

Local & Munl. (1897) Department.
Plague.

MISCELLANEOUS.

G.O., No. 1030

DATED 5-7-99
Spd 6-7-99

[Despatch Abstract.]

Disinfecting apparatus

Recording the papers relating
to the cost and working of a — designed
by the Sanitary Commissioner

BACK PAPERS.

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

FURTHER PAPERS.

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

PLAGUE COMMISSIONER'S OFFICE.

(1899)

CURRENT No. 2313

Progs
Letter

Ref. on C No 2313 21889

Forwarded to the District
Medical and Sanitary Officer
for favour of early report
through the Collector of North
Arcot.

From Sanitary
The Plague Commissioner
Madras.

No. 551
S

Dated 20 February, 1899.

Received

Registered 21-2-99

Enclosures

Spare copies

SUBJECT.

Reporting of the working of
the disinfecting apparatus at
Vellore.

To The District Officer through the
Collector of North Arcot.

Depd 6/3/99

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

[500-5-11-98.]

PLAGUE.

No.

551
S

Office of Sanitary Commissioner,

Madras 20th February 1899.

From

Lieut.-Colonel W. G. King, M.B., C.M., D.P.H.,

Sanitary Commissioner for Madras,

To

The

Plague Commissioner
Madras

Enclosure.

Sir,

In accordance with your
Proceedings N^o ³⁰⁸₂₄ dated 1st February 1899,
I have the honor to state that the
disinfecting apparatus was
tried in my presence at Vellore.
I believe it fulfils its function
well, and will greatly expedite
work by saving useless
manual labour at the hands
of the sepoys. It is susceptible
of several minor improvements,
which can be attended to should
the general design meet with
approval, certain parts having
been somewhat hastily formed.
I would invite you to require a report
of its working from the District
Medical and Sanitary Officer.

it is considered suitable, please
state if more are required.

I have the honor to be
Sir

Your most obedt servant

W. King
Lieut Col. Asst.
Sanitary Commissioner
for Madras

PLAGUE COMMISSIONER'S OFFICE.

(189)



CURRENT No. 3785

For orders

Presumably the telegram
is in connection with the
report called for in Ref. No. 2313 929

1/2
30/3

From

Ref on C. No. 3785 929 30/3 99 Lt Col J. Lancaster
Order

Forwarded to the Sanitary
Commissioner with the request
that the report may be forwarded
to this office at an early date.
The disinfecting apparatus
referred to is that mentioned
in the Sanitary Commr's letter
No 551.S. dt 20 February 1898

D. S. Matcarr
for Plague Comr.
30/3 99

No.

Dated 30 — 3 — 99

Received

Registered

Enclosures

Spare copies

SUBJECT.

stating that the report
on disinfecting machine
is forwarded to the
Sanitary Commissioner

BACK PAPERS.

PLAGUE COMMISSIONER'S OFFICE.

(1899)

Choo

CURRENT No. 4108

Progs.
Letter
Ref.

For orders

Aug 11/1899

Aug 11/1899 on cho 4106989

For

From

The Sanitary Commissioner
for Madras.

In reply to your

letter No 1191 of 6-4-99

I have the honor to request

that you will

have 3 machines of

the improved pattern

put out hand at once.

& let me know about

early date the approximate

cost.

No. 1191
S.

Dated 6th April 1899.

Received

P. C.
11 APR. 1899

Registered H-4-99

Enclosures 3 & C/103785 with

Spare copies

SUBJECT.

Forwarding with remarks
report by Doctor Edwards,
on plague duty, Vellore, on
disinfecting machine.

13/4/99

H

1st Rr. Dept. 30.5.99.

92

Rr. Dept.

13.6.99

BACK PAPERS.

No.	Date.

FURTHER PAPERS.

No.	Date.

Vellore

Mar. 24. 99

Through

Lt Col Lancaster I.M.S.
Dist Medical & S Officer
Vellore

From

Lt Richard Edwards Esq
M.O. in Plague Duty
Vellore

To

Lt Col King I.M.S.
Sanitary Commissioner
Madras

By

As ordered by Lt Col Lancaster I.M.S. I have the
honour to enclose my report upon the working of
the apparatus supplied by you for the flushing of
infected houses.

