

(1) Number of pages 42
(2) Date of repair 11-7-38
(3) Initials of the Referencer if

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	277	Press Mis.
Dated	4-3-	1880.

Not to be folded or roughly handled

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

4th March 1880, No. 277.

No. 81. READ THE FOLLOWING PAPER :—

Despatch from the Right Honorable the Secretary of State for India.

Revenue,
No. 36.

INDIA OFFICE, LONDON,
24th December 1879.

MY LORD DUKE,—I transmit herewith, for your Grace's information, a report on the analysis of Chinchona Bark, grown on the Papanasam Hills in Tinnevely, referred to in your letter, No. 21, of the 18th July last.

2. Messrs. Jenkin and Phillips, the Brokers, through whom the analysis was obtained, report that the bark is very good, and, if fairly represented by the sample, would be worth 4s. to 4s. 6d. per lb. Copies of two letters from that firm on the subject are enclosed herewith.

Dated 5th and 9th December 1879.

I have, &c.,

(Signed) CRANBROOK.

His Excellency the Most Noble
The Governor in Council, Fort St. George.

ENCLOSURE No. 1.

From MESSRS. JENKIN AND PHILLIPS, to the Under Secretary of State for India, dated 51, Lime Street, E.C., London, 9th December 1879.

At foot we beg to hand you copies of letters received from our friends, Messrs. Howards and Sons and Mr. Thomas Whiffen, in reference to your sample of Red Bark from trees grown on the Papanasam Hills in Tinnevely :—

“ STRATFORD, 4th December 1879.

MESSRS. JENKIN AND PHILLIPS.

DEAR SIRs,—We are much interested with the sample of Red Bark from the Papanasam Hills; the analysis by Dr. Paul may be a little too favorable, but not much; if it is natural bark, it is the best sample of Red Bark we have seen from the East Indies, being nearly equal to renewed of other growths; and at present prices is worth about 4/6 per lb., if the sample fairly represents the average quality of the bark.

Yours truly,

(Signed) HOWARDS AND SONS.”

“ BATTERSEA, 8th December 1879.

MESSRS. JENKIN AND PHILLIPS. .

DEAR SIRs,—The following are results of our analysis of the Government Red Bark grown at Papanasam :—

Quinine Sulphate	...	...	...	...	2.6	per cent.
Cinchonidine Sulphate	...	...	...	...	3.21	„
Cinchonine Alkaloid	...	...	...	...	1.01	„

This is the finest yield of quinine from Indian Red Bark, not renewed, that I have ever seen.

Yours truly,

(Signed) THOMAS WHIFFEN.”

From MESSRS. JENKIN AND PHILLIPS, to the Under Secretary of State for India, dated 51, Lime Street, E.C., London, 5th December 1879.

ENCLOSED we beg to hand you analysis of sample bark (*Chinchona succirubra*) grown on the Papanasam Hills in Tinnevely.

The bark is very good, and, if fairly represented by the sample, would be worth 4/0 to 4/6 per lb.

ANALYTICAL LABORATORY,
106, FENCHURCH STREET, E.C.,
LONDON, 1st December 1879.

Chinchona Bark Certificate.

To

MESSRS. JENKIN AND PHILLIPS, 51, Lime Street.

THE sample of Chinchona Bark received from you on the 24th ultimo, marked Papanasam, gives the following results on analysis :—

	Per cent.	1 lb. (= 7,000 Grains) of the Bark contains
Crystallized Quinine Sulphate...	2.95	206½ Grains.
Do. Quinidine Sulphate ...	...	...
Do. Cinchonidine Sulphate ...	2.83	198 "
Cinchonine (Alkaloid) ...	1.20	84 "

Bark
lbs. oz.

2 1½ = 1 oz. Crystallized Quinine Sulphate.

(Signed) B. H. PAUL.

No. 82. ORDER THEREON, 4th March 1880, No. 277.

Miscellaneous.

