[L & M.
500—16-5-97.]

Local & Munl. (1897) Department.

Plague.

PRINTED.

G.O., No. 316 M.

DATED 26th-2-97.

[Despatch Abstract.]

Bubonic plague.

Communicating to the President Munl Commission (Madras) and to all collectors, the circular of the Sanitary Commissioner regarding the importation of certain articles, for publication the District Gazetts, and requesting the Government India to issue orders under act of III of 1897. prohibiting export by rail and road of certain articles from plague infected, localities, the import of which by sea has already been prohibited.

BACK PAPERS.

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

FURTHER PAPERS.

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

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

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

G.O., No. 316 M., 26th February 1897.

FEBRUARY.

Bubonic Plague.

Communicating to the President, Municipal Commission, Madras, and to all Collectors, the circular of the Sanitary Commissioner regarding the importation of certain articles, for publication in the District Gazettes, and requesting the Government of India to issue orders under Act III of 1897, prohibiting export by rail and road of certain articles from plague-infected localities, the import of which by sea has already been prohibited.

GOVERNMENT OF MADRAS.

LOCAL AND MUNICIPAL DEPARTMENT.

READ—the following papers :—

Report from the Sanitary Inspector on special duty, to the Health Officer, Madras Municipal Commission, dated 6th February 1897.

" I beg to report that, after examining the Bombay passengers with the platform overseers at Perambur, I travelled by the same train to the Central station and, on my further examination, I observed some cases of butter from Bombay and some parcels of fruits from Poona addressed to Madras.

As I am of opinion that articles of human consumption should not be sent for from the plague-affected stations, I request you will be so good as to cause the necessary orders to be issued for the stoppage of such articles being sent from the above-mentioned stations."

Extract from letter from Surgeon-Lieutenant-Colonel WALKER, Surgeon, 1st District, to the Health Officer, Madras Municipality, dated 8th February 1897.

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I hear that large consignments of goods of various kinds are being sent from Bombay to Madras to be auctioned for want of market there. Voyrodiet informed me that a lot of bicycles were being sent. Should not such traffic be stopped if possible? In my opinion Madras should strictly quarantine against all Bombay consignments, especially grain of all kinds which would probably bring infected rats.

* * * * *

From J. NIELD COOK, Esq., D.P.H., Health Officer, Madras Municipality, to the President, Madras Municipal Commission, dated 9th February 1897.

I am of opinion that there is very little danger of infection from bicycles and articles of that nature which will not have been in infected centres or attracted rats.

2. The question of food-stuffs such as grain and flour, butter, dates, &c., is more important. I have seen no evidence to guide me except negative evidence. It would be best settled by experiment. If I am relieved of some of my work and can get a room to which no one else has access except my assistant, I am prepared to inoculate a rat or guinea pig with the plague bacillus and feed others with grain mixed with its excreta and watch them to see whether any of them are infected. Dr. Simpson of Calcutta seems to think there is a danger of live-rats infected with plague being imported in grain bags and acting as disease-carriers. This seems to me possible, but not likely to happen in transport by train though much more likely to happen in a ship's cargo of grain or flour. In the case of grain there is the husking and in that of flour the cooking which is a safeguard, though not a complete one, as it has been shown by experiment that certain disease germs can survive baking in the interior of a loaf.

3. As the question is a large one and affects the whole Presidency, and not only the Madras Municipality, I would suggest that it be referred to the Sanitary Commissioner who may have further information on the subject than is in my possession.

4. I have replied about the supposed case at Perambur.

G. No. 738.

Forwarded to the Secretary to Government, Local and Municipal Department, for information.

(Signed) G. M. J. MOORE, Lieut.-Col.,
President.

9*th February* 1897.

No. 151.

Referred to the Sanitary Commissioner for early remarks.

(Signed) G. S. FORBES,
Secretary to Government.

FORT ST. GEORGE,
12*th February* 1897.

From Surgeon-Lieutenant-Colonel W. G. KING, M.B., C.M., D.P.H., Sanitary Commissioner for Madras, to the Secretary to Government, Local and Municipal Department, dated Camp, Gazzalapalle, 16th February 1897, No. 405-S.

With reference to correspondence accompanying your endorsement, No. 151, dated 12th February 1897, I have the honour to forward for information a copy of a circular issued by me on the 2nd instant treating much the same points as therein stated. Infection of the human being by plague-infected food has not been proved, but there is good reason to hold that this is very likely; as Kitasato, who first discovered the bacillus, successfully infected certain of the lower animals by feeding them upon infected material. Any action with the object of preventing the importation of food articles from the Bombay Presidency would therefore be reasonable and founded on safe ground.

2. In judging, however, of the necessity for enforcing such action, it must not be forgotten that the Madras Presidency is not in the position of defending itself against the inroads of the disease from a foreign country separated from her by the sea. Besides importation by the seaboard, the Presidency has to defend itself against inroads by rail and road throughout a very large frontier. Under these circumstances, any attempt at defence by prohibiting this and that trade—otherwise, say, than in the very obvious case of risk involved in the importation of second-hand clothing, waste paper and rags—would necessitate the entertainment of a very large staff, and, even if supported by troops, would not be really effectual,—a fact proved by the experience of Russia. Under these circumstances, I believe the best course is to attempt to draw the attention of the public to the dangers involved, as I have hoped to do in the circular quoted. The public once thoroughly alarmed—of which, at the end of four months absolute indifference, there now seems a tendency—may be relied upon to withdraw demands, and thus effect exclusion of articles more fully than if it were attempted by special staffs and legislation.

3. In the matter of bicycles and other articles of this nature, I agree with Dr. Nield Cook in thinking the risk must be extremely limited; where care is specially requisite in this case, as with all merchandise from Bombay, is the safe disposal of the dust—especially that derived from the soil—and waste material forming the packing. There is no doubt as to the liability to infection of rats and of their being conveyers of infection, and it would be a wise precaution to follow the rule laid down in rule 20 embodied in G.O., No. 1985 M., dated 18th November 1896, even before a locality is affected " as a matter of prevention " by at least eliciting each householder's attention to the subject.

Enclosure.

Circular No. 280-S.

In connection with the prevalence of plague, the question of the danger of importation of dates, grapes, butter, flour and other eatables from Bombay has been raised by local authorities. No law that will suffice in this matter exists, and if it did it would be inapplicable, unless it embraced the question of importation from Bombay of nearly every article of commerce, and that to enforce it special establishments existed; nevertheless, that matters may arrive specifically infected is indubitable. Whilst therefore no law exists that would condemn the importer of such articles, there can be no reason why in the interests of their populations Chairmen of Municipal Councils should not endeavour to do their best to *persuade* merchants to cease importing such materials from Bombay, until all danger has passed.

