have only to remark of these latrines that they are arranged with due regard to the comfort and convenience of the people and kept perfectly clean and free of offence. The latrines are used by a large number of persons. There is room for more of the same kind in the town, and I would suggest, in regard to future erections of the kind, that they be placed in convenient situations *within the town*, and that the size in such cases be reduced. So satisfied am I as to the special advantages of these latrines that I wish to circulate plans and working drawings of them to all other Municipalities where the dry-earth system is applicable.

12. Town sweepings.—As these latrines have been designed entirely for the application of the dry-earth system, I would venture to hope that the Coimbatore Municipality may carry out the system to its perfect conclusion and utilize the deposits in cultivation, and so avoid the burial of masses of foul matter within limited areas.

After giving much attention to the disposal of town refuse and especially of the collections of night soil, I have come to the conclusion that Municipalities must be prepared to set the example of showing how town refuse can best be applied to the soil. I find a great prejudice exists against the use of human manure in many parts of the country; and, where these prejudices exist, I don't know how town refuse is to be disposed of effectively, unless Municipalities will take the trouble of hiring a small tract of land near at hand, and insist upon the use of manure upon such land. Practically, in almost every rural town in England, it has been found by experience that municipal bodies have to undertake the risk and responsibility of renting tracts of land for the reception of the town sewage. When the value of the fertiliser is demonstrated to the satisfaction of the neighbouring farmers, there is no difficulty in getting them to take the land under their own cultivation at fairly remunerative rates, but the preliminary expenses of laying out farms for sewage irrigation and of bringing sewage to the farm are, I believe, almost invariably regarded as municipal charges.

13. Such, I believe, must be the case in India to teach the people the proper value of night soil and town refuse. In many places, a very objectionable custom prevails of using town sweepings to fill up hollow places within the town. No more certain method of polluting the water supply of a town could be devised, and I hope soon to hear of a discontinuance of the practice in all municipal towns. The rubbish heaps at Coimbatore were generally on the outskirts of the town.

14. I recommend the Commissioners in regard to this matter to take into consideration the propriety of leasing land themselves for a certain period, or, if that be impracticable, of making arrangements with ryots to receive on land convenient for the purpose the refuse of the town. I have no doubt in regard to the land on the outskrits of Coimbatore on which dry cereals are grown, that much benefit would be found to accrue from the use of town manure.

15. TREE PLANTING IN STREETS.—In former times, the main streets of Coimbatore were largely planted with cocoanut trees by the housecowners. So long as the trees are in line, and do not encroach on the highway, I think the system is a good one for native towns. The shade of the tree is very pleasant, and its roots are able to suck up the waste water of the house, and to change any hurtful organic ingredient into healthy vegetable tissue. Notwithstanding that the soil on which the town stands is so dry and arid, the cocoanut thrives better than any other tree. I trust the Commissioners may be able to encourage a continuance of the old practice of planting by housecowners in front of their respective properties.

16. The town of Coimbatore has evidently benefited in a material sense from the proximity of the railway. The people appear to be generally thriving. The exteriors of their houses are kept neat and clean, and, thanks to the original design of the town and its rectangular streets, the labours of the Municipality in supervising its scavengering are much lightened. The only part of the town I have to complain of is the suburb along the margin of the large tank. Here the huts have been allowed to grow up without order or method. The population of the locality is dense, and their habits dirty. A good road parallel to the tank and crossroads for ventilation would improve the locality, but it is very questionable to my mind whether the growth of population on this site should be encouraged. It lies too low and too near the edge of the full tank to be quite healthy. The reclamation of the shallow part of the lake would be a good sanitary work for this part of the town.

17. PUBLIC HEALTH.—So far as I can judge from returns before me, Coimbatore has not suffered so much of late, as it did in former years, from epidemic diseases. In 1869, when cholera was severe at Pothanore railway station, only two of the townspeople died of it, and again this year, although the disease was severe in a village within three miles of the station, the attacks in Coimbatore were limited to two houses.

18. So long as the population drink from a water supply that is liable to be contaminated by surface filth, it will, of course, be liable to suffer from cholera outbreaks; but the recently improved state of the public health, taken in connexion with the effective conservancy of the streets and latrines of the town under the auspices of the Municipality, is most encouraging, and will, I trust, warrant perseverance in the efforts now being made for the sanitation of the town.

19. RAILWAY STATION VILLAGE.—The village that has sprung up in the neighbourhood of the railway station is a very objectionable feature as regards the public health of the town of Coimbatore. The land on which the houses have been built was formerly under rice cultivation, and slopes away down to the bed of the Noyel river. It was, and still is, very largely watered from a tank on a higher level.

