M.D.O. I—77,000—5-8-37.

(1) Number of pages 24.

(2) Date of repair 11.6.38

(3) Initials of the Referencer

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1213 Press/Mis.

Dated 13.7. 1871.

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department,
13th July 1871.

Read the following papers :—

No. 151. Endorsement of the Acting Under-Secretary to Government, Revenue Department, dated Fort Saint George, 7th June 1871.

Read the following letter from J. BROUGHTON, Esq., Government Quinologist, to the Acting Secretary to Government, Revenue Department, Fort Saint George, dated Ootacamund, 2nd June 1871.

I HAVE the honour to request instructions on the following point, which I proceed to explain :—

2. On my return from Calcutta in April I found that bark had been recently delivered at the manufactory at Ootacamund, with a notice from the Assistant Superintendent at Neddivuttum that it was the last that could be supplied for the present. The bark was merely that of prunings, and a subsequent examination of the plantations showed that no more could be supplied till after the monsoon; the bark from the branches of the trees remaining to be pruned being too young to be of value.

3. I therefore was compelled to discontinue working at Ootacamund, and have commenced, according to G. O. No. 91 of February 7th, paragraph 3, to prepare for manufacturing at Neddivuttum, with the expectation of employing part of the bark of trees directed to be cut down in the above-mentioned G. O. Up to nearly the present time no manufacture has been resumed; but now that 200 trees of red bark have been cut down, I have received 324 lbs. of the branch and upper bark, which is now in process of manufacture at Neddivuttum. The trunk bark of these trees is to be sent Home.

4. A considerable amount of bark has been collected from mossed and unmossed trees, which is now being packed for sale in England. Analyses have, of course, been made of specimens of these. In the present state of the bark-market, and with the current general estimation of Cinchona cultivation in India, I am quite of opinion that our best red bark should at first be sent Home, in order to obtain a character for our bark in the European market, and an estimate of its commercial value.

5. I have had occasion (Proceedings Madras Government, Revenue Department, No. 235, of 22nd February 1870, paragraph 41) to mention the considerable decrease of alkaloid in the barks, which occurs during the monsoon. I do not think therefore now that the advisability of manufacturing in India is established, that it will be found desirable, for this reason, to manufacture during the rains at Neddivuttum, even supposing that bark be obtainable. There are, of course, plenty of trees which might be cut down; but I am of opinion that at least two more years should elapse before cropping can be profitably conducted. The results obtained by the taking of the bark this Spring support this conclusion. I have therefore from the necessities of the case to request directions as to whether manufacture must not cease during this monsoon.

6. Employment for Mr. W. Davison, Superintendent of Manufactory, can be readily found in my laboratory, where he has been working for the last six weeks, and many of the coolies, whose services are not required, can be discharged. If the supplies of bark were regular and constant, as will be the case when the plantations are older, it will be a simple matter to provide work during the monsoon.

7. There is at Pycara a large number of trees, which require pruning, and which will therefore, after the monsoon, supply bark. Also, next October, the older trees that are mossed will have many more branches removed, whose bark will be available. It will, however, be at least two years before the plantations will supply a quantity of dry bark equal to 20,000 lbs. of 4 per cent yield, which is necessary to the economical manufacture of 800 lbs. of amorphous quinine, as stated in my letter to the Commissioner of the Nilgiris (Proceedings Madras Government, No. 88, of 7th February 1871). Hitherto I have had nothing but inferior branch-bark.

P.S.—If this letter be printed I shall be obliged by receiving two copies.

Referred to the Commissioner of the Nilgiris for such observations as he may wish to offer.

(Signed) H. WELLESLEY,
Acting Under-Secretary to Government.

No. 152. From the Commissioner of the Nilgiris, to the Acting Secretary to Government, Revenue Department, Madras, dated Ootacamund, 28th June 1871, No. 53.

I have the honour to return Mr. Broughton's letter of the 2nd instant with the following observations :—

To manufacture 800 lbs. of amorphous quinine 20,000 lbs. of dry bark, containing 4 per cent. of alkaloids, are required. To get this either 20,000 trees of at least 7 years' growth must be cut down under the coppicing system, or the bark from 60,000 trees must be taken under the mossing process.

2. In paragraph 5 of Mr. Broughton's letter now returned, he says, "There "are, of course, plenty of trees which might be cut down; but I am of opinion "that at least two more years should elapse before cropping can be profitably "conducted."