2. In connection with flour used for bread, it is desirable that it be remembered that the theory, that the heat to which bread is subjected during the process of baking is sufficient to cause the death of both simple and death-bearing germs is incorrect. Recent researches in Europe show conclusively that a large percentage of the interior of loaves duly baked is not sterile, and that even the cholera microbe which is most susceptible to heat may survive. Not only is the infected flour to be feared, but the sacking, the vessels and the outside of baked and cold loaves touched with hands that have also handled infected sacking; further, the ground where such sacking has rested may be the starting point of mischief, more especially if the floor be of damp earthen character usually found in Madras bake-houses.

3. Probably, however, the danger from articles mentioned in no way is so great as that of waste paper and other packing material used for merchandize, to which your attention was specially drawn in this office letter No. 1843-S, dated 3rd October 1896, communicated with foot-note No. 1941-S, dated 16th October 1896. Government has recently been specially requested to prevent importation of waste paper and rags *as such* and it is hoped effective measures will result. Till this is the case, however, undersigned would ask that each instance coming to notice of chairmen be reported to this office with as little delay as possible, and that pending a reply the consignee be desired in the public interest to refrain from "breaking bulk."

Fort St. George,
2nd February 1897.

(Signed) W. G. KING, M.B., D.P.H.,
Sanitary Commissioner for Madras.

From the Sanitary Inspector on special duty, to the Health Officer, Madras Municipal Commission, dated Madras, 18th February 1897, No. 61.

Your attention is once more respectfully requested to my letter, No. 58, of 6th February 1897, in which orders were requested to prevent butter and other articles of human consumption being imported by land from plague-affected districts.

2. I beg to report that on the 16th instant when I was inspecting the S.S. *Nawab* from Bombay, I observed that the marginally-noted articles were imported into Madras from Bombay. It will be necessary on my part to reiterate on the evil consequences of the consumption of these articles. It may be pertinent here to remark that the rules are to be all the more strictly observed now at Madras, as the merchants in exporting the articles from Bombay would not be particular in looking to sanitary conditions of the coolies and labourers that may be employed in getting the work done as Bombay is almost depopulated now.

1. Date (dry and wet fruits).
2. Wheat flour.
3. Wheat sugii.
4. Wheat bran.
5. Cloves.
6. Almond.
7. Sugarcandy.
8. Preserved grapes (kismiss).
9. Prawns from Allapa.

} From Bombay.

3. I have only to request that the orders prayed for may be expedited.

From J. NIELD COOK, Esq., D.P.H., Health Officer, Madras Municipality, to the President, Madras Municipal Commission, dated 22nd February 1897, No. 76 M.

It appears from the attached report that flour bran and dried fruits are being imported from Bombay. Such imports have been entirely interdicted in all the Mediterranean ports, and, I think, not without reason. For there is an appreciable danger of infected rats being imported with such cargoes, beyond the possibility of the infection being carried by the excreta of such vermin dropped amongst the flour or by the bags.

2. Messrs. Oakes & Co. have stopped the importation of oats from Poona on my advice. They tell me that their Bombay butter does not come from Bombay, and when I tried the other day to grow the plague bacillus in sterlised butter, I found *only dead bacilli* in two days, but further experiments are necessary before I can give a positive opinion on the possibility of butter carrying infection.

3. I should like to know whether Government has come to any decision on the question of Bombay imports as we have no power to act under the regulations. The danger of infection by imports *may be small*, but, I think, in the case of a disease like the plague, not only probable but possible dangers should be guarded against.

Enclosure.

Extract from the *Indian Lancet*, 16th February 1897, page 169.

Professor Hankin's experiments.—Professor Hankin tells me that in some of his experiments he added quantities of the bubonic plague microbe to grain. Within 48 hours the microbe had vanished and was no longer to be detected by the tests he employed. If we can rely on the tests employed by this eminent Bacteriologist this would seem to imply that the microbe is unable to continue to exist in grain.

G. No. 783.

Forwarded to the Secretary to Government. The question of Bombay imports was referred under this office No. 738, dated 9th February 1897.

(Signed) G. M. J. MOORE, Lieut.-Col.,
President.

22nd February 1897.

Order—No. 316 M., dated 26th February 1897.

The Sanitary Commissioner's letter read above will be communicated to the President, Municipal Commission, Madras, and to all Collectors with the request that the circular therein referred to may be published in the District Gazettes for the information of the public.

2. As regards the prohibition of importation by rail and road from infected localities of rags, waste paper, bedding, used gunny bags and second-hand clothing, the import of which by sea has already been forbidden, the Government considers that general orders on the subject should be issued by the Government of India, which may be binding on the Railway Companies generally and thus make the prohibition more effective by making it penal on their part to receive at such stations in the Bombay Presidency and other infected areas articles for export to non-infected areas. His Excellency the Governor in Council is not prepared, on the information at present before him, to take steps for the prohibition of the import of food-grains and other food-stuffs from infected localities ~~and they~~ The Govt of India will also be requested to prohibit the importation from Goa of all articles, the importation of which by sea is already prohibited.

3. The following telegram will be despatched to the Government of India :—

"This Government requests that Governor-General in Council will issue orders under Act III of 1897, prohibiting export by rail and road from plague-infected localities and also the import by land from Goa territory of rags, used apparel and bedding, waste paper and used gunny bags, the import of which by sea has already been forbidden. Destruction of all articles carried contrary to such prohibition should, in the opinion of this Government, be also authorised."

(True Extract.)

G. S. FORBES,
Secretary to Government.

To the Marine Department.
,, the Public Works Department.
,, the Revenue Department.
,, all Presidents of District Boards.
,, all Chairmen of Municipal Councils.
,, all Collectors.
,, the President, Municipal Commission, Madras.
,, the Surgeon-General.
,, the Sanitary Commissioner.

Despd. 15/3/97

Exd. C. M. Thumbuswamy.

Government {1897} of Madras.

LOCAL AND MUNICIPAL.

Recd.
Regd. } 1897.

Enclosures
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ENCLOSURE.

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,, the Revenue Department.
,, all Presidents of District Boards.
,, all Chairmen of Municipal Councils.
,, all Collectors.
,, the President, Municipal Commission, Madras.
,, the Surgeon-General.
,, the Sanitary Commissioner.

Exd. C. M. Thumbuswamy.

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Government {1897} of Madras.

LOCAL AND MUNICIPAL.

Press [illegible] [illegible] 3/3/97

Proof for approval

Recd. } 1897. *Enclosures*
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please arrange 1, 2, 3, 4 & 5 & print—

(2)

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In connection with the prevalence of plague, the question of the danger of importation of dates, grapes, butter, flour and other eatables from Bombay has been raised by local authorities. No law that will suffice in this matter exists, and if it did it would be inapplicable, unless it embraced the question of importation from Bombay of nearly every article of commerce, and that to enforce it special establishments existed; nevertheless, that matters may arrive specifically infected is indubitable. Whilst therefore no law exists that would condemn the importer of such articles, there can be no reason why in the interests of their populations Chairmen of Municipal Councils should not endeavour to do their best to *persuade* merchants to cease importing such materials from Bombay, until all danger has passed.

