M.R.O. 1—32,400—23-11-89.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 3474-8 Press Mis.

Dated 28-4-1893

Not to be folded or roughly handled

1025

OFFICE OF SURGEON-GENERAL
WITH THE GOVERNMENT OF MADRAS,

No. 115 Madras, 2nd February 1893.

From

SURGEON MAJOR-GENERAL W. F. DEFABECK, M.D.,
SURGEON-GENERAL WITH THE
GOVERNMENT OF MADRAS,

To *Madras,*

THE Secretary to Government
Revenue Department.

SIR,

In re transmitting the papers relative to the distribution of Quinine referred for my remarks with G. O. No: 244 Mis: dated 21st instant, I have the honor to state, [with reference to Mr Lawson's suggestion regarding Quinine tablets being used instead of powders, that in my opinion there are several objections to the use of tablets as a popular form of the administration of drugs. The poorer classes do not understand their use and might possibly look with suspicion on them - Quinine in powder, of course they are accustomed to.

2. Further there would probably be greater opportunity for fraud in the sale of tablets, the bitter Quinine being capable of recognition by

by the taste while tablets, being swallowed whole, are not tasted. Unless a native in an out-lying place, tasted the Quinine itself, it is unlikely that he will believe in its existence.

I think the difference in cost of manufacture will not outweigh these disadvantages.

I have the honor to be,
Sir
Your Most obedt: Servant.

W. H. Wolbeck M.D. S. M. Genl.
Surgeon General
with the Govt. of Madras

(16)

Revenue (1893) Department.

Current Number 926.

From

Surg. Major-Gen. W. F. deFabeck, M.D.,

Surgeon-General with the

Government of Madras,

Madras,

No. 115

Dated 2nd } February 1893.
Recd. 4th }

GOVERNMENT OF MADRAS
4 FEB 93
REVENUE DEPARTMENT

No.

Ency

Subject.

Submits his remarks on the suggestion of Mr. Lawson regarding the distribution of Quinine.

No. 29

5 926

Director's Office,

Ootacamund, 4th March 1893.

From

M. A. LAWSON, Esq.,

Government Botanist and Director of

Government Cinchona Plantations, &c.,

Nilgiris.

To

The Secretary to Government
Revenue Department
Fort St. George.

Sir,

In looking over my letter No 4 A dated 14th January 1893, I find that in para 2 a clerical error has been made; it is therein stated:-

"Upto date there have been sold, since the 1st April last, 110,100 Packets of quinine as against 37,000, which were disposed of during the previous year."

For the word "packets" read "powders".

I may take this opportunity of stating that upto the end of February 1893, 170,300 powders have been sent out; and from this it would seem that the people in the country are beginning to regard two pies per powder as not beyond

beyond their means

I have the honor to be
Sir
Your most obedt Servt

O.A.

M. C. Lawson

Govt. Botanist &
Director

REVENUE {18~~93~~ ~~CINCHONA~~ Dept.

1812

From

M. A. LAWSON, ESQ.,

GOVERNMENT BOTANIST AND DIRECTOR OF

GOVERNMENT CINCHONA PLANTATIONS;

Nilgiris.

To The Secretary to Govt.
Revenue Department
Fort St George

No. 29

Dated 4th
Despd. 4th } March 1893
Recd. 6th

ENCLOSURES

SUBJECT.

Distribution of Quinine in paper packets

Points out a clerical error in this office letter No. 4 dated the 14th January 1893 on the subject of

No. 30 9 827

DIRECTOR'S OFFICE,

OOTACAMUND, 4 March 1893.

From

M. A. LAWSON, ESQ.,

GOVERNMENT BOTANIST AND DIRECTOR OF

GOVERNMENT CINCHONA PLANTATIONS, &c.,

Nilgiris.

To The Secretary to Government.
Revenue Department.
Fort St George

SIR,

With reference to your Official Memorandum, No. 31 dated the 16 February 1893, I have the honor to state that I feel myself in some perplexity, for I do not quite know how I am to reply to the questions you have put. I will, however, answer them to the best of my ability.

1. The cost of supervision and Establishment may be taken at Rs. 80,000, out of which:-

2. Rs. 2000 may be taken to represent depreciation in the value of Buildings and Machinery.

3. I do not know how to estimate the value of the bark used. At present, I am working off the poorer classes of

of Cinchona officinalis, and am leaving the richer kinds for future use. Again, the manufacture of febrifuge is carried on in connection with the manufacture of quinine, and I do not see how to separate the cost of the manufacture of the one from that of the other.

2. It seems to me the best method to adopt in estimating the value of quinine would be to take the amount of quinine and febrifuge turned out during the year, and divide the total cost of the Department, Viz:- Rs 80,000 by the total outturn of alkaloids, Viz- 8,000 lbs.. and this would give Rs 10 per lb.

3. I am not sure that I may not have misled Government in my letter dated 14th January 1893, No 4 para 3, by stating some what vaguely that the "cost of quinine" if sold at one pice a powder" would be Rs 6 a pound." What I meant Government to understand was that this would be the

the sum that they would receive per lb and not that it represented the cost of production.

I have the honor to be
Sir
Your Most obedt Servant
G. A. Lawson
Govt Botanist & Director

REVENUE {1893 ~~CINCHONA~~ Dept.

From

M. A. LAWSON, ESQ.,

GOVERNMENT BOTANIST AND DIRECTOR OF

GOVERNMENT CINCHONA PLANTATIONS;

Nilgiris.

To The Secretary to Government
Revenue Department
Fort St George

No. 30

Dated 4" } March 1893
Despd. 4"
Recd. 6"

ENCLOSURES: Nil

SUBJECT.

Distribution of quinine in paper packets

Furnishes information as far as is practicable on the questions raised relative to the cost of manufacture of a pound of quinine in connection with the subject of —.

13

Read again G.O. No. 244 d/21-1-93 REVENUE DEPARTMENT.

Also C. Nos. 986, 1812 & 1819/93

From the Govt. Botanist & Dir: of Govt. Cin: Plantations.

Dated 189 .

FOR ORDERS.

