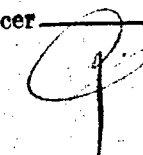


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MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No.	1399	Press Mis.
Dated	12-12-1882.	

Not to be folded or roughly handled

21/8/83

DECEMBER 1882, No. 29, REVENUE.

REVENUE DEPARTMENT.

THE MOST HONOURABLE
THE SECRETARY OF STATE FOR INDIA.

My LORD MARQUIS,

We have the honour to acknowledge receipt of your Lordship's Despatch, No. 36, of the 5th October, forwarding copies of correspondence with the authorities at Kew, relative to the disputed nomenclature of certain Chinchonas grown at Naduvatam.

Miscellaneous.

2. We beg your Lordship, to convey our thanks to Sir Joseph Hooker, for the attention he has devoted to the questions raised by the reports of Mr. Cross and Dr. Bidie, and for his suggestion that Dr. Trimen should be invited to inspect and report on the botanical problems presented by the Nilgiri Chinchona Plantations, a suggestion, to the value of which we are fully alive and on which we purpose taking action after Professor Lawson has entered on his duties. The advantages which would result from a conference of two such eminent botanists are obvious, and arrangements could be made for their acting in concert with Dr. Bidie, whose labours we highly appreciate.

3. We shall accordingly place ourselves in communication with the Ceylon Government, and the results of any inspection that may eventually be made, will be duly communicated to your Lordship, for the information of the authorities at Kew.

We have the honour to be,

My Lord Marquis,

Your Lordship's most obedient, humble servants,

(Signed) M. E. GRANT DUFF.
(—) FRED. ROBERTS.
(") DAVID F. CARMICHAEL.
(") H. E. SULLIVAN.

FORT ST GEORGE,

15th December 1882

Exd. J. Henricus.

FORT SAINT GEORGE.

REVENUE (1832) DEPARTMENT.

(Copy.)

LETTER to the Most Honorable
the Secretary of State for
India.

Dated *15th December* November,

No. 29 of 1882.

Requesting to convey the thanks of this Government to Sir Joseph Hooker for the attention he has devoted to the subject of the disputed nomenclature of certain Chinchonas grown at Naduvatam, and stating that action will be taken in regard to his suggestion that Dr. Trimen should be invited to inspect the Nilgiri Plantations and report on the botanical problems in issue.

5
12TH DECEMBER 1882, No. 1399, REVENUE.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following Despatch from the Most Honorable the MARQUIS OF HARTINGTON, Her Majesty's Secretary of State for India, to His Excellency the Right Honorable the Governor in Council, Fort St. George, dated India Office, London, 5th October 1882, No. 36 (Revenue).

Your Excellency's letters, No. 7 of the 27th March, and No. 10 of the 21st April last, relative to the disputed nomenclature of certain Chinchonas grown at Naduvatam, were, on receipt, communicated to Sir Joseph Hooker, together with the specimens referred to in the former letter. The bark specimens were also subsequently sent to Dr. Paul for analysis.

2. A copy of the correspondence with Mr. W. Thiselton Dyer on the subject, and of Dr. Paul's report, is herewith transmitted for your Excellency's information.

ENCLOSURES.

Letter from Sir LOUIS MALLET, C.B., to W. T. THISELTON DYER, Esq., C.M.G., dated India Office, 27th July 1882.

I am directed by the Secretary of State for India in Council to forward, for the consideration of Sir Joseph Hooker, two Despatches, with their enclosures, which have been received from the Government of Madras, relative to the nomenclature of the Chinchona grown at Naduvatam.

I am to state that the Marquis of Hartington will be obliged by Sir Joseph Hooker giving the necessary instructions for the comparison of the specimens sent herewith, as per enclosed list, with those at Kew, in compliance with the wish expressed by the Madras Government, and his Lordship will be glad to be favored with an expression of Sir Joseph Hooker's opinion upon the question raised by Mr. Cross after consideration of the correspondence from Madras, and of the results of the comparison.

I am to request that the bark specimens may, after comparison, be forwarded to Dr. Paul, 13, Fenchurch Avenue, E.C., who has been instructed to make analyses of them for the Madras Government.

Letter from Sir LOUIS MALLET, C.B., to Sir JOSEPH HOOKER, K.C.S.I., dated India Office, 10th June 1882, No. 559.

With reference to Professor Thiselton Dyer's letter of the 24th January last, I am directed by the Secretary of State for India in Council to transmit herewith a copy of observations by Dr. Bidie on Professor Dyer's remarks on certain dried specimens of Nilgiri Chinchonas, which the Madras Government has requested may be referred for your consideration.

I am to add that Lord Hartington will be glad to receive any further observations you may have to make on the subject.

Letter from W. T. THISELTON DYER, Esq., c.m.g., Assistant Director, Royal Kew Gardens, to Sir LOUIS MALLET, c.b., dated 13th June 1882.

I am desired by Sir Joseph Hooker to acknowledge the receipt of your letter (Statistics and Commerce, No. 966), of 10th June, on the subject of the controverted nomenclature of the Chinchonas cultivated on the Nilgiris.

This matter has already, as you will observe, received the best attention of the officers of this establishment.

Dr. Trimen, the Director of the Botanic Gardens, Ceylon, who has been in correspondence with Kew on the same problems as they present themselves in that island, is expected in this country in the course of a few days on leave. Sir Joseph Hooker will take care that his attention is directed to the whole question in so far as it can be elucidated at Kew, and to Dr. Bidie's observations.

