

Home (1917) Department.
Education

Ordinary SERIES.

G.O. No. 1222

DATED 24. 9. 17

[Despatch Abstract.]

Disinfectants.

Recording papers relating to the question of the
feasibility of manufacturing Phenoid and other
in this Presidency.

BACK PAPERS.

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

FURTHER PAPERS.

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

Seott. 11-47-1-17.

Home (Ed.)
 DEPARTMENT.
 ORDINARY ROUTINE SERIES.
 + G.O. No. 1222 dated 24-9-1917

~~CIRCULATED.~~
 NOT CIRCULATED.
 NOT SEEN BY G.S.

Receipt numbers ..

Number and date of previous proceedings.

Tabling Abstract.

Disinfectants.

Recording pat. papers relating to the questions of the feasibility of manufacturing Phenoid & other — in this Presidency.

(b) Index Headings.

MAIN HEADING

CROSS REFERENCES.

Phenoid.
Indonosis

SPECIAL INDEX.

DO NOT SPECIAL INDEX.

(a) and (b) not to be used in for 'Routine' Series.

Don (Med) Dept

On 4661 Med, 9-3-17

In view of the restrictions imposed on the importation of commodities from the United Kingdom, the Govt are now considering the possibility of substituting manufacturing in this country some indigenous substitute for the disinfectant known as Phenoid or Phenol. The S.G. is requested to ascertain and report the quantity of such disinfectants required for medical institutions in this Presidency, classifying them under the following heads:

(a) crude disinfectants required for washing down buildings etc

+ (b) pure preparations required for surgical purposes

He is also requested to state the source or sources from which these have been obtained in the past.

Df 9-3-17
MA

To the S.G. (only),

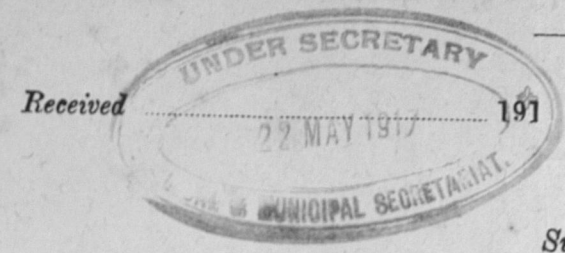
9/3

km
8-2-17 9/3/17

VTK
9/3

Sep. Rev. C. No. 1764 1102 25.5.17

LOCAL AND MUNICIPAL DEPARTMENT.



Registered 1102 25.5.17 1917

Subject.

Phenoid



Forwarding a statement showing the quantity of required for medical institutions in this Presidency.

ENCLOSURES
No. 2
Spare copies nil

No. 100 5.116

Station Ootacamund, Dated the 21st May 1917

To the Financial (Separate Revenue) Dept. no. From (Name) The Hon'ble Surgeon-General W.B. Bannerman, C.S.I., K.H.P., M.D., D.Sc., I.M.S., (Designation) Surgeon-General with the Government of Madras.

24/5-17 V.T.K. 24/5
Resd. no. 1102-1 24.5.17

To The Secretary to the Government of Madras, LOCAL AND MUNICIPAL (MEDICAL) Department.

Sir,

With reference to Government Memorandum No. 466-1

(With Separate Revenue Dept.)

Medical, dated 9th March 1917, I have the honour to forward a statement showing the quantity of Phenoid required for the medical institutions in this Presidency.

2. The Medical Storekeeper to Government, Madras, reports that these disinfectants have been received from home

V.K. 23/5

home. (Vide copy of his letter No.1 Mis/6889, dated 17th March

1917 enclosed.)

I have the honour to be,

S i r,

Your most obedient servant,

W. Bannerman

C.S.I., K.H.P., M.D., D.Sc.,

Surgeon-General, I.M.S.,

Surgeon-General with the Government of M a d r a s.

Copy of letter from the Medical Storekeeper to Government Madras, to the Personal Assistant to the Surgeon-General with the Government of Madras, Madras, No.1 Mis/6889 dated the 17th March 1917.

Reference:-Your letter R.C.No.428/1 dated 13-3-1917.

I have the honour to furnish below the information asked for regarding the disinfectants in question:-

(a) Crude disinfectants required for washing down buildings etc.

Saponified Cresol - Imported from home.

(b) Pure Preparations required for surgical purposes.

Acid Carbolie	B.P.	Imported from home.
Lysol.		

5

6

Statement showing the quantity of two kinds of disinfectants required for the
medical institutions in this Presidency.

.....0.....