Please see note for order under G.O. No. 244 d/21 Jan. 1893. The proposals contained therein on the subject of the preparation and sale of quinine packets were approved by the Hon. Member but in consequence of a letter from Mr. Lawson that the proposals submitted with his previous letter may be cancelled if not too late, the papers were kept lying over and that office was directed to submit revised proposals. In his letter No. 4 A dated 14 January 1893, Mr. Lawson states in reply that, ~~he~~ except in the matter of the issue of quinine in closed covers, he adheres to what he wrote in his ~~original~~ letter No. 66 d/21st Oct. 1892. As regards the cost of ~~quinine~~ cover he

x No. 79 d/14-12-92

a No. 66 d/21st Oct: 92

I considers the estimate furnished by Messrs Silverlock and Co. London whom he had addressed on the subject, as prohibitive — and urges that quinine may as at present be issued in packets, the supply of jalap being discontinued. The price realized which would be under the "packet system" is given by Mr Lawson as — Rs 6- 1- 0. But though this amount is Rs 1- 10- 3 more — than the estimated cost of a pound of quinine given by ~~the~~ him in para 8 of his letter No 66 dated 21st Oct 1892, he states that the quinine powders for sale "should be issued only to such persons who would give a guarantee that it is intended for application to the poorer classes only and that they will sell each powder for one pie and no more" — thus indicating that Government will be incurring loss by offering quinine at such a price. When the original proposal to reduce the price of quinine was submitted for the approval of the Hon. Members, it was under the impression that the amount given by Mr Lawson represented the lowest price at which quinine could be offered to the public without entailing loss to Government. In order therefore to judge the approximately the amount of loss which would result from a still further reduction in the price of quinine, the Govt. Botanist & Dir: of Govt. Cin: Plantations was, in O Mr No 31 dt 16 Feb. 1893, directed to report the actual cost of manufacture of a ~~pound~~ pound of quinine taking into account

(i) Cost of supervision and establishment

(ii) depreciation in the value of buildings and machinery

(iii) Cost of bark &c required in manufacture

His ~~report~~ reply is contained in

Not "loss" but rather "serious loss"
Hon Members were I think always aware that we were going to sell under Cost Price

RLL

in the last of the papers read above. He reports that he is unable to calculate the cost of quinine on the lines indicated by Govt.; but by dividing the total cost of the department by the total out-turn of alkaloids, ~~he~~ arrives at the figure Rs 10 per lb.

The loss which would thus result to Govt. by selling quinine at 6-1-0 per lb will be ~~#~~ nearly 4 Rs a lb and this taken with ~~fact~~ Mr Lawson's statement that 170,300 powders have, up to the end of February last, been sent out, goes to show that the loss to Govt ~~by~~ from a still further reduction in the price of quinine would be no small matter. Again, the scheme to restrict the issue of quinine to the poorest classes only, would be unworkable and would tempt many to practise fraud on

FOR ORDERS.

~~Ins~~ The intention of Govt is to popularize the use of Quinine with a ~~few~~ view to benefiting the fever-stricken classes of the population & if this end is secured a loss, financially, over the manufacture & sale of the packets is not of much moment. Mr Lawson may be trusted not to involve the Govt in serious loss & as he now advises, after carefully reconsidering the whole question that the 5 grain powders may be sold at 1 pce each his proposals may be accepted. Rul

Ms 14/3

× C No 986/93

× stitched with C No 986/93

on Government. Moreover the proposals of the Govt. of India related to making the quinine packets more attractive and to popularising the use of quinine among the people of the country.

As regards the proposal to substitute quinine tablets for powders, which was referred to the Surgeon-General for report, that officer considers that there are many objections to the ~~use~~ use of 'tablets' as a popular form of administering drugs, that the poorer classes do not understand their use, and that there would ~~prof~~ probably be greater opportunity for fraud, in the sale of tablets.

The Surgeon-General has not offered any remarks on the form of instructions to accompany quinine packets, submitted by Mr Lawson

It is not necessary to circulate these papers again for orders - Put up a draft G.O & letter to India and mark it for Hon. Members. Rul

A draft order & letter to India is submitted for the approval of Hon. Members

[signature]
28.3.93

The only question of importance is the cost. If Govt. agree to the sale of quinine at some loss — then then 1 pie packets may be distributed — Mr. Lawson apparently finds difficulty in saying pricing what the actual cost of production is — but in any case the experiments will not be a recurrent affair —

[signature] 29/3

FOR ORDERS.

C Nos. 986, 1812 & 1819.

Re: preparation and sale of quinine packets.

Hon: Mr. Garstin C. S. I.

Hon. Sir. H. E. Stokes K.C.S.I.

19

Read again the following

1. G.O. No. 3568 d/11-8-92
2. " " 4056 d/12-9-92
3. " " 4212 d/26-9-92
4. " " 244 d/21-1-93
5. O. M. No. 31 d/26-2-93

Read also C Nos. 986, 1812 & 1819/93.

Order

His Excellency the Governor in Council is not prepared to accept ~~approves of~~ Mr. Lawson's proposal to ~~do~~ reduce the price of quinine powders from two pies to one pie per fine grain packet as an experimental measure and ~~sanctions~~ ~~the~~ to issue ~~of~~ a million packets at this price. The Government agrees with Mr. Lawson and the Surgeon-General in thinking that the quinine should be tinged with some distinctive colour with a view to preventing fraud and is also of opinion that the issue of jalap powders with quinine packets

Mr. Lawson now estimates the actual cost of making quinine at 10 Nr. alt. & proposes to sell it at 6.1.0 per lb. or at a loss of about 4 Nr. alt. On a million packets of 5 grains each (or 5,000,000 grains) the loss wd. be about 2600 Nr. lb. is a good deal to throw away needlessly. In Bengal they charge a price of three pies, per packet (here, if we charge 2 pies, we shall make a profit of about 1950 Nr instead of losing 2600 Nr & as moreover in this Presidency the people are accustomed to pay 2 pies a packet (Dr. wd. not on reconsideration alter the price, besides) if the price is suddenly ~~half~~ halved for the same weight of drug, they people will think that some rubbish is being sold to them — I

packets should be discontinued.

2. As regards the packing of quinine powders in closed covers, the cost of making such covers is, as Mr. Lawson points out, prohibitive and the present system of packing them in wrappers should accordingly be adhered to. His Excellency the Governor in Council admits the force of the objections raised by the Surgeon General to the employment of District dispensary establishments in the making up of the powders and considers that these ~~powders~~ should, as at present, be prepared at the Quinologists' Laboratory at Ootacamund.

3. ~~The Government is of opinion that Post-masters will form a convenient and effective vending agency in rural parts.~~ The Board suggests that

The Govr. does not approve of the reduction to 1 pie a packet & W. adhere to 2 pie.

Remove Lawson to draft G.O.

B/4/90

Lagen
Ulw
19 Apr

The system of selling quinine through the agency of Postmasters, which is in force in Bengal is, in the opinion of the Govt. deserving of a trial in this Presidency

G.O. No. 4056
12.5.92

To

The Secretary to the Govt. of India
Rev. and Agri: Dept.

Sir,

With reference to your letter No. 1624/69 dated 16th July 1892, I am directed to forward a copy of the marginally noted Progs: of this Government on the subject of the preparation and sale of quinine packets in this Presidency.

2. The Government of India will observe that H. E. the Governor in Council has, ~~with a view to bringing the quinine within the reach of the poorest classes, resolved to reduce the sale value of the drug to the lowest possible figure by fixing the price of each fine grain packet at 1 pie~~, which is, I am to point out one-third of the price at which the same quantity is sold by the Government of Bengal. This reduction will involve some loss to Govt. on

decided to reduce the price of quinine packets. The price at which these packets are now being sold is 2 pies each is [illegible] one pie less than the price at which corresponding packets [illegible] further [illegible] in the opinion of the Govt. entail a needless sacrifice of revenue

on the cost of manufacture; but in the opinion of His Excellency in Council the question of profit is a consideration secondary to popularizing the use of quinine. It will be seen that this Govt has adopted the Government of India's suggestion to discontinue the issue of jalap powders with quinine packets.