COMMUNICATED to the Conservator of Forests.

2. The tree from which the bark was taken having been grown at an elevation of only 3,300* feet above the sea, the fine quality of its bark of twelve years' growth, as tested by analysis, is very satisfactory.

3. Copy of these Proceedings and of the papers noted in the margin will be communicated to the Chamber of Commerce, the Madras Agri-Horticultural Society, and the various Planters' Associations.

(True Extract.)

(Signed) J. H. GARSTIN,
Acting Secretary to Government.

To the Conservator of Forests.

„ the Board of Revenue.
„ the Superintendent, Government Central Museum.
„ the Chairman, Chamber of Commerce.
„ the Honorary Secretary, Agri-Horticultural Society, Madras.
„ the Collector of Tinnevely, with five spare copies for distribution.
„ the „ of Madura, with do.
„ the „ of Malabar, with ten spare copies for distribution.
„ the Commissioner of the Nilgiris, with do.
„ the Resident in Travancore and Cochin, with do.

Exd. A. F. Goodall.

150 Copies.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

31st October 1879, No. 2,129.

READ THE FOLLOWING PAPERS :—

No. 384. * * * * *
No. 385. * * * * *

ENCLOSURE No. 1.

From Colonel R. H. BEDDOME, Conservator of Forests, to J. H. GARSTIN, Esq., c.s.i., Acting Secretary to Government, Revenue Department, dated Ootacamund, 22nd September 1879, No. 859.

13. I carefully inspected all the chinchona on the Tinnevely Hills in accordance with G.O., No. 1,140, of 23rd May last. There are only two small plots, one in the Government forests above Papanasam, the other at Chinna Kularati on hills six or seven miles to the south of Courtallam.

14. The Papanasam Plot.—This is a small piece of ground of about half an acre cleared in the midst of heavy forest at the eastern side of the Payar Shola; the exposure is north-east and the situation very moist; the elevation about 3,400 feet above the sea. The plants were sent from the Nilgiris and put down by Mr. Athol MacGregor in 1866; the site was then fenced in and probably left to nature; though I believe that a hillman was supposed to look after it in its infancy, it was under the Revenue authorities, and was never, I believe, transferred to this department; the fences have long since been destroyed by wild elephants, and there were recent traces of these animals all about the locality. There are now standing twenty-nine large trees of *C. Succirubra*, all much the same size, the bolls tall and healthy, but few or no lateral boughs, and those mostly broken, and very poor heads; in fact, altogether deficient in leaf, having much the appearance of having suffered from a violent hurricane, but it is possible that they may have been injured by black monkeys, which were very abundant about the vicinity. I measured three of the larger trees with the following result :—

		FT.	IN.
No. 1.	Height ...	50	0
	Girth at base ...	2	6½
	Girth breast high ...	2	3
No. 2.	Girth at half length ...	1	6½
	Height ...	49	9
	Girth at base ...	2	3
No. 3.	Girth breast high ...	2	0
	A double stem from close to the base ...	...	...
	Height of larger stem ...	52	7
No. 3.	Girth near the base ...	2	3
	Girth breast high ...	1	11
	Girth at half length ...	1	3½
No. 3.	Height of smaller stem ...	42	0
	Girth breast high ...	0	10½

Besides the twenty-nine planted trees there are numerous self-sown saplings 18 to 20 feet high; these are very close together, without room to develop properly.

In addition to the *C. Succirubra* there are a few trees of *C. Officinalis*, but these are all of very poor growth.

