

Revenue (1897) Department.

PRESS SERIES.

G.O., No. 343

DATED 17th May 1897.

[Despatch Abstract.]

Government Experimental Gardens at Burley

Approving, with remarks, the proposals of
the Curator of Government Gardens, in
Cotacambú, for improvement of the
—

[illegible]

G.O.	No.	Department.	Date.

FURTHER PAPERS.			
G.O.	No.	Department.	Date.

CURRENT No. 3491

3 L.R. the Governor

Order

P.S. He should not
 Kew - probably this
 his last letter - of the garden
 it can in future
 The Curators' pro.

posals are approved.

2. It is presumed that the proposed expenditure can be met from the sanctioned grant for the current year.

uu
5.5.87

Z

The Curator of the Fruit Gardens
and Parks, Wilsons,
then the Collector of the Wilson.

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The present report setting forth the ^{existing} ~~present~~ state of the Barlizar gardens and the steps which Mr Pownlock proposes to take to improve them is submitted with reference to para 6

A. Disa cur No. $\frac{531}{97}$

Dated 26th April, 97

Received 25.4.97

Registered

Enclosures One,

Spare copies

SUBJECT.

Forwarding report
on the Barliar Gardens
received from the curator
of Government Gardens
atacamind.

of the

29/4/97

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of G.O. No 212 Rev. of 23rd May 1896.
 (flap A). Mr Pundlock's proposals are briefly (1) to get the boundary stones (which cannot at present be fixed), to fence the gardens, to till and manure the soil, to prevent the surface soil being carried away by floods, to reduce the number of ordinary trees standing on the gardens, and to increase the number of rare and valuable trees. Dr King's Report on these gardens to which the present report Mr Pundlock considers should be treated as a supplement will be put in the file of printed papers regarding the Cinchona Dept (flap B).

BACK PAPERS.

G.O.	No.	Department.	Date.
<i>P.P.</i> <i>Cuo: 7078/96</i>	212	Rev	23.5.96

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Wm
4.5.97
Wm
 Some of the above proposals mean spending money. Are they funds?
Wm
4.5.97
 answered in separate slip
Wm

Investigation of
 Report on the Government Experimental Garden at Burliar.

The gardens are situated at Burliar on the Coonoor ghat close to the main road, and about half way from Mattapollim to Coonoor at an elevation of about 2500 ft. There are two gardens; the upper and the lower.

1. The upper garden is situated between the bridge and the toll gate on the upper side of the main road, and is about half an acre in extent. It is steep in parts, the soil is hard and full of stones, and so far as I am able to judge, no attempt seems ever to have been made, for many years past at least, to dig up, or to properly cultivate, the soil. I am not able to obtain any information as to whether it has ever been manured or not; but there is no indication of it ever having been manured. Almost the whole of it is thickly planted with plants, most of which are large trees, chiefly of economic value.

3. The lower garden is situated nearer Coonoor than the upper one, and about 3/4 of a furlong from the toll gate, on the lower side of the bridge path to Coonoor. It is the more important garden of the two, and is 6.54 acres in extent; but, only about 2 1/2 acres of the upper part of it have been planted. The description of the condition of the upper garden given in para 2 above applies fully to the planted portion of this one. The remaining 4 acres are covered with forest; the ground is very steep, and, in parts, precipitous, full of rocks.

2
It has a South Eastern and a Southern exposure. I do not think it advisable to open the forest-clad portion up; so that all efforts to develop these gardens will, I fear, have to be confined to the areas already opened up.

4. Boundaries. - After repeated searches I regret that I have not been able to find all the boundary stones of the lower garden, and not even a single boundary stone of the upper garden.

I have, however, written a letter no. 821 dated 31st March 97 to G. P. Grunke Esq., Deputy Superintendent, Madras Survey No 3 Party, informing him about the matter, and requesting him to kindly have the boundaries properly demarcated.

5. Fences. - Neither of the gardens are fenced in except on the sides bordering on the Public roads.

6. Temperature. - The average temperature from 10 am. to 4 p. m. from August to March is about 80 degrees.

7. Rainfall. - From June to December the rainfall is sufficient, but from January to June trees and plants in these gardens have to be watered artificially, as very little rain falls at Barliyar during the first half of each year.

8. Water-Supply. - This is obtained from the main stream that flows past Barliyar. It is conveyed by an artificial open channel to, and through, both gardens, and is available in abundance throughout the year.

A natural water-course, which is quite dry during the dry season but which during heavy rains conveys a raging mountain current, runs straight down

3
through the lower garden. This, no doubt, was found to be of no use in providing a regular supply of water to the garden, and so the artificial channel above referred to was made. It crosses the natural water-course at right-angles, and no provision seems to have been made to allow the water of the latter course, during floods, to pass over, or beneath, the artificial channel, but the latter channel was apparently expected to be of sufficient capacity to carry off its own water as well as that brought into it by the natural water-course. The results have been unfavourable to the welfare of a portion of the garden, for, during heavy rains, the great volume of water flowing down the natural water-course into the artificial channel overflowed the banks of the latter and has washed away the fine surface soil, leaving little behind except sand, gravel and larger stones, over a certain area at the top of the garden. This denuding process seems to have been going on at recurring intervals during each rainy season ever since the artificial channel was made many years ago. Before the rains begin this year I hope to be able to do something to prevent further denudation, by providing some means for the flood water, carried down by the natural water-course, to pass through the garden without doing material damage to it.

9. One of the difficulties in regard to these gardens is in keeping gardeners there. They seem to contrast fewer very readily and frequently. Once they get

They don't care to stay, and often they run away, and the consequence is that other gardeners are very shy about taking service at Burliar.

On the 5th August the Overseer died rather suddenly. Since then two successive Overseers have been appointed, but I regret to state that both of them have been compelled to give up the appointment owing to their having contracted malarial fever.

10. The two mud and thatched huts outside of the garden on the side of the public bridle path, in which the gardeners have to live, are in a most wretched state, and will have to be put in order at an early date. I propose to build the new quarters inside the lower garden - the framework of bamboos with a roofing of corrugated iron.

11. Enemies. The fruit crop