No. 114. Read the following endorsement of the Under-Secretary to the Government of India, Department of Agriculture, Revenue, and Commerce, dated 8th November 1873, No. 500 :—

Read the following letter from C. J. LYALL, Esq., Under-Secretary to the Government of India, Department of Agriculture, Revenue, and Commerce, (Agriculture and Horticulture,) to the Superintendent of the Royal Botanical Gardens, Calcutta, dated Simla, 8th November 1873, No. 499.

I AM directed to inform you that four wardian cases of Cacao seedlings have been despatched by Dr. G. Bernoulli of Mazatenango (Guatemala), through Her Britannic Majesty's Consul at San Francisco, per British Steamer *Lord of the Isles*. These cases, when received, will be sent to you in the first instance, and I am to request that you will be good enough to examine them carefully and report on the condition in which they arrive. A copy of Dr. Bernoulli's letter, which is enclosed, will give you the necessary directions for their treatment.

2. Of the four cases (should they arrive in good order), one should be sent to Burmah, one to General Stewart for the Nicobars, a third to the Government of Madras, and as regards the fourth you will be good enough to place yourself in communication with the Government of Bengal.

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COPY, with copy of Dr. Bernoulli's letter, forwarded to the Government of Madras.

(By Order,)
(Signed) C. J. LYALL,
*Under-Secretary to the Government of India.*

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ENCLOSURE No. 1.

From Dr. G. BERNOULLI, to ALLEN O. HUME, Esq., C.B., Secretary to the Government of India, Calcutta, dated 17th February 1873.

BY the steamer leaving the port of Champerico on the 20th instant, I send to H. B. M. Consul at San Francisco, California, four wardian cases containing each about 50 seedlings of Cacao, part of Theobroma Cacao, and part of the pentagonum. I suppose the Consul will have occasion to forward them to you without delay and in good condition. I have procured some special recommendations for the Captains of the steamers between here and S. Francisco, and made out short instructions about the treating of the plants.

2. On arriving there, the seedlings ought to be transplanted as soon as possible to their definitive station at a distance of about 15—18 feet from each other. The climate must be hot and humid. Here the middle temperature is about 23—24° C. (extremes 16—30° C.) It rains six months of the year almost every afternoon with occasional showers in the dry season; the more it rains during the dry time, the better crop is expected. The trees must have a deep vegetable soil, and be planted in the shade of high growing forest trees, so as to have free ventilation below. The soil, of course, must be kept clean of weeds, principally the first and second year. Some cultivators cut the lower branches of the Cacao tree, and I think that it is profitable to do so, as the trunk grows stronger and the fruits of the trunk are larger than those of the branches.

3. The plants bear fruit after 4—5 years, flowering during the whole year, the principal crops being in January, May, and September, but I have to state that the annual product is very variable.

4. I hope the cases will arrive there in a good condition.

*Proceedings of the Madras Government, Revenue Department.*
*9th December 1873.*

No. 115. ORDER THEREON, 9th December 1873, No. 1,583.

Miscellaneous.

The case of Cacao seedlings intended for this Government will, on arrival, be sent to the Commissioner of the Nilgiris for the Burliar Gardens.

2. Meanwhile, the foregoing paper and its enclosure will be communicated to the same officer, with request that he will report whether the gardens already possess Cacao plants of both the species referred to in Dr. Bernoulli's letter, and if so, how many of each.

(True Extract.)

(Signed) D. F. CARMICHAEL,
*Secretary to Government.*

To the Commissioner of the Nilgiris,
Board of Revenue.

No. 499

FROM C. J. LYALL, ESQUIRE,
*Under Secretary to the Government of India,*
*Department of Agriculture,*
*Revenue, and Commerce,*

To The Superintendent of the Royal Botanical Gardens, Calcutta.

Simla Dated 8th November 1873.