20. The site possesses nearly every fault in a sanitary point of view. From the effects of irrigation on higher ground, the subsoil is nearly always moist, and the floors of the houses damp. The soil is a tenacious clay on the surface within some spots, deposits of black cotton soil upon this unpromising site, houses and huts of every description have been permitted to grow up, and no provision for laying out the village on a systematic plan has ever been attended to. This spot from the time when the railway station was under construction until now has always had an evil repute for cholera. Scarcely a year has passed over since 1860 without

cholera attacking either the people employed in building the station, or the settlers in the new village. With the growth of the village filth of every description has accumulated, and the original faults of soil and site have been aggravated by sanitary neglect.

21. It would, I think, be very desirable to bring this village, the centre of much traffic, under the municipal control of the town. The village (Nanjunda pooram) on the left bank of the Noyel is almost equally objectionable in a sanitary point of view; but, as it is not frequented by so many travellers as the railway station village, there is perhaps less necessity for including it within municipal limits.

No. 1041.

True copy forwarded for the information of Government in the Public Department.

(Signed) W. R. CORNISH, F.R.C.S.,
Sanitary Commissioner for Madras.

No. 112. ORDER THEREON, 23rd November 1870, No. 1511.

The Government are of opinion that the suggestions made by the Sanitary Commissioner in the report above recorded are deserving the consideration of the Coimbatore Municipality.

(True Extract.)

Chief Secretary.

To the President of the Municipal Commission, Coimbatore.

Exd. J. Wright,

Roads

No 1040 Office of Sanitary Commissioner
Madras 1st November 1870.

From The Sanitary Commissioner
for Madras.

To The President of the
Municipal Commission
Coimbatore.

Sir,

I have the honor to submit for the favor of Government the accompanying report of my recent inspection of the Municipality of Coimbatore, and to request that the Commissioners may be informed that the following measures are considered necessary for the improvement of the town.

2. Having no Municipal Surgeon of the Station 12 years ago for knowledge of the former conditions of Coimbatore, I am the better able perhaps to appreciate what has been accomplished under the directions of the Commissioners in the way of gunnels and sanitary improvement.

3. Twelves years ago the only carriage in the town over which a springed carriage might be driven with comfort was three abreast the narrow causeway under the shade trees bordering the houses of the European officials, the thoroughfare of the town being metalled and repaired in so satisfactory a manner that carriages may be driven anywhere within municipal limits. The sides drains which formerly were always choked up with rubbish,

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Govt. of Madras 1870.

PUBLIC.

To

THE PRESIDENT OF THE
MUNICIPAL COMMISSION,
Coimbatore.

Dated November, 23rd.

Read. *Encl.*

G. O., 23rd November 1870, No. 1511.

NOVEMBER.
Nos. 111-112.

Commending the Sanitary Commissioner's report of his recent inspection of the Coimbatore Municipality to the consideration of the Commissioners.

are now better contoured for the discharge of surface water, and in many places the sides have been substantially revetted with Kunkur stone. Some attention however is still needed to the surface drains in a few streets of the town.

4 In regard to the surface drainage of the town, I may remark that an old defect still exists, viz: that the sewage or street washings is still allowed to fall into the large tanks from whence a good many persons obtain their drinking water. It has occurred to me that if the original design of Mr. W. Fraser C.E. and approved of by Government could be carried out, so as to reclaim the shallow land of the large tanks now only occasionally submerged, a drain running along the margin of the tanks might be constructed to receive this town drainage and carry it into the lower reservoir thus leaving the large tanks as a drinking water supply, or free at any rate of the surface filth of the town. If this suggestion is adopted I think that bathing and the washing of linen and cattle in the large tanks should be prohibited and provision made for the purpose along the lower tanks where there is ample room for the dhobies.

5 The reclamation of land from the tank beds would doubtless be an expensive work, unless the municipality could obtain jail labor for the purpose, but for many reasons

Surface drainage

the conservation of the margin of the large tanks, and especially of the bheriges and fisheries that have sprung upon this low lying piece of ground, is so important that I am induced to hope that the Commission may undertake it and that Government may be solicited to assist in the work by permitting gangs of prisoners to be employed on it.

Water supply.

6 The Coimbatore tanks receive their supply of water from the Bolampetty valley during the S. W. monsoon rains. The water as it is received into the tanks is fairly pure as regards organic matter. The level of the water in the tanks has apparently some influence on the water level of the wells in the town. The wells in Coimbatore town are numerous, but many of them have evidently been contaminated by the surface fouling of back yards. Near the tanks water rises in the wells to within a few feet from the surface, but in the higher parts of the town the spring level of the water is only obtainable by cutting through many feet, varying from 10 to 50 of hard schistose rock. In and around the old fort the soil of which is largely impregnated with nitrous earth the well water is generally bad. In one house where I had to investigate the circumstances

connected with a death from cholera, I found the well waters to contain more than five times the proportion of putrefiable organic matter that was afforded by wells in the Central Jail about a mile distant. Coimbatore well waters are generally "hard" from excess of lime, and they contain "nitrates" in excess, owing I believe to some peculiarity of the soil which determines the conversion of organic matter into nitrous salts. The Coimbatore waters obtained on the high ground of the Central Jail, and near some of the European houses are freer of organic matter than the water near the tank levels, some of a few of the latter are pure and fit for use.