Under these circumstances I am of opinion that it will be best *not* to cut down the trees, but to get the bark by the mossing process. Mr. McIvor says, "The "whole quantity of bark required can be supplied in October, November, and "December next. These months and April and May are the best months for "taking mossed bark, and is also the time when the bark contains the greatest "quantity of alkaloids."

3. I append Mr. McIvor's letter of the 26th instant for information. You will note that Mr. McIvor writes (paragraph 1): "Should you not feel satisfied as to the best mode of harvesting the bark, it would then be more satisfactory to Mr. Broughton and myself if the one-half of the bark required were produced by mossing and the other half by coppicing." Whether the mossing or coppicing process proves in the end the most profitable mode of harvesting the bark will by-and-bye be satisfactorily ascertained. They are now being subjected to trial under Government Order, Revenue Department, 19th April 1871, No. 701. For the present however, and until the result of the trial is known, as the one process necessitates the cutting down of the trees, and the other the mere stripping off a portion of the bark which is renewed without injury to the tree, I have no hesitation in recommending the Government to work their plantations for the present on the

mossing principle until the coppicing system has proved its superiority. I have satisfactory evidence from an independent planter of the value of the mossing process, and it is quite certain that a large amount of bark can be harvested in that manner without injury to the trees, and that the bark will be renewed to about two-thirds of its original thickness within the year.

4. It seems therefore best that Mr. Broughton should cease manufacturing during the monsoon and begin again in October, when Mr. McIvor can begin furnishing bark on the mossing principle from the Markham plantation.

Enclosure No. 1.

From W. G. McIVOR, Esq., Superintendent Cinchona Plantations, to the Commissioner of the Nilgiris, dated Ootacamund, 26th June 1871, No. 48.

In reply to your letter No. 33 of the 21st instant, I have the honour to observe, that if you are already satisfied that the mossing system is the most profitable mode of cropping our plantations, it appears to me very desirable to suggest that this process be put in practice to produce sufficient bark for the manufacture of 800 lbs. of amorphous quinine. Should you not feel satisfied as to the best mode of harvesting the bark, it would then be more satisfactory to Mr. Broughton and myself if the one-half of the bark required were produced by mossing and the other half by coppicing.

2. By the mossing process either of the two oldest plantations at Neddivuttum would produce annually sufficient bark to give 800 lbs. of amorphous quinine. I would, however, suggest that the bark for this purpose be procured from the Markham plantation, and that the produce of the oldest trees on the Denison plantation be sent into the Home market.

3. By the coppicing system either of these plantations will now produce the quantity of bark required, but it will be 7 or 8 years before the trees yield another crop of bark.

4. The whole quantity of bark required can be supplied in October, November, and December next. These months and April and May are the best months for taking mossed bark, and is also the time when the bark contains the greatest quantity of alkaloids.

5. To produce 20,000 lbs. of dry bark 60,000 trees will require to be mossed.

No. 153. Order thereon, 13th July 1871, No. 1,213.

Miscellaneous.

The Government assent to Mr. Broughton's proposal that the manufacture of "amorphous quinine" at Neddivuttum shall be suspended until next October. The bark then supplied to the Quinologist should be obtained under the "mossing process."

(True Extract.)
(Signed) D. F. CARMICHAEL,
Acting Secretary to Government.

To the Government Quinologist.
,, the Commissioner of the Nilgiris.

Exd. F. R. Bantleman.

Govt. of [1871] Madra

REVENUE,

To

THE GOVERNMENT QUINOLOGIST

&c., &c.,

Dated July 13th.

Recd.

G. O., 18th July 1871, No. 1,918.

JULY.
Nos. 151-153.

Bark for the manufacture of amorpho quinine.—Passing orders for obtaining it und the pruning process.

Ootacamund
2d June 1871

From
Mr. John Broughton
Government Quinologist

To
D. F. Carmichael Esq.
Ag Secretary to Government
Revenue Department
Fort Saint George

Sir,

I have the honor to request instructions on the following point which I proceed to explain.

2 On my return from Calcutt in April I found [illegible] had been recently delivered at the man factory at Ootacamund with a notice from the Asst Superintendent at Neddivuttum that it was the last that could be supplied for the presen The bark was merely that of pruning and a subsequent examination of the plantations shewed that no more could be supplied, till after the monsoon, the bark from the branch of the trees remaining to be pruned being too young to be of value.