3. It has been found impracticable to adopt the Govt of India's suggestion regarding the packing of the quinine powders in closed covers, as the cost of such covers would be prohibitive so long as the powders are sold at 1 pie each. This Govt has accordingly decided that quinine powders should continue to be issued in wrappers as at present. Care will be taken by colouring the quinine to prevent the commission of fraud, while the purity of the drug itself will be secured by having the powders made up at the Govt Quinologist's Laboratory at Ootacamund

23

Read again the following

1. G.O. No. 3568 dt 11-8-92
2. " " 4056 dt 12-9-92
3 " " 4212 dt 26-9-92
4. " " 244 dt 21-1-93.
5 D. M. No. 31 dt 26-2-93

Read also Current Nos 986, 1812, & 1819

Orders of 28 April 1893, No: 347.

His Excellency the Governor in Council is not prepared to accept Mr. Lawson's proposal to reduce the price of Quinine powders from two pies to one pie per five grain packet as an experimental measure and to issue a million packets at this price. Mr. Lawson now estimates the actual cost of making quinine at 10 Rs a lb & on a million packets of 5 grains each (or 5,000,000 grains) the loss would be about 2600 Rs which is a considerable sum to throw away needlessly. In Bengal the charge is a pice i.e. three pies per packet, and the Government considers it inexpedient and unnecessary to sell the packets in this Presidency for less than 2 pies each. The present 2 pie-rate should therefore be adhered to.

proposes to sell it at Rs 6-1-0 per lb or at a loss of about Rs 4 a lb.

The Government agrees with Mr. Lawson and the Surgeon-General in thinking that the quinine should be purged with some distinctive colour with a view to preventing fraud and is also of opinion that the issue of Jalap powders with quinine packets should be discontinued.

As regards the packing of quinine powders in closed covers the cost of making such covers is, as Mr. Lawson points out, prohibitive and the present system of packing them in wrappers should accordingly be adhered to. His Excellency the Governor in Council admits the force of the objections raised by the Surgeon-General to the employment of District dispensary establishments in the making up of the powders and considers that these should, as at present, be prepared at the Quinologist's Laboratory at Ootacamund.

4. The system of selling quinine through the agency of Postmasters, which is in force in Bengal, is in the opinion of the Govt. deserving ... Presidency ...

The Board suggests that the system may be introduced as an experiment in a few selected districts, viz, Kurnool, Cuddapah, Vizagapatam, Ganjam and Malabar. The Government approves of this suggestion and with a view to its adoption will obtain the ~~sanction~~ sanction of the Supreme Government for utilizing the services of Country Postmasters ~~selling~~ generally in selling quinine under conditions similar to those in Bengal.

5. Mr. Lawson's suggestion to restrict the issue of quinine to persons who would give a guarantee that the powders are intended for administration to the poorest classes only does not commend itself to Government.

6. The following letter will be addressed to the Govt. of India.

To 3 the Govt. Botanist &c
16 Comrs. of L.R.
5 Financial Deptt.
6 Acctt. General
5 Surgeon General with the Govt. of Madras
2 copy to the Comr. of Rs. L.R. & a
5 Public Deptt.

Dd. 5-6-93

3/4/93 27.4.93 25/4

27 27 431

No. 348.

Ses with proofs
M. 7.6.92

To

The Secretary to the Govt. of India,
Revenue & agricultural Deptt.

Sir,

With reference to your letter no. 1624/69, dated 16th July 1892, I am directed to forward a copy of the marginally noted Proceedings of this Government on the subject of the preparation and sale of quinine packets in this Presidency.

G.Ad. 28 April 1893, no: 347

2. The Government of India will observe that H.E. the Governor in Council has deemed it inexpedient to reduce the price of quinine packets. The price at which these packets are now being sold, viz. 2 pies each, is, I am to point out one pie less than the corresponding price in Bengal, and any further reduction would, in the opinion of this Government entail a

needless

needless sacrifice of revenue. It will be seen that this Government has adopted the Government of India's suggestion to discontinue the issue of Jalap powders with quinine packets.

3. It has been found impracticable to adopt the Government of India's suggestion regarding the packing of the quinine powders in closed covers, as the cost of such covers would be prohibitive so long as the ~~so long as the~~ powders are sold at the present low rate ~~1 pie each~~. This Government has accordingly decided that quinine powders should continue to be issued in wrappers as at present. Care will be taken by colouring the quinine to prevent the commission of fraud, while the purity of the drug itself will be secured by having the powders made up at the Government Quinologist's Laboratory at Ootacamund.

Ootacamund.

4. The preparation and sale of quinine packets by District dispensary establishments has been suggested by the Government of India. On this question, I am to say that this Government after careful consideration is still of opinion that the adoption of such a measure is not advisable. The agency by which the powders would be made up at dispensaries would consist of low paid compounders with little or no education who would have every facility to practice fraud.

5. I am to say that this Government is in favor of employing officers of the Postal Dept as a vending agency. These officers are to be found in almost every village of importance and as they exercise no authority, they will not be viewed with suspicion by the people and will, for this reason, see a

far

far more efficacious distributing agency than Police or Revenue officials. Postmasters are, moreover, as a rule poor men to whom the inducement held out in the shape of Commission will be an incentive to pushing the sales. I am accordingly directed to request that the Government of India will be pleased to sanction the employment of these officers for the purpose, under conditions similar to those in force in Bengal.

Rul

~~31. 3 93~~

27. 4 93

[illegible] 5/4. [illegible] 25 April

60/2

C Nos 986, 1812 & 1819 of '93.

Draft G O and letter.

Re: preparation and sale of quinine packets.

~~[illegible]~~

G.O. 28 April 1893, nos: 347 & 348

(from orders)

C 6/4

28th April 1893, No. 348, Revenue.

REVENUE DEPARTMENT.

From

C. A. GALTON, Esq., M.A. C.S.,
Secretary to the Government of Fort St. George,

To

The SECRETARY to the GOVERNMENT of INDIA,
Revenue and Agricultural Department,

Dated Ootacamund, 28th April 1893.

Sir,

With reference to your letter, No. 1624—69, dated 16th July 1892, I am directed to forward a copy of the marginally-noted Proceedings of this Government on the subject of the preparation and sale of quinine packets in this Presidency.

Miscellaneous.

G.O., dated 28th April 1893, No. 347.

2. The Government of India will observe that His Excellency the Governor in Council has deemed it inexpedient to reduce the price of quinine packets. The price at which these packets are now being sold, viz., 2 pies each, is, I am to point out, 1 pie less than the corresponding price in Bengal, and any further reduction would, in the opinion of this Government, entail a needless sacrifice of revenue. It will be seen that this Government has adopted the Government of India's suggestion to discontinue the issue of jalap powders with quinine packets.

3. It has been found impracticable to adopt the Government of India's suggestion regarding the packing of the quinine powders in closed covers, as the cost of such covers would be prohibitive so long as the powders are sold at the present low rate. This Government has accordingly decided that quinine powders should continue to be issued in wrappers as at present. Care will be taken by coloring the quinine to prevent the commission of fraud, while the purity of the drug itself will be secured by having the powders made up at the Government Quinologist's Laboratory at Ootacamund.

