

No. 194. Read the following despatch from the Right Honourable the Secretary of State for India :—

Revenue,
No. 8.

INDIA OFFICE, LONDON,
30th April 1873.

MY LORD,—I herewith transmit
prepared by Mr. Collins, under my

Dated 30th April 1873, No. 6.

2. It is probable that the most
American trees, yielding the best known
or Travancore. I shall, therefore, lay
Government, and with any remarks
its being decided to introduce the same
India.

copies of a Report which has been
in the caoutchouc of commerce, together
with a copy of a despatch* which I have
addressed to the Governor-General on
the same subject.

the localities for plantations of the South
India-rubber, will be found in Malabar
to be furnished with the opinion of your
suggestions on the subject, in the event of
on of the trees yielding Pará-rubber into

I have, etc.,
ARGYLL.

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

ENCLOSURE No. 1.

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

Revenue,
No. 6.

INDIA OFFICE, LONDON,
30th April 1873.

MY LORD,—I herewith transmit 100 copies of a report, by Mr. Collins, on the plants from
which India-rubber is obtained in all parts of the world.

2. It appeared to me that, with reference to the prospect of the demand for India-rubber
increasing very largely, in connection especially with the requirements of State rail-roads, and
with other operations in which the Government has a direct interest, it would be useful to have
complete information on all points connected with its production. By placing these particulars
before your Excellency's Government, you will be in a position to judge whether any steps might
usefully be taken to ensure a more certain and regular supply of the best kinds.

3. Mr. James Collins, formerly of the Museum of the London Pharmaceutical
Society, who had paid much attention to the subject for some years, and had received a medal
from the Society of Arts for a paper on the rubber of commerce, was engaged to make the
necessary investigations and to prepare a report. The points to which his attention was directed
were, 1st, the supply and price of the different kinds of rubber in the European markets; 2nd,
the different uses to which rubber is applied by manufacturers and the particular kind that is
applied to each purpose; 3rd, whether the particular kinds are used for each purpose, because
they are best adapted, or because a superior kind is too dear; 4th, whether the superior excel-
lence of the best kind is attributable to its being obtained from a tree of a particular species, to

Proceedings of the Madras Government, Revenue Department,
22nd July 1873.

the habitat of the tree, or to manipulation in collecting the juice; 5th, full particulars as to the demand for *Ficus elastica*, the uses to which its juice is applied, and its value as compared with *Siphonia (Hevea) elastica*; 6th, all the information that can be obtained respecting the habitat of the *Siphonia elastica* of Brazil, the age at which the tree is tapped, the time of year, and the method of preparing the juice for the trade; 7th, the proportion in which the two kinds are acted upon by heat, and in which, under such conditions, they retain their strength and elasticity; and, 8th, whether the peculiar conditions of all these are the causes of the superiority of the Pará-rubber, and, if so, to obtain particulars as to the fall, temperature, soil, and aspect in the *Siphonia* region of Brazil.

4. Major-General R. Strachey, who was on the subject, was of opinion that anything tending to increase the supply of India-rubber for springs for railway vehicles and other purposes, if supply could be got from India, it would add to the consideration of much practical importance.

5. Mr. Collins's report is not so complete as might be desired. It, however, contains much information, including the experience of Mr. Gustav Mann in Assam and of Mr. Rich in Brazil. It is accompanied by a Memorandum of Dr. Brandis, the Inspector-General of Forests, now on leave, which contains some suggestions that will be useful in considering the question. The report seems to place the great intrinsic superiority of Pará-rubber over the kinds beyond doubt.

6. I shall be glad to be informed whether there are any natural caoutchouc forest-tracts remaining in India which are at the disposal of the Government, which might be protected and improved, and where the collection of rubber might be placed under the control of forest officers. It is necessary, if the supply is to be continued and the quality improved, that plantations of *Ficus elastica* should be formed and carefully cultivated in suitable sites.

7. As regards a supply of seeds of *Hevea (Siphonia)* from Pará, a letter has already been addressed to the Foreign Office, with a view to procuring them for transmission to India. Some interval must elapse before the necessary arrangements can be made for collecting the seeds; and, in the meanwhile, I shall be glad to be informed whether and where any suitable sites are available for an experimental plantation under competent supervision. It would appear from the report that the only tracts likely to have a suitable climate for the Pará-rubber (*Hevea*) will be found in Ceylon, Malabar, Travancore, and the south coast of Burma. The Nellambur teak plantation in Malabar is one locality the climate of which seems likely to be suitable. A copy of this despatch will, therefore, be forwarded to the Madras Government.

