M.R.O. 14—10,000—21-4-22.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue **DEPARTMENT.**

G.O. No. 1425-26 Press
Mis.
290-292

Dated 24-8- 1860.

Not to be folded or roughly handled

No. 290. Read the following letter from H. CLEGHORN, Esq., M.D., Conservator of Forests, to J. D. BOURDILLON, Esq., Secretary to Government, Revenue Department, Fort Saint George, dated Madras, 11th August 1860, No. 96:—

SIR,

1. With reference to the Order of Government, dated 9th November 1859, No. 1,531, Revenue Department and Proceedings of Government, dated 25th July 1860, No. 30, Revenue Department, I beg to state that I have found it impossible, owing to my other engagements, to visit the Tea plantations at Caldoorty and Udagiri mentioned by General Cullen, in his letter to the Chief Secretary, dated 27th October 1859.

2. I regret this, as the vegetation of that part of the Travancore territory is most luxuriant, and the lofty ranges stretching towards the Pulnies have been less explored than any other part of the Malabar Ghâts.

3. I have collected from my journal a few notes made during my tours upon the Tea plants seen in different Districts of the Presidency.

Localities where Tea Plants are growing.

4,000 *feet.*

I. SHEVAROY HILLS.—There are several well grown trees at Yercaud, introduced by G. Fischer, Esq., these have not been picked or pruned, and, indeed, have been left to nature, but are growing vigorously nevertheless.

4,500 *feet.*
Rain fall 120 *In.*
M. Temp. 68.°

II. COORG.—A case of plants was brought from China by Colonel (Lieutenant-General) Dyce in 1843; these (now trees) appear to me *over luxuriant*, producing a rapid growth of leaves and not bearing seed with regularity.

4,800 *feet.*

III. NUNDIDROOG.—A number of plants have lately been sent to this Hill Sanatarium, they were beginning to droop in the Lal Bagh Garden, Bangalore, but there is hope of their thriving in their new location. "The "mean temperature of Bangalore is 75°, and the average rain-fall 35 inches." The climate being too dry and too hot, the plants necessarily become dwarfed.

5,600 *feet.*
Rain-fall and Mean Temp. not known.

IV. BABABOODEN HILLS.—Four plants from General Dyce's stock were received from Mercara in 1847, these grew well without care. A packet of fresh China seeds was sent last year; Colonel Porter, Superintendent of Nuggur, raised 23 plants above Ghât near the Sircar Bungalow, and a number of seedlings have been planted out about a thousand feet lower by Mr. Denton, Coffee Planter.

6,000 *feet.*
Rain-fall 55 *In.*

V. NILGIRI HILLS.—*a. Coonoor.*—A full report of Captain Mann's plantation is recorded in Proceedings of Government, No. 1,272, dated 21st September 1859.

Besides this, there are a few plants at the undermentioned places.

b. Ootacamund.—Introduced or raised by Mr. McIvor, Government Gardens, from Saharunpore Seed and by General F. C. Cotton at Woodcote.

7,300 *feet.*
Rain-fall 60 *In.*
M. Temp. 58°.

c. Kaity.—Introduced or raised by Sir S. Lushington and Lord Elphinstone.

d. Kulhatty.—Introduced or raised by Mr. Rae.

7,100 *feet.*

VI. PULNI HILLS.—Major Hamilton reported that a considerable number of Tea plants at Kudaikarnal, were an inch or two above ground and appeared fresh and healthy.

1,200 *feet.*

VII. CURTALLAM.—I have received flowering specimens from the old spice garden, which correspond with the standard figures of *Thea Chinensis*. The shrubs are 20 years old, 12 to 15 feet high, and where the seed came from is not known.

	Altitude.	*Rain-fall.*
Caldoorty.....	6,700 *feet*	150 *to* 200 *Ins.*
Vellymallay near Udagiri.	1,800 *feet*	80
Athaboo near Tinnevelly...	3,200 *feet*	40

VIII. TRAVANCORE.—Tea trees grow luxuriantly in Messrs. Binny and Co.'s plantations, (formerly Mr. Huxham's) 40 miles east of Quilon on the road to Curtallam, and from whence some plants were procured 10 or 12 years ago, which were planted at Vellymallay near Udagiri, 1,800 feet, and at Athaboo near Tinnevelly frontier, 3,200 feet. At both places they are growing luxuriantly.

These facts are taken from General Cullen's letter to the Madras Government, and I may state that some seeds received from him were planted and throve on the Nílgiris at an elevation of 5,500 feet.

4. In Tea, as in all cultivated plants, there are variations, the discrimination of which is of the utmost importance commercially, and also in an economical point of view, but I have not materials for attempting a precise definition of these differences. This, however, is known that the seed having been obtained from different parts of China, the introduced plant varies in stature exceedingly, from a bushy shrub of 3½ feet to a ramous tree, 25 feet high.

5. There is a vast difference also between the narrow leaved forms and broad leaved specimens in some of the localities mentioned.

6. At present the leaves are taken indifferently from several sorts, which should not be done, when preparing Tea for commercial purposes; and the means of manufacture, are of the rudest description.