Dr. Trimen is a botanist of great sagacity and experience. He has made a special study of the botany of medicinal plants. It is obviously of great importance in order to prevent confusion of nomenclature in plants of such commercial value as Chinchonas that agreement as to the identity of those in cultivation in different British possessions in the East should, as far as possible, be arrived at. Sir Joseph Hooker would, therefore, suggest that Dr. Trimen, having acquired all the information on the questions at issue which is to be gathered in this country, should be invited to inspect and report (in concert, if thought desirable, with Dr. Bidie) on the botanical questions presented by the Nilgiri Chinchona plantations. The Madras Government would, of course, defray Dr. Trimen's travelling expenses; and as Dr. Trimen is personally known to the present Governor of Madras, his visit would probably be personally acceptable to His Excellency.

The Madras Government would, of course, obtain from the Government of Ceylon the necessary leave for Dr. Trimen. It cannot be doubted that the mutual interchange of views between the botanical officers of the two Governments would be advantageous to the interests of both.

Letter from Sir LOUIS MALLET, c.b., to W. T. THISELTON DYER, Esq., c.m.g., dated India Office, 30th June 1882, No. 631.

I am directed by the Secretary of State for India in Council to acknowledge the receipt of your letter of the 13th instant, and, in reply, to inform you that Lord Hartington will be glad to learn the views of Dr. Trimen on the subject of the controverted nomenclature of the Chinchonas cultivated on the Nilgiris so far as the specimens at Kew and Dr. Bidie's observations may enable him to form an opinion on the subject.

On receipt of any remarks which Dr. Trimen may desire to offer, and of a reply to my letter of the 10th instant, submitting for Sir Joseph Hooker's consideration a further communication from the Government of Madras and specimens of bark from the Nilgiris, they will, together with your letter now under reply, be transmitted for the information of the Madras Government, who will then be in a position to consider the advisability of inviting Dr. Trimen to inspect and report on the botanical questions presented by the Nilgiri Chinchona plantations as suggested by Sir Joseph Hooker.

Letter from W. T. THISELTON DYER, Esq., c.m.g., to Sir LOUIS MALLET, c.b., dated Royal Gardens, Kew, 7th July 1882.

I have the honor to acknowledge the receipt of your letter of 30th June (Revenue, Statistics, and Commerce, No. 1205), in continuation of previous correspondence on the subject of the controverted nomenclature of the Chinchonas cultivated on the Nilgiris.

Sir Joseph Hooker is unable to agree with the arguments detailed in Surgeon-Major Bidie's letter of 29th March, and still adheres to the views expressed in my letter of 24th January 1882.

Dr. Trimen has spent some days at Kew in an independent study of the whole question, with the papers and authentic specimens before him, and he has expressed a general concurrence in the conclusions arrived at by the Kew officers.

Dr. Trimen has had to grapple with precisely the same problems in Ceylon as those which are perplexing to Dr. Bidie; he has had there the opportunity of personally discussing the question with Colonel Beddome; finally, he has studied all the materials for forming a judgment which are to be found at Kew.

Sir Joseph Hooker is still therefore of opinion, that it is in the highest degree advisable that the Madras Government should secure the advantage of a report based on actual personal inspection of the plants growing in the plantations, from a man of Dr. Trimen's exceptional acquirements in pharmaceutical botany. Matters of this kind cannot, with any advantage, be carried beyond a certain point in an official correspondence.

The bark specimens referred to in your letter of 30th June have not come to hand. They would be interesting in connection with the collections of Indian products preserved here. But they would probably not further elucidate the questions in dispute.

Letter from W. T. THISELTON DYER, Esq., c.m.g., Assistant Director, Royal Gardens, Kew, to Sir LOUIS MALLET, c.b., dated 3rd August 1882.

I have the honor to acknowledge the receipt of your letter (Revenue, Statistics, and Commerce, No. 893) of 27th July, as well as of the two Despatches (with enclosures) from the Government of Madras subsequently communicated, on the subject of the nomenclature of the Chinchonas grown at Naduvatam.

These documents, as well as the specimens, have been considered by Sir Joseph Hooker, and I am to make the following remarks upon them:—

- (1) The questions raised in Dr. Bidie's letter of 3rd* March 1882, are for the most part precisely identical with those dealt with by me in the letter which I had the honor of addressing to you,† 24th January 1882. The examination of the specimens, in which I have had the advantage of Dr. Trimen's presence, in no way modifies the conclusions which I then communicated to you.

* In G.O., 10th March 1882, No. 280.
† In G.O., 15th April 1882, No. 382.

(2) Sir Joseph Hooker had been fully informed as to Mr. Cross's assertion that the plant cultivated on the Nilgiris under the name of *Chinchona Succirubra* was really *C. Micrantha*. There is no reason to doubt the genuineness of the Nilgiri red bark plant. The Madras Government is fortunate in having been able to receive from the competent botanical judgment of His Excellency the Governor an authoritative and decisive opinion upon the point.

(3) The further examination of the specimens (the preparation of which, it is only right to say, reflects great credit on Dr. Bidie's skill) does not shake the opinion which I previously expressed, that Mr. Cross was equally mistaken in identifying any of the Nilgiri Chinchonas with the *Pata de Gallinazo* from Chimborazo. The plant called *Magnifolia* is not the *Pata de Gallinazo* collected by Spruce; neither is the plant called *Pubescens* the *Cuchicara* of the same traveller.

(4) The examination of Dr. Bidie's collection amply corroborates the statement in paragraph 9 of his letter:—"The numbers of Chinchonas having the appearance of hybrids that have sprung up on the Government estates seem to show that cross-breeding between varieties, if not between species, is very common."