15. *The Chinna Kularati Plot.*—The elevation of this site is 2,800 feet above the sea; there are only eighteen *C. Succirubra* trees standing 5 to 6 feet apart on two terraces at the edge of a native coffee estate close to dense forests; they are all about the same height, 30 to 40 feet, except one, which is stunted and of poor growth from being densely overtopped by a forest tree; they have straight clean bolls, with no lateral boughs and fine healthy heads; they are, however, all too much in the shade of the forest; the largest tree was 37 feet 2 inches high, 2 feet in girth at the base, and 1 foot 5 inches breast high. They are evidently looked after by the owner of the coffee estate. The climate here is nearly as moist as on the Papanasam Hills; the trees were said to be ten years of age, and certainly looked much younger than those in the Papanassam block, but by G.O., No. 2,362, of the 8th October 1867, they appear to have been planted at the same time.

* * * * *

(True Copies and Extract.)

(Signed) C. A. GALTON,
Acting Secretary.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

23rd May 1879, No. 1,140.

No. 505. READ THE FOLLOWING PAPER :—

From Colonel R. H. BEDDOME, Conservator of Forests, to J. H. GARSTIN, Esq., Acting Secretary to Government, Revenue Department, dated Ootacamund, 9th May 1879, No. 248.

I HAVE the honor to forward 15 lbs. of dry bark taken from a portion of a tree of *Chinchona succirubra* grown in the Tinnevely Ghât forests above Papanasam, and would suggest that the same should be sent to England or elsewhere to be tested.

2. A few plants were sent* from the Nilgiris for trial in this district, and the succirubra plants were put down, at an elevation of about 3,000 feet, in a small clearing in the ghât forests; they have been left entirely to nature, but owing to the moister climate, the growth contrasts very favorably with that of Neddivattum or elsewhere on the Nilgiris.

3. During my last inspection I found one of the larger trees to be nearly 50 feet high; it had three large stems at about 1 foot from the base, the leader having, it was said, been broken by a monkey when young. I requested Mr. Hayne, the Deputy Conservator, to fell one of these stems and dry the bark. Mr. Hayne reported that he felled one of the stems at 3 feet from the ground, and that the felled portion was 42 feet long and 24 inches in circumference at the base; from 30 feet of the stem, the top of which measured 10½ inches in circumference, he obtained 45 lbs. of green bark and 4 lbs. from the remaining 12 feet, making in all 49 lbs.; and he calculated that he would have obtained 150 lbs. if the whole tree had been felled.

4. Mr. Hadfield, who is now in charge, forwards the dry bark; but as it should have dried to not less than 20 lbs., it is probable that some was lost or abstracted.

5. It is interesting to note the height of this tree, which is very much taller than anything to be seen in the Government plantations on the Nilgiris, and a report on the quality of the bark will be interesting; the latter has probably been dried in the rudest manner, as nothing was known as to how it should be treated.

No. 506. ORDER THEREON, 23rd May 1879, No. 1,140.

Forests, No. 19.

G.O., 8th October 1867, No. 2,362.
" 23rd August 1869, " 2,396.
" 25th October " " 2,841.

FROM the papers noted in the margin it appears that three *Chinchona* gardens were originally formed in the Tinnevely District, viz., on the Peria and Chinna Kulirati hills and "on the hills above Papanasam."

2. The former did not succeed, but in 1869 seventeen trees of *C. succirubra* were alive in the Chinna Kulirati garden and thirty-two *C. succirubra* and seventy-five *C. officinalis* in that above Papanasam. At that time all these trees were in a thriving and promising condition, but no subsequent report regarding them appears to have been hitherto received.

Exd. A. F. Goodall.

150 Copies.

3. In the letter recorded above the Conservator reports on certain *C. succirubra*

* *Vide* in G.O. for January 1868, No. 29. trees grown in the "forests above Papanasam," but in the memorandum* of August 1867, to which he makes reference, he wrote regarding the garden at Chinna Kulirati.

Both gardens appear to have been formed in August 1866, so that the tree now reported on was between twelve and thirteen years old when one of its stems was felled.

Its height, 45 to 50 feet, is in excess of the tallest tree, $37\frac{1}{2}$ feet, of the same species found by Captain Walkert† at Neddivattum, where the first planting was in 1862. No comparison of girth is possible as the measurements were taken at different heights.