Serial No.	Name of District or Hospital.	Crude disinfectants required for washing down buildings etc.	Pure preparations required for sur- gical purposes.	Remarks
1.	Anantapur	250 lbs.	85 lbs.	
2.	Arcot North	765 "	183 "	
3.	Arcot South	750 "	350 "	
4.	Bellary	500 "	200 "	
5.	Canara South	930 "	415 "	
6.	Chingleput	1160 "	226 "	
7.	Chittoor	250 "	100 "	
8.	Coimbatore	700 "	300 "	
9.	Cuddapah	215 "	120 "	
10.	Ganjam	1000 "	300 "	
11.	Godavary	500 "	260 "	
12.	Guntur	328 "	217 "	
13.	Kistna	800 "	250 "	
14.	Kurnool	280 "	160 "	
15.	Madura	1500 "	560 "	
16.	Malabar	668 "	795 "	
17.	Nellore	100 "	140 "	
18.	Nilgiris	100 "	40 "	
19.	Ramnad	650 "	120 "	
20.	Salem	1560 "	230 "	
21.	Tanjore	1000 "	500 "	
22.	Tinnevelly	235 "	235 "	
23.	Trichinopoly	350 "	260 "	
24.	Vizagapatam	1000 "	350 "	
25.	Cannanore	300 "	50 "	
26.	Cochin	150 "	40 "	
27.	Coonoor	45 "	30 "	
28.	Koraput	50 "	30 "	
29.	Negapatam	250 "	150 "	

Serial No.	Name of District or Hospital.	Crude disinfectants required for washing down buildings etc.		Pure preparations required for surgical purposes.		Remarks.
30.	Rajahmundry ..	175	lbs.	..	40 lbs.	
31.	Tellicherry ..	200	"	..	200 "	
32.	Tuticorin ..	40	"	..	"	
33.	Government General Hospital, Madras..	1000	"	..	1200 "	
34.	Government Maternity Hospital, Madras..	400	"	..	1800 "	
35.	Government Ophthalmic Hospital, Madras..	450	"	..	13 "	
36.	Government Royapuram Hospital, Madras..	600	"	..	200 "	
37.	Government Leper Hospital, Madras..	600	"	..	62 "	
38.	Medical College, Madras..	26	"	..	9 "	
39.	Royapuram Medical School, Madras..	50	"	..	16 "	
40.	Tanjore Medical School..	30	"	..	20 "	
41.	Calicut Medical School..	40	"	..	"	
42.	Lunatic Asylum, Madras..	3500	"	..	30 "	
43.	Lunatic Asylum, Calicut..	200	"	..	4 "	
44.	Lunatic Asylum, Waltair..	400	"	..	5 "	
45.	Surgeon, II District.	70	"	..	26 "	
46.	Surgeon, IV District.	300	"	..	100 "	
47.	Director, Pasteur Institute, Coonoor.	100	"	..	16 "	
48.	Surgeon III District.	20	"	..	"	
Total..		24557			10,237	



LOCAL AND MUNICIPAL DEPARTMENT.



Received

Registered

Subject.

Stating that the Superintendent, Voluntary Venereal Hospital requires 50 lbs of Crude disinfectants for washing down buildings and requesting to add the same to the list of disinfectants. *rest of*

Transferred to the File (Sep. Rev) in continuation of No. 1102-1824-5-7.

rest of no 1135-1 31/5/17

V.T.K. 30/5 28/5 File (Sep. Rev) no

ENCLOSURES

No. *nil*

Spare copies *nil*

No. *100/J. 132*

Station Ootacamund, Dated the *25th* May 1917.

From (Name) The Hon'ble Surgeon General W.E. Bannerman,
C.S.I., K.H.P., M.D., D.Sc., I.M.S.
(Designation) Surgeon General with the Government
of Madras.

To The Secretary to Government,

Local and Municipal Department,

(Medical Section)

Sir,

In continuation of my letter No. *100/J. 116* dated *21st*

May 1917 I have the honour to state that the Superintendent Government Voluntary Venereal Hospital, Madras, requires fifty pounds of Crude disinfectants for washing down buildings and to request that the same may be added to the list forwarded with my letter quoted above.

I have the honour to be,

Sir,

Your most obedient servant,

W.E. Bannerman

C.S.I., K.H.P., M.D., D.Sc.,

Surgeon General I.M.S.

Surgeon General with the Government of Madras.

dm. (ms) Dept

dm. No 1389-1, Post 829-6-17.

With reference
to the correspondence ending
with his letter no 10075-132 of
25.5.41, the S.G. is
requested to be so good as
to favour Govt with his
remarks, in consultation
with the Medical Stockkeeper
to Govt, on ^{the} certain suggestions
contained in the enclosed
copy of a note by the Director
of Industries regarding the
local manufacture of
disinfectants required for
use in this country.