(2)

2. In connection with flour used for bread, it is desirable that it be remembered that the theory, that the heat to which bread is subjected during the process of baking is sufficient to cause the death of both simple and death-bearing germ is incorrect. Recent researches in Europe show conclusively that a large percentage of the interior of loaves duly baked is not sterile, and that even the cholera microbe which is most susceptible to heat may survive. Not only is the infected flour to be feared, but the sacking, the vessels and the outside of baked and cold loaves touched with hands that have also handled infected sacking; further, the ground where such sacking has rested may be the starting point of mischief, more especially if the floor be of damp earthen character usually found in Madras bake-houses.

s/

3. Probably, however, the danger from articles mentioned in no way is so great as that of waste paper and other packing material used for merchandize, to which your attention was specially drawn in this office letter No. 1843-S, dated 3rd October 1896, communicated with foot-note No. 1941-S, dated 16th October 1896. Government has recently been specially requested to prevent importation of waste paper and rags *as such* and it is hoped effective measures will result. Till this is the case, however, undersigned would ask that each instance coming to notice of chairmen be reported to this office with as little delay as possible, and that pending a reply the consignee be desired in the public interest to refrain from "breaking bulk."

Fort St. George,
2nd February 1897.

(Signed) W. G. KING, M.B., D.P.H.,
Sanitary Commissioner for Madras.

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(1)

Report from the Sanitary Inspector on special duty, to the Health Officer, Madras Municipal Commission, dated 6th February 1897.

"I beg to report that, after examining the Bombay passengers with the platform overseers at Perambur, I travelled by the same train to the Central station and, on my further examination, I observed some cases of butter from Bombay and some parcels of fruits from Poona addressed to Madras.

As I am of opinion that articles of human consumption should not be sent for from the plague-affected stations, I request you will be so good as to cause the necessary orders to be issued for the stoppage of such articles being sent from the above-mentioned stations."

Extract from letter from Surgeon-Lieutenant-Colonel WALKER, Surgeon, 1st District, to the Health Officer, Madras Municipality, dated 8th February 1897.

* * * * *

I hear that large consignments of goods of various kinds are being sent from Bombay to Madras to be auctioned for want of market there. Voyyodich informed me that a lot of bicycles were being sent. Should not such traffic be stopped if possible? In my opinion Madras should strictly quarantine against all Bombay consignments, especially grain of all kinds which would probably bring infected rats.

r/ et/

* * * * *

From J. NEILD COOK, Esq., D.P.H., Health Officer, Madras Municipality, to the President, Madras Municipal Commission, dated 9th February 1897.

IE/

I am of opinion that there is very little danger of infection from bicycles and articles of that nature which will not have been in infected centres or attracted rats.

2. The question of food-stuffs such as grain and flour, butter, dates, &c., is more important. I have seen no evidence to guide me except negative evidence. It would be best settled by experiment. If I am relieved of some of my work and can get a room to which no one else has access except my assistant, I am prepared to inoculate a rat or guinea pig with the plague bacillus and feed others with grain mixed with its excreta and watch them to see whether any of them are infected. Dr. Simpson of Calcutta seems to think there is a danger of live-rats infected with plague being imported in grain bags and acting as disease-carriers. This seems to me possible, but not likely to happen in transport by train though much more likely to happen in a ship's cargo of grain or flour. In the case of grain there is the husking and in that of flour the cooking which is a safeguard, though not a complete one, as it has been shown by experiment that certain disease germs can survive baking in the interior of a loaf.

(1)

3. As the question is a large one and affects the whole Presidency, and not only the Madras Municipality, I would suggest that it be referred to the Sanitary Commissioner who may have further information on the subject than is in my possession.

4. I have replied about the supposed case at Perambur.

G. No. 738.

Forwarded to the Secretary to Government, Local and Municipal Department, for information.

9th *February* 1897.
(Signed) G. M. J. MOORE, Lieut.-Col.,
President.

No. 151.

Referred to the Sanitary Commissioner for early remarks.

FORT ST. GEORGE,
12*th February* 1897.
(Signed) G. S. FORBES,
Secretary to Government.

2

(4)

From J. NEILD COOK, Eq., D.P.H., Health Officer, Madras Municipality, to the President, Madras Municipal Commission, dated 22nd February 1897, No. 76 M.

It appears from the attached report that flour bran and dried fruits are being imported from Bombay. Such imports have been entirely interdicted in all the Mediterranean ports, and, I think, not without reason. For there is an appreciable danger of infected rats being imported with such cargoes, beyond the possibility of the infection being carried by the excreta of such vermin dropped amongst the flour or by the bags.

2. Messrs. Oakes & Co. have stopped the importation of oats from Poona on my advice. They tell me that their Bombay butter does not come from Bombay, and when I tried the other day to grow the plague bacillus in sterlised butter, I found *only dead bacilli* in two days, but further experiments are necessary before I can give a positive opinion on the possibility of butter carrying infection.

3. I should like to know whether Government has come to any decision on the question of Bombay imports as we have no power to act under the regulations. The danger of infection by imports *may be small*, but, I think, in the case of a disease like the plague, not only probable but possible dangers should be guarded against.

ENCLOSURES.

2

EXTRACT from the *Indian Lancet*, 16th February 1897, page 169.

Professor Hankin's experiments.—Professor Hankin tells me that in some of his experiments he added quantities of the bubonic plague microbe to grain. Within 48 hours the microbe had vanished and was no longer to be detected by the tests he employed. If we can rely on the tests employed by this eminent Bacteriologist this would seem to imply that the microbe is unable to continue to exist in grain.

(4)

From the ~~M.R.Ry. V. BASHIAM MUDALIAR~~, Sanitary Inspector on special duty, to the Health Officer, Madras Municipal Commission, dated Madras, 18th February 1897, No. 61.

(3)

Your attention is once more respectfully requested to my letter, No. 58, of 6th February 1897, in which orders were requested to prevent butter and other articles of human consumption being imported by land from plague-affected districts.

2. I beg to report that on the 16th instant when I was inspecting the S.S. *Nawab* from Bombay, I observed that the marginally-noted articles were imported into Madras from Bombay. It will be necessary on my part to reiterate on the evil consequences of the consumption of these articles. It may be pertinent here to remark that the rules are to be all the more strictly observed now at Madras, as the merchants in exporting the articles from Bombay would not be particular in looking to sanitary conditions of the coolies and labourers that may be employed in getting the work done as Bombay is almost depopulated now.

1. Date (dry and wet fruits).
2. Wheat flour.
3. Wheat sugii.
4. Wheat bran.
5. Cloves.
6. Almond.
7. Sugarcandy.
8. Preserved grapes (kismiss).
9. Prawns from Allapa.

From Bombay.

3. I have only to request that the orders prayed for may be expedited.

G. No. 783

Forwarded to the Secretary to Government. The question of Bombay imports was referred under this office No. 738, dated 9th February 1897.

22nd *February* 1897.
(Signed) G. M. J. MOORE, Lieut.-Col.,
President.

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(5)

ORDER—No. 316 M., dated 26th February 1897.

The Sanitary Commissioner's letter read above will be communicated to the President, Municipal Commission, Madras, and to all Collectors with the request that the circular therein referred to may be published in the District Gazettes for the information of the public.