4. The bark forwarded by the Conservator, which is presumably all stem bark, will be sent home for analysis as suggested.

5. The Government desire to be furnished at an early date with information as to the number, species and condition of the trees still remaining in both the Chinchona gardens in the Tinnevely District, and it should be made clear to which the tree now reported on belongs.

(True Extract.)

(Signed) J. H. GARSTIN,
Acting Secretary to Government.

To the Conservator of Forests.
,, the Board of Revenue.

Exd. A. F. Goodall.

150 Copies.

(copy)

Analytical Laboratory
106, Fenchurch Street, E.C.

London, 1st December 1899

Cinchona Park Certificate

To Messrs Jenkin & Phillips
51 Lime Street.

The sample of Cinchona Park received from you on the 24th ultimo marked Papanasam gives the following results on analysis:-

	Per cent	1 lb (= 4.500 grains) of
Crystallized Quinine Sulphate	2.95	206 1/2 grains
Crystallized Quinidine Sulphate	-	- "
Crystallized Cinchonidine Sulphate	2.83	198 "
Cinchonine (Alkaloid)	1.20	84 "

Wt.

2 - 1 3/4 = 108 Crystallized Quinine Sulphate

(S) B. H. Paul

F. P. L.

G.O. of 18791 ~~31~~ 18791.

REVENUE.

To

THE CONSERVATOR OF FORESTS,

Ec, Ec, Ec.

Dated May 23rd.

Printed June 5th.

Recd.

Encl.

G.O., 23rd May 1870, No. 1,140.

MAY.

Nos. 505-506.

Cinchona Gardens in Tinnevely District.—
Recording observations in connection with the
—; resolving to send the bark received from
the Conservator to the Home Government for
analysis; and requesting the Conservator of
Forests to furnish further information on the
points specified.

Enclonic

Nov 23/99

PRINT

5-3-90

90-4 Nov 20 No 277

S. R. 10

(Copy)

51 Lime Street, E.C.
London. 9th Dec. 1899

The Under Secretary of State for India

Sir,

At foot we beg to hand you copies
of letters received from our friends
Messrs Howards & Sons and Mr Thomas
Whiffen in reference to your sample
of Red Bark from trees grown on the
Papapanasam Hills in Tinnevely.

Stratford 4th Dec 1899

" Messrs Jenkin & Phillips

Dear Sirs,

" We are much interested with the
" sample of Red Bark from the Papapanasam
" Hills the analysis by Dr Paul may be
" a little too favorable but not much;
" if it is natural bark it is the best
" sample of Red Bark we have seen
" from the East Indies being nearly
" equal to renewed of other growths and
" at present prices is worth about 1/6 per
" lb, if the sample fairly represents the
" average quality of the bark.

Yours truly

(S^d) Howards & Sons

(Copy)

Battersea 8th Dec^r 1849

Messrs Jenkin & Phillips

" Dear Sirs,

The following are results of our
Analysis of the Government Red bark grown
at Papanasam

" Quinine Sulphate 2. 6 per cent
" Cinchonidine do 3. 21 " "
" Cinchonine Alkaloid 1. 01 "

" This is the finest yield of Quinine from
" Indian Red bark - not renewed - that
" I have ever seen.

Yours truly
(S) Thomas Whiffen

We are &c

(S) Jenkin Phillips

(Copy)

51 King Street. E.C.

London 5th Dec^r 1849

The Under Secretary of State for India
Sir,

Enclosed we beg to hand you
Analysis of sample Bark (Cinchona
Luccirubra) grown on the Papanasam
Hills in Tinnevely.

The bark is very good, and if
fairly represented by the sample would
be worth 4/- to 4/6 per lb.

We are &c

(S) Jenkin Phillips

India Office.

London, 24 December 1877.

Revenue

No. 36.