8. I am of opinion that, in the first instance, only small quantities of seeds should be procured as an experiment. A second larger instalment might be sent for, after experience has been gained regarding the best time of the year and the best mode of transmission, and regarding the treatment of seeds and young plants in India.

9. The introduction of the *Valea*, believed to yield the Madagascar caoutchouc, also seems desirable, and the subject has been mentioned to the Foreign Office.

10. I shall be glad if your Excellency's Government would take the whole subject of India-rubber supply into consideration, and furnish an opinion both as to the formation of plantations of *Ficus elastica* and as to the introduction into India of the *Hevea* of Brazil, yielding Pará-rubber, and of other kinds.

I have, etc.,
ARGYLL.

His Excellency the Right Honourable
The Governor-General of India in Council.

Proceedings of the Madras Government, Revenue Department,
22nd July 1873.

No. 195. ORDER THEREON, 22nd July 1873, No. 766.

Miscellaneous.

FORWARDED, with copy of the enclosure and with copies of Mr. Collins's report, to the Board of Revenue, Inspector of Forests, and the Resident of Travancore for report.

(Travancore act.)

signed) R. A. DALYELL,
Acting Secretary to Government.

To the Board of Revenue.
„ the Inspector of Forests.
„ the Resident of Travancore.

Exd. F. R. Bantleman.

India Office,
London, 30th April 1873.

Revenue,
No. 6

To His Excellency The Right Honourable The Governor
General of India in Council.

My LORD,

Para. 1. I herewith transmit 100 copies of a report, by Mr. Collins, on the plants from which india-rubber is obtained, in all parts of the world.

2. It appeared to me that, with reference to the prospect of the demand for india-rubber increasing very largely, in connexion especially with the requirements of State railroads, and with other operations in which the Government has a direct interest, it would be useful to have complete information on all points connected with its production. By placing these particulars before your Excellency's Government, you will be in a position to judge whether any steps might usefully be taken to ensure a more certain and cheaper supply of the best kinds.

3. Mr. James Collins, formerly Curator of the Museum of the London Pharmaceutical Society, who had paid much attention to the subject for some years, and had received a medal from the Society of Arts for a paper on the india-rubber of commerce, was engaged to make the necessary investigations, and to prepare a report. The points to which his attention was directed were, 1st, the supply and price of the different kinds of rubber in the European markets; 2nd, the different uses to which rubber is applied by manufacturers, and the particular kind that is applied to each purpose; 3rd, whether the particular kinds are used for each purpose, because they are best adapted, or because a superior kind is too dear; 4th, whether the superior excellence of the best kind is attributable to its being obtained from a tree of a particular species, to the habitat of the tree, or to manipulation in collecting the juice; 5th, full particulars as to the demand for *Ficus elastica*, the uses to which its juice is applied, and its value as compared with *Siphonia* (*Hevea*) *elastica*; 6th, all the information that can be obtained respecting the habitat of the *Siphonia elastica* of Brazil, the age at which the tree is tapped, the time of year, and the method of preparing the juice for the trade; 7th, the proportion in which the two kinds are acted upon by heat, and in which, under such conditions, they retain their strength and elasticity; and, 8th, whether the peculiar conditions of climate are the causes of the superiority of the Pará rubber, and, if so, to obtain particulars as to rainfall, temperature, soil, and aspect in the *Siphonia* region of Brazil.

4. Major-General R. Strachey, who was consulted on the subject, was of opinion that anything tending to increase the supply of india-rubber would facilitate the adoption of the material for springs for railway vehicles, and other purposes of the kind. He thought, also, that if the

supply could be got from India, it would add to the number of valuable products, which is a consideration of much practical importance.

5. Mr. Collins's report is not so complete, on some of the heads that were referred to him, as might be desired. It, however, contains much useful information, including the experience of Mr. Gustav Mann in Assam, and of Mr. Richard Spence in Brazil. It is accompanied by a memorandum of Dr. Brandis, the Inspector General of Forests, now on leave, which contains some suggestions that will be useful in considering the question. The report seems to place the great intrinsic superiority of Pará rubber over all other kinds beyond doubt.