2. As regards the prohibition of importation by rail and road from infected localities of rags, waste paper, bedding, used gunny bags and second-hand clothing, the import of which by sea has already been forbidden, the Government considers that general orders on the subject should be issued by the Government of India, which may be binding on the Railway Companies generally and thus make the prohibition more effective by making it penal on their part to receive at such stations in the Bombay Presidency and other infected areas articles for export to non-infected areas.

(5)

His Excellency the Governor in Council is not prepared, on the information at present before him, to take steps for the prohibition of the import of food-grains and other food-stuffs from infected localities; and they will also be requested to prohibit the importation from Goa of all articles, the importation of which by sea is already prohibited.

3. The following telegram will be despatched to the Government of India:—

"This Government requests that Governor-General in Council will issue orders under Act III of 1897, prohibiting export by rail and road from plague-infected localities and also the import by land from Goa territory of rags, used apparel and bedding, waste paper and used gunny bags, the import of which by sea has already been forbidden. Destruction of all articles carried contrary to such prohibition should, in the opinion of this Government, be also authorised."

(True Extract.)

Secretary to Government.

To the Marine Department.
„ the Public Works Department.
„ the Revenue Department.
„ the Political Department.
„ all Presidents of District Boards.
„ all Chairmen of Municipal Councils.
„ all Collectors.
„ the President, Municipal Commission, Madras.
„ the Surgeon-General.
„ the Sanitary Commissioner.

Exd. C. M. Thumbuswamy.

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[5]
700—6-4-96.

9ᴮ

H of
H.E. the Governor

Papers to be read in Proceedings:—

Again G.O., dated 189 , No.

Current No 522 m of 1897, dated 9- 2- 1897 from the President, muni. comn. madras

Current No. 695 m of 1897, dated 16- 2. 1897 from the Sany. comr.

„ „ 762 m of 1897 „ 22- 2. 1897 „ Prest. muni. comn. madras

(D.o nos 25 & 29 from the President muni comn madras & the Hon. members note)— These will not be printed

Order. No. 316 M. 26-2-97

The Sanitary commissioner's letter read above will be communicated to the President, municipal commission, madras and to all collectors with the request that the circular therein referred to may be published in the District Gazettes for the information of the public.

2. As regards the prohibition of importation by rail and road from infected localities of rags, waste paper, bedding, used gunny bags and second hand clothing, the import of which by sea has already been forbidden the Government considers that general orders on the subject should be issued by the Government of India ~~so that they~~ which may be

P.S. note

Since I wrote my note on these currents, I see that Dr Hankin (if the telegram in the Mad Mail last night is correct) has not been able to detect the plague microbe in grain or flour. This confirms the doubts hitherto entertained as to whether grain is really the source of danger it was supposed to be

S.H. 24/2/97

PLAGUE AND FLOUR. Mad Mail 23/2

Dr. Hankin, although he examined a number of specimens of grain and flour under different conditions, has not succeeded in detecting the plague microbe in the grain or flour. He recently examined flour from a small godown where rats had been dying, but with a negative result. He has also examined weevils and other parasitic insects without detecting microbes.

I should cut this down as shown in red ink

24/2/97

I concur.

A.SH 25.2.97

binding on the Railway
Companies ~~and~~ generally and thus make the prohibition more effective by making it penal on their part to ~~[illegible]~~
~~from~~ receiving ~~any at the infected~~ stations in the Bombay Pcy ~~or elsewhere~~ and other infected areas such
articles for export to non ~~inf~~ infected areas. ~~from those~~
~~localities.~~ * His Excellency the
Governor in Council is ~~of opinion~~ not prepared, on the information at present before him, to take steps for the prohibition of
~~that~~ the import of food grains
and other food stuffs ~~merchandise~~ from
infected localities ~~should not~~
~~be stopped, but that~~ [Objection however reasonably
may be taken to ~~such~~ the conveyance of such articles ~~their being~~
~~brought in~~ in used gunny bags.
The Government of India will
be requested to take the necessary
action in this matter]; ~~& they~~ The will also be requested to prohibit the importation from Goa of all articles the importation of which by sea is already prohibited.*
~~to move the~~
Government of Goa* ~~will also~~
~~be requested in the Political~~
~~Department~~ to prevent the
export of ~~salt~~ goods by rail into this Pcy in
used gunny bags.

Issd 26/2/97

It was drafted on H.E.'s notes
J.A.

I don't see the use of this [ ] - India only has to prohibit the importation of used gunnies - we supplement by pointing out that the prohibition applies whether the gunnies contain goods or are returned empties, and also to rags &c used for packing purposes.
B.S.

* Please see Hon's note stitched with c. No. 757 m linked with this.

Note
The Govt. of India had better be moved to take this action. It involves some delicate questions in connection with the salt conventions as well as requiring to be dealt with in the Pol. Dept.
24/2/97

The Salt conventions have all lapsed, I believe. B.S.

3. The following telegram
will be despatched to the Government
of India:—
This Govt. ~~will be much obliged if the~~ requests that
G. in C. ~~[illegible]~~ will issue orders under Act 3 of 1897 pro-
hibiting export by rail and
road from plague infected localities and also the import ~~from~~ by land from Goa territory of rags, used apparel &
~~[illegible]~~ waste paper & used gunny bags the
~~articles~~ import of which by
sea has already been forbidden
~~also the use conveyance from such localities in used gunny bags~~
~~and of food grains and other~~

~~make the prohibition more effective by making it penal on their part to to~~

~~Merchandise in used gunny bags~~
~~This will be binding on~~ ~~make it penal for all~~ Railway
Companies ~~to~~ ~~and~~ ~~forward these~~
~~for~~ receiving ~~any~~ such ~~articles~~ consignments
~~for export from~~ in infected areas.
~~for transit to non infected areas~~
~~[illegible]~~ Destruction
of all articles carried contrary
to such prohibition should
in the opinion of this Govt. be also
(~~Issue orders~~)
authorized.
A similar prohibition shd
it is considered apply to
conveyance of salt in used
gunny bags from Goa territory
and if ~~Govt. of India~~ G. in C. agrees
that Govt. ~~shd~~ may be addressed
to issue orders accordingly
for its own territory.
24/2/97

This was drafted on H.E.'s notes

To
The Marine Department /6
" P.W. Department /31
" Revenue Department /6
" ~~Political Department~~
All Presidents of Dt. Boards
" Chairmen of Munl. Councils
" Collectors
Issd 5/3/97
The President Munl. Comn. Madras /6
" Surg. Genl. /6
" Sany. Comr. /3
Issd 6/3/97

Local & Munl. (1897) Department.

CURRENT No. 522 M

60

From

THE PRESIDENT,
Municipal Commission,
Madras.

SECRETARY TO GOVERNMENT * LOCAL & MUNICIPAL DEPARTMENT *
9 FEB. 1897

G. No. 738.

~~Order~~

No. 151

Referred to the Sanitary Commissioner for early remarks.