K.M.
26.11.17
27/6/17

V.T.K.
27.6

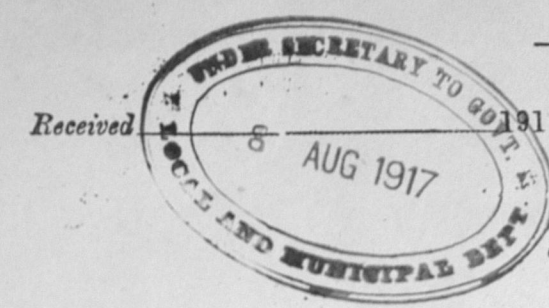
lpl
28/6/17

To the S.G.
(with copy of the S.G.'s
note)

30/6/17
31/7
Bd
30/6/17

Notes - C.B.

LOCAL AND MUNICIPAL DEPARTMENT.



Registered 1681 recd 10
9/8/17

Subject.

Submitting his remarks in consultation with the Medical Storekeeper on the question of the local manufacture of disinfectants required for use in India.

ENCLOSURES	
No.	<u>one</u>
Spare copies	<u>nil</u>

No. 100/541

Station MADRAS, Dated the 7th AUGUST 1917.

From (Name) The Hon'ble Surgeon-General W.B. Bannerman,
C.S.I., K.H.P., M.D., D.Sc., I.M.S.,
(Designation) Surgeon-General with the Government of Madras.

To The SECRETARY TO THE GOVERNMENT OF MADRAS,
LOCAL AND MUNICIPAL (MEDICAL) DEPARTMENT.

Sir,

With reference to Local and Municipal Department Memorandum No.1389-1 Medical, dated 29th June 1917, I have the honour to report that I consulted the Medical Storekeeper to Government, Madras, on the question of the local manufacture of disinfectants required for use in India and I enclose for the information of Government a copy of the remarks made by him on the note of the Director of Industries. I agreed with the conclusions

p. 8 ante

VK/9/8

10
2.
conclusions of the Medical Storekeeper.

I have the honour to be,

S i r,

Your most obedient servant,

W. R. Srinivasan

C.S.I., K.H.P., M.D., D.Sc.,

Surgeon-General, I.M.S.,

Surgeon-General with the Government of Madras.

Alt

11
Copy of letter from the Medical Storekeeper to Government, Madras, to the Personal Assistant to the Surgeon-General with the Government of Madras, Madras, No.1 Mis dated the 18th July 1917.
2294
.....

With reference to your memorandum No.R.C.1213 dated 9th July 1917, forwarding copy of Local and Municipal (Medl.) Department Memorandum No.13891/Medl. dated 29th June 1917, and calling for remarks, on the copy of note by the Director of Industries, regarding the local manufacture of disinfectants; I have the honour to state that I was not present when the Director of Industries called at my office and unfortunately as he was leaving Madras that evening I was unable to see him. This is unfortunate as the information he appears to have collected and the conclusions he has come to in his note are very inaccurate and misleading.

page 10 to 12 of n.f.
2. In paragraph 1 referring to the Medical Stores, the belief that we charge Invoice prices plus 30%; that being the maximum price permitted by the Surgeon-General is quite incorrect. The prices charged for drugs &c., issued from the Medical Stores are fixed by the Controller of Military Supply Accounts, Calcutta. They are based in the case of stores supplied from England on Invoice prices and in the case of stores manufactured by us on the material and labour charges plus a percentage which is fixed by the Controller and which is not as high as the 30% suggested by the Director of Industries.

de
3. As regards the statement that our Lysol cost us $5\frac{3}{4}$ d per lb. and we issue it at Rs.6/- per gallon; $5\frac{3}{4}$ d was the home Invoice rate. The price of Rs.6/- per gallon is not in my knowledge correct and is I think higher than the debit that is raised by the Controller.

4. Hykol, Sanitas Disinfectant and Cyllin referred to in paragraphs 1 and 4 of the note are substitutes, for the Saponified Cresol (ordinarily obtained by us from England) which have been purchased from imported stocks in the country. Hykol we purchased

at Rs.0-6-0 per lb. As stated in paragraph 1 in the note the invoice price for Saponified Cresol was 2sh/3¹/₂d a gallon but the statement that we are not getting it now is not true. We are receiving our supplies and these supplies to us and Government, have not been interfered with except owing to want of freight or sinking of ships. The remark as to our stock of Permanganate of Potash is about correct, 7sh/5d being the last invoice rate.

