

(1) Number of pages 22  
(2) Date of repair 1-9-38  
(3) Initials of the Referencer CF

# MADRAS RECORD OFFICE.

Government of Madras.

*Revenue* DEPARTMENT.

|          |           |               |
|----------|-----------|---------------|
| G.O. No. | 327       | Press<br>Mis. |
| Dated    | 10-5-1888 |               |

Not to be folded or roughly handled

11/9/28

29<sup>th</sup> MAY 1888, No. 44 REVENUE.

REVENUE DEPARTMENT.

To

THE ASSISTANT UNDER SECRETARY OF STATE FOR INDIA.

SIR,

I am directed to forward, herewith, in duplicate, an indent for certain apparatus and chemicals required for making sulphate of quinine and to request that the Right Honorable the Secretary of State will be pleased to issue instructions

Miscellaneous.

for their very early supply direct to the Government Botanist and Director of the Government Cinchona Plantations, Nilgiris. I am also to request that the wishes of Mr. Lawson, as expressed in his letter, dated 2nd instant, which is embodied in

\* Dated 10th May 1888, No. 327, Revenue.

the order\* (copy enclosed) sanctioning the indent may, as far as possible, be complied with. The articles may be sent either to Madras or Beypore according as facilities offer.

2. The cost of the apparatus and chemicals will be debited to Provincial funds.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. F. PRICE,  
Secretary to Government.

OOTACAMUND,  
29<sup>th</sup> May 1888.

Exd. P. L. Pereira.

FORT SAINT GEORGE.

REVENUE (1882) DEPARTMENT.

(Copy.)

LETTER to the Assistant Under  
Secretary of State for India.

Dated 29<sup>th</sup> May,  
No. 44 of 1888.

FORWARDING an indent for certain apparatus and chemicals required for the manufacture of sulphate of quinine, and requesting to arrange for their very early supply direct to the Government Botanist and Director of Government Cinchona Plantations, Nilgiris.

10TH MAY 1888, No. 327, REVENUE.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—again the following G.O., dated 27th April 1888, Mis. No. 2500, Revenue :—

Read—the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 9th April 1888, No. 3 :—

I have the honor to inform you that, in accordance with the instructions contained in G.O., No. 948, dated 9th February 1888, Revenue, Mr. Hooper, the Quinologist, visited the Bengal Government Cinchona Plantations, with the view of making himself acquainted with the methods there adopted of manufacturing the crystallised sulphate of quinine.

2. On his way through Calcutta he saw the Honorable Colman Macaulay, Sir Benjamin Simpson, and Dr. King, and afterwards at Mungpoo he stayed with Mr. Gammie. All these gentlemen gave him every assistance in their power, and the result has been that he has obtained much valuable information, which could not have been acquired from any other source in India; and I beg specially to record my gratitude for the generosity with which this assistance has been given by the several officers of the Bengal Government to this department.

3. We had already made febrifuge on the Nilgiris, of two different kinds, on a small scale, and also the sulphate of quinine in the laboratory; but we were in some perplexity as to how we might best turn out the latter commodity in large quantities economically. This perplexity has now been solved, through the abovementioned courtesy of the officers of the Bengal Government, and I have no hesitation in saying that we at last see our way, at a comparatively small outlay, to make not only the febrifuge (liquid and solid), but also the sulphate of quinine.

4. The additional cost for plant which will be required, I estimate as follows :—

|                                                         | £.  |
|---------------------------------------------------------|-----|
| A donkey or half-horse power engine and boiler, say ... | 100 |
| Six pans with vacuum apparatus and six loose, say ...   | 50  |
| Caustic soda ...                                        | 45  |
| Kerosine oil ...                                        | 52  |
| Fusel oil ...                                           | 50  |
| Sulphate of soda ...                                    | 7   |
| Plaster of Paris ...                                    | 3   |
| Hogsheads ...                                           | 43  |
| Fixing of plant and other unforeseen expenses ...       | 150 |
| Total ...                                               | 500 |

or £500 in all = Rs. 7,058.

5. The chemicals thus provided would work up 100,000 lb. of bark, and ought to produce from 3,500 to 4,000 lb. of sulphate of quinine alone; but in addition to this there would be a large amount of the other alkaloids also turned out.

6. Taking the sulphate of quinine only at Rs. 25 per pound (that is the value of it fixed by the Bengal Government), the recoupment would be something between Rs. 87,500 and Rs. 1,00,000.

7. As I feel convinced that the figures, which I have given above, will be found to approximate closely to what will be actually required for each article, I will ask Government to sanction this additional outlay; which outlay, I believe, I can meet entirely, or nearly so, from the Quinologist's contingencies of Rs. 3,800, and savings, which I hope I may be able to effect during the year.