Secretary to Government

Dated 9-2-1897
Received 10-2-1897
Registered 10-2-1897
Enclosures
Spare copies

SUBJECT.

Forwarding Copy of Report from the Sanitary Inspector on special duty dated 6th February 1897 to the Health Officer, Madras Municipality.

V.R.
12/2/97

~~Fort St. George~~
12th February 97

To

The Sanitary Commissioner.

11/2 11/42

plague

BACK PAPERS

G.O.	No.	Department.	Date.

FURTHER PAPERS

G.O.	No.	Department.	Date.

58

Report from the Sanitary Inspector on special duty dated 6th February 1897 to the Health Officer, M.M.C.

" I beg to report that after examining the Bombay passengers with the platform Overseers at Perambore I travelled by the same train to the central station and on my further examination I observed some cases of butter from Bombay and some parcels of fruits from Poona addressed to Madras.

As I am of opinion that articles of human consumption should not be sent for from the plague affected stations I request you will be so good as to cause the necessary orders to be issued for the stoppage of such articles being sent from the above mentioned stations."

Extract from letter from Surgeon Lt.Col. Walker Surgeon 1st District to the Health Officer dated 8-2-97.

x x x x

I hear that large consignments of goods of various kinds are being sent from Bombay to Madras to be auctioned for want of Market there Voyrodiet informed me that a lot of bicycles were being sent. Should not such traffic be stopped if possible? In my opinion Madras should strictly quarantine against all Bombay consignments, especially grain of all kinds which would probably bring infected rats.

x x x x

TO

The President,
M.M.C.

Sir,

I am of opinion that there is very little danger of infection from bicycles and articles of that nature which will not have been in infected centres or attracted rats.

2. The question of food stuffs such as grain & flour, butter, dates &c is more important. I have seen no evidence to guide me except negative evidence. It would be best settled by experiment. If I am relieved of some of my work and can get a room to which no one else has access except my assistant, I am prepared to inoculate a rat or guinea pig with the

plague

plague bacillus and feed others with grain mixed with its excreta and -- watch them to see whether any of them are infected. Dr. Simpson of ---- Calcutta seems to think there is a danger of live rats infected with -- plague being imported in grain bags and acting as disease carriers. This seems to me possible but not likely to happen in transport by train --- though much more likely to happen in ~~transport-by-train~~ a ship's cargo of grain or flour. In the case of grain there is the husking and in that of flour the cooking which is a safe - guard, though not a complete one, as it has been shown by experiment that certain disease germs can ------ survive baking in the interior of a loaf.

3. As the question is a large one and affects the whole Presidency and not only the Madras Municipality I would suggest that it be referred to the Sanitary Commissioner who may have further information on the --- subject than is in my possession.

4. I have replied about the supposed case at Perambore.

J. Niel Cook
Health Officer,
9-2-97.

LOCAL & MUNICIPAL DEPT.
CURRENT No. 522 M

G. No. 738

F
9/2/97

Forwarded to Secretary to Government, Local & Municipal Dept. for information

9. 2. 97

[illegible] Moore [illegible]
President

Local & Munl. (1897) Department.

CURRENT No. 695 M

Do 2025 J Hms
20 Cc

From The Sanitary Commissioner for Madras.

No. 405/S.

Dated 16th February 1897

Received

Registered

Enclosures Two. 1 & C. No 522 M retd.

Spare copies

Order 1 M.

Dr King's ~~has issued~~ a Circular which he ~~[illegible]~~ has sent, ~~[illegible]~~ to all ~~[illegible]~~ Municipalities. There is no harm in Collectors publishing it ~~[illegible]~~ in the Dt. Gaz. with any orders that may be passed below, or sending a copy to the P. Mad. Mty with reference to his letter.

The question remains as to the prohibition of the importation by rail ~~or road~~ from an infected part of the country of rags, waste paper, bedding, used gunny bags, or second hand clothing, as in the ~~sea~~ notification of the Govt. of India relating to import by sea (see telephonic copy from D.P.W.)

If this is approved, a notifn. on the lines of the draft below may issue.

P.T.O.

SUBJECT.

Submitting remarks with reference to Endorsement of Government No 151 dated 12. 2. 97 on letter from the President Municipal Commission Madras on the Subject of importation of Certain article from Bombay.

In connection with this, one question is whether any notice is to be given so that consignors may not despatch such articles. Secondly what is to be done with the stopped articles, are they to be returned to the consignor by the railway & at whose cost, or what course is to be taken. The simplest plan wd be to return them; then all questions of detention, disinfection or destruction, & questions of compensation for such action ~~will~~ would be avoided: but ~~[illegible]~~ our Regulations under the Plague Act have validity only in this Presidency & we cd only require return to the frontier if detected within it, or detention thereat if stopped on it. Of course we might retain the ~~[illegible]~~ consignments at the frontier station, giving notice that if not removed within say three days or a week they will be confiscated & destroyed. This wd. give a great deal of trouble. Moreover ~~the~~ object shd be to affect not only the consignor but also the Railway Co. so that it may be penal on their part to accept or carry such consignments.

The ~~only~~ most satisfactory mode wd be for the Govt. of India ~~itself~~ itself to issue the prohibition, just as they prohibit such seaborne traffic – *vide* copy of Notifn pasted in the margin.

As to foodgrains or foodstocks & their import, Dr Nield Cook holds strong views; but Dr. King, curious to relate, takes a more moderate view & recognizes the difficulty of establishing an effective prohibition. The danger is also not very satisfactorily proved. For similar reasons to those mentioned in connection with rail carriage of rags &c, it is desirable that any penal action deemed expedient shd be undertaken by the Govt. of India. It is far more convenient that the ~~[illegible]~~ ~~[illegible]~~ evil shd be checked at its origin & Ry. Cos. forbidden to accept a consignment of a foodstock from an infected area for carriage to a unaffected

The following notification is published by the Government of India:—The Governor-General hereby prohibits the bringing of rags used as apparel and bedding, waste paper and used gunny bags from any port, with regard to which rules for quarantine against plague have been issued under section 1 Act I of 1870 into any port in British India.

BACK PAPERS.

G.O.	No	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

The Draft Circular about rats & granaries is alright, I think, and may issue at once. As to the import of food grains & other merchandise, I don't think we should try to stop it – But we may reasonably ~~of~~ object to rags being brought in in used gunnies, which may I suppose have held one knows not what & may have been one knows not where. I have already written fully about this – Perhaps it will be best to get India to act – Please wire them to issue orders prohibiting the export by road or rail from infected localities of the articles the import of which by sea is already forbidden – This will be binding on the Ry Companies & prevent them from receiving any such articles for transit out of the infected area. India might also be asked to authorize the destruction of all articles carried contrary to the prohibition – Then, to make sure, we can also forbid the import by road or rail

RS

22/2/97

area. If the Govt. of India
declines, & if this Govt. holds strongly
the opinion that such food stocks
shd. not be brought into the Pres. the
power to them to forbid entry of
the consignments into the Pres. & to
order their destruction or to give
notice to consignor to remove within
a specified period.