5. The prices shown in the note are, I am afraid, not sufficiently accurate to give Sir Alfred Bourne a figure of cost and I would point out that they are in most cases very inflated war prices and cannot be taken as a guide for post war prices. As regards the manufacture of disinfectants in India the difficulty is to get the Coal tar and Coal tar acids. I have so far not succeeded in finding any firm or source of supply and know of no likelihood of obtaining it in India. The destructive distillation of wood could be used, but it is a large question and would require a big plant and to be undertaken on a large scale.

6. The Lysol mentioned in paragraph 3 we separated from imported Saponified Cresol. As regards Potassium Permanganate, this is a disinfectant which is used for disinfecting water supplies chiefly and is not of use for medical and surgical requirements or for general disinfection. The difficulty is to get the Potash salts, again these might be obtained from combustion of wood, but the processes require plant and a superheated temperature. In the absence of Coal tar or of a scheme for the destructive distillation of wood on a large scale, I do not think we can do much to produce the phenol disinfectants.

.....

NOTES.

Do. 635-1 8722.2.17

Dear Sir,

You are doubtless aware that the Home Govt. are restricting the export of commodities & the barest necessities; and it has become a matter of urgent importance to render this country as far as possible independent of supplies from the United Kingdom. Among the articles of which this Govt. has been asked to sanction the import is the disinfectant known as Phenoid. I am & enquire whether you cannot suggest suitable indigenous substitutes for Phenoid or Phenol.

Rtl
2/2

For a new number & despatch.
2/2/17

C.R. G. 635
Neg. 22.2.17



Despatched
22/2/17

To Sir Alfred Gilbert Broune. K.C.S.E.
Director of the Indian Institute
of Science, Bangalore.

2.R. C^o 735
Res^d 28.2.17

INDIAN INSTITUTE OF SCIENCE,
BANGALORE.

26th February 1917.

My dear Bedford

With reference to your office D.O. 635-1 dated the 22nd February, there is a class of disinfectants prepared from wood or coal. "Phenoid" is doubtless prepared from the latter. Many other substances of quite different origin may be also used as disinfectants.

There is no reason why many or most of these should not be manufactured in this country but under present circumstances the plant for the manufacture would present difficulty.

It is evident that you wish to meet an emergency and I will secure further advice in the matter from the staff if you will kindly let me know

(1) the purpose for which the disinfectant is

To Under Secy

Please see the D.O. from the Director of the Indian Institute of Science Supra. He states that disinfectants like Phenoid can be manufactured

is required i.e. whether a crude substance
for washing down buildings or a pure prepara-
tion for surgical purposes.

- (2) the quantity required.
- (3) whether under the circumstances the cost is
any consideration and if so to what extent.

Yours sincerely
A. G. Basu

The Hon'ble Mr. J.P. Bedford, I.C.S.,
 Acting Chief Secretary to the Government
 of Madras,
 Fort St. George.

22. 12. 32
 11. 12. 32

INDIAN INSTITUTE OF SCIENCE
 BANGALORE

50. 477

22. 12. 32

12. 12. 32

With reference to your office D.O. 22.12.32

dated the 22nd February, there is a class of
 disinfectants prepared from wood or coal. "Lignol"
 is doubtless prepared from the latter. Many other
 substances of quite different origin may be also
 used as disinfectants.

There is no reason why many of these
 should not be manufactured in this country
 but under present circumstances the plant for
 the manufacture would be very difficult.

It is evident that you wish to meet an
 emergency and I will secure further advice in the
 matter from the staff if you will kindly let me

know

(1) the purpose for which the disinfectant

is

15
in this country. He wants to know the quality and quantity of the disinfectant required before securing further advice in the matter. The reference was made at the instance of the Hon Sir Sivaswamy ayyar in connection with the application of Messrs Spence & Co, Madras, for priority in respect of ^{315 gallons of} Phenol ~~and Phenol~~ to be obtained from the United Kingdom. (Vide ~~note~~ pp 2-3 of note, [Flo. No. No. 215 Fint (S.R.) of 21-2-17]). Messrs Spence & Co state in their application at pp 3-4 of Flo. ibid that they supply Railway, hospitals municipalities etc with the disinfectant and that about 200 to 300 gallons of ~~the~~ would be consumed in two months. It is not known certain whether the firm is the sole supplier of Phenol in Madras or whether the Govt medical stores get a separate supply direct from the United Kingdom. In regard to the quality it appears that both the crude substance and the pure preparation would be required.

For orders whether Messrs Spence & Co maybe requested to furnish the necessary information or whether the question which seems to be one to be dealt with ⁱⁿ the Home (Encl) ^{dept. Durban} (in consultation with that & the (Medical) dept), maybe transferred to that dept for further action in the matter

16

Dr.