8. If Government sanction these propositions, I will send in the ordinary indents, through the Accountant-General, at once, as time is pressing, and under the most favorable circumstances I could not expect to receive from England the necessary chemicals under six months.

Order—dated 27th April 1888, Mis. No. 2500, Revenue.

The Government approve of the proposed outlay, but if it is found later on that it is probable that the proposed outlay cannot be met from the sources pointed out by the Director, timely notice of this must be given in view to an application for additional funds being made to the Financial Department.

(True Extract.)

(Signed) J. F. PRICE,  
Secretary to Government.

To the Government Botanist.  
„ the Accountant-General.

READ—also the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 2nd May 1888, No. 13:—

With reference to G.O., No. 2500, of 27th April 1888, Revenue, I have the honor to forward herewith the usual indents for certain apparatus and chemicals which are required by this department for the manufacture of sulphate of quinine.

2. The exact cost of the engine, enamelled pans and steam jacket I am not able to give; but I believe that £150 will be about what they will cost. I have to request that the *engine*, *steam jacket* and *pans* may be obtained from Messrs. Brinjies, Goodwin and Co. of Whitechapel Engine Works, Fieldgate Street, London.

3. The *caustic soda* and *sulphate of soda* can be had of any manufacturer of those articles.

4. The fusel oil is made chiefly in Germany and America, but I do not know the name of any of the manufacturers. I have put the 1,500 lb. of fusel oil in my indent at £50, but some time ago it was selling at 100 lb. per 1£. This would make the 1,500 lb. cost only £15, but the price has, since this quotation, been, I have reason to believe, greatly raised.

5. I should be obliged if the Secretary of State may be requested to send out all these things as expeditiously as possible, for until I receive them and get the apparatus fixed, it will not be possible to turn out any quinine.

6. I further ask that the engine, steam jacket and pans may be sent out, independent of the chemicals, as these will take some time to fix and fit up. They might therefore be despatched by steamer either to Madras or Beyport, the latter being the most convenient port for this neighbourhood. The fusel oil will have, I believe, on account of its supposed inflammability, though this is erroneous, to be transported in a sailing vessel.

P.S.—I should be obliged if Messrs. Brinjies, Goodwin and Co. would send plans detailing the manner in which the separate parts of the engine, steam jacket and pans should be put up, as I have only a native carpenter to execute the work.

ORDER—dated 10th May 1888, No. 327, Revenue.

Miscellaneous.

The indent is approved and will be transmitted to the Right Honorable the Secretary of State for favor of early compliance.

2. The entry in column 2 of the indent should be simply "Provincial." The detailed head to which the cost is chargeable need not be specified; nor also the reason for leaving column 3 blank, it being understood that this column would not be filled in if the charge was not debitable to Imperial revenues.

(True Extract.)

(Signed) J. F. PRICE,  
Secretary to Government.

To the Government Botanist.  
„ the Accountant-General, with indent.

Exd. P. L. Pereira.

45 Copies.

8/9/10

Original  
Govt. of (1888) Madras.  
REVENUE.

C. No. 3573/11-18-6 88 3574  
C. No. 6174/88-12-7 88 6176

Issued

Recd.

Encl.

G.O., 10th May 1888, No. 327.

MAY.

Indent

for certain apparatus and chemicals required for the manufacture of sulphate of quinine, approved with remarks and ordered to be forwarded to the Secretary of State.

No. 3

Director's Office  
Cotacmand 9 April 1888.

From Mr. St. Lawson Esq.  
Govt. Botanist and Director  
of Govt. Cinnamon Plantations  
Nilgiris.  
To  
The Secretary to Government  
Revenue Department  
Cotacmand

Sir,

I have the honor to inform you that in accordance with the instructions contained in G.O. No. 948 dated 9 February 1888. Revenue. Mr. Hooper, the Quinologist, visited the Bengal Government Cinnamon Plantations with the view of making himself acquainted with the methods there adopted of manufacturing the crystallised sulphate of quinine.

On his way through Calcutta, he saw the Honorable Colonel Maculay, Sir Benjamin Simpson, and Doctor King, and afterwards at Mungpo. He stayed with Mr. Gammon. All these gentlemen gave him every assistance in their power, and the result has been that he has obtained much valuable information, which could not have been acquired from any

any other source in India - and I beg specially to record my gratitude for the generosity with which this assistance has been given, by the several Officers of the Bengal Government to this Department.