4. The preparation and sale of quinine packets by district dispensary establishments has been suggested by the Government of India. On this question I am to say that this Government, after careful consideration, is still of opinion that the adoption of such a measure is not advisable. The agency by which the powders would be made up at dispensaries would consist of low-paid compounders with little or no education who would have every facility to practise fraud.

5. I am to say that this Government is in favour of employing officers of the Postal department as a vending agency. These officers are to be found in almost every village of importance, and as they exercise no authority, they will not be viewed with suspicion by the people and will, for this reason, be a far more efficacious distributing agency than Police or Revenue officials. Postmasters are, moreover, as a rule, poor

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men to whom the inducement held out in the shape of commission will be an incentive to pushing the sales. I am accordingly directed to request that the Government of India will be pleased to sanction the employment of these officers for the purpose under conditions similar to those in force in Bengal.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) C. A. GALTON,
Secretary to Government.

Exd. S. J. Pereira.

60 Copies.

1893.

REVENUE AND AGRICULTURAL DEPARTMENT.

From the Government of
Fort St. George.

Issued

Recd. *Encl.*

Letter, dated 28th April 1893, No. 348.

APRIL.

FORWARDING copy of Proceedings of this Government on the subject of the preparation and sale of quinine packets in this Presidency, and requesting sanction for the employment of Postal officers for the sale of the powder.

28TH APRIL 1893, No. 347, REVENUE.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—again the following G.O., dated 9th August 1892, Mis. No. 3568, Revenue:—

Read—the following letter from Sir E. C. BUCK, *Kt.*, C.S.I., Secretary to the Government of India, Revenue and Agricultural Department, to the Secretary to the Government of Madras, dated Simla, the 16th July 1892, No. 1624-69:—

With reference to your letter No. 312, Revenue, of the 30th March last, on the subject of the sale of quinine manufactured at the Government plantations, I am directed to offer the following observations for the consideration of His Excellency the Governor in Council.

2. It is learnt with satisfaction that the Madras Government has resolved to reduce the price of the quinine packets, a sample of which is forwarded with your letter. It appears possible, however, that the manner in which the medicines put up may, to some extent, be the cause of the poor results hitherto obtained in the endeavours made to bring the drug within the reach of the lower classes of the people. A specimen of the packet now introduced for the retail sale of Government quinine in Bengal districts is forwarded for inspection. The drug, it will be observed, is uncolored and packed in *closed* covers, and I am to suggest that the adoption of this system for the distribution might be found efficacious in extending the sale in Madras. The accompanying papers * also afford particulars as to the agency through which the Bengal Government proposes to push the sale of the medicine.

* Extract paragraphs 4, 6 and 7 of letter No. 1070, Medical, dated 12th April 1892, from Bengal Government. Letter to Government of Bengal, No. 373, dated 8th July 1892.

3. The Government of India are still advised that the simultaneous distribution of quinine and jalap powders is likely to afford a handle to ignorant village and country practitioners for discrediting the efficacy of the former drug. It is believed that poor natives seldom require purgatives, or that when they do, they recognize the fact for themselves and resort to indigenous drugs which are effectual for the purpose. I am to suggest, therefore, that the separation of the jalap powders from the quinine may be tried as an experiment in selected districts.

4. The Government of India also think that the suggestion to employ dispensary establishments to make up the packets deserves a trial. The objection taken on account of the overworked state of the establishment appears to be somewhat imperfectly borne out by facts represented in the figures quoted in the margin, which seem to show that the proportion of establishments to patients treated is considerably larger in Madras than in Northern India.

Province.	Cost of establishments.	Number of patients.
	Rs.	
North-Western Provinces and Oudh	2,89,532	2,890,369
Punjab	2,50,433	2,580,496
Madras	4,20,054	2,580,746

5. Finally, with reference to paragraph 2 of your letter, I am to take the opportunity to point out that the observation that the manufacture of quinine is not keeping pace with the demand was based on paragraphs 4 and 6 of the Madras Government's review of Mr. Lawson's report for 1890-91 and was not originated by the Government of India.

ENCLOSURE No. 1.

From H. H. RISLEY, Esq., C.I.E., Officiating Secretary to the Government of Bengal, Municipal Department (Medical), to the Secretary to the Government of India, Home Department, dated Calcutta, the 12th April 1892, No. 1070, Medical:—

* * * * *

4. The great reduction that has taken place of late years in the price of quinine generally, and the development of the Government Cinchona Plantation near Darjeeling, have now rendered it possible to renew, with greater prospects of success, the attempt to popularise the use of quinine among the poorer classes of the province. In order to attain the end in view, certain essential conditions must be complied with. In the first place the quinine sold must be first rate and uniform in quality, and must be guaranteed as such by being sold in packets bearing a Government stamp. Secondly, it must be sold in very small quantities procurable for the smallest coin in daily use among the people. Thirdly, it must be sold at a large number of centres and at places which people are likely to frequent in the ordinary course of business. Fourthly, the sellers must be given an interest in pushing the sales and in making it generally known that quinine can be bought in small quantities at certain places.

* * * * *

6. For the purpose of selling the quinine, all public offices in the interior of the district, such as thánas and police out-posts, dispensaries, offices of managers of wards' estates, and so forth will be utilised. These are under the orders of the Local Government, but there is another department not under this Government, the Postal Department, which will, in the Lieutenant-Governor's opinion, be a still more convenient and effective agency. Throughout Bengal the village Post Office is a popular place of meeting, where people assemble to hear the news and discuss matters of common interest, and both Postmasters and postal peons would, it is believed, have no difficulty in conducting sales of quinine without interfering with their ordinary duties. The Postmaster-General of Bengal, who has been consulted unofficially on the subject, is understood to regard the scheme with favour and to consider that the Post Office may properly lend its assistance. Mr. Kisch suggests that, in the first instance, the packing factory or central depôt at Hazáribágh should supply every Post Office in Bengal with a permanent advance of a sufficient number of packets to last a short time. When a Postmaster finds his stock running short, he should indent on the central depot for a fresh supply. This indent might, with the permission of the Director-General of the Post Office of India, be sent through the post free of charge. The central depot would comply with the indent by sending the number of packets of quinine asked for as a value-payable parcel, for which the Postmaster would pay on receipt. As he would have got his first supply as a permanent advance, and would have sold nearly all of it before he indented for the next supply, he would be prepared to pay for the latter and for subsequent supplies on arrival. A commission, which the Lieutenant-Governor proposes to fix at an anna in the rupee, should be allowed to the Postmaster in order to induce him to push the sales, and to inform the people of the neighbourhood through his postmen that Government quinine is available for sale.

7. There can be no question that if the use of quinine could be extended, and pure quinine substituted for the highly adulterated compounds which are now sold in country villages in these provinces, a very real benefit would be conferred on the people of Bengal, who now suffer severely from malarial fever and have no approved remedy of guaranteed quality within easy reach. The plan now put forward seems to the Lieutenant-Governor to contain sufficient promise of success to make it worth while to try as an experiment. I am accordingly to request that the Government of India may be moved to accord their sanction to the co-operation of the Post Office to the extent indicated above, and to the transmission on postal service of all correspondence from the Post Office on the subject. Correspondence addressed to the Post Office would of course be stamped in the ordinary way.