This is certainly not a separate Revenue question. I believe Rev. is now to deal with Industries; but pending the completion of arrangements, enquiries might be instituted by D.O. as to the quantity of (a) crude disinfectants and (b) pure preparations for surgical ~~purposes~~ purposes required for medical institutions in the Prov. and as to the source from which these have been obtained in the past. In a telegram dealing with the question of supplies from home, the S. of S. stated that it was worth while paying a higher price for articles produced in India in order to relieve the scarcity of foreign goods & avoid the dangers of the passage.

Rae
5/3

Lot (small)

In favour of information on the points raised at A

W. Y
5/3/17

d. m. (Mud Dept)

W.

A draft on the S. is subd

for approval.

V. K
9/3

K. V
5/3/17

S. P. R. no 635-2
5.3.17



no 466 Med
8-3-17

W. Y
7/3

On no 466-1 mid of 9.3.17. 17

us.

The file may now be returned to the Sept Revenue Dept (u.o.) for any further action that may be necessary. The S.G.'s reply to the memo on page 1 of will be forwarded to that Dept on receipt

10/3/17
10/3/17

VTK
12/3

Sep: Rev. u.o.

To Under Secretary

Final (Sep Rev) Dept

For orders whether the Surgeon General's reply to the O.M. on p. 1 of may be awaited or whether the file may be transferred to Home (Education) which is dealing with industries

11/17/17

Don't S.G.'s reply.
Rel
19/3

To Under Secy.

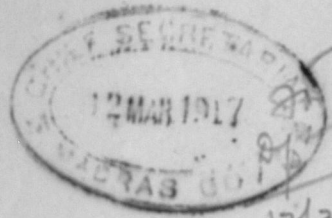
Submitted that L.H. (Med) may be reqd to state whether any the S.G. has replied to O.M. 466 Med of 9.3.17 on p. 1 c.f. and, if not, to remind him.

COB
5.5.17
11/17/17

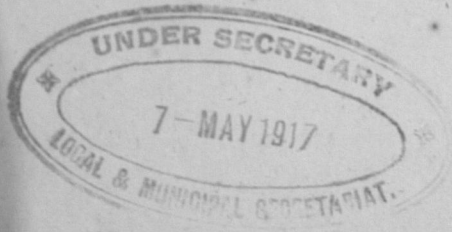
Rel

Don (Med) 1/6

Regd 952 filed
8/8/17



12/3
Med no. 466-2
12/3/17



Sep: Rev. & o. 635-3
of 7/6/17

18

Not Sept.

u. S.

The S. G. has not yet replied to memo No 466-1 Mesl 89.3.17. He may now be reminded. Draft reminder subd. After issue the file may be returned to Sep. Rev.

MDR

10/5/17

V.TK

11/5



Mesl No no 952-1
11-5-17

11/5/17

File (S.R) Dept

To Under Secy.

Submitted for perusal of Med. Dept notes

Supra

CoR

14.5.17

11/5

14.5.17

Rel
15/5

pp 2-6 of [CR: 1764 SR. From the Surgeon-General, Madras, No. 100 of 21.5.17
J. 116]

To Under Secy.

Please see the letter from the Surgeon-General to the Govt of Madras at pp. 2-6 of which gives the quantity of phenol required for use in the medical institutions of the Presidency as 24,557 lbs of the crude substance and 10,237 lbs of the pure preparation. All this quantity is reported

19

to have been obtained from the United Kingdom. To this quantity will have to be added the requirements of the several private institutions and bodies not supplied ^{from} the Govt Medical Stores. Messrs Spencer & Co, Madras, in applying for a priority certificate to get from Home certain quantity of phenol have stated that about 200 to 300 gallons of the disinfectant would be required for supply to Railways, municipalities, hospitals etc. (vide p. 4 of p. 11. 215 Fuel (S.R) 21.2.17)

This estimate probably includes both the crude and pure preparations of phenol. Before replying to the enquiry of the Director of the Indian Institute of Science, Bangalore, at pp 2-3 ^{note}, it would appear desirable to ^{obtain} ~~ascertain~~ from Messrs Spencer & Co separate estimate of the two kinds of the disinfectant and also ^{to ascertain} whether there are any other firms or agencies who deal in the chemical. The query of the Director whether the cost is any consideration would have also to be answered to enable him to conduct the further enquiry he has promised to institute on the subject of the local manufacture of phenol. It is therefore for orders whether Messrs Spencer & Co may be consulted in the matter. ~~Order to be~~

May also be sent to the Director of Public Health for enquiry and report.