For this reason I have not thought it necessary to go more minutely into the botanical determination of the specimens sent by Dr. Bidie. It is quite evident that the Nilgiri plantations require careful examination from the botanical point of view. Crossing has evidently gone on so extensively that no one but a botanist accustomed to the *facies* of living Chinchona plants could pronounce an opinion upon the mixture of forms with any authority, or without the risk of adding to the confusion of nomenclature. For this reason Sir Joseph Hooker again presses on your attention the suggestion made in my letter of 7th July, that Dr. Trimen should be invited to inspect the Nilgiri plantations from the botanical point of view.

(5) Sir Joseph Hooker is of opinion that what may be termed the progressive mongrelism into which the Nilgiri plantations seem to be lapsing is a matter which deserves very serious consideration. It appears to be due to the fact that since the death of Mr. McIvor the plantations have had no skilled supervision. He rusts that in the event of a Superintendent, with adequate technical knowledge, being appointed, due care will be taken to use seed which has been kept true to strain by proper precautions, in raising plants for maintaining the plantations.

(6) Kew being provided with a copious and admirable set of specimens of Nilgiri Chinchonas collected by Colonel Beddome, those now transmitted by Dr. Bidie have been transferred to Dr. Trimen, who will take them with him to Ceylon.

The inspection of the collection left on Dr. Trimen's mind the impression that the substantial elements of what may be called Ceylon quindogy are identical with those existing in the Nilgiris. It is clearly to the interest of the two adjacent possessions of the Empire that the nomenclature of their Chinchona cultures should be uniform, and that there should be a substantial agreement as to the true nature of the forms cultivated in each.

(7) The bark specimens will be forwarded according to your request to Dr. Paul.

(8) Sir Joseph Hooker proposes to retain for the present the Despatches of the Madras Government. Their contents may be the subject of further correspondence with Kew, and all due to the intricate questions raised would be lost without the possibility of immediately referring to the papers.

Letter from Dr. B. H. PAUL, to the Under Secretary of State for India, dated Analytical Laboratory, 13, Fenchurch Avenue, E.C., 13th September 1882.

The samples of Chinchona bark received on the 8th ultimo from the Royal Gardens, Kew, and referred to in your letter (Revenue, Statistics, and Commerce, No. 894) of 27th July, give the following results on analysis:—

Number on Specimen.	Quinine.	Quinidine.	Chin- chonidine.	Chin- chonine.	Amor- phous.	EQUIVALENT AMOUNTS OF THE CRYSTALLIZED SULPHATES OF		
						Quinine.	Chin- chonidine.	Quinidine.
	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
1	1.49	..	2.05	0.52	0.36	2.01	2.74	..
2	3.79	..	3.16	0.36	0.60	5.10	4.22	..
3	2.19	..	2.09	0.10	0.20	2.95	2.80	..
4	2.55	..	3.61	0.78	0.50	3.44	4.82	..
5	1.99	..	1.66	0.62	0.40	2.69	2.22	..
6	2.55	..	0.94	1.00	0.70	3.44	1.26	..
7	0.83	..	0.97	2.30	0.70	1.12	1.30	..
8	trace	..	3.69	2.14	0.60	..	4.80	..
9	trace	..	1.64	1.40	0.60	..	2.20	..
10	1.73	..	2.45	2.16	0.72	2.34	3.28	..
11	1.25	..	1.62	4.14	0.76	1.69	2.04	..
12	0.91	..	2.57	1.32	0.60	1.22	3.44	..
13	3.96	..	0.69	0.38	0.30	6.33	0.93	..
14	6.55	..	0.07	0.24	0.40	7.48	0.10	..
15	1.71	0.24	0.10	1.40	0.48	2.31	0.14	0.32
16	2.16	..	0.07	2.70	0.90	2.92	0.10	..
17	0.83	0.10	0.37	4.40	0.30	1.12	0.50	0.14
18	0.89	0.16	0.16	3.40	0.60	1.20	0.20	0.20
19	2.75	0.60	0.30	2.97	0.40	3.70	0.40	0.80
20	0.82	0.22	0.11	2.10	0.40	1.11	0.16	0.30
21	trace	1.94	0.07	2.28	0.50	..	0.10	2.66
22	2.98	0.16	0.22	0.42	0.50	4.02	0.30	0.20
23	2.04	0.37	0.16	1.86	0.40	2.75	0.22	0.50
24	4.48	trace	1.10	0.28	0.20	6.04	1.48	..
25	0.75	..	2.84	1.66	0.80	1.01	3.80	..
26	3.53	trace	2.31	1.86	0.50	4.75	3.08	..
27	0.79	..	3.17	0.88	0.80	1.07	4.24	..
28	0.86	trace	1.71	0.96	0.40	1.15	2.28	..
29	1.04	..	3.19	0.56	0.60	1.40	4.26	..
30	0.63	..	1.62	1.18	0.64	0.86	3.50	..
31	0.62	trace	0.49	0.98	0.34	0.84	0.66	..
32	0.83	..	2.53	0.96	0.50	1.12	3.38	..
33	2.40	trace	0.70	0.32	0.25	3.25	0.94	..
34	5.80	trace	0.30	0.14	0.24	7.81	0.40	..
35	3.35	..	3.86	0.28	0.60	4.62	5.16	..
36	0.87	..	0.63	0.05	0.20	1.17	0.84	..
37	1.09	..	2.26	1.72	0.90	1.47	3.02	..
38	1.09	..	2.33	2.92	0.80	1.47	3.12	..

ORDER—dated 12th December 1882, No. 1399, Revenue.

Miscellaneous.