7. The Tea shrub of commerce, though long confined to Eastern Asia, is now cultivated far beyond the limits of China, and Japan, in Java, (under the Equator) in Assam, the North West Provinces of Hindustan, on the banks of the Rio Janeiro, and recently in North America. From the published reports of Mr. Fortune and Dr. Jameson,* it appears to prefer a climate probably of 67° to 73° mean temperature. Such is nearly the mean temperature of the hill slopes near Kúnúr, Kotagiri, and of many of the valleys in the Eastern and Northern slopes of the Pulni and Nílgiri Hills, and also of the Bababooden range in Mysore, and of Kudra Muka in South Canara.

Java, (under Equator) Siam and China 10° *to* 31° *N. L.* (Fortune.)
Rio de Janeiro 22½° *S. L. Tang-chow-foo* 36° *N. L.* (Reeves.)
Principal districts between 27° and 31° *N. L.* (Fortune.)
* *Selections from the Records of the Government of India, No. XXIII*, 1857.

8. It ought also to be observed, as illustrative of the hardinesss of the Tea shrub, that the cultivation extends over a great breadth of latitude (from the banks of the Rio Janeiro 22½° South Latitude, to the Province of Shan-ting in China 36½ North Latitude,) and that as we recede from the Equator, the lower latitude compensates for the difference of altitude. The Chinese cultivate on the lower slopes of the Hills, whilst in the North West Provinces, the culture is carried on between 2,000 and 6,000 feet.

9. This valuable plant has been found wild in Upper Assam and Cachar, whilst its congeners abound on the Nílgiri and other mountain ranges of this Presidency. Its cultivation, therefore, might be attempted with good prospect of success in any of the localities mentioned in paragraph 7. In the case of Captain Mann's plantation near Kúnúr, we have the opinion of four competent judges† that the experiment had entirely succeeded as regards the growth of the plant.

† *Mr. H. Ricketts, B. C. S.*
,, *Stanisforth, B. C. S.*
Major R. Strachey, Bengal Engineers.
Captain Impey, Bengal Engineers.

It now only remains to prove the merchantable character of the leaf, and this I hope will soon be tested.

Proceedings of the Madras Government, Revenue Department,
24th *August* 1860.

10. So far as I can judge, the aid of a few practised manipulators is all that is required to conduct the manufacturing processes. This I recommended in my* letter to Government, and I would beg again to solicit their attention to the proposal. Enclosed is a letter on this subject received by me from Dr. Jameson, at the time the question was broached, also extracts from Sir Emerson Tennant's erudite work on Ceylon, corroborative of the views expressed on this important point.

* *Dated 27th August* 1859, *No.* 762, *recorded in Proceedings of Government, No.* 1,272, *dated* 21*st September* 1859.

11. Much useful information will be obtained from Fortune's works, especially his "Visi "to the Tea Districts of China," and "A short guide to Planters cultivating Teas in the Himalaya "and Kohistan of the Punjab," by Dr. Jameson. Intending Tea Planters ought also to study carefull Mr. Ball's excellent work on the "Cultivation an manufacture of Tea," and the "Theory of Horticul ture" by Professor Lindley, a knowledge of the principles of culture being indispensible t success.

† *Selections from the Records of the Government of India, No. XXIII*, 1857.

From W. JAMESON, Esq., Superintendent Botanical Gardens, North West Provinces, t
H. CLEGHORN, Esq., M.D., Conservator of Forests, Madras, dated Kowlangiri, Dey
Dhoon, 5th September 1859, No. 431.

I have the honor to acknowledge the receipt of your letter, No. 741, dated 6th ultim regarding Tea makers. I am glad to hear that Tea cultivation is making steady progress in t Madras Presidency. I have no Chinese Tea makers available to send to the Nílgiris, bu I can provide you with four excellent Native Tea manipulators, who have been for yea working in the factories and are nearly as expert at their work as the Chinese. To seve private factories, I have supplied Natives brought up as Tea makers in the Government factori and by them excellent Teas have been prepared. Thus all the Teas prepared at Hurbawall in the Deyra Dhoon estimated at lbs. 10,000 this season have been prepared by Nati furnished by me, and these Teas are much prized by the public, and fetch high prices.

Four (4) Native Tea makers are willing to proceed to the Nílgiris, and serve three years on the following conditions :—

(1.) Their wages to be Rupees 12 *per mensem* each, for the first year, and Rupees 16 e *per mensem* for the second and third years.

(2.) All their expenses to be paid to and from the Nílgiris.

(3.) Their wages to be paid them from the date of leaving the plantation at Kowlang in the Deyra Dhoon.

(4.) Their agreement to continue in force for three (3) years from the date of t arrival at the plantation in the Nílgiris.

(5.) On discharge, their expenses to be paid and a free passage given to them Kowlangiri in the Deyra Dhoon. Their wages to cease from the date of their discharge fr he plantation on the Nílgiris.