2/ Attention is also invited to para 2 of the DO. at p. 2 supra where the Director of the Indian Institute of Science states that under the present circumstances the plant for the manufacture of the disinfectant would present difficulty.

3/ Submitted that, with reference to E.S.'s note on page 5. ante, the information now obtained may be forwarded to the Home (Education) Dept. (who deal with Industries and will continue to do so under the rearrangement of subjects ordered) for further consideration ~~whether~~ as to the practicability of starting a local industry in Pheoria and other disinfectants.

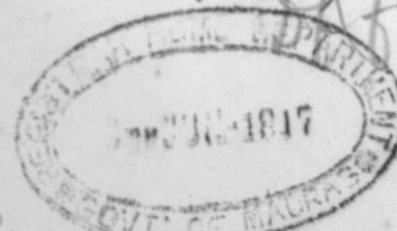
Rev
1-6-17

Home (Educ) Dept.

W.P.
2-6-17

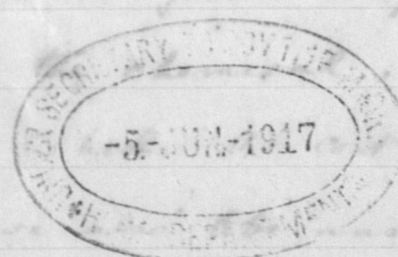
67 of 90 $\frac{1426}{28.716}$ X and
90 $\frac{212}{26.217}$ Y

Sep. Rev. E. O. 635-4
4.6.17



C.No. 2186 H. Edn.

5.6.17



Home (Educ) Dept.

Submitted that the file may be sent to Mr. Innes. w. for remarks.

5.6.17

W.P.
5.6.17

The rates now paid should have to be ascertained & the order of the order ^{the more substantial} order of the order of the order.

Home (Ldn) 21/8/17
9-6-17

Mr. James (Ldn)

21/6/17

G.C. 113
11-6-17

As regards prices, Spencer & Co. Ltd., are selling "Phenoid" at Rs. 4/8 a gallon for a 10 gallon drum. "Phenoid", I understand, is probably a saponified cresol with a very low carbolic coefficient. The Medical Stores I believe charge invoice prices plus 30%. That is the maximum price permitted by the Surgeon General. Their "Lysol" cost them 5½ d a lb and they issue it at Rs. 6 per gallon. "Hykol" (which is apparently much the same as "Phenoid") is issued at As. 6 per lb. Saponified Cresol cost them 2/3d per gallon but they are not getting it now. They have over 4000 lbs of permanganate of potash in stock at Rs. 7/5 per lb, but the stuff is getting very dear and the issue of it is much restricted.

2. The above prices ought to give Sir Alfred Bourne a line as to the figure of cost he should aim at.
3. Disinfectants are already made in India to

A lower price is charged - p. 11 of C.F.

The med. storekeeper says that he continues to get supplies from England.

7s. 5d is the correct price

some extent. Messrs. Parry & Co, for instance make a disinfecting fluid at Ranipet but as they make it from imported carbolic acid, they are not likely to be of much use in present circumstances. Messrs. S.D. Joseph & Co, 22 Tagore Castle Street, Calcutta also advertise disinfectants. They also advertise 'coal pitch'. Possibly therefore they make their disinfectants from coal tar oil obtained from the Bengal Coal Fields, and if so, supplies could be got from them. The Medical Stores have also made a trial lot of 'Lysol' and have sent it to Guindy to be tested.

4. I understand that no carbolic acid preparations with a carbolic co-efficient of more than 4 may now be exported from England. This co-efficient is so low as to make the preparations almost useless as disinfectants unless the water is evaporated off. The Medical Stores however are getting supplies of Sanitas (which is not much good) and a stuff called 'Syllin'. I am not sure if I have the word written correctly.

5. In these circumstances, I quite agree that it should be considered whether disinfectants should not be made in India. Ordinarily I believe they are made either from Coal tar oil or wood spirit. I am informed that if coal tar oil could be procured, it would not be difficult to make disinfectants from it. But the difficulty is to get it. The Medical Stores have tried Bengal without success, and have now written to Bombay. Formaldehyde and other disinfectants can be made from Methyl alcohol, but this would involve the destructive distillation of wood, which would be a big business. The Indian Institute of Science has a small plant for this purpose, I believe, but only

± Prepared from imported
Saponified Cresol.

for laboratory purposes. But I have, in my file about destructive distillation of wood, an article from a Marathi Magazine called the "Chitramaya Jagat" which states definitely that the Kolhapur Durbar have decided to start destructive distillation of wood on a commercial scale at a place called Dajipur. If so, it will probably be only too glad to find a market for its wood spirit, and it would be well worth making enquiries. The Mysore Government have also decided to work the Bababouden iron fields in conjunction with Messrs. Tata Sons & Co, and to obtain their charcoal by destructive distillation of wood. But I imagine that it will be some time before work starts.