Ordered that the following letter
be addressed to the Most Honorable the
Secretary of State for India:—

(Here enter No. 29, dated 15th December 1882.)

(True Extract.)

(Signed) P. P. HUTCHINS,
Ag. Secretary to Government.

Exd. W. H. French.

40 Copies.

L. Dr. Bidie
Cons. of Forests, M.C.
S.C.

11-8-92✓

Originals.

Gobt. of (1882) Madras.
REVENUE.

Issued

Recd.

Enc.

G.O., 12th December 1882, No. 1399.

Desp: no 29 of 1882 Revenue.

DECEMBER.

Chinchonas

grown at Naduvatom, Nilgiris. — Despatch order
ed of letter in reply to despatch
disputed nomenclature of certain



11

12TH DECEMBER 1882, No. 1399, REVENUE.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

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These documents, as well as the specimens, have been considered by Sir Joseph Hooker, and I am to make the following remarks upon them:—

(1) The questions raised in Dr. Bidie's letter of 3rd* March 1882, are for the most part

* In G.O., 10th March 1882, No. 280.

† In G.O., 15th April 1882, No. 382.

precisely identical with those dealt with by me in the letter which I had the honor of addressing to you,† 24th January 1882. The examination

of the specimens, in which I have had the advantage of Dr. Trimen's presence, in no way modifies the conclusions which I then communicated to you.

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(4) The examination of Dr. Bidie's collection amply corroborates the statement in paragraph 9 of his letter:—"The numbers of Chinchonas having the appearance of hybrids that have sprung up on the Government estates seem to show that cross-breeding between varieties, if not between species, is very common."

For this reason I have not thought it necessary to go more minutely into the botanical determination of the specimens sent by Dr. Bidie. It is quite evident that the Nilgiri plantations require careful examination from the botanical point of view. Crossing has evidently gone on so extensively that no one but a botanist accustomed to the *facies* of living Chinchona plants could pronounce an opinion upon the mixture of forms with any authority, or without the risk of adding to the confusion of nomenclature. For this reason Sir Joseph Hooker again presses on your attention the suggestion made in my letter of 7th July, that Dr. Trimen should be invited to inspect the Nilgiri plantations from the botanical point of view.

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The inspection of the collection left on Dr. Trimen's mind the impression that the substantial elements of what may be called Ceylon quinology are identical with those existing in the Nilgiris. It is clearly to the interest of the two adjacent possessions of the Empire that the nomenclature of their Chinchona cultures should be uniform, and that there should be a substantial agreement as to the true nature of the forms cultivated in each.

(7) The bark specimens will be forwarded according to your request to Dr. Paul.

(8) Sir Joseph Hooker proposes to retain for the present the Despatches of the Madras Government. Their contents may be the subject of further correspondence with Kew, and all clue to the intricate questions raised would be lost without the possibility of immediately referring to the papers.

12TH DECEMBER 1882, No. 1399, REVENUE.

Letter from Dr. B. H. PAUL, to the Under Secretary of State for India, dated Analytical Laboratory, 13, Fenchurch Avenue, E.C., 13th September 1882.

The samples of Chinchona bark received on the 8th ultimo from the Royal Gardens, Kew, and referred to in your letter (Revenue, Statistics, and Commerce, No. 894) of 27th July, give the following results on analysis:—

Number on Specimen.	Quinine.	Quinidine.	Chin- chonidine.	Chin- chonine.	Amor- phous.	EQUIVALENT AMOUNTS OF THE CRYSTALLIZED SULPHATES OF		
						Quinine.	Chin- chonidine.	Quinidine.
	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
1	1.49	..	2.05	0.52	0.36	2.01	2.74	..
2	3.79	..	2.16	0.36	0.60	5.10	4.22	..
3	2.19	..	1.09	0.10	0.20	2.95	2.80	..
4	2.55	..	2.61	0.79	0.50	3.44	4.82	..
5	1.99	..	1.66	0.62	0.70	2.69	2.23	..
6	2.55	..	0.91	1.00	0.70	3.44	1.30	..
7	0.83	..	0.97	2.30	0.60	1.12	4.80	..
8	trace	..	2.14	2.14	0.60	..	2.20	..
9	trace	..	1.40	1.40	0.60	2.34	3.23	..
10	trace	..	1.64	2.16	0.72	1.69	2.04	..
11	1.71	..	2.45	4.14	0.76	1.23	3.44	..
12	1.25	..	1.52	1.32	0.60	5.33	0.93	..
13	0.91	..	2.57	1.32	0.30	7.48	0.10	0.32
14	3.96	..	0.69	0.39	0.40	2.81	0.14	..
15	0.55	..	0.07	0.24	0.45	2.92	0.10	0.14
16	1.71	0.24	0.10	2.70	0.90	1.12	0.50	0.20
17	2.16	..	0.07	4.40	0.30	1.20	0.20	0.80
18	0.83	..	0.37	3.40	0.60	3.70	0.40	0.30
19	0.89	..	0.15	2.97	0.40	1.11	0.16	2.66
20	2.75	..	0.30	2.10	0.40	..	0.10	0.20
21	0.82	0.22	0.11	2.28	0.50	4.02	0.22	0.50
22	trace	0.94	0.07	0.42	0.40	2.75	1.49	..
23	2.98	0.15	0.23	1.86	0.20	6.04	3.80	..
24	2.04	0.37	0.16	0.28	0.80	1.01	3.08	..
25	4.49	trace	1.10	1.66	0.50	4.75	4.24	..
26	0.75	..	2.84	1.86	0.80	1.07	2.28	..
27	0.79	trace	2.31	0.88	0.40	1.16	4.26	..
28	0.85	..	3.17	0.90	0.60	1.40	3.50	..
29	1.04	..	1.71	0.56	0.64	0.84	0.66	..
30	0.63	..	2.62	1.18	0.34	1.12	3.38	..
31	0.63	trace	0.49	0.98	0.50	3.25	0.94	..
32	0.83	..	12.53	0.96	0.25	7.81	0.40	..
33	2.40	..	0.70	0.33	0.24	4.52	5.16	..
34	5.80	trace	0.30	0.14	0.50	1.17	0.84	..
35	3.35	..	0.28	0.28	0.20	1.47	3.02	..
36	0.87	..	0.83	0.05	0.90	1.47	3.12	..
37	1.09	..	1.72	1.72	0.80	..	..	..
38	..	..	2.33	2.92	..	..	..	..