ENCLOSURE No. 2.

From C. J. LYALL, Esq., C.I.E., Secretary to the Government of India, Home Department (Medical), to the Secretary to the Government of Bengal, Municipal Department, dated Simla, the 8th July 1892, No. 373.

I am directed to acknowledge the receipt of your letter No. 1070 (Medical), dated the 12th April 1892, forwarding proposals for the sale of quinine to the poorer classes in Bengal.

2. The Lieutenant-Governor intends to utilize, as an agency for selling quinine, all public offices in the interior of districts which are under the orders of the Local Government, such as thánas and police out-posts, dispensaries, offices of managers of wards' estates, &c., and it is suggested that the Postal Department, which would be a still more effective agency, should also undertake this duty. The main features of the scheme, submitted for the approval of the Government of India, are that Postmasters shall undertake the sale of quinine, receiving a discount of one anna in the rupee; that their indents for quinine on the central depôt shall be sent free on Postal Service; that ordinary postage is to be paid on the parcels of quinine sent

to Postmasters, and after the first advance the cost of renewing supplies is to be recovered by means of the value-payable system; and that the Post Office as a department will have neither responsibility nor the duty of keeping accounts in connection with the matter.

3. I am to say that the Government of India approve generally of these proposals which will, for the present, be tried as an experiment only. As it is understood, however, that the principal object of the proposal is to place quinine within easy reach of the rural population, I am to say that the Governor-General in Council apprehends that it will not be necessary to have recourse to Post Offices in the larger towns where other suitable agencies are likely to be found.

4. There appear to the Governor-General in Council to be the following matters of importance in connection with the scheme in regard to which it may be desirable to take special precautions, viz.:—

(1) that the supplies of quinine are distributed in small quantities and at frequent intervals, in order to guard against deterioration, especially in a damp climate and in places where Postmasters have not the means of keeping it in good condition;

(2) that the packets are not tampered with by the Post Office or other subordinates and an inferior article substituted for the quinine, thus bringing the Government medicine into disrepute;

(3) that after sale the empty packets are not collected and used for fraudulent purposes.

There are, moreover, certain minor details which have to be settled before the scheme can be brought into working order, such as the manner in which the discount to Postmasters shall be paid, and the source from which the charge for remitting the price of the quinine to the Quinine Depôt shall be met. These can best be arranged by the Local Government in communication with the Postmaster-General of Bengal.

5. The discount or commission allowed to Postmasters on the sales effected will be income within the meaning of the Income-Tax Act, but difficulty in the assessment of it can be obviated by treating the remuneration so received by Postmasters as income apart from salary, viz., "other sources of income," and leaving it to be dealt with by the Assessor, as he would deal with shares or houses owned by Postmasters.

6. I am to request that the Government of India may be favoured with a report of the working of the scheme up to 31st March 1893.

No. 374.

Copy, with copy of the letter from the Government of Bengal to which it is a reply, forwarded to the Department for information and such further action as may be considered necessary.

(By Order.)

(Signed) H. LUSON,
Offg. Under-Secy. to the Govt. of India.

Read—letter from the Officiating Secretary to the Government of Bengal, dated Calcutta, the 20th July 1892, No. 1797, Medical.

ABSTRACT.—Forwarding 12 specimen packets proposed to be used for the sale of Government quinine.

Order—dated 9th August 1892, Mis. No. 3568, Revenue.

Referred to the Commissioners of Land Revenue, to the Government Botanist and Director of Chinchona Plantations and to the Surgeon-General with the Government of Madras for very early remarks.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioners of Land Revenue,
„ the Government Botanist, &c.,
„ the Surgeon-General with the Government of Madras (through the Public Department), } with specimen packets.

READ—again the following G.O., dated 12th September 1892, Mis. No. 4056, Rev.:—

Read—the following Proceedings of the Board of Revenue (Land Revenue), dated 31st August 1892, Mis. No. 5467:—

Read—G.O., dated 9th August 1892, Mis. No. 3568, Revenue.

Resolution—dated 31st August 1892, Mis. No. 5467.

The Board thinks that the suggestions of the Government of India, viz., that the distribution of jalap along with quinine be discontinued, that the Postal Department be used as a distributing agency for the quinine, the Postmasters being remunerated, like stamp vendors, by a discount on sales, and that the drug be issued to vendors in an uncolored form and in small closed covers, might well be put into practice as an experiment in a few selected districts in the Presidency—say Kurnool, Cuddapah, Vizagapatam, Ganjám and Malabar. If the system was properly worked it should certainly increase the consumption of the drug. The Postmaster would, in the Board's opinion, be a more efficacious because less "suspect" distributing agency than Police or Revenue officials.

2. Court of Wards' Managers might also be entrusted to advantage with packets for sale by their subordinates. The Board thinks that the packets should be made up at some central place or places and have the contents printed in the vernacular as well as in English on the outside.

(True Copies and Extract.)

(Signed) W. S. MEYER,
Acting Secretary.

To the Secretary to Government, Revenue Department,
with two packets.

Order—dated 12th September 1892, Mis. No. 4056, Revenue.

Recorded, pending the receipt of the replies to the reference made to the Director of the Government Cinchona Plantations and to the Surgeon-General with the Government of Madras.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Government Botanist, &c.
,, the Surgeon-General with the Government of Madras (through the Public Department).

READ—again the following G.O., dated 26th September 1892, Mis. No. 4212, Rev.:—

Read—the following letter from Surgeon-Major-General W. F. DEFABECK, M.D., Surgeon-General with the Government of Madras, to the Secretary to Government, Revenue Department, dated Madras, 9th September 1892, No. 624:—

With reference to your endorsement No. 1344 of 16th instant, on Proceedings of Government, Revenue Department, of 9th idem, No. 3568, referring for my remarks letter from Government of India on the sale of quinine to the poorer classes, I have the honour to make the following observations:—The scheme is a large one and involves two distinct propositions—first, the preparation of the packets in suitable form; secondly, the distribution of these packets in every village. The efficacy of the scheme will depend on—first, the means of preparation; secondly, the purity of the quinine. It is suggested that hospital assistants in charge of dispensaries should be the means for their preparation. There are several objections to this, the chief one being that there will be no certainty as to the exact quantity of quinine in each packet or as to its purity, and that the wastage being distributed over a large area must be considerable. The only argument in favour of this part of the scheme is the expense of the Subordinate Medical establishment compared to that of other provinces referred to by Government of India, on account of which more work might be obtained from Madras

subordinates. I shall refer to this point later on. The alternative is to prepare these packets in large quantities in some central depôt. The advantages of this are obvious, and I will hope to show that the local distribution of the packets will not be unfavorably influenced by this. First, there will be a fixed quantity in each packet; secondly, there will be less opportunity for substitution of impurities, like rice flour, since the manufacture of the packets will be restricted to a small number of hands, and supervision will be more complete; thirdly, there will certainly be less wastage; fourthly, the whole scheme will be more cheaply and efficiently worked; fifthly, there will be no complaints of difficulty in obtaining the packets through want of energy among local distributors. I would strongly advise Government then that these packets be prepared in bulk at a central depôt, preferably the Quinine Factory itself on the Hills.