3. We had already made febrifuge on the Nilgiris, of two different kinds, on a small scale, and also the sulphate of quinine in the Laboratory; but we were in some perplexity as to how we might best turn out the latter commodity in large quantities & economically. This perplexity has now been solved, through the above mentioned courtesy of the Officers of the Bengal Government, and I have no hesitation in saying that we at last see our way, at a comparatively small outlay, to make not only the febrifuge (liquid and solid), but also the sulphate of quinine.

4. The additional cost for plant which will be required, I estimate as follows:—

A donkey

|                              |               |
|------------------------------|---------------|
| A donkey or half horse power | 2             |
| Engine and boiler say        | £ 100—        |
| 6 Pans with vacuum apparatus | 11x           |
| and six horse say            | 50—           |
| Caustic Soda                 | 65—           |
| Kerosine oil                 | 32—           |
| Fuel oil                     | 50—           |
| Sulphate of Soda             | 7—            |
| Plaster of Paris             | 3—            |
| Hogsteads                    | 43—           |
| Fixing of plant and other    |               |
| unforeseen expenses          | 150—          |
|                              | <u>£ 500—</u> |

or £ 500 in all. = Rupees 7058.

5. The chemicals, thus provided, would work up 100,000 lbs of bark, and ought to produce from 3,500 to 4,000 lbs of sulphate of quinine alone, but in addition to this there would be a large amount of the other alkaloids also turned out.

6. Taking the sulphate of quinine only at Rupees 25 per pound, (that is the value of it fixed by the Bengal Government), the recompense would be something between Rs 87,500 and Rs 1,00,000.

7. As I feel convinced that the figures, which I have given above, will be found to approximate closely

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read

Cno 2513.

order. No 2500 of 27 Sep/88.

The Govt approve of the proposed outlay, but if it is found later on that it is probable that the proposed outlay cannot be met from the sources pointed out by the Director, timely notice of this must be given in view of an application for additional funds being made to the Fed. Dept.

25/9/88.

Note.

It does not seem necessary to get the Chief Secretary's counter-signature to this.

To

The Govt Botanist }  
Acct General }  
25/9/88

Closely to what will be actually required for each article, I will ask Government to sanction this additional outlay; which outlay, I believe, I can meet entirely, or nearly so, from the Zoological Contingencies of Rs 3800 and savings which I hope I may be able to effect during the year.

8. If Government sanction these propositions, I will send in the ordinary Audits, through the Accountant General, at once, as time is pressing, and under the most favorable circumstances, I could not expect to receive from England the necessary chemicals under six months.

I have the honor to be

Sr

Yours most ob. Servant

M. A. Lawson

Jr Botanical and  
Zoological

9. 2. 88 no 948  
27-2-88 no 1346

Revenue Dept.  
Revenue (1888) Circular  
No. 2513.



From  
Mr. A. Lawson Esq  
Jr. Port Louis  
and Director of  
Cocoa Plantations  
of the Virgin Islands  
The Secretary to Govt.  
Revenue Department  
Colombo

No 3  
Dated 9 April 1888  
And 10 April 1888

En

Subject

Manufacture of Crystals  
of Liquid Sulphate of Quinine  
on the Pruzgal System.

I beg to reason and request  
sanction to an additional  
outlay of Rs 705/- for purchase  
of plant and chemicals to  
admit of the — and it also  
that the outlay will be met  
partly from savings expected  
to be effected during the year  
and partly from the sum  
allotted for contingencies of  
the Sanitary Department.

19/4

PTC

For order

It is submitted that the  
Director's proposal shd. be ac-  
cepted. This will involve no  
further allotment of funds ap-  
parently. It is believed that  
the process of manufacture of  
sulphate of quinine is an  
entirely new one discovered  
by Dr. King.

has  
16 Apr

The Calcutta Gazette containing  
an account of the process is submitted.  
If any further allotment is here-  
after found necessary the Govt. Dept.  
will doubtless find the money.  
that would be required.

18/4/88

x 1000 2514.

I fully approve of the  
proposed outlay

19/4/88  
21/4/88

C 20/4 C 23/4  
R 21/4 R 24/4

No 13

Director's Office  
Colombo 2 May 1888  
17x 74

From  
Mr. A. Lawson Esq  
Jr. Port Louis and Director  
of Cocoa Plantations  
of the Virgin Islands  
The Secretary to Government  
Revenue Department  
Colombo

Sir

With reference to G.O. No. 2500  
of 27 April 1888 - Revenue - I have  
the honor to forward herewith the  
usual indents for certain apparatus  
and chemicals, which are required  
by this Department, for the manufacture  
of sulphate of Quinine.