Agriculture and Horticulture

SIR,

I am directed to inform you that four wardian cases of cacao seedlings have been despatched by Dr. G. Bernoulli of Quezaltenango (Guatemala) through Her Britannic Majesty's Consul at San ... Francisco per British Steamer "Lord of the Isles". These cases, when received, will be sent to you in the first instance and I am to request that you will be good enough to examine them carefully and report on the condition in which they arrive. A copy of Dr. Bernoulli's letter which is enclosed will give you the necessary directions for their treatment.

2. Of the four cases (should they arrive in good order) one should be sent to Burmah, one to General Stewart for the Nicobars, a third to the Government of of Madras, and as regards the fourth you will be good enough to place yourself in communication with the Government of Bengal.

I have &c.,

(Sd.) D. J. Cyall,

Under Secretary to the Govt of India.

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No. 1.

Copy with copy of Dr. Bennarelli's letter forwarded to the Government of Madras.

By order,

Geo. Ev. Smith

Under Secretary to the Govt of India.

Kew

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Retaliuleu Rep. of Guatemala

February 17th 1873.

To

Allen O. Hume, Esquire, C. B.

Secretary to the Government of India

Calcutta.

Sir,

By the steamer leaving the port of Champerico on the 20th instant, I send to H. B. M. Consul at San Francisco California four Wardian cases containing each — about 50 seedlings of Cacao, part of Theobroma Cacao, and part of the pentagonum. I suppose the Consul will have occasion to forward them to you without delay and in good condition. I have procured some special recommendations for the Captains of the steamers between here and S. Francisco, and made out short instructions about the treating of the plants.

On arriving there the seedlings ought to be transplanted as soon as possible to their definitive station at a distance

of about 15-18 feet from each other. The climate must be hot and humid Here the middle temperature is about 23-24°C. (extremes 16 - 30°C.) It rains six months of the year almost every afternoon with occasional showers in the dry season, the more it rains during the dry time the better crop is expected. The trees must have a deep vegetable soil and be planted in the shade of high growing forest trees so as to have free ventilation below. The soil of course must be kept clear of weeds principally the first two years. Some planters advocate cut the lower branches of the cacao tree and I think that it is profitable to do so, as the trunk grows stronger and the fruits of the trunk are larger than those of the branches.

The plants bear fruit after 4-5 years, flowering during the whole year, the principal crops being in January, May and September, but I have to state that the annual product is very variable.

I hope the cacao will appear there in a good condition and each

Sir, very respectfully your obedient Servant.

Jos. Fr. G. Bennoulli.

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(True Copy)

Registrar,
Department of Agriculture,
Revenue and Commerce

Rev. 493 : Date
of 3707

Time
Reading - Previous
Date of Check
of work

Date of 3 - Year 1873
Rec'd 3 -

Rec. /
20. Nr 1383 - 9 Dec 93

Rev 3707/23

FOR ORDERS.

REVENUE DEPARTMENT.

No. 3707.

From Government of India Agl. Department

Dated 8th November 1871.

FOR ORDERS.

Seeds

Plants, &c.

Trees

Bulbs

Roots

Cuttings

Implements, &c.

Presented for the Royal Gardens, Calcutta, and for distribution.

The case of Cacao seedlings intended for the Botanical Gardens, Calcutta, to proceed to Madras

Presented for the Royal Gardens, Calcutta, and for distribution.

The Governor General in Council has received the accompanied letter from the Officer addressed by Her Majesty's Government.

No. 1383 Revenue Department

Proceedings of the Madras Government

Under date the 9th Dec: 1873

Read the following Endorsement from the Madras Secretary to the Government of India, Department of Agriculture Revenue and Commerce

Intimating that instructions have been given to the Superintendent of the Botanical Gardens, Calcutta to forward to Madras one case of Cacao Seedlings expected from St. Bernardille off Guatemala.

Here enter 8th Nov 1873 No 3707

The case of Cacao seedlings intended for this Government will, on arrival be sent to the Commissariat Officer of the Nilgiris for the Burdar Gardens. —

Meanwhile the foregoing paper and its enclosure will be communicated to the same Officer with request that he will report whether the garden alluded to is