2. The efficacy of the scheme will largely depend on the purity of the quinine; and especially at first introduction, I think, the most efficient means should be taken to ensure this. When the poorer classes more clearly understand the motives of Government and the scheme is in good working order and when they derive full advantage from this almost free distribution of quinine, a greater risk might then be run by Government availing themselves more fully, if they think fit, of the services of their subordinate medical officers. It is necessary to keep a strong hand at the central distributing point over the sales on first establishing such a scheme. It would very soon be seen where preventible expenses exist and if they could be remedied by the proposal under consideration of instituting local distributing centres.

If Government, however, desire it, I will submit proposals for the local preparation of these packets and for proper supervision of their preparation in each district.

The second part of the scheme is the local distribution of the quinine packets after their preparation. Here I would first press on Government the paramount importance of disassociating the sale of the quinine from all hospitals and dispensaries, where of course the quinine would, as a matter of fact, be made up by compounders on 8 or 10 rupees a month, who would have *no* interest either in the sale or in the purity of the drug. These institutions should be looked on by the poor as purely charitable, and any attempt at sale of medicines is now looked in as a serious offence; the sale then of the Government quinine should have nothing whatever to say to them; it would inevitably be an incentive to fraud. This indeed forms another argument for prohibiting even the preparation of the quinine packets at hospitals.

The next proposal is to place the distribution in the hands of local Government officials, and to give them a discount of one anna per rupee with a view to giving them an object in pushing the sales. The Government officials, to whom this would be entrusted, appear to be subordinate revenue officials, the police and postmasters. The inducement held out by Government will hardly influence the higher revenue officials and the scheme of placing free quinine in their hands has not met with that success that might fairly be looked for, for obvious reasons. With regard to the subordinate revenue officials and police to whom this inducement would be of value, Government I hope will agree with me that, where there is the slightest fear of authority being exercised to enforce sales, these sales should not be permitted. In country places the poor are in constant fear of the police and of all in fact who exercise authority in the district. Postmasters are free from this objection; postmasters are universal, they exercise no authority, they are poor men as a rule, and the inducement held out will be sufficient to make it their interest to push the sales. Again, one reason for the failure of the present system of distributing quinine is the want of proper advertisement. Printed notices should be put up in conspicuous places, and slips issued with the packets showing how the quinine should be taken, either in lime-juice or conjee or in milk, not immediately after meals, but at a time when the patient expects the fever to return.

Each post office ought, I think, to keep some simple account, which should give no trouble; he should have a book of indents of a simple character, showing number of packets in hand, number spent, number required, and duplicate treasury receipts for moneys paid might be sent *through* the Central depôt in order to check the issues. This would not materially increase the postmaster's work, and the result would show at a glance how the system worked and where it worked most efficiently.

As regards the question of coloring the quinine, I am strongly in favour of this. It has over and over again prevented fraud, and it is a well-known fact that poor

people will think more of the efficacy of the colored article than the uncolored, which does not impress them in the same way. It will, at all events, be an extra safeguard, and as such should be adopted.

To sum up my remarks on this scheme—first, it should at first be of the simplest possible character to allow complete supervision from a Central depôt; second, the quantity and purity of the quinine should be constant, and the quinine should be colored to prevent fraud; third, local distribution should be in the hands of postmasters alone, until the scheme is seen to be workable without the aid of local Government authority—an essential requirement of a plan which asks people to pay for Government quinine at a nominal figure; fourth, there should be ample advertising of the scheme; fifth, small printed slips should be issued with the packets showing mode and time of administration of the medicine.

I referred above to the remarks of the Government of India "that the Madras Government might call on their medical subordinates to undertake the preparation of these quinine packets" on the grounds that the cost of the medical subordinate establishment exceeded that of other provinces. This remark was based on the fact that the total number of sick treated in the dispensaries and hospitals of this Presidency did not compare so favorably with the cost of the establishment as the number in other provinces did. But this argument is not quite reliable for two reasons—first, the proper basis of comparison is the average sick attending for treatment *daily* not simply the total patients treated yearly; second, the proportion of apothecaries (who are more highly paid than other subordinates) may be greater in Madras Presidency with other provinces referred to by the Government of India.

Order—dated 26th September 1892, Mis. No. 4212, Revenue.

Forwarded to the Government Botanist and Director of the Government Cinchona Plantations for perusal and return with his reply to G.O., No. 3568, dated 9th August 1892.

(True Extract.)

(Signed) R. H. CAMPBELL,
Ag. Under Secretary to Government.

To the Government Botanist, &c., with Surgeon-General's letter, in original, to be returned.

READ—again the following G.O., dated 21st January 1893, Mis. No. 244, Revenue:—

Read—the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, &c., Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 21st October 1892, No. 66:—

With reference to the letter from the Government of India, No. 1624—69, dated the 16th July 1892, communicated to me under G.O., No. 3568 of 9th August 1892, Revenue, I have the honour, in continuation of my letter No. 55 of 30th September 1892, to state—

1. I am glad to see that the Government of India are of opinion that it would be advisable to discontinue the issuing of jalap powders with the quinine packets. The experiment has now been tried for a whole year in the Madras Presidency, and, apparently, with no good result. The issue of the jalap powders necessarily entails extra cost, and the Collector of Tinnevelly writes that he thinks the sale of them to ignorant ryots in out-of-the-way corners of his district might prove dangerous. I would suggest, therefore, that the Government of India's proposal should be adopted.

2. The Government of India object to the unattractive manner in which the quinine is packed, and think that this may have much to do with the poorness of the sales hitherto effected; but it must be borne in mind that if five grains of quinine are to be sold for the smallest coin in daily use among the people, viz., 1 pie and not 1 pice as stamped upon the envelope, attractiveness must give way to cheapness; but to this point I shall recur again when giving details respecting the lowest cost at which the powders may be issued without entailing much loss.

3. The proposal to pack the quinine in envelopes, instead of in loose papers, is an excellent one; but the envelopes which have been sent as patterns are made of paper of too thick and too costly a quality, and the printing upon them is unnecessarily elaborate. I enclose samples which, I believe, would answer every practical purpose and at the same time be much cheaper.

4. The idea of sending out the quinine colored is a good one, and I observe that Surgeon-General deFabeck is also strongly of the same opinion; indeed, I proposed that this should be done in paragraph 8 of my letter No. 1 of 13th January 1892, embodied in G.O. of 30th March 1892, No. 311, Revenue.

5. I am glad to see that the Bengal Government have taken up, and are likely to push to a successful issue, the selling quinine through the agency of country postmasters; this was originally suggested to me by the late Mr. Money, of Devah Shola, but owing to the postal service being Imperial, this source for the distribution of the powders could not at that time be effected; but I always thought that it would be one of the best means by which the quinine might be sold to the ryots, and the Surgeon-General's remarks upon the subject are to the same effect.