20.2.97

P.S. I append a draft Circular
about rats in granaries
&c.

Code Class. INDI PHS. Monthly Number.

To (Office) Telephon

Words	Day.	Hour.	Minute.
	19	14	42

To (Person) H.E.
L & M Dept.

Telegram from the Govt. of India No. 516
begins - Your telegram of 30th Janu
following notification regarding import from
infected ports of commodities likely to
spread infection issued and will be
published in Gazette of India of 20th
Feby. Begins: In exercise of the powers conferred
by Section 2 (1) of Act III of 1897 and in supersession
of Notifn. No. 387 in the Dept. of (Finance &
Commerce) S.R. of the 22nd Jany 1897
the Govr. Genl. in council hereby prohibits
the bringing of rags used apparel
and bedding waste paper & and used
gunny bags from any port with regard to which
rules of quarantine against plague have been
issued under Section 1 of Act I of 1870 into
any port in British India & ends. Govt. of India consider
it will be best that they should continue to regulate
affecting

6 Word Form.
F C 2.

Code Class.

INDIAN TELEGRAPHS. Monthly Number.

To (Office)				From (Office)	
Words	Day.	Hour.	Minute.	Official Instructions.	
To (Person)				From (Person)	

(2)

affecting Sea borne trade & that Local Govts should not issue such regulations under Epidemic Diseases Act & Govt of India are asking Ceylon Govt to issue similar prohibition.

CT
12/2/97

64 Word Form.

F C 2.

Recd. from		L.N.	Sent to		L.N.	
At	Hrs.	Mts. by	At	Hrs.	Mts. by	Telegraph Master.

C. I. P.—No. 531 T.—24-7-95—20,000.

C

No. 405/S

Camp Gazzalapalle
Office of Sanitary Commissioner,
~~Fort St. George,~~ 16 Feby 1897

LOCAL & MUNICIPAL DEPT.
CURRENT No. 895 M

From

Surgeon Lieut.-Col. W. G. KING, M.B., C.M., D.P.H.,
Sanitary Commissioner for Madras,

To

The
Secretary to Government
Local & Municipal Dept.

Enclosure.

L 169 M S 262

Sir,

With reference to Correspondence accompanying your Endorsement No 151 dated 12th February 1897, I have the honor to forward for information a copy of a Circular issued by me on the 2d instant treating much the same points as therein stated. Infection of the human being by plague infected food has not been proved, but there is good reason to hold that this is very likely: as Kitasato, who first discovered the bacillus, successfully infected certain of the lower animals by feeding them upon infected material. Any action with the object of preventing the importation of food articles from the Bombay Presidency would therefore be reasonable, and found on safe ground.

2. In judging, however, of the necessity for enforcing such action, it must not be forgotten that the Madras Presidency is not in the position of defending itself against the inroads of the disease from a foreign country separated from her by the sea. Besides importation by the seaboard, the Presidency has to defend itself against inroads by rail and road throughout a very large frontier. Under these circumstances, any attempt at defence by prohibiting this and that trade — otherwise, say, than in the very obvious case of risk involved in the importation of second-hand clothing waste paper and rags — would necessitate the entertainment of a very large staff, and, even if supported by troops, would not be really effectual — a fact proved by the experience of Russia — Under these circumstances, I believe the best course is to attempt to draw the attention of the public to the dangers involved, as I have hoped to do in the Circular quoted. The public once thoroughly alarmed — of

which

which, at the end of four months absolute indifference, there now seems a tendency — may be relied upon to withdraw demands, and thus effect exclusion of articles more fully than if it were attempted by special staffs and legislation.

3. In the matter of bicycles and other articles of this nature, I agree with Dr Neild Cook in thinking the risk must be extremely limited. Where care is specially requisite in this case, as with all merchandise from Bombay, is the safe disposal of the dust — especially that derived from the soil — and waste material forming the packing. There is no doubt as to the liability to infection of rats and of their being conveyors of infection, and it would be a wise precaution to follow the Rule laid down in Rule 20 embodied in G.O. No 1985 M dated 18 Novr 1896, even before a locality is affected "as a matter ~~of matter~~ of prevention" by at least eliciting each householder's attention to the subject. .

I

I have the honor to be
Sir
Your most Obed Servt
W G King
Surgn Lt Col.
Sanitary Commissioner
for Madras

Circular No: $\frac{280}{S}$

In connection with the prevalence of plague, the question of the danger of importation of dates, grapes, butter, flour and other eatables from Bombay has been raised by local authorities. No law that will suffice in this matter exists, and if it did it would be inapplicable, unless it embraced the question of importation from Bombay of nearly every article of commerce, and that to enforce it special establishments existed. Nevertheless, that matters may arrive specifically infected is indubitable. Whilst therefore no law exists that would condemn the importer of Such articles, there can be no reason why in the interests of their populations Chairmen of Municipal Councils should not endeavour to do their best to persuade merchants to cease importing such materials from Bombay, until all danger has passed.

2 In connection with flour used for bread it is desirable that it be remembered that the theory, that the heat to which bread is subjected during the process of baking is sufficient to cause the death of both simple and death-bearing germs, is incorrect. Recent researches in Europe Show conclusively that a large percentage of the interior of loaves duly baked is not Sterile, and that even the cholera microbe which is most susceptible to heat may survive. Not only is the infected flour to be feared, but the Sacking, the vessels and the outside of baked and cold loaves touched with hands that have also handled infected Sacking; further the ground where such Sacking has rested may be the Starting point of mischief, more especially if the floor be of damp earthen character usually found in Madras bake-houses.

3. Probably, however, the danger from

articles mentioned in no way is so great as that of waste paper and other packing material used for merchandize, to which your attention was specially drawn in this office letter No: $\frac{1843}{S}$ dated 3rd Octr 96 communicated with foot-note No $\frac{1941}{S}$ dated 16th Octr 96 Government has recently been specially requested to prevant importation of waste paper and rags as such and it is hoped effective measures will result. Till this is the case however undersigned would ask that each instance coming to notice of chairmen be reported to this office with as little delay as possible, and that pending a reply the consignee be desired in the public interest to refrain from "breaking bulk".

Office of Sanitary Commissioner
Fort St George 2nd February 97

W. King, M.B.
Surgeon Lieut Col
Sanitary Commissioner for
Madras.

Forwarding with [illegible] the [illegible]
Office [illegible] the subject of [illegible]
by import of cotton articles from
Bombay and [illegible] [illegible]
[illegible]

Rc 1/97

1/695 M of 1897

852

Local & Munl. (1897) Department.

CURRENT No. 762 M

From

THE PRESIDENT,
Municipal Commission,
Madras.

~~Order~~

Hor.

In continuation of file with current no & note on it, sent out this morning.

G. T.
22/2/97

G. No. 783

Dated February 1897

Received 22-2-1897

Registered 22-2-

Enclosures 1.

Spare copics

SECRETARY TO GOVERNMENT L. & MUNICIPAL DEPARTMENT
22 FEB. 1897

SUBJECT.