I have the honour to remain

Sir

Your obedient servant

Lt Richard Edwards

Med Officer in Plague Duty
Vellore

Vellore

Mar. 27. 99

Sir

We have, at Vellore, for some time been utilising the apparatus, supplied by you, in the disinfection of houses i.e. in the flushing of floors, walls, ceilings & with a solution of Perchloride of Mercury.

I have had ample opportunities of inspecting the work done by it and of comparing it with other apparatus used for the same kind of work.

The general opinion that I have formed of it is that it is infinitely superior to anything that has been previously supplied for flushing out infected houses.

The instrument as supplied to us is I believe a rough model and therefore necessarily imperfect in detail.

The slight improvements required to make it a success could easily be carried out by any Engineer.

Its advantages as compared with any other apparatus, in so far as I have been able to observe are as follows —

D.C.

Egmore

Madras

27. March 1899

My dear Sir

I forward Mr. Edwards'

report on the pump for disinfecting purposes.

I think with the alterations suggested it would be a very

way more valuable than the Chinese pumps which so frequently get out of order.

For isolated huts or villages

the Chinese pumps would do.

They can be obtained in Bombay

for Rs 34 a dozen.

I am

Yours respectfully

John A. Roberts

- I. A continuous and a steady flow of disinfectant at a high pressure is maintained. This is preferable in every way to the spasmodic jets of a Pump however well it may be worked.
- II. The nozzle which is attached to a flexible tube can be turned in any direction.
- III. The attention of the operator can be solely directed upon the actual flushing. This is impossible when working a pump as the man has to attend to the position of the cask, work the pump (a difficult matter at best), direct and regulate the jet.
- IV. There is no necessity for the removal of the cask containing the solution from one room to another. All that is necessary when a fresh room is to be flushed is that the hose alone be carried into it.
- V. If properly manipulated and granted that the nozzle does not leak it is quite unnecessary for the operator to come into contact with the solution. In using a pump the operator usually has his hands and sleeves soaked with the Perchloride solution and in addition to this, when the pumps "as is frequently the case" fail to

work frequently lift out the solution in shallow vessels from the cask, & throw it broad cast, wetting not only themselves but others in their immediate vicinity.

The natural result of this in many instances has been salivation or inflamed eyes.

While the bulk of the solution is in the street and at a height of twenty feet there is no opportunity or temptation for anyone to expedite matters by by taking out solution with small vessels or ^{their} hands.

VI The cask when empty can be lowered and refilled in a very short time

VII The pressure supplied is sufficient to flush any part of a room in an ordinary house.
With a pump this is not always so

VIII The apparatus contains no valves or packing and there is no reason why it should get out of repair unless through carelessness. The ordinary Chinese pump usually becomes worthless within a few days if in constant use.

IX I believe that a house can be flushed more thoroughly with less danger to the operators & in one quarter of the time with this apparatus than is possible with any

Replies to Dr. Edwards' Suggestions

(for the sake)

I. In the last made machine, the regulator has been got rid of in favour of a ~~fixed~~ fixed spray producer & the work being invariably of the same description the sufficient. No handling is now necessary.

II. It was intended in the Vellor machine to command the flow by a screw acting on the canvas. It was dispatched without it. Command of flow can however be easily obtained by kinking the hose or placing the foot on it. In the Mysore machine, a tap has been introduced in the nozzle - thus giving complete command.

III. The india-rubber portion is only about eight feet and was found necessary to prevent kinking at the acute bend near the cask.

IV. A movable screw might be supplied but the foot on the supplying wheel does as well.

V. This could be done at ~~the~~ additional cost.

VI. In the Mysore machine a small piece of bent iron has been supplied for the support.

VII. The can be replaced if necessary & underwent certain changes which did not conduce to its being water-tight. A cover would be an advantage.

pump.

The deficiencies are.