6. With reference to Surgeon-General deFabeck's letter, I would remark that I thoroughly agree with what he says about the desirability of having the powders made up at some central depôt; this can be best carried out, as it is done at present, in the Quinologists' Laboratory at Ootacamund, where all the Surgeon-General's requirements relating to the purity and quantity of quinine in each powder can be guaranteed. There is only one other point upon which I desire to have the Surgeon-General's opinion, and that is would not tablets be cheaper to make and better for issue than powders.

7. With reference to the other points which the Surgeon-General has raised in connection with the distribution of the quinine, these have either been touched upon in my comments upon the Government of India's letter on the same subjects, or they are matters which properly more immediately concern Government.

8. Estimated cost of one five-grain powder

Cost of making and printing one envelope	·290
Cost of filling and packing	·072
Commission at 4 per cent.	·040
Cost of quinine	·598
	1·000 pies.

The cost of quinine, therefore, per pound would be Rs. 4–5–9; but the cost of the envelope very probably may be somewhat decreased if the printing is done in black ink instead of red and if the envelope is made one-half the size of those sent by the Government of India. The estimate for filling and packing the envelope is also probably too high, so that it would not be unsafe to estimate the cost of quinine at *Rs. 5* per pound instead of Rs. 4–5–9. This, however, is still a very low price at which to sell pure sulphate of quinine, nevertheless Government would incur no great loss if they were to order the issue of an experimental batch of one million powders at this rate, for, if things continue to go on in the factory as well as they have been doing for the last twelve months, there is no doubt but that there will be in stock at the end of the year a surplus more than sufficient to meet this demand.

9. In paragraph 2 of my letter I said that the pricing of the packet sent by the Government of India at 1 pice must have been a mistake, and that *1 pie* and not *1 pice* must have been intended. This seems clear from the Government of India having—

(1) In their letter No. 2486, dated 3rd December 1891, embodied in G.O. No. 311 of 30th March 1892, Revenue, stated that they thought that the 3 pies at which the Naduvatam powders were then sold was too much, and they counselled the Government of Madras to reduce the price. This was accordingly done; and they are now being sold at 2 pies per powder, with one jalap powder thrown in gratis for every ten of quinine.

(2) Also in their letter, dated 12th April 1892, No. 1870, they state that the powders shall be sold for the smallest coin in daily use among the people, and this I am informed in northern India is called a "chuck" and which is the equivalent of 1 pie, or one-twelfth of 1 anna.

10. Samples of the envelopes filled with colored quinine, which I should propose for use, are enclosed, and they are the size of the powders now sent out, and it will be seen that they are just one-half of the size of the envelopes sent as samples by the Government of India and less than half their weight, and the cost probably about one quarter; but on this latter point I am not able at present to speak with certainty; I have, however, written to Messrs. Silverlock and Co., Blackfrials Road, London, England, asking them at what price they would make and print such envelopes as I propose per million.

11. With regard to the instructions to be issued with each packet of 100 powders, these no doubt will be drawn up with the advice and under the authority of the Surgeon-General. For the purposes of economy, the instructions ought to be printed on the lightest and cheapest paper obtainable. Also Mahratti should be added to the list of languages given in my letter, No. 44, dated 31st August 1891.

12. With respect to the rules to be drawn up and to be observed by distributors, I think this had better be left to Government, who, no doubt, will weigh well the remarks which have been made by the Surgeon-General on the subject.

Read—also G.O., dated 21st December 1892, Mis. No. 5603.

ABSTRACT.—Stating that Mr. Lawson's letter, No. 79, dated 14th December 1892, requesting Government to cancel his letter, No. 66, dated 21st October 1892, is not very explicit, and requesting him to submit revised proposals on the same subject.

Read—the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, &c., Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 14th January 1893, No. 4-A:—

In continuation of my letter, No. 79, dated the 14th December 1892, and with reference to G.O., No. 5603, dated the 21st December 1892, Revenue, I have the honour to inform you that when I wrote I was on the point of starting for Sispara, or I should have then given my reasons for asking Government to allow me to cancel my letter of the 21st October 1892, No. 66.

1. Taking Messrs. Silverlock's estimate for 1,000 envelopes, the price of the quinine in each powder becomes much less than that which I gave in my former letter:—

Former estimate.		*Messrs. Silverlock's.*	
Cost of envelope	·290	Cost of envelope	·537
Filling and packing	·072	Filling and packing	·072
Commission	·040	Commission	·040
Quinine	·598	Quinine	·351
	1·000 pie.		1·000 pie.
Price of quinine *Rs. 4-5-9* per lb.		Price of quinine *Rs. 2-8-11*.	

To sell quinine at Rs. 2–8–11 would be almost tantamount to giving it gratis, and I cannot advise Government to do this.

2. In my letter I stated that I thought it might be unadvisable to withhold the jalap powders. I did so, because I had received many applications asking that the number of these powders might be increased, and I was for the moment of the opinion that it was the issue of the jalap with the quinine that had recently caused so great an increase in the demand. (Up to date there have been sold, since the 1st of April last, 110,100 powders of quinine as against 37,000 which were disposed of during the previous year.) I have, however, since then had an opportunity of conversing

with Surgeon-Major Maitland on the subject, who says that he does not believe that the addition of the jalap is of importance, as for the purposes of a purge in malarial fever jalap has no advantages over castor-oil or senna.

Under these circumstances, I would not advise Government to continue the issue of the jalap powders with the quinine.

After very carefully reconsidering the whole question afresh, I would now recommend that quinine (colored) should be issued, as at present, *minus* the jalap powders, and that the powders (of five grains) be sold at one pie a piece, the estimate of which is given below:—

Cost of wrapper	·056
Packing and putting up	·072
Commission	·040
Quinine	·832
	1·000 pie.

Cost of quinine *Rs. 6-1-0* per lb.

The cost of the quinine powder as at present sold for two pies is estimated as follows:—

Cost of wrapper	·056
Packing and putting up	·072
Commission	·040
Quinine	1·832
	2·000 pies.

Cost of quinine *Rs. 13-5-8* per lb.

From this it will be seen that, if the powders are to be sold at one pie instead of two pies, the price of the quinine will be more than halved.

If the quinine is to be sold at the low price of *Rs. 6–1–0*, great precautions will have to be taken to prevent its being obtained for fraudulent purposes, and it might, therefore, be well to issue the quinine *tinged with some very distinctive color*, so that it could always be recognized from any other sorts. Again, it should be issued only to such persons who would give a guarantee that it is intended for administration to the poorest classes only, and that they will sell each powder for one pie and *no more*.

A form of instructions for the administration of quinine for issue with every packet, subject to the approval of the Surgeon-General, is enclosed.

In all other respects I adhere to what I wrote in my letter of the 31st October 1892, No. 66.

P.S.—The form of "instructions" has not yet been received from the printer, but they will be sent in the course of a day or two.

