

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 634

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Dated

11-10-1913

Not to be folded or roughly handled

*Proceedings of the Madras Government, Revenue Department,
11th April 1863.*

No. 64. Read the following letter from W. G. McIVOR, Esq., Superintendent Government Chinchona Plantations, to J. D. SIM, Esq., Secretary to Government, Revenue Department, Fort Saint George, dated Ootacamund, 4th April 1863, No. 107:—

SIR,

1. With reference to the Order of Government of the 5th March 1863, No. 471, and the Despatch from the Right Honorable Sir Charles Wood, dated 16th January 1863, No. 2, I have the honor to forward for transmission to Her Majesty's Secretary of State for India, specimens of Chinchona bark and wood, also dried leaves, decoction and infusion made from the same (as per list annexed), in order that they may be submitted to Mr. Howard for analysis and report. The specimens embrace the bark in all stages of growth from one month up to fifteen, and it is possible they may enable that eminent Chemist to trace the earliest stage in which Alkaloids begin to form, and thus throw much light upon the practical advantage or otherwise likely to be derived from our proposed system of lopping and pruning.

2. The barks were, in the first instance, dried upon warm iron plates; the process of drying being completed by exposure to the sun. During a portion of the time the barks were exposed to the sun, the atmosphere was very dry, indicating as much as 10° Fahr, between the wet and dry bulb Thermometers.

3. The leaves in specimen No. 8, were dried in the sun under the same circumstances as the bark; while the leaves of specimen No. 9 were dried in the shade, and as they seem to have retained more of their virtue, it occurs to me that the bark should also have been dried in the shade, and I would respectfully solicit Mr. Howard's opinion on this point.

4. Specimens Nos. 10 and 11 of decoction and infusion made from the green leaves immediately they were gathered from the plants, are submitted, as Mr. Howard from his great practical experience may be able to form a more correct opinion of their virtue than could be obtained in this country. At the same time we have submitted both decoction and infusion, as well as the leaves themselves to the Principal Inspector General Medical Department, Madras, as also to the Senior Medical Officer of this station, for trial in the Hospital here.

5. We have ascertained that the Chinchona tree has the power of rapidly renewing its bark, if the spaces from which it is taken are immediately covered with damp moss. Specimen No. 3 is the new bark formed over the same spaces from which the barks sent through Mr. Markham to Mr. Howard in July last was taken, this bark is consequently of eight months growth, and is much thicker in proportion than bark of the same age formed on young wood. The object in submitting this small specimen of renewed bark, is to ascertain whether bark so found is likely to prove of as much commercial value as that formed in the usual way; should it do so, it will prove of immense practical value, inasmuch as it will enable us to remove stripes of bark from the trunk, perhaps with the greatest advantage after a growth of from six to seven years; at the same time immediately covering the spaces with damp moss as the bark is removed; when treated in this manner new bark will form over the entire surface in from six weeks to two months, when the moss may be taken off; the bark being then capable of performing all its functions without any protection whatever; and perhaps should be permitted to attain a growth of six or seven years, before the same bark is again removed. Although it is possible, I do not see, that any deterioration in the market value of the bark can be caused by this treatment, and should it prove successful, it will have the immense advantage of enabling us to procure at least three times the produce of bark which could be had under any other system.

6. When the branch or stem of a Chinchona tree is covered with moss for a few months, the bark increases rapidly in thickness, and consequently in weight, the lower portion of specimen No. 4, illustrates the effect produced on the bark when treated in this manner, the object in submitting this specimen is to ascertain if the increased thickness in the bark, and consequently the greater cellular development is likely to facilitate the deposit of Alkaloids.

7. I fear that the specimens now sent may perhaps be too young to enable Mr. Howard to come to a definite conclusion, but I trust they may enable him to indicate the probable future results; and with the permission of Government, I will further prosecute the experiments above

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noticed, as I consider it desirable not to lose sight of the fact, that we are only beginning the cultivation of a plant, the correct treatment of which is but little known. It is therefore important that we endeavor as early as possible to arrive at a system of cultivation, which will produce the greatest yield of Alkaloids and bark, with the least expenditure of time and capital.

- No. 1. Specimens of bark from wood of the preceding year.
- No. 2. Bark from wood of current growth.
- No. 3. Specimen of bark formed over the spaces from which the bark had been removed in July 1862.
- No. 4. Specimen of bark, the lower ends of which have been covered with moss since September 1862, until the date of being removed, March 22nd, 1863.
- No. 5. Specimen of wood and bark of preceding year.
- No. 6. Wood of preceding year.
- No. 7. Wood and bark of current growth.
- No. 8. Old leaves which had fallen spontaneously from the plants dried in the sun.
- No. 9. Green leaves gathered from the plants and dried in the shade.
- No. 10. Decoction of Chinchona leaves, boiled for half an hour to which one-third of its bulk of brandy has been added to preserve it.
- No. 11. Infusion of Chinchona leaves, to which also one-third of spirit has been added.

No. 65. ORDER THEREON, 11th April 1863, No. 634.

- 1. A copy of this letter and the specimens referred to in it, will be forwarded to the Secretary of State.
- 2. The Government think it desirable that experiments of the kind described by Mr. McIvor should be prosecuted as opportunities offer, and the results published for general information.

(Signed) J. D. SIM,
Secretary to Government.

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- N^o 2. Bark from wood of current growth.
- N^o 3. Specimen of Bark formed over the spaces from which the bark had been removed in July 1862.
- N^o 4. Specimen of Bark, the lower ends of which have been covered with moss since September 1862, until the date of being removed March 22, 1863.
- N^o 5. Specimen of wood and bark of preceding year.
- N^o 6. Wood of preceding year.
- N^o 7. Wood and Bark of current growth.
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- N^o 11. Infusion of Chinchona leaves, to which also one third of Spirit has been added.

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a copy of this letter and
the enclosure referred to in it,
which he forwarded to the
Sec of State.

The first think it do.

Dear Mr. that no persons
of the kind are cited by
you. You should be pro-
secuted as obstructing
the results of this for justice

No 64 & 65:

to
March 163 no
550 58

Copy to Letter to England

8/11th June 8-29 of 1868

Rev. Mr. D. D. D.

St. Louis, Mo.

Dear Mr. John. I have
 been thinking of you
 very much lately.

Oct 4th 1853

7-11-19

1891

7/20/10 Mr. J. H. Wood. Columbus
Florida. Coloredman. 1979. 1979. 1979.

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Admiral's Office

of American People

Thos. D. Graham

Medical Department

Adrian A. Lincolnton

Division of

Lucida

Ms 634-11 April

Activity and Order

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