6. It has been suggested to me that the simplest disinfectant to make in India is permanganate of potash since in India we have plenty of manganese and potassium nitrate. I don't know enough about the matter to offer any opinion.

7. The Medical Stores Department has an advisory chemist attached to it, and it is for consideration whether the experiments could not best be conducted here. The Surgeon General and Col. Hayward may be consulted.

The most stockholder states that this is not of use for medical surgical requirements or for general requirements.

Added in CR
18.6.17



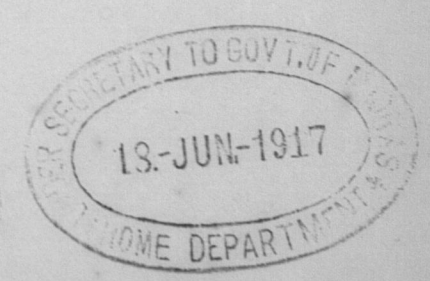
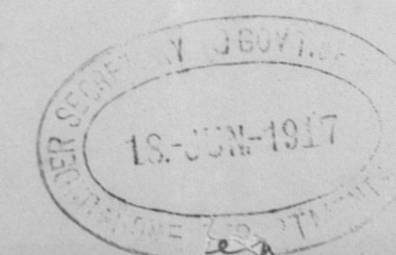
SH

Handwritten signature

For Director of Education

Home (Educational) Department.

U.C.



Home (Edn) Dept.

para 7, p. 12 ^{supra}

p. 2 ^{supra}.

* Quinine is required for use in hospitals, but the ambulance dept is dealt with in Revenue.

Submitted that, as suggested by Mr. James, the LHM (Medical) Dept may be requested to consult the Surgeon-General & Col. Hayward in the matter. It is for orders whether any reply should now go to Sir Alfred Bourne with reference to his letter of the 26th Sept last.

8K
19.6.17.

As disinfectants are required mostly for use in hospitals, the file may

be transferred to LHM (Medical) for disposal.

21/6/17

22/6/17

I am afraid not, because the primary question is industrial.

The special officer's note however establishes a case for enquiry.

LHM (Med) for favour of Consulting the S.G. & Col Hayward.

The reply to Sir Alfred & Bourne may be over till we see the S.G.'s reply

Wm 23/6/17

Edue. 2186 a-2

23 607

Regd 1389 Red
26-6-17

LHM Med u.o.

25
don (mud) syth

U.

A draft on. to the S.G. is
subd. for approval.

KON
26.6/17.8
27/6/17

V.TK
27.6

see

RLH
28/6/17

[Memo. No. 1389-1 Medl. dated 29-6-17]

C.No. 1681 Medl. from the S. G., No. 100/541 dated 7-8-17.

12.8.
17

Please see the S. G.'s reply on pages 9-12
of current file. The file may now be returned
to the Home (Education) Dept. no.

W.K.
11.8.17

see

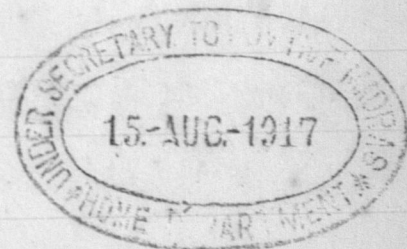
V.TK
13/8

RLH

14/8/17

Home

Medl. no 1389-1
15/8/17
15/8



Home (Edn) Dept.

Please see the letter from the Medical
Storekeeper to Govt on pages 11 and 12.

para 5 + 6, p. 12 of c.

Ex. M²⁷ (J)
6.1.17 (abstract)

p. 12 supra.

of the current file. It is observed therefrom that the manufacture of Disinfectants can be undertaken if coal tar or coal tar acids can be obtained without difficulty or, if destructive distillation of wood is undertaken on a large scale. As regards the latter it is submitted that the officers in charge of the Department of Industries & the Commissioner of Forests have both been asked to investigate the question whether it can be undertaken in this Presidency. From para 5 of Mr. Innes' note it will be seen that destructive distillation of wood is to be started in certain other places also. But it will be some time before work is actually started. In the meanwhile, it is doubtful whether anything can be done in the way of manufacturing disinfectants. Perhaps Mr. Innes may be consulted as to with reference to the letter from the Medical

Medical

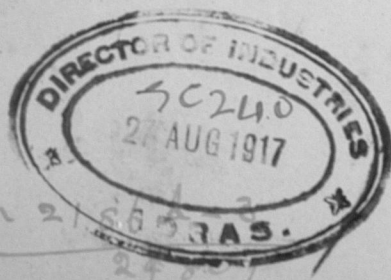
Medical Storekeeper. 21

Sk
18/2/17.