2. The exact cost of the engine,  
enamelled pans, and steam jacket,  
I am not able to give; but I believe  
that £150 will be about what they  
will cost. I have to request that  
all the engine, steam jacket, and pans  
may be obtained from Messrs Brinjia  
Goodwin & Co. of Whitechapel Engine Works  
Fildgate Street London.

3. The caustic soda and sulphate  
of soda can be had of any manufacturer  
of those articles.

The

4. The fuel oil is made chiefly in Germany and America, but I do not know the name of any of the manufacturers. I have put the 1500 lbs of fuel oil in my indent at £50, but some time ago, it was selling at 100 lbs per one pound (1 lb). This would make the 1500 lbs cost only £15, but the price has, since this quotation, been I have reason to believe, greatly raised.

5. I should be obliged, if the Secretary of State may be requested to send out all these things, as expeditiously as possible, for until I receive them and get the apparatus fixed, it will not be possible to turn out any guanine.

6. I further ask that the engine, steam jacket, and pans, may be sent out, independent of the Chemicals, as these will take some time to fix and fit up.

They might therefore be despatched  
Very

19x  
by steamer either to Madras or  
Beyport - the latter being the most  
convenient port for this neighbourhood.  
The fuel oil will have, I believe,  
on account of its supposed inflammability - though this is erroneous -  
to be transported in a sailing vessel.

I have the honour to be

Sir  
Your most Obedt Servant  
M. A. Lawson.  
Govt Museum and  
Director

22  
F.

P.S. I should be obliged if Messrs B. & Co. 2<sup>nd</sup> would send plans detailing the manner, in which the separate parts of the engine, steam jacket, & pans should be put up, as I have only a native carpenter to execute the work.  
M. A. L.

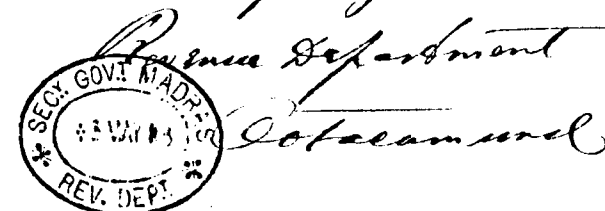
Revenue Dept.  
Revenue 1888 Cincinno.

From No 306

M. Adawson Esq  
Govt. Botanist & Director  
Cinchona Plantations  
Nilgiris

To

The Secretary to Government



Dated 2<sup>nd</sup> May 1888  
Despatches — " —  
Revenue 3 —

No 13

Enclosures 5.

Subject

Sulphate of Quinine

Submitting Indents for certain  
apparatus & chemicals  
required for making  
— and requesting that  
the despatch of the Indent  
may be expedited

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read

again mis f.v 27<sup>th</sup> April 1888 no 250  
also Cno 306.

Order of 10<sup>th</sup> May 1888, no: 327.

The indent is approved  
and will be transmitted to  
the Right Honorable the Secretary  
of State for favor of early  
compliance.

2. The entry in Col. 2 of the  
indent should be simply  
'Provincial'. The detailed head  
to which the cost is chargeable  
need not be <sup>specified</sup> ~~indicated~~; nor  
also the reason for leaving  
Col. 3 blank, it being understood  
that this column would not be  
filled in if the charge was not  
debitable to Imperial Revenues.

10 May

These alterations will be  
made in the Indent.

To The Govt. Botanist  
6. Asst. General  
with indent

9/2 May P.T.O.

Doc: undated 7.6.98  
copy sent to G. of the  
(H. M. S. P.) 2.6.98

No 144 of 188.

C. no 3069

The Asst. Under Secretary of State  
for India.

Govt. & Letter to Asst. U.S. of State  
for India.

Sir,

Indent for apparatus &

I am directed to forward herewith, in duplicate, an indent for certain apparatus & chemicals required for making sulphate of quinine.

Chemicals required for making sulphate of quinine and to request that

the Right Honble the Secretary

of State will be pleased to

issue instructions for their

very early supply direct to the

Govt. Botanist & Director of the

Govt. Cinchona Plantations, Nilgiri.

I am also to request that the wishes

of Mr. Lawson as expressed in his letter

of 2<sup>nd</sup> inst. <sup>which is</sup> embodied in the order

(copy enclosed) sanctioning the indent

may, as far as possible, be complied

with. The articles may be sent

either to Madras or Beypore according

as facilities offer.

2. The cost of the apparatus & chemicals will be debited to Provincial

Print from  
10 May 97

x no. 327 Rev. 8/10 May 1888

C 4/5  
R 10/5