3. I therefore was compelled to discontinue working at Ootacamund, and have commenced according to G. O. No 91 of Feb 7th para 3 to prepare for manufacturing at Neddiwuttum; with the expectation of employing part of the bark of trees directed to be cut down, in the above mentioned G. O. Up to nearly the present time, no manufacture has been resumed, but that 200 trees of Red Bark have been cut down. I have received 22½ lb of the branch and upper bark which is now in process of manufacture at Neddiwuttum. The trunk bark of these trees is to be sent home.

4. A considerable amount of bark has been collected from mossed and renewed trees which is now being packed for sale in England. Analyses have of course been made of specimens of these. In the present state of the bark market, and with the current general estimation of Cinchona cultivation in India, I am quite of opinion that our best red bark, should at first be sent home in order to obtain a character for our bark in the European market, and an estimate of its commercial value.

5. I have had occasion (Proceedings Madras Govt. Rev. Dept. No 235 of 22d Feb. 1870. para 41) to mention the considerable decrease of alkaloid in the barks, which occurs during the monsoon. I do not think therefore, now that the advisability of manufacturing in India is established, that it will be found desirable, for this reason, to manufacture during the rains, at Neddiwuttum; even supposing that bark be obtainable. There are of course plenty of trees which might be cut down; but I am of opinion that at least two more years should elapse before cropping can be profitably conducted. The results obtained by the taking of the bark this spring, support this conclusion. I have therefore from the necessities of the case to

request directions, as to whether manufacture must not cease during this monsoon

6 Employment for Mr. W. Davison superintendent of manufactory can be readily found in my laboratory, where he has been working for the last six weeks. and many of the coolies whose services are not required, can be discharged. If the supplies of bark were regular and constant, as will be the case when the plantations are older, it will be a simple matter to provide work during the monsoon

7 There is at Pycara a large number of trees which require pruning and which will therefore after the monsoon supply bark. Also next October, the older trees that are mossed will have many more branches removed, whose bark will be available. It will however be at least two

years

years before the plantations will supply a quantity of bark equal to 20,000 lbs. of 4 per cent yield, which is necessary to the economical manufacture of 800 lbs. of amorphous quinine; as stated in my letter to the Commissioner of the Neilgherries. (Proceedings Madras Govt. No. 88 of 7th Feb. 1871). Hitherto I have had nothing but inferior branch bark.

I have the honor to be
Sir
Your most Obedt. Servt.

John Broughton.
Govt. Quinologist

P. S. If this letter be printed, I shall be obliged by receiving two copies.

J.B.

Commissioner's Office
Ootacamund 28th June 1871.

No. 50

From

J. W. Breeks Esqr.
Commissioner
Neilgherries

To

The Secretary to Government
Revenue Department
Madras

Sir,

I have the honor to return Mr. Broughton's letter of the 2nd Instant with the following observations.

To manufacture 800 lbs. of Amorphous Quinine 20.000 lbs. of Dry Bark containing 4% of Alkaloids are required. To get this, either 20,000 trees of at least 7 years growth must be cut down under the coppicing system or the bark from 60,000 trees must be taken under the mossing process.

2. In para 5 of Mr. Broughton's letter now returned he says "There are of course plenty of trees which might be cut down [illegible]

~~22nd February 70~~ No. 235/36
7th " 71 " ~~87~~/91.

10.6.71

Referred to the Commissioner of the Neilgherries for such observations as he may wish to offer.

Fort St. George
7th June 1871
H. Wellesley
Actg. Sec. to Govt.

Revenue 1871. O. & A.
From ~~No.~~ 1791.
The Govt. Quinologist
Ootacamund
To, The Actg. Secretary to Govt.
Revenue Dept.
Madras
Dated 2nd } June 1871.
Recd 5th }

R. 2079/71

No. 13 July 1871 Sec. R. No. 15

Quinine Amorphous.
Enquiry respecting its manufacture during the monsoon.

Referred

"coppicing can be profitably conducted."

Under these circumstances I am of opinion that it will be best not to cut down the trees but to get the bark by the mossing process. Mr. McIvor says "that the whole quantity of bark required can be supplied in October, November and December next. These months and "April and May are the best months "for taking renewed bark and is also the "time when the bark contains the greatest "quantity of alkaloids."