Forwarding note from the Health Officer on the subject of interdicting import of certain articles from Bombay and enquiring whether the Government has come to any decision on the question of Bombay imports.

BACK PAPERS

G.O.	No.	Department.	Date.

FURTHER PAPERS

G.O.	No.	Department.	Date.

No.61.

Office of the Sanitary Inspector
Madras, 18" February 1897.

78

From

The Sanitary Inspector

TO

The Health Officer,
M.M.C.

Sir,

Your attention is once more respectfully requested to my letter No.58 of 6-2-97 in which orders were requested to prevent butter and --- other articles of human consumption being imported by land from plague affected districts.

I beg to report that on the 16th inst when I was inspecting the S.S."Nawab" from Bombay - I observed that the marginally noted articles were imported into Madras from Bombay. It will be necessary on my part to reiterate on the evil consequences of the consumption of these articles It may be pertiment here to remark that the rules are to be all the more strictly observed now at Madras as the merchants in exporting the ------- articles from Bombay would not be particular in looking to the sanitary conditions of the coolies and labourers that may be employed in getting the work done as Bombay is almost depopulated now.

I have only to request that the orders prayed for may be ------ expedited.

1.	Date (dry & wet fruits)	From Bombay.
2.	Wheat flour	
3.	Wheat sugii	
4.	Wheat bran	
5.	Cloves	
6.	Almond	From Bombay
7.	Sugar candy	
8.	Preserved grapes(kismiss)	
9.	Prawns from Allapa.	

(Sd) V. Bashiam Mudar
Sanitary Inspector on
special duty.

(True copy)
S. M. [illegible]
Head clerk.H.D.

[illegible] of 1897

TO

55

58

The President,

M.M.C.

Sir,

It appears from the attached report that flour bran and -- dried fruits are being imported from Bombay. Such imports have been ----- entirely interdicted in all the Mediterranean ports and I think not ---- without reason. For there is an appreciable danger of infected rats being imported with such cargoes, beyond the possiblity of the infection being carried by the excreta of such vermin dropped amongst the flour or by the bags.

2. Messrs. Oakes & Co have stopped the importation of Oats from -- Poona on my advice. They tell me that their Bombay butter does not --- come from Bombay and when I tried the other day to grow the plague ----- bacillus in sterlised butter I found only dead bacilli in 2 days, but --- further experiments are necessary before I can give a positive opinion on the possibility of butter carrying infection.

3. I should like to know whether Government has come to any ------ decision on the question of Bombay imports as we have no power to act under the regulations. The danger of infection by imports may be small but I think in the case of a disease like the plague not only probable but possible dangers should be guarded against.

From "The Indian Lancet" 16 Feby 1897. page 169.

Professor Hankin's experiments.—Professor HANKIN tells me that in some of his experiments he added quantities of the bubonic plague microbe to grain. Within 48 hours the microbe had vanished and was no longer to be detected by the tests he employed. If we can rely on the tests employed by this eminent bacteriologist this would seem to imply that the microbe is unable to continue to exist in grain.

J C Cook D.P.H.

Health Officer.
22-2-97.

LOCAL & MUNICIPAL DEPT.
CURRENT No. 762 M

G. No: 783

Forwarded to 9/22/2/97 Secy to Govt. The question of Bombay imports was referred under this office No 738 dated 9th February 1897.

President

22-2-97

L. & M.
4-8-96.

Local & Munl. (189) Department.

D. O. No. 25

D. O.

From The President
M. C. Madras.

No.

Dated 12/2/97
Received 19/2/97
Registered
Enclosures 4
Spare copies.

SUBJECT.

Touring: Notes in connecti
with the import of
grain & flour from
affected parts.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

12th Feby. 189

My dear Philips

Your letter of yeste
I enclose two notes from H.
and the information I have
gathered about grain.
As to the storing of grain in the
city, I think on the whole it is
satisfactory.
The note the H. O refers to as having
been submitted was sent to
Secy to Govt [illegible] on the 9th

Yrs sincerely
Geo. Moore

The President,

Sir,

The Hon'ble Mr. Bliss' D.O. of this date.

I have already written a short note on this question, suggesting that as it affected the whole Presidency it should be referred to the -- Sanitary Commissioner. It appears to me that measures should be taken at the frontier and at the Port to quarantine grain from infected places & go over it in some suitable shed set apart for the purpose, where rats - could be killed and bags disinfected.

2. Most of the grain bazaars in Madras are clean and well built--- e.g. the long row in Wall tax road where the bulk of the business is done The grain is brought to them in carts: I shall make inquiries where it -- comes from and report.

3. The Sanitary Inspectors have a printed circular in which they are instructed to be on the look out for rats. I have supplemented it w th the following order in my Order Book:-

" As rats frequently convey the bubonic plague, being themselves sceptible to infection by it, in inspecting grain bazaars the --- Inspectors and Overseers should make particular inquiries whether or sick rats have been observed.

Rats sick with the plague seem careless in the presence of men out in a dazed way with a peculiar limping gait in the hind painful glands in the groin.

f any rat is found dead or killed which is suspected of being should be wrapped up in several folds of newspaper, labelled the Hygiene Laboratory at the Medical College for bacterio- tigation, and immediate information should be sent to me.

s then be employed to catch and kill all the rats in the

la heir bodies should be burnt and the place disinfected"

J. Niield Cook.

Health Officer.
11-2-97.

4/97

11/2/97

The President,

Sir,

I have made what inquiries I could about the import of grain. Mr. Benson thought very little was coming in from Bombay at -- present. The Assistant Traffic Manager of the Madras Railway called for his returns and found nothing had come from Bombay in the last few days. He had never known rats travel in the bags, which were filled by hand and tied up, so that they could only eat their way in. It might however be -- possible for rats to travel in a waggon that had been left in a shed for some time after loading. The unbagging and rebagging would be a costly business and the Madras Railway had no spare sidings where it could be done.

2. A biscuit maker in Kotwal bazaar told me this morning that he got all his flour from Bombay and that it was still coming. From grain sellers I gathered that most of the grain sold here was produced in the Presidency or in Burmah. The Commissariat and the Customs might be in a position to give some information.

J. Niell Cook

Health Officer.

12-2-97.

I am informed that grain is imported as follows

12/2/97

Gram from { Coconada
Masulipatam
Bimlipatam
Salem

Cholam
Ragi from { Salem District
Kambu
Mysore Province
Coconada

Rice raw { Tanjore District
Godavery "
Kistna "
Nellore "

Rice boiled { Chinglep
North Arc
South Arc
Calcu

The Bazaar men say that little or no wheat (includ
is coming from Bombay at present

3
D.O.
ndia has
C. Act. It
the import
hibited
applied
ries
eeted
with
only found
instructions

Sec 7
J. & M. Dept

Please see p. 10 of the M.M. of 10/2/97 – There is there a letter of Dr. Simpson's (Calcutta) about granaries & rats, in the plague connection. I wrote to Col: Moore about this & enclose his reply (with 2 enclosures).