Read—the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Chinchona Plantations, &c., Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 16th January 1893, No. 11:—

In continuation of this office letter, No. 4-A, dated the 14th January 1893, I have the honour to send, as promised, a copy of the form of instructions for taking quinine, which, for the future, will be sent out one to every 25 powders, or four in every one packet of 100 powders.

The extra cost in sending these out will be ·015 pies per powder, or 1·5 pies in every rupee.

Order—dated 21st January 1893, Mis. No. 244, Revenue.

Referred to the Surgeon-General with the Government of Madras for early remarks with reference to Mr. Lawson's suggestion regarding quinine tablets contained in the concluding portion of paragraph 6 of the first of the papers.

(True Extract.)

(Signed) R. H. CAMPBELL,
Ag. Under Secretary to Government.

To the Surgeon-General, with paper, to be returned.

READ—also the following paper:—

OFFICIAL MEMORANDUM.

No. 31.

With reference to his letter No. 4-A., dated 14th January 1893, Mr. Lawson is requested to report the actual cost of manufacture of a pound of quinine, taking into account—

(1) cost of supervision and establishment;
(2) depreciation in the value of buildings and machinery; and
(3) cost of bark, &c., required in manufacture.

FORT ST GEORGE,
16th February 1893.

(Signed) R. H. CAMPBELL,
Ag. Under Secretary to Government.

To M. A. Lawson, Esq.

READ—also the following letter from Surgeon-Major-General W. F. DEFABECK, M.D., Surgeon-General with the Government of Madras, to the Secretary to Government, Revenue Department, dated Madras, 2nd February 1893, No. 115:—

In retransmitting the papers relative to the distribution of quinine referred for my remarks with G.O., Mis. No. 244, dated 21st instant, I have the honour to state, with reference to Mr. Lawson's suggestion regarding quinine tablets being used instead of powders, that, in my opinion, there are several objections to the use of tablets as a popular form of the administration of drugs. The poorer classes do not understand their use and might possibly look with suspicion on them. Quinine in powder, of course, they are accustomed to.

2. Further, there would probably be greater opportunity for fraud in the sale of tablets, the bitter quinine being capable of recognition by the taste, while tablets, being swallowed whole, are not tasted. Unless a native in an out-lying place tasted the quinine itself, it is unlikely that he will believe in its existence.

3. I think the difference in cost of manufacture will not outweigh these disadvantages.

READ—also the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, &c., Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 4th March 1893, No. 29:—

In looking over my letter, No. 4-A., dated 14th January 1893, I find that in paragraph 2 a clerical error has been made; it is therein stated—

"Up to date there have been sold, since the 1st April last, 110,100 packets of quinine as against 37,000, which were disposed of during the previous year."

For the word "packets" read "powders."

I may take this opportunity of stating that up to the end of February 1893, 170,300 powders have been sent out; and from this it would seem that the people in the country are beginning to regard 2 pies per powder as not beyond their means.

READ—also the following letter from M. A. LAWSON, Esq., Government Botanist and Director of Government Cinchona Plantations, &c., Nilgiris, to the Secretary to Government, Revenue Department, dated Ootacamund, 4th March 1893, No. 30:—

With reference to your official memorandum No. 31, dated the 16th February 1893, I have the honour to state that I feel myself in some perplexity, for I do not quite know how I am to reply to the questions you have put. I will, however, answer them to the best of my ability—

(1) The cost of supervision and establishment may be taken at Rs. 80,000, out of which—

(2) Rs. 2,000 may be taken to represent depreciation in the value of buildings and machinery.

(3) I do not know how to estimate the value of the bark used. At present I am working off the poorer classes of cinchona officinalis, and am leaving the richer kinds for future use. Again, the manufacture of febrifuge is carried on in connection with the manufacture of quinine, and I do not see how to separate the cost of the manufacture of the one from that of the other.

2. It seems to me the best method to adopt in estimating the value of quinine would be to take the amount of quinine and febrifuge turned out during the year and divide the total cost of the department, viz., Rs. 80,000 by the total outturn of alkaloids, viz., 8,000 lb. and this would give Rs. 10 per lb.

3. I am not sure that I may not have misled Government in my letter, dated 14th January 1893, No. 4, paragraph 3, by stating somewhat vaguely that the "cost of quinine," if sold at 1 pie a powder, "would be Rs. 6 a pound." What I meant Government to understand was that this would be the sum that they would receive per pound and not that it represented the cost of production.

ORDER—dated 28th April 1893, No. 347, Revenue.

Miscellaneous.

His Excellency the Governor in Council is not prepared to accept Mr. Lawson's proposal to reduce the price of quinine powders from 2 pies to 1 pie per 5-grain packet as an experimental measure and to issue a million packets at this price. Mr. Lawson now estimates the actual cost of making quinine at 10 rupees a lb. and proposes to sell it at Rs. 6–1–0 per lb. or at a loss of about Rs. 4 a lb. On a million packets of 5 grains each (or 5,000,000 grains) the loss would be about 2,600 rupees which is a considerable sum to throw away needlessly. In Bengal the charge is a pice, *i.e.*, 3 pies per packet, and the Government considers it inexpedient and unnecessary to sell the packets in this Presidency for less than 2 pies each, the price to which the people are accustomed. The present 2-pie rate should therefore be adhered to.

2. The Government agrees with Mr. Lawson and the Surgeon-General in thinking that the quinine should be tinged with some distinctive colour with a view to preventing fraud, and is also of opinion that the issue of jalap powders with quinine packets should be discontinued.

3. As regards the packing of quinine powders in closed covers, the cost of making such covers is, as Mr. Lawson points out, prohibitive, and the present system of packing them in wrappers should accordingly be adhered to. His Excellency the Governor in Council admits the force of the objections raised by the Surgeon-General to the employment of district dispensary establishments in the making up of the powders, and considers that these should, as at present, be prepared at the Quinologist's Laboratory at Ootacamund.

4. The system of selling quinine through the agency of postmasters, which is in force in Bengal, is, in the opinion of the Government, deserving of a trial in this Presidency. The Board suggests that the system may be introduced as an experiment in a few selected districts, viz., Kurnool, Cuddapah, Vizagapatam, Ganjam and Malabar. The Government approves of this suggestion, and, with a view to its adoption, will obtain the sanction of the supreme Government for utilizing the services of country postmasters generally in selling quinine under conditions similar to those in Bengal.

5. Mr. Lawson's suggestion to restrict the issue of quinine to persons who would give a guarantee that the powders are intended for administration to the poorest classes only does not commend itself to Government.

6. The following letter will be addressed to the Government of India :—

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Government Botanist, &c.
„ the Commissioners of Land Revenue.
„ the Financial Department.
„ the Accountant-General.
„ the Surgeon-General with the Government of Madras.
Copy to the Commissioner of Revenue Settlement, Land Records and Agriculture.
„ „ Public Department.

Exd. S. J. Pereira.

110 Copies.

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Govt. of {1893} Madras.

REVENUE.

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3-1-10
7.7.9
19.6.24 II.
19-6-23 II

Issued

Recd. Encl.

28th April 1893, No. 347.-48

APRIL.

Quinine Packets.

Passing orders on papers relating to the preparation and sale of -- in this Presidency.