3. I append Mr. McIvor's letter of the 26th Instant for information you will see that Mr. McIvor writes "from [illegible] [illegible] you are not feel satisfied as to the best mode of harvesting the bark it would then be more satisfactory to Mr. Broughton and myself if the one half of the bark required was produced by mossing and the other half by coppicing" Whether the mossing or coppicing process [illegible] [illegible] the most suitable mode of harvesting the bark must by and bye be satisfactorily ascertained. [illegible] [illegible] subject to trial [illegible] Government Order for the present [illegible] until the results of the trial is known, as the one process [illegible]

R. D. 12 April 1871 No 70

the cutting down of the trees and the other the mere stripping off a portion of the bark which is renewed without injury to the tree I have no hesitation in recommending the Government to work their Plantations for the present on the mossing process until the coppicing system has proved its superiority. The satisfactory evidence from an independent Planter of the value of the mossing process and it is quite certain that a large amount of bark can be harvested in that manner without injury to the trees and that the bark will be renewed to about 2/3rds of its original thickness within the year.

4. It seems therefore best that Mr. Broughton should cease manufacturing during the monsoon and begin again in October when Mr. McIvor can begin furnishing bark on the mossing principle from the Markham Plantation.

I have the honor to be
Sir
Your most obedt. Servt.

W. Kelly
Commissioner

T. G. D.

No. 48 27.6.71

Government Gardens
Ootacamund 26th June 1871

From,

W. G. McIvor Esqr.
Supt. Chinchona Plantations

To

J. W. Breeks Esqr.
Commissioner of the Neilgherries
Ootacamund

Sir,

In reply to your letter No. 33 of the 20th inst. I have the honor to observe, that if you are already satisfied, that the mossing system is the most profitable mode of cropping our plantations, it appears to me very desirable to suggest that this process be put in practice to produce sufficient Bark for the manufacture of 800 lbs of amorphous Quinine. Should you not feel satisfied as to the best mode of harvesting the bark it would then be more satisfactory to Mr. Broughton and myself if the one half of the bark required were produced by mossing and the other half by coppicing.

2. By the mossing process either of the 2 oldest plantations at Neddivuttum would produce annually sufficient Bark to give 800 lbs of amorphous Quinine. I would however, suggest that the bark for this purpose be procured from the Markham plantation, and that the

produce

G.O. 19 April 1871 No. 1200

Revenue 1871 Department

No. 53.

Date 28 June 1871
Recd 30th Do.

No. 2079

Commissioner's Office,
Ootacamund.

To, Sent No. 13 – 3 July 71

The Secretary to Government
Revenue Department
Madras

Enclosures. Two

Chinchona

SUBJECT.

Bark – Submitting his views on the best method of providing bark for the manufacture by Mr. Broughton of the 800 lbs of Quinine.

No. 151
G.O. 6th July 71 No.

produce of the oldest trees on the Denison plantation be sent into the Home market.

3 By the coppicing system either of these plantations will now produce the quantity of bark required, but it will be 7 or 8 years before the trees yield another crop of bark.

4 The whole quantity of bark required can be supplied in October, November and December next. These months and April and May are the best months for taking moſsed barks, and is also the time when the bark contains the greatest quantity of alkaloid.

5. To produce 20,000 lbs of dry bark, 6,000 trees will require to be moſsed.

I have the honor to be
Sir
Your most obedient Servt.

Supt. Govt. Cinchona Plantns.

From
The Supt. Chinchona Plantns
Ootacamund

To the Commissioner
Neilgherries

Dated 26th June 1871
Recd.

No 48
R 2079/71

Chinchona Bark

Informs how the 2000 lbs of — required for the manufacture of Quinine can be supplied.

Pro 13 July 71 Inv B. No 151

Revenue Department

No 1213 -

Proceedings of the Madras Government
Under date the 13th July 1871

Read the following lett
from the Commissioner
of the Neilgherries.

Submitting his views on the best method of providing bark for the manufacture by Mr. Broughton of the 800 lbs of Quinine. — R. E. 28th June 1871 No 53

J. D. S.

The Government
assent to Mr. Broughto
proposal that the man
:facture of "Amorphous
quinine" at Neddivutt
shall be suspended
until next October. —
The bark then supp
to the Quinologist
should

hould be obtained
nder the "massing
rocess." —

3 Copies To the Commr. of the Neilgiris
Despd. 14

Memorial of the [illegible]
Overseers of the [illegible]
[illegible]

C6 July/71. 128