My Lord Duke,

1. I transmit herewith, for your Grace's information, a report on the analysis of Cinchona Bark, grown on the Papanasam Hills in Tinnevely, referred to in your letter No. 21, of the 18th July last.

2. Messrs. Jenkin and Phillips, the Brokers, through whom the analysis was obtained, report that the bark is very good, and, if fairly represented by the

His Excellency
The Most Noble
The Governor in Council
Fort Saint George.

7 m 1774/80

Principal

Govt. of (1880) STINDIA.

REVENUE.

To

THE CONSERVATOR OF FORESTS,

&c.,

&c.,

&c.

Dated March 4th.

Printed 10th.

Recd.

Encl.

G.O., 4th March 1880, No. 277.

MARCH.

Nos. 51-82.

Cinchona Bark grown on the Papanasam Hills in the Tinnevely District.—Communicating, with remark, to the Conservator of Forests despatch from the Secretary of State transmitting report on the analysis of —, and directing that these Proceedings and certain papers be communicated to the Chamber of Commerce, the Madras Agricultural Society, and the various Planters Associations.

the sample would be
worth 4³/₄ to 4⁵/₆ per lb.

Copies of two letters
from that firm on
the subject are enclosed
herewith.

dated 5th & 9th Dec. 1879.

I have the honor to be,

My Lord Duke,

Your Grace's most obedient
humble servant

Leicester

No. 10

Revenue

24th Decr 1879

The
Letter to Govt. St. George
No. 36.

PRINT

5-3-80

Received 23 January 80

Encl.

No. 277. 4 March 1880

Transmitting a
report on the Analysis of
Chinchona Bark grown
on the Papanasam Hills in
the Dindigul St.

c. 14/2/80 R. 4/3/80.

10/10

Revenue Department

No. 277.

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the

4th March 1880.

Read the following

Dispatch from the
Secretary of State of
24th December 1879,
No. 36. transmitting a
report on the analysis
of Chinchona bark
grown on the Papanasam
Hills, Dindigul District.

communicated
to the Conservator of
Forests.

2. The tree from
which the bark
was taken having
been grown at an
elevation of only
3,300 feet above the
sea the fine quality
of its bark of 12
years.

+ Para. 3 Board's Proceedings
in G.O. 11 May 1870, No. 706.

3. Copy of these Proceedings and of the papers noted in the margin will be communicated to the Chamber of Commerce, the Madras Agricultural and Horticultural Society and the various Planters' Association.

G.O. 23rd May 1879; Komu-
paras 13 & 15 of Conserv-
ators' Report in G.O.
31st October 1879, No 2129.

* Note. I have examined
a number of the
Gulliver's Travels
manuscripts - including
the original of the
Travels. I have quite
repeatedly read
them with interest.
So it is proposed to
print more than
one volume in the
series. The condition
of the paper is very
good. The book is
now an edition and
has a general interest.

25
The Prosecutor of Forests.
- Board of Revenue -
- Superintendent Mysore.
Channarayana
To E. C. 1 of Mysore.
To C. R. 1 of Mysore.
To C. R. 2 of Mysore.
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To C. R. 100 of Mysore.

21 The Conservator of Forests, No. 10 Bazar
 21 " Board of Revenue
 2 " Supt. D. G. B.
 1 " General Commissioner
 1 " Chairman, Chamber of Commerce
 1 " Honorary Secretary, Agric. Horticultural Society, Secunder.
 6 " Collector of Pinchewilly with 5 spare copies for distribution
 6 " Do. Madras with 20 —
 11 " Do. Malabar with 10 spare copies for —
 11 " Commissioner of Malguz with 20 —
 11 " Resident in Travancore and Cochin with 20 —
 (Copies to Govt of Madras)

91/271

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Typing of
manuscripts of Rev.
Canon Bushy
of the Bishop's House
Hills, New York

4-3-30
PRINT

Revue de l'orient
Cross: Gout D 4^e clarch 1880
C. 277

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