On thinking the matter carefully over I do not think that we run much danger from the importation of grain or flour, in themselves, for both grain & flour have to be cooked before use, & in the process of cooking must be so heated as to destroy microbes of all kinds. There would appear, however, to be some danger in the gunny bags in which grain & flour are imported, if second hand. Some days ago I told the R. D. to move India to prohibit ~~them~~ (under S. 19 of the S. C. Act) the import of second hand gunny bags, as well as rags, second hand clothing &c. – What India has done, or replied, in consequence, I don't know. Please find out, and then draft regulations prohibiting the import by rail from the Bombay Presy & the Goa territory of the articles, the import of which by sea India has prohibited under the S. C. Act. It should be made clear (if the import of second hand gunnies is prohibited) that the ~~special~~ prohibition applies to such bags in use as well as to returned empties.

Another point is as to granaries – All Munl. Cos should be instructed to pay special attention to them with reference to the rats commonly found there – See Dr. Neild Cook's instruction

In the draft Regulns: just issuing we have given power to disinfect & destroy second hand gunnies imported from an infected part of India

S.P.A. 14/2/97

Note for Secy

Please see telephone message repeating a telegram from the Govt. of India on the Subject.

2
D.S. 25/97

Quoted in his letter of 11/2/97 as
of rats & their behaviour when stricken
with the plague. ~~[illegible]~~. You
will see that he refers to a printed
Circular already issued. Please get
a copy thereof & then compile suitable
instructions to Mil. Cts to be on the
look out.

12/2/97

obtained from the
Madras Municipal office
[illegible]

The Plague.

GRANARIES AND RATS.

The following Note has been addressed by Dr. W. J. Simpson, the Health Officer of Calcutta, to the Chairman of the Calcutta Corporation :—

There can be no doubt that the grain depôts form the first centres in the spread of plague. This fact has been prominently brought to notice by Surgeon-Colonel Waters, of Bombay. He has shown that at the commencement of the epidemic the grain depôts play a very important rôle in the spread of the disease. His observations tally with those of previous observers, and must be accepted as correct, but his explanation as to the *modus operandi* of the origin of the plague poison and its aërial diffusion cannot be accepted. The true explanation seems to be that granaries are the favourite haunts of rats, and the grain bags that come to these granaries are always liable to bring infected rats from an infected locality. The infection having once been brought into the granary spreads among the healthy rats, and as the bodies of those infected rats swarm with the plague bacilli it is easy to understand with what facility the disease may spread from this as a centre. This is no new discovery, for the relationship between the mortality among rats and the spread of plague was well known to the ancients. For example, in 1st Samuel, Chapter V. we read of an epidemic among the Philistines and an epizootic among mice which caused great destruction, and peace offerings were made by the affected people consisting of images of their buboes and images of the mice "that mar the land." It is also stated at that time the land swarmed with mice. The 24th Chapter of the 2nd Book of Samuel is also instructive in this connection, for it indicates that the plague was stopped by the burning of the oxen, the threshing instruments, and other furniture of the oxen on the threshing floor of Araunah, the Jebusite. Similar instances could be multiplied, but to come to later times, Dr. Cantlie, in an Address delivered before the Epidemiological Society of London, remarked "the animal which above all others are known to be affected, is the rat." In October last whilst visiting a case of *pestis ambulans* in Barra Bazaar I noticed in the warehouse below, containing goods received from Bombay a diseased rat which being caught and examined in the Laboratory was found to be suffering from enlarged glands and to have in its blood and organs a bacillus similar to that found in the plague patient. This case caused me to institute an enquiry into the subject, and it was found that in two grain shops in Burra Bazaar a number of rats were diseased and dying with similar symptoms to the rats first examined, some having chains of suppurating glands. Measures for specially cleansing and disinfecting these grain-shops were undertaken, and one of them was closed, and inhabitants removed these drastic measures resulting in the stamping out of the commencing epidemic. With plague so extensive in Western India it is time that special measures should be taken to prevent the granaries becoming the centres of infection. I would suggest :—

(1) That special precaution should be taken in despatching the grain from infected areas. The bags should be disinfected, and care should be taken that no rats should be allowed to remain with the bags. This could easily be done at the place of despatch.

(2) On arrival a second inspection should be made and all rats destroyed.

(3) The warehouses in Howrah should be constantly inspected, and every precaution taken to keep them clean and disinfected, and the rats destroyed.

(4) The fourth measure should be taken in Calcutta itself. I have pointed out the danger of grain depôts, and when I state that these are situated in the most crowded and insanitary localities of Calcutta the danger is obvious, and the importance of taking early and drastic measures to deal with them cannot be under-rated.

I, therefore, purpose to establish grain marts in suitable open localities in order that all the grain depôts may be closed, and by that closure to have them thoroughly cleansed and disinfected with the destruction of all the rats.

The grain-shops in Burra Bazaar, Jorabagan and Kumartooly be taken in hand at once, and I would suggest that the open piece of land situated at 208, Upper Chitpur Road and 66, Baug Bazaar Street should be utilised as a grain mart. It is well situated for this purpose, having the river on the West, the Chitpur Canal on the North, and the railway on the South connected directly with the Port Commissioners' railway on the East in the most northern position of the Chitpur Road, and added to its advantages a large portion of it belongs to the Municipality, and thus no time need be lost in acquiring the land. The situation is such that it will cause no inconvenience to trade or to the owners of the grain—indeed the facilities for buyers and sellers will be greater than in the present circumstances. The whole area should be cleared of the metal, broken bricks and levelled and drained. Warehouses for the storage of the grain and shops should be erected in regular lines, and accommodation should be provided for the shop-keepers who are turned out of their houses, proper sanitary precautions not being omitted. No one should be allowed to live where the grain is stored, special arrangements being made for guarding the grain.

1
D.O. 25/97

[L. & M. / 4-8-96.]

Local & Munl. (1897) Department.

D. O. No. 29

D. O.

From The President, Municipal Commission, Madras

No.

Dated 20-2-1897

Received 22-2-1897

Registered 22-2-1897

Enclosures

Spare copies.

SUBJECT.

Reqn. to return the Health officers note on the Bombay import question

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Returned on Sunday
JF

20th Feby 1897

My dear Forbes

I send the enclosed in copy at once - as there will be delay waiting till Monday to have it copied.

With regard to the Bombay plague question, I think the Health Officer's note was sent in copy on the 8th.

Kindly return enclosures and I will send them officially on Monday

Yrs sincerely
E. M. Moore

RC 22/10/91

First copy sent to Press.

Returned for signature.

Despatched in print.

NUMBER OF COPIES REQUIRED.
- Order complete.
- Letter only.
- Order complete with Letter.

READ AGAIN G.O., No. , DATED 189 .

CURRENT NO.

ENCLOSURES TO C. NO.

ORDER OF GOVERNMENT .. .. ..

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH IN ORIGINAL.

N.B.—

A = Print in full.
B = Not to be printed.
P = Print abstract only.
Q = Print heading only.