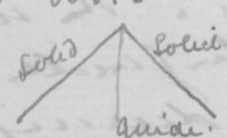
- I. The regulator of the Jet is too near the end of the nozzle thereby often bringing the hands of the operator into contact with the solution.
- II. It is impossible to stop the flow without lowering the cask. I would suggest that a vice or screw be placed on the hose within reach of the operator so that he may be able to check the flow when necessary.
- III. The canvas hose appears to with-stand the wear & tear of the work better than does the rubber one & is therefore preferable.
- IV. A vice or screw should be placed near the end of each length of hose so as to check the flow when another length is being served on.
- V. It would be better that a separate reel be supplied for each length of hose and that each reel have high flanges & be of the same width as the hose.
- VI. The hose is apt to kink near the cask. This might be remedied by attaching the hose below the cask instead of at the side.
- VII. The cask itself should be absolutely watertight and ~~not~~ filled with an adjustable cover so as to prevent

VIII. There is plenty of strength to spare in the rods as supplied, but the guides require a means of ready tightening. This will form part of the next machine made. It will be possible to cast loose the guide and to lower the upright rods during transport. This is necessary where there are encumbrances.

IX. The cog-wheel arrangement was the best that could be got in Madras at the time; but, in the Mysore machine, the arrangement is so complete that one man can easily lift the cast the full height. In the Vellore machine, there was a decided defect - that need not recur.

W. H. M.
Lieut. Col. I. M. S.

The solution being spilt over those operating the which.

VIII. A single upright on either side appears too weak and there is a danger of the cast falling. It would be better if there were two firm rods on either side meeting at the apex  with a wire guide, instead of the present single upright, along which the bucket might run.

IX. The drum is very stiff and difficult to work. An expert might by an improved distribution of Cog. wheels & reduce the amount of friction and labour involved to a minimum.

I have the honour to remain
Sir
Yours &c

W. H. M.
Lieut. Col. I. M. S.
Head Office on Plague Duty
Vellore.

To
The Sanitary Commissioners
Madras

Forwards de d.

Camp 1.
Madras
27. 3. 99.

John H. M.
Lieut. Col. I. M. S.
Acting Med & Sanitary Officer
N. Arcot

[500-5-11-98.]

PLAGUE.

No. 1191

Office of Sanitary Commissioner,

Madras,

1899

Despatch 10

From

Lieut.-Colonel W. G. King, M.B., C.M., D.P.H.,

Sanitary Commissioner for Madras,

To

The

Plague Commissioner
Madras.

Enclosure.

Sir,

With reference to your
endorsement N^o 3785 dated 30 March/99
I have the honor to forward
herewith an official report
by Dr Edwards on plague
duty, Vellore, of his impres-
sions concerning the ma-
chine from personally super-
intending its working, and
a D.O. from Lieut Col. Lancaster
on the same subject. You will
see from my notes append-
ed to Dr Edwards's descrip-
tion of the defects of the
machine that I agree with
him as to the existence of
most of those he has noted.
They have already been —
however

however fully anticipated
in a machine of the same
pattern, which has been
supplied to the Mysore
Government. Should you
care to order any further sup-
ply of these machines, I have
no doubt that further im-
provements can be effected.

I have the honor to be,

Yours most obedt servant

[Signature]
Sanitary Commissioner
for Madras

Plaque
Local & Munl. (1899) Department.

CURRENT No. 16879

From *[Signature]* The Sanitary Commissioner
for Madras
P.C.S. No. 2313, 4106 & (L.M.C. 1687)

Order No 103085-7-88

Recorded.

No. 1730
S

Dated 22 June 1899.

Received 29 JUN. 1899

Registered 29 6 99

Enclosures

Spare copies.

To

The Sanitary Commissioner (P.O.)

[Signature]
New paper relating to a disinfecting
apparatus designed by the Sanitary
Commr. It is reported to be
efficient.

[Signature]
30/6/99

SUBJECT.

Stating that the each
disinfecting machine
will cost Rs 16/-

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

[300-10-2-99.]

Plague

No. 1730
S.

C to 1687 P.
Office of Sanitary Commissioner,
Camp Rajahmundry
Madras, 22 June 1899
Dep 27

From
Lieut.-Colonel W. G. King, M.B., C.M., D.P.H., I.M.S.,
Sanitary Commissioner for Madras,

To
The *Secretary to Government*
Local & Municipal Department

Enclosures.

Sir,

With reference to Plague Com-
missioner's letter Ref. on CN^o 4106
dated 12 April 1899, I have the honor
to state that each machine will
cost Rs 160. The component parts
have been duly prepared and on
a day's notice can be put together.

I have the honor to be
Sir

Your most obedt servant
W. G. King
Lieut. Col. R. S.
Sanitary Commissioner
for Madras