ORDER—dated 12th December 1882, No. 1399, Revenue.

Miscellaneous.

Ordered that the following letter be addressed to the Most Honorable the Secretary of State for India:—

(Here enter No. 23, dated 15th December 1882.)

(True Extract).

(Signed) P. P. HUTCHINS,
Ag. Secretary to Government.

To Dr. Bidie.
" the Conservator of Forests, Northern Circle.
" the " " Southern Circle.

Exd. W. H. French.

25 Copies.

40 "

28-1-95

Gobt. of (1883) Madras
REVENUE.

Issued

Recd.

Encl.

G.O., 12th December 1882, No. 1399.

DECEMBER.

Chinchonas

grown at Naduvatom, Nilgiris.—Despatch ordered of letter in reply to despatch relative to the disputed nomenclature of certain.

17
ENCLOSURES.

No. 1.

India Office,
27th July 1882.

Sir,

I am directed by the Secretary of State for India in Council to forward, for the consideration of Sir Joseph Hooker, two Despatches, with their enclosures, which have been received from the Government of Madras, relative to the nomenclature of the Cinchona grown at Naduvatom.

I am to state that the Marquis of Hartington will be obliged by Sir Joseph Hooker giving the necessary instructions for the comparison of the specimens sent herewith, as per enclosed list, with those at Kew, in compliance with the wish expressed by the Madras Government, and his Lordship will be glad to be favoured with an expression of Sir Joseph Hooker's opinion upon the question raised by Mr. Cross after consideration of the correspondence from Madras, and of the results of the comparison.

I am to request that the bark specimens may, after comparison, be forwarded to Dr. Paul, 13, Fenchurch Avenue, E.C., who has been instructed to make analyses of them for the Madras Government.

I am, &c.,
(Signed) LOUIS MALLET.

W. T. Thiselton Dyer, Esq., C.M.G.

No. 2.

India Office,
10th June 1882.

No. 559.
Sir,

With reference to Professor Thiselton Dyer's letter of the 24th January last, I am directed by the Secretary of State for India in Council to transmit herewith a copy of observations by Dr. Bidie on Professor Dyer's remarks on certain dried specimens of Nilgiri Cinchonas, which the Madras Government has requested may be referred for your consideration.

I am to add that Lord Hartington will be glad to receive any further observations you may have to make on the subject.

I have, &c.,
(Signed) LOUIS MALLET.

Sir Joseph Hooker, K.C.S.I.

No. 3.

Royal Gardens, Kew,
13th June 1882.

Sir,

I am desired by Sir Joseph Hooker to acknowledge the receipt of your letter (Statistics and Commerce, No. 966), of 10th June, on the subject of the controverted nomenclature of the Cinchonas cultivated on the Nilgiris.

7555.

B

This matter has already, as you will observe, received the best attention of the officers of this establishment.

Dr. Trimen, the Director of the Botanic Gardens, Ceylon, who has been in correspondence with Kew on the same problems as they present themselves in that island, is expected in this country in the course of a few days on leave. Sir Joseph Hooker will take care that his attention is directed to the whole question in so far as it can be elucidated at Kew, and to Dr. Bidie's observations.

Dr. Trimen is a botanist of great sagacity and experience. He has made a special study of the botany of medicinal plants. It is obviously of great importance in order to prevent confusion of nomenclature in plants of such commercial value as Cinchonas that agreement as to the identity of those in cultivation in different British possessions in the East should, as far as possible, be arrived at. Sir Joseph Hooker would therefore suggest that Dr. Trimen, having acquired all the information on the questions at issue which is to be gathered in this country, should be invited to inspect and report (in concert, if thought desirable, with Dr. Bidie) on the botanical questions presented by the Nilgiri Cinchona plantations. The Madras Government would, of course, defray Dr. Trimen's travelling expenses; and as Dr. Trimen is personally known to the present Governor of Madras, his visit would probably be personally acceptable to His Excellency.

The Madras Government would, of course, obtain from the Government of Ceylon the necessary leave for Dr. Trimen. It cannot be doubted that the mutual interchange of views between the botanical officers of the two Governments would be advantageous to the interests of both.

I am, &c.,
(Signed) W. T. THISELTON DYER
Assistant Director, Royal Kew Gardens.

Sir Louis Mallet, C.B.,

No. 4.

No. 631.

Sir,

I am directed by the Secretary of State for India Office, 30th June 1882, to acknowledge the receipt of your letter of the 13th instant, and, in reply, to inform you that Lord Hartington will be glad to learn the views of Dr. Trimen on the subject of the controverted nomenclature of the Cinchonas cultivated on the Nilgiris so far as the specimens at Kew and Dr. Bidie's observations may enable him to form an opinion on the subject.