6. I shall be glad to be informed whether there are any natural caoutchouc forest tracts remaining in India which are at the disposal of the Government, which might be protected and improved, and where the collection of rubber might be placed under the control of forest officers. It is necessary, if the supply is to be continued and the quality improved, that plantations of *Ficus elastica* should be formed, and carefully cultivated, in suitable sites.

7. As regards a supply of seeds of *Hevea* (*Siphonia*) from Pará, a letter has already been addressed to the Foreign Office, with a view to procuring them for transmission to India. Some interval must elapse before the necessary arrangements can be made for collecting the seeds; and in the meanwhile I shall be glad to be informed whether and where any suitable sites are available for an experimental plantation, under competent supervision. It would appear from the report that the only tracts likely to have a suitable climate for the Pará rubber (*Hevea*) will be found in Ceylon, Malabar, Travancore, and the south coast of Burma. The Nellambur teak plantation, in Malabar, is one locality the climate of which seems likely to be suitable. A copy of this Despatch will, therefore, be forwarded to the Madras Government.

8. I am of opinion that, in the first instance, only small quantities of seeds should be procured as an experiment. A second larger instalment might be sent for, after experience has been gained regarding the best time of the year, and the best mode of transmission, and regarding the treatment of seeds and young plants in India.

9. The introduction of the *Vahea*, believed to yield the Madagascar caoutchouc, also seems desirable, and the subject has been mentioned in the letter I caused to be addressed to the Foreign Office.

10. I shall be glad if your Excellency's Government would take the whole subject of india-rubber supply into consideration, and furnish me with an opinion both as to the formation of plantations of *Ficus elastica*, and as to the introduction into India of the *Hevea* of Brazil, yielding Pará rubber, and of other kinds.

I have the honour to be,

My Lord,

Your Lordship's most obedient humble Servant,

(Signed) ARGYLL.

Copy Revenue Despatch to the
Govt of India No. 6, dated
30th April 1873.

Referred to in Revenue Letter to
Madras No. 8, dated 30th April 1873.

Revenue

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+ dated 30th April 1873.
No. 6.

India Office

London 30th April 1873.

My Lord.

I herewith transmit
50 copies of a Report
which has been
prepared by Mr. Collins
under my orders, on
the Cautioning of
Commerce, together
with a copy of a
despatch which I
have addressed to
the Governor General
on

His Excellency
The Right Honorable
The Governor in Council
Fort. St. George.

on the same subject

2. It is probable
that the most suitable
localities for plantations
of the South American
trees, yielding the
best kind of India
rubber, will be found
in Malabar or Travancore.
I shall therefore be
glad to be furnished
with the opinion of
your Government
and with any remarks
or suggestions on
the subject, in the
event of its being
decided

110
decided to introduce
the cultivation of the
trees yielding Para
rubber into India

I have the honor to be

Very Truly

Your Lordships most Obedient
humble Servant

Agst

Revenue
30 April 1873

The
Letter to Mr. George
Mr. D

SO No 766 22 July 1873

Transmitting 50 copies of a
Report by Mr. James Collins on Caoutchouc,
- one, together with a copy of a Despatch
which was addressed to the Governor
Genl. on the subject, and requesting
to be furnished with the opinion of
Govt. with any remarks or suggestions
with regard to cultivation of trees
yielding Para rubber in India.

No. 766

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PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 22 July 1873.

Read the following

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

Transmitting 50 copies of a
Report by Mr. James Collins on
Caoutchouc, together with a copy
of a Despatch which was addressed
to the Governor General on the subject,
and requesting to be furnished
with the opinion of Govt. & with any
remarks or suggestions with re-
gard to cultivation of trees
yielding Para rubber in India.

(A.C. 30 April 1873 p. 8.)

Forwarded, with copy of
the enclosure and with copies
of Mr. Collins's report, to the
Board of Revenue, Inspector of
Forests and the Resident of
Travancore, for report.

- 14 To the Board of Revenue
- 13 The Inspector of Forests
- 12 The Resident in Travancore

No. 194-195

Received at Cochin on

40.

In Derpalek puit
first respecting all the
trees growing in the

41

all the trees in the
all the trees in the
all the trees in the

N. 194-195