S. Mr. Limes may ~~rather~~ be sent the
Medical Storekeeper's letter for information;
but there seems to be no chance of manu-
facturing disinfectants on a big scale here as
the necessary ingredients & the plant is
lacking. We know how difficult it is now
to get a plant for any purpose & any
idea of importing it now may be abandoned.
The business of destructively distilling
wood may be watched, & Mr. Limes will
doubtless look out for an opportunity of
using the product of Kohlapur. ~~There~~
~~is no possibility of an industrial file; but~~
~~noted~~; This is not a case in which the
Industrial Dept is primarily interested but
the Medical; and as the S.G. & the
Medical Storekeeper see no chance of the
disinfectants being manufactured in India,
the matter, which seems to have arisen in
the office, may be dropped.

E.A.
18/2/17

A. Does Mr. Limes agree?
Mr. Limes (no)
23/8/17



Probably I
may have mis-
understood
Cay

The figures of cost to which the Medical Store Keeper objects were obtained from his own assistants.

They were noted down by me at the time, and if they are incorrect, I do not regard myself as responsible.

2. This point, however, is not of much importance, for in my opinion if experiments are to be made in the manufacture of disinfectants they should be made at the Medical Store Keeper's Department instead of at the Indian Institute of Science. Mr. Chatterton, Col. Hayward and I recently discussed the subject, and I have also been in correspondence with Col. Hayward.

Col Hayward has
The latest information ~~received~~ received is that Messrs. D. Waldie and Co. and Messrs. Martin and Company of Calcutta are forming a syndicate for the distillation of 5000 tons of Bengal coal tar to produce Creosote oil, Cresols, Carbolic Acid, Naphthalene and Pitch. The Syndicate expects to begin work in 1918. Col. Hayward has written to Bengal for information about this project. If the information received is correct, and if the Syndicate is going to start work in 1918, obviously there is no necessity for us to take any action down here. I will report further on this point when I hear from Col. Hayward.

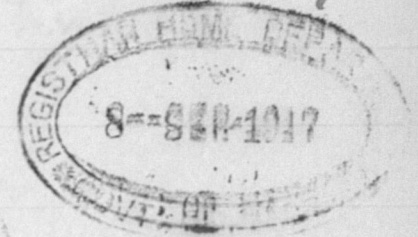
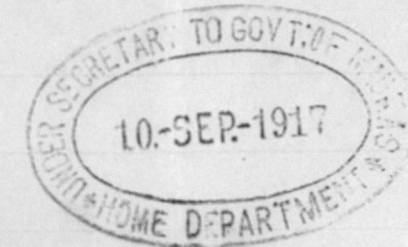
3. Mr. Chatterton also told me that the Kolhapur Durbar were not working seriously at the destructive distillation of wood and doubted whether we should be able to obtain wood spirit in any quantity from them. I made a note of Mr. Chatterton's statements in one

p. 12 *supra*

29
of my weekly reports to Munitions Board, and I have just heard from the Board that to the best of their belief Chatterton's information is not correct, and that the destructive distillation of wood is being carried on a comparatively large scale at Kolhapur. Col. Hayward is, I know, on the look out for wood spirit and I am communicating the information to him. Nothing further need be done at present.

Home (Education) Department.

U.O.



Home (Ed.) Departt.

Submitted. The papers may perhaps be recorded after perusal in LHM (not)
8/9/17.

11/9/17

S.

12.9.17

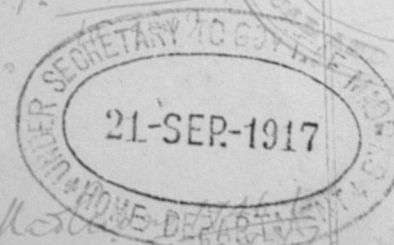
13/9/17

LHM (med)

Next Dept

21862-4
14.9.17

1446 Rd



u. s

May be perused & returned to Home (Ed.) ho with thanks.

17/9/17

17.9 19/9/17

Home Ed

NOTES.

Page 19

Home (Edn) Sept 19

Submitted that the papers
may be ^{order} ^{was} N^o 1222 of 24.9.17.
Revised.

8K
21.9.17.
20/9/17

C.H.
24.9.17

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LETTER OF GOVERNMENT.

STATEMENT WITH DETTO.

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