On receipt of any remarks which Dr. Trimen may desire to offer, and of a reply to my letter of the 10th instant, submitting for Sir Joseph Hooker's consideration a further communication from the Government of Madras and specimens of bark from the Nilgiris, they will, together with your letter now under reply, be transmitted for the information of the Madras Government, who will then be in a position to consider the advisability of inviting Dr. Trimen to inspect and report on the botanical questions presented by the Nilgiri Cinchona plantations as suggested by Sir Joseph Hooker.

I have, &c.,
(Signed) LOUIS MALLET.

W. T. Thiselton Dyer, Esq., C.M.G.

19

No. 5.

Royal Gardens, Kew,
7th July 1882.

Sir,

I have the honour to acknowledge the receipt of your letter of 30th June (Revenue, Statistics, and Commerce, No. 1205) in continuation of previous correspondence on the subject of the controverted nomenclature of the Cinchonas cultivated on the Nilgiris.

Sir Joseph Hooker is unable to agree with the arguments detailed in Surgeon-Major Bidie's letter of 29th March, and still adheres to the views expressed in my letter of 24th January 1882.

Dr. Trimen has spent some days at Kew in an independent study of the whole question, with the papers and authentic specimens before him, and he has expressed a general concurrence in the conclusions arrived at by the Kew officers.

Dr. Trimen has had to grapple with precisely the same problems in Ceylon as those which are perplexing to Dr. Bidie; he has had there the opportunity of personally discussing the question with Colonel Beddome; finally, he has studied all the materials for forming a judgment which are to be found at Kew.

Sir Joseph Hooker is still therefore of opinion, that it is in the highest degree advisable that the Madras Government should secure the advantage of a report based on actual personal inspection of the plants growing in the plantations, from a man of Dr. Trimen's exceptional acquirements in pharmaceutical botany. Matters of this kind cannot, with any advantage, be carried beyond a certain point in an official correspondence.

The bark specimens referred to in your letter of 30th June have not come to hand. They would be interesting in connection with the collections of Indian products preserved here. But they would probably not further elucidate the questions in dispute.

I am, &c.,
(Signed) W. T. THISELTON DYER.

Sir Louis Mallet, C.B.

No. 6.

Royal Gardens, Kew,
3rd August 1882.

Sir,

I have the honour to acknowledge the receipt of your letter (Revenue, Statistics, and Commerce, No. 893) of 27th July, as well as of the two Despatches (with enclosures) from the Government of Madras subsequently communicated, on the subject of the nomenclature of the Cinchonas grown at Naduvatom.

These documents, as well as the specimens, have been considered by Sir Joseph Hooker, and I am to make the following remarks upon them.

1. The questions raised in Dr. Bidie's letter of 3rd March 1882 are for the most part precisely identical with those dealt with by me in the letter which I had the honour of addressing to you, 24th January 1882. The examination of the specimens, in which I have had the advantage of Dr. Trimen's presence, in no way modifies the conclusions which I then communicated to you.

2. Sir Joseph Hooker had been fully informed as to Mr. Cross's assertion that the plant cultivated on the Nilgiris under the name of *Cinchona Succirubra* was really *C. Micrantha*. There is no reason to doubt the genuineness of the Nilgiri red bark plant. The Madras

X m 9.0. 10th March 1882

no 280.

† m 9.0. 15th April 1882

no 282.

Government is fortunate in having been able to receive from the competent botanical judgment of His Excellency the Governor an authoritative and decisive opinion upon the point.

3. The further examination of the specimens (the preparation of which, it is only right to say, reflects great credit on Dr. Bidie's skill) does not shake the opinion which I previously expressed, that Mr. Cross was equally mistaken in identifying any of the Nilgiri Cinchonas with the *Pata de Gallinazo* from Chimborazo. The plant called *Magnifolia* is not the *Pata de Gallinazo* collected by Spruce; neither is the plant called *Pubescens* the *Cuchicara* of the same traveller.

4. The examination of Dr. Bidie's collection amply corroborates the statement in para. 9 of his letter,—“The numbers of Cinchonas having the appearance of hybrids that have sprung up on the Government estates seem to show that cross breeding between varieties, if not between species, is very common.”

For this reason I have not thought it necessary to go more minutely into the botanical determination of the specimens sent by Dr. Bidie. It is quite evident that the Nilgiri plantations require careful examination from the botanical point of view. Crossing has evidently gone on so extensively that no one but a botanist accustomed to the *facies* of living Cinchona plants could pronounce an opinion upon the mixture of forms with any authority, or without the risk of adding to the confusion of nomenclature. For this reason Sir Joseph Hooker again presses on your attention the suggestion made in my letter of 7th July that Dr. Trimen should be invited to inspect the Nilgiri plantations from the botanical point of view.

5. Sir Joseph Hooker is of opinion that what may be termed the progressive mongrelism into which the Nilgiri plantations seem to be lapsing is a matter which deserves very serious consideration. It appears to be due to the fact that since the death of Mr. McIvor the plantations have had no skilled supervision. He trusts that in the event of a Superintendent, with adequate technical knowledge, being appointed, due care will be taken to use seed which has been kept true to strain by proper precautions, in raising plants for maintaining the plantations.

6. Kew being provided with a copious and admirable set of specimens of Nilgiri Cinchonas collected by Colonel Beddome, those now transmitted by Dr. Bidie have been transferred to Dr. Trimen, who will take them with him to Ceylon.

The inspection of the collection left on Dr. Trimen's mind the impression that the substantial elements of what may be called Ceylon quinology are identical with those existing in the Nilgiris. It is clearly to the interest of the two adjacent possessions of the empire that the nomenclature of their Cinchona cultures should be uniform, and that there should be a substantial agreement as to the true nature of the forms cultivated in each.