With these men I am confident that you will be able to do all that you require towa scertaining the quality of the leaf yielded by the Tea plants growing on the Nílgi With the men I will send a series of baskets, &c. required in manipulating Teas, Dr. Thomson of the Calcutta Botanical Gardens can procure for you from Messrs. Thomp nd Co., Hardware Merchants, such pans as you require. If I can assist you in any other w will give me much pleasure.

P. S.—These four (4) men agree to work diligently in the plantations and make themse enerally (useful) when their services are not otherwise required in the Factory. But in o

that there may not be any dispute I shall, if agreeable to you, write their agreement on Stamped paper.

Extracts from Tennant's Ceylon.

"The Tea plant has been raised with entire success on the Estate of Messrs. Worms, at "Rothchild in Pusilawa; but the want of any skilful manipulators to collect and prepare the "dry leaves, renders it hopeless to attempt any experiment on a large scale until assistance can "be procured from China, to conduct the preparation." Volume I, page 90.

"The plants thrive surprisingly, and when I saw them they were covered with bloom. "But the experiment was defeated by the impossibility of finding skilled labor to dry and "manipulate the leaves. Should it ever be thought expedient to cultivate Tea in addition to "Coffee in Ceylon, the adaptation of the soil and climate has thus been established, and it only "remains to introduce artisans from China to conduct the subsequent processes." Volume II, page 252.

(Signed) H. CLEGHORN,
Conservator of Forests.

No. 291. ORDER THEREON, 24th August 1860, No. 1,425.

1. The Governor in Council has perused this report with much interest. It contains much useful information on the subject treated of. It will be communicated to the Board of Revenue, to the Collector of Coimbatore, to the Commissioner of Mysore, and to the Literary Society for publication in their journal. A copy will also be laid on the Editors' table and a number of spare copies will be printed for sale or distribution.

2. The report will also be sent to the Secretary of State.

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

Ordered in consequence that the following letter be despatched.

No. 292. From J. D. BOURDILLON, Esq., Secretary to the Government of Fort Saint George, to the Commissioner of Mysore, dated 24th August 1860, No. 1,426.

SIR,

I am directed by the Honorable the Governor in Council to forward to you Ten copies of a report by Dr. Cleghorn, Conservator of Forests, on the suitability of various place in this Presidency to the growth of the Tea plant.

copies may also be printed
for sale or distribution.

Sec. Clayton

Office
11 Aug.t/60

Dear Mr. Bourdillon

I think there
may be a demand for
more copies of this Report
on Tea Cultivation - & I
would solicit 12 extra copies
from this office.

I will also correct the
proofsheets with pleasure -
it is of consequence that
the figures in the margin
shd be correct - No detention
of proofs will occur

Yrs truly
H. Cleghorn

Read the following letter
from the Conservator of Forests

(Coonoor 11th Aug 1860
No 96)

Stating that owing to other engage
ments he found it impossible to visit
the tea plantations in Travancore men
tioned by General Cullen, & submitting
a brief report on the tea plants seen
by him in different districts of the Presy.

(Coonoor 11th Augt 1860
No 96)

The Govt. has
perused this report
with much interest
It contains much useful
information on the subject treated of. It
paper. and will be
communicated to
the Bd. of Rev. to
the Govt. of Madras
to the Commr of Sa
dras - and to the Ag
ney Society for furth
him in their inquir
Agency will also be
Land in the Edib
table and an

If spare copies will be printed for sale or distribution hereafter.

The Superintendent also be sent to this Secy: of State.

12 Copies. Board of Revenue Pipt 25
1 " Collector of Coimbatore "
1 " Literary Society "
15 " Conservator of Forests "

No 290 + 291.

Copy in a G.O. Lr. to Engd.
d/ 24th. Augt. 1860 No. 90.

Dr Cleghorn's Report
on the Tea plants
which has been within this
Presy.

Revenue 1860 Departt.
Pro: of Govt. for August
No 1425.

Pro: of the Madras Govt.
d/ 24 August 1860.

From W. Hudson Esqre
d/ 27 Octr. 60 No. 24/5 in
Pro: 17 Novr. No. 2161.

Report from Dr.
Cleghorn on the suitability
of various places to the
growth of the Tea plant,
reviewed.

To
The Commissioner
of Mysore.

Sir,

I am directed
by the Hon: the Govr.
to forward to you ten
copies of a report by
Dr Cleghorn, Conservator
of Forests, on the suita-
bility of various places
in this Presidency to
the growth of the Tea
plant.

[illegible]

Fort St. Geo: 24th August
1860.

Revenue 1860 Separate
Pro: of Govt for Augt.

No 1426.

To
The Commissioner
of Mysore.
Dy 24th August 1860.

109 · 111
10 · 11 · 59
9 A – 11
10 · 8 · 58
35 · 39
23 · 9 · 59.
30 2/3
25 · 7 · 60

Copy in a G.L. Letter to Govt
Dy 29 · 8 · 1860 No 90

Forwarding 10 Copies
of Dr Cleghorn's report
on the Salubability of various
places in this Presidency to
the growth of the Tea plant.

No 2921

L