7. There would I apprehend be very great difficulty in bringing in a water supply to the town other than that which now exists.

8. The large tanks for many months of the year yields a supply of good soft water fit for drinking and cooking and if care is taken to preserve it from defilement by cutting off the town drainage, and putting a stop to washing and bathing as recommended, it would be wholesome enough for ... use. A few good wells with masonry ... and raised platforms might be built along the edge of the tanks on the side proposed for reclamation. These wells by the filtration of water through the soil would yield I think abundantly in the dry season, and would only require to be worked steadily to supply excellent water.

Houses & privies

9. The question of the conservancy of privies came up for discussion at a meeting of the Commissioners which I attended on the 14th September. A native Commissioner remarked that there would be great difficulty in admitting low caste scavengers through the houses of the higher caste people, and that the construction of the streets was such that the back yards of opposite houses were only separated by a single low wall. A common feature of nearly every native town is that the only entrance to the premises is through the streets door, and with caste people this custom is certainly an excuse for a very filthy condition of the back yards, in as much as the houses would be polluted if low caste scavengers were allowed ingress in the pursuit of their calling. I may remark that with reference to this point the municipal act makes no distinction between high caste and low caste as to the duty of house holders to remove offensive matter from their premises. The cess pit privy is very common in Coimbatore and it may easily be surmised that such privies where there is no separate approach to the back yard are seldom, if ever cleaned.

In two houses I examined, on account of

reports

horted deaths from cholera, the privies were in suspicious proximity to wells, and the water in a house, as I have said, was particularly charged with organic matter in a condition decay.

10. The first thing to be done in any attempt to deal with the cesspit privy system is to obtain trustworthy data as to the extent of the evil. I would suggest to the Commissioners the desirableness of an enquiry as to the form of privy in use in each house and when the particulars have been thus obtained, it might be practicable to devise a specific system of house scavenging which would be unobjectionable to the house holders. If this is not done I fear the Commissioners will be obliged to enforce the law more strictly in regard to foul privies and to throw on house holders the onus of depositing nightsoil in suitable places for daily removal.

Public latrines.

11. The public latrines at Coimbatore are the only ones I have yet seen, in which my suggestions originally set forth in 1864 as to the practicability of providing public necessaries and for the separate collection of urine and faeces have been fairly tested. The design of the Coimbatore latrine in its present shape is, I understand due to Lt: Col: Hessey of the Revenue Survey Department a member of the Commission. I have only to remark of these

regard to the comfort and convenience of the people and kept perfectly clean and free of offence. The latrines are used by a large number of persons. There is ~~one~~ room for more of the same kind in the town and I would suggest in regard to future erections of the kind that they be placed in convenient situations within the town, and that the size in such cases be reduced. So satisfied am I as to the special advantages of these latrines that I wish to circulate plans and working drawings of them to all other municipalities where the dry earth system is applicable

Sweepings 12.

As these latrines have been designed entirely for the application of the dry earth system, I would venture to hope that the Coimbatore municipality may carry out the system to its perfect conclusion and utilise the deposits in cultivation, and so avoid the burial of masses of foul matter within limited areas.

After giving much attention to the disposal of town refuse and especially of the collections of night soil, I have come to the conclusion that municipalities must be prepared to set the example of showing how town refuse can best be applied to the soil. I find a great prejudice exists against the use of human manure in many parts of the country, and where these prejudices

exist. I don't know how town refuse is to be disposed of effectively unless municipalities will take the trouble of buying a small tract of land near at hand, and insist upon the use of manure upon such land. Practically in almost every rural town in England it has been found by experience that municipal bodies have to undertake the risk and responsibility of renting tracts of land for the reception of the town sewage. When the value of the fertiliser is demonstrated to the satisfaction of the neighbouring farmers there is no difficulty in getting them to take the land under their own cultivation at fairly remunerative rates, but the preliminary expenses of laying out farms for sewage irrigation and of bringing sewage to the farms are, I believe, almost invariably regarded as municipal charges.

12 Such I believe must be the case in India to teach the people the proper value of night soil and town refuse. In many places a very objectionable custom prevails of using town sweepings to fill up hollow places within the town. No more certain method of polluting the water supply of a town could be devised, and I hope soon to hear of a discontinuance of the practice in all municipal towns. The rubbish heaps at Coimbatore are generally on the outskirts of the town.

in regard to this matter to take into consideration the propriety of leasing land themselves for a certain period, or if that be impracticable of making arrangements with ryots to receive on land convenient for the purpose the refuse of the town. I have no doubt in regard to the lands on the outskirts of Coimbatore on which dry cereals are grown, that much benefit would be found to accrue from the use of town manure.

Tree planting in streets. 13 In former times the main streets of Coimbatore were largely planted with cocoanut trees by the house owners. So long as the trees are in line and do not encroach on the highway, I think the system is a good one for native towns. The shade of the tree is very pleasant and its roots are able to suck up the waste water of the house, and to change any hurtful organic ingredient into healthy vegetable tissue. Notwithstanding that the soil on which the town stands is so dry and arid, the cocoanut thrives better than any other tree; I trust the Commissioners may be able to encourage a continuance of the old practice of planting by house owners in front of their respective properties.

14 The town of Coimbatore has evidently benefitted, in a material degree, from its proximity of the railway. The people appear

to be generally thriving. The exteriors of the houses are kept neat and clean, and thanks to the original design of the town and its rectangular streets, the labors of the municipality in superviseing its scavenging are much lightened. The only part of the town I have to complain of is the suburb along the margin of the large tank. Here the huts have been allowed to grow up without order or method. The population of the locality is dense and their habits dirty. A good road parallel to the tank and cross roads for ventilation would improve the locality, but it is very questionable to my mind whether the growth of population on this site should be encouraged. It lies too low and too near the edge of the full tank to be quite healthy. The reclamation of the shallow part of the lake would be a good sanitary work for this part of the town.

Public health.

17. So far as I can judge from returns before me, Coimbatore has not suffered so much of late, as it did in former years, from epidemic diseases. In 1869 when cholera was severe at Pothanore railway station, only two of the towns people died of it, and again this year although the disease was severe in a village within three miles of the station, the attacks in Coimbatore

limited to two houses.

18. So long as the population drink from a water supply that is liable to be contaminated by surface filth, it will of course be liable to suffer from cholera outbreaks, but the recently improved state of the public health taken in connection with the effective conservancy of the streets and latrines of the town under the auspices of the municipality is most encouraging and will I trust warrant perseverance in the efforts now being made for the sanitation of the town.

Railway station village.

19. The village that has sprung up in the neighbourhood of the Railway station is a very objectionable feature as regards the public health of the town of Coimbatore. The land on which the houses have been built was formerly under rice cultivation, and slopes away down to the bed of the Noyel river. It was and still is very largely watered from a tank on a higher level.

20. The site possesses nearly every fault in a sanitary point of view. From the effects of irrigation on higher ground, the subsoil is nearly always moist, and the floors of the houses damp. The soil is a tenacious clay on the surfaces with

some spots deposits of black cotton soil
upon this unpromising site, houses and
huts of every description have been permitted
to grow up, and no provision for laying
out the village on a systematic plan has
ever been attended to. This spot from the
time when the Railway station was under
construction until now has always had
an evil repute for cholera. Scarcely a year
has passed over since 1860 without cholera
attacking either the people employed in
building the station, or the settlers in the
new village. With the growth of the village
filth of every description has accumulated,
and the original faults of soil and site
have been aggravated by sanitary neglect.
~~I therefore think it very desirable to~~
bring this village, the centre of much traffic
under the municipal control of the town. The
village Nanyandapooram on the left bank
of the Noyel is almost equally objectionable
in a sanitary point of view, but as it is not
frequented by so many travellers as the
Railway station village there is perhaps
less necessity for including it within
municipal limits

I have the honor to be
Sir,
Your most Obed Servt
Sd W. McCormick M.R.C.S.
Sanitary Commissioner
for Madras.

No 1021. True copy

Forwarded for the information of
Government in the Public Department

W. McCormick M.R.C.S.
Sanitary Commissioner
for Madras

To President M. C. Municipality

Public Hygiene Department

Sirs

The Sanitary Commissioners

Chamber.

Gentlemen.

Referring to your letter No 1481 dated 19th Nov: 1870

Forwarding copy of a letter addressed to the Municipality of the Chief Commissioner, Commissariat, requesting an Estimate.

William Baker.

23rd Nov: 1870 No: 1511.

The Board are of opinion that the suggestions made by the Sanitary Commissioners in the report above recorded are deserving of the consideration of the Municipality

Govt. of 1870 Madras.

Public

To The Spl. Asst. Comm.r Commr.
Coimbatore

Dated 8 Novr. 23.

Recd. Encl;

G. O. 23 Novr. 1870, No 671.

Nos. 111. 112.

Forwarding to the Secretary Commissr's report of his recent inspection of the Coimbatore Municipality, & the consideration of the Commissioners