7. The bark specimens will be forwarded according to your request to Dr. Paul.

8. Sir Joseph Hooker proposes to retain for the present the Despatches of the Madras Government. Their contents may be the subject of further correspondence with Kew, and all due to the intricate questions raised would be lost without the possibility of immediately referring to the papers.

I am, &c.,
(Signed) W. T. THISLTON DYER,
Assistant Director, Royal Gardens, Kew.

Sir Louis Mallet, C.B.

No. 7.

Analytical Laboratory,
13, Fenchurch Avenue, E.C.
13th September 1882.

Sir,

The samples of Cinchona bark received on the 8th ult. from the Royal Gardens, Kew, and referred to in your letter (Revenue, Statistics, and Commerce, No. 894) of 27th July, give the following results on analysis:—

Number on Specimen.	Quinine.	Quinidine.	Cinchonidine.	Cinchonine.	Amorphous.	Equivalent Amounts of the Crystallized Sulphates of		
						Quinine.	Cinchonidine.	Quinidine.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1	1.49	—	2.05	0.52	0.36	2.01	2.74	—
2	3.79	—	3.16	0.36	0.60	5.10	4.22	—
3	2.19	—	2.09	0.10	0.20	2.95	2.80	—
4	2.55	—	3.61	0.78	0.50	3.44	4.82	—
5	1.99	—	1.66	0.62	0.40	2.69	2.22	—
6	2.55	—	0.94	1.00	0.70	3.44	1.26	—
7	0.83	—	0.97	2.30	0.70	1.12	1.30	—
8	trace	—	3.59	2.14	0.60	—	4.80	—
9	trace	—	1.64	1.40	0.60	—	2.20	—
10	1.73	—	2.45	2.16	0.72	2.34	3.28	—
11	1.25	—	1.52	4.14	0.76	1.69	2.04	—
12	0.91	—	2.57	1.32	0.50	1.22	3.44	—
13	3.96	—	0.69	0.38	0.30	5.33	0.93	—
14	5.55	—	0.07	0.24	0.40	7.48	0.10	—
15	1.71	0.24	0.10	1.40	0.48	2.31	0.14	0.32
16	2.16	—	0.07	2.70	0.90	2.92	0.10	—
17	0.83	0.10	0.37	4.40	0.30	1.12	0.50	0.14
18	0.89	0.15	0.15	3.40	0.60	1.20	0.20	0.20
19	2.75	0.60	0.30	2.97	0.40	3.70	0.40	0.80
20	0.82	0.22	0.11	2.10	0.40	1.11	0.16	0.30
21	trace	1.94	0.07	2.28	0.50	—	0.10	2.56
22	2.98	0.15	0.22	0.42	0.50	4.02	0.30	0.20
23	2.04	0.37	0.16	1.86	0.40	2.75	0.22	0.50
24	4.48	trace	1.10	0.28	0.20	6.04	1.48	—
25	0.75	—	2.84	1.66	0.80	1.01	3.80	—
26	3.53	trace	2.31	1.86	0.50	4.75	3.08	—
27	0.79	—	3.17	0.88	0.80	1.07	4.24	—
28	0.85	trace	1.71	0.90	0.40	1.15	2.28	—
29	1.04	—	3.19	0.56	0.60	1.40	4.26	—
30	0.63	—	2.62	1.18	0.64	0.86	3.50	—
31	0.62	trace	0.49	0.98	0.34	0.84	0.66	—
32	0.83	—	2.53	0.96	0.50	1.12	3.38	—
33	2.40	trace	0.70	0.32	0.25	3.25	0.94	—
34	5.80	trace	0.30	0.14	0.24	7.81	0.40	—
35	3.35	—	3.86	0.28	0.50	4.52	5.16	—
36	0.87	—	0.63	0.05	0.20	1.17	0.84	—
37	1.09	—	2.26	1.72	0.90	1.47	3.02	—
38	1.09	—	2.33	2.92	0.80	1.47	3.12	—

I have, &c.,
(Signed) BENJ. H. PAUL.

The Under Secretary of State
for India.

23

India Office,
London, 5th October 1882.

Revenue,
No. 36.

To His Excellency The Right Honourable The Governor
in Council, Fort St. George.

Sir,

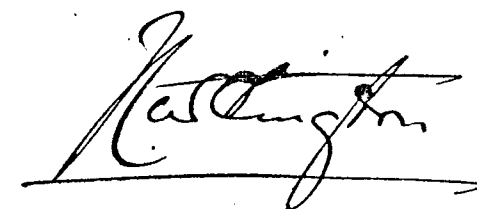
Para. 1. Your Excellency's Letters, No. 7, of the 27th March, and No. 10, of the 21st April last, relative to the disputed nomenclature of certain Cinchonas grown at Naduvatom, were, on receipt, communicated to Sir Joseph Hooker, together with the specimens referred to in the former letter. The bark specimens were also subsequently sent to Dr. Paul for analysis.

2. A copy of the correspondence with Mr. W. Thiselton Dyer on the subject, and of Dr. Paul's report, is herewith transmitted for your Excellency's information.

I have the honour to be,

Sir,

Your most obedient humble Servant,



N. 14.

Revenue

5th Oct. 1882.

The

Letter to Lord St. George

N. 36. enclosure

Recd 31 6.11/82

Current No. 6503.

29

From The most Hon. The Secy. of State

Dated the 6th October 1882

FOR ORDERS.

1. No 7. d. 27th March 1882
2. No 10. d. 1st April 1882

The Secretary of State refers to the despatches noted in the margin.

of these will forwarded to his Lordship Dr. Bidie's report on Mr. Cross' assertions

- (a) That Arduatam Ch: Succinbra was in fact Ch: Micantha
- (b) That the so called Pubescens was in fact the true Succinbra
- (c) That the Arduatam Magnifolia was the Pata de Gallinera.

Dr. Bidie thought Mr. Cross right on (c) & himself identified Pubescens with Cuchicara.

Before an answer was received to the despatch (no 1) the Secretary

of State forwarded Sir Joseph Hooker's observations on dried specimens of plants sent home

in G.O. 15th April 1882. No 382. The spec before Sir Joseph Hooker with some other

Revenue (1882) Report
No. 6503

From
The Secy. of State
for India

Dated 5th Oct 1882
Recd: Mr. Secy.

No. 36 Revenue
Print.
12.12.82

Regarding the disputed nomenclature of certain chin chonias grown at Kadavattam.

G.O. No 13997/11.11.

Ordered that the following letter be addressed to the most Hon. the Secretary of State for India.
G.O. No 13997/11.11.

G.O. of 14-12-81 No 36104. Mis
Despatch No 3 of 11-10-82.
G.O. of 10-3-82 No 280
Despatch No 7 of 27-3-82
G.O. of 20-4-82 No 407.
Despatch No 10 of 21-4-82.
G.O. of 15-4-82 No 382
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within

that *Naduvata magnifolia* was
not *Palā de Gallinosa* & that
both that spruce & pubescens
were probably hybrids between
Succinabra & *officinalis*.

To his Dr. Bidie replied & his letter
was forwarded to the Secy of
State with despatch no 2 under
reply.

Sir Joseph Hooker to whom Dr.
Bidie's Report (Desp: no i) &
letter (Desp: no ii) were referred
says there is no room for doubt
as to the genuineness of the
Nilgiri *succinabra* H.E. The
Governor having given an
authoritative decision in opinion
on the point but that in
respect of the classification
of *pubescens* & *officinalis*

The undersigned thinks
that, for obvious reasons,
we might with advantage
await the arrival of
Prof. Lawson. E. F. W.
21/11/81

I am inclined to think that
we may not address the Ceylon
Govt just yet. I have written
saying so to Sir James
Lawson the Governor.

31

Dr. Trimen, ~~who has~~ agreed
with him & not with Dr. Bidie.
He therefore urges that Dr. Trimen
should inspect the Nilgiri plantations
in concert if necessary with
Dr. Bidie.

The Right Honble The Governor
has noted that Dr. Trimen's
deputation would be very
acceptable but orders are
solicited whether the Ceylon
Govt. should at once be addressed

or whether the matter should
lie over till Professor Lawson
comes when if Dr. Trimen's
deputation is still considered
necessary, a skilled triumvirate
consisting of the two gentlemen
named & Dr. Bidie might
submit a joint report on
the matters in issue.

FOR ORDERS.

telling him that we
shall probably do so.

Would it not be right
now to let the Secretary
of State that we should
like to go over
our plantations with

Profusa Laceron in
the spring - suggesting
April & May as the
most convenient months

MS

Mar 22/82

See letter to
Mr. F. A. C. C. C.
1881-1882
1881-1882
1881-1882

Dec 29-18-32

N^o 29. 33

To The Most Honourable The Marquis
of Hartington, Secretary of State for India

My Lord Marquis

We have the
honour to acknowledge receipt
of your Lordship's despatch
no 36 of the 5th October forwarding
copies of correspondence
with the authorities at Kew
relative to the disputed nomi-
clature of certain Cheichous
grown at Maduvatom.

We beg your
Lordship to convey our thanks
to Sir Joseph Hooker for the
 pains he has taken
he has devoted to the questions
raised by the reports

Erskin

of Mr. Cross & Dr. Bidie & for
his suggestion that Dr. Turrell
should be invited to inspect
tripost on the botanical
problems presented by the
Nilgiri ~~Sola~~ Chirichoua
plantations, a suggestion of
the value of which we are
fully alive to on which
we purpose taking action
~~as soon as~~ after Professor
Lawson has taken charge
of his duties in ~~the~~
entered on his duties & become
familiar with the varieties of Chirichoua
or Chirichoua hybrids found in the

~~Presidency~~ The advantages
which would ^{result} accrue from a
conference of two such eminent
botanists are ~~to~~ obvious
~~in~~ ^{and} + arrangements ^{might}
be made for their meeting
acting in concert with Dr. Bidie, ~~the value of whose~~
(often ^{omit.} unremunerated) labours
we highly appreciate.

We ~~for~~ shall
accordingly ~~address the~~ ~~Colon~~
~~Government~~ place ourselves
in communication with the
Ceylon Govt. & the results of any
inspection that may ^{be} eventually
be made will be duly communicated
to your Lordship for the information
of the authorities at Kew. 12/2/11

Wm. H. Perceval
Secretary

Churchous. D. Trimm.

Note for the Secretary.

90-12-12-1899

Suggested

(i) That the despatch
within or something like it
go to the Secy of State by way
of answer.

(ii) That when it goes to
the Governor for approval
His Excellency's orders may
be taken whether it would
not be better to await Sir
James
Longden's answer before making
any official reference. It is
probable this will not be
required at any stage. The
Ceylon Governor will let D.
T. know & the Madras Govt.
will, Sir Joseph Hooker
suggests, pay his travelling
expenses. What to do?

Now can we do anything
to get the despatch
made up & sent out
before the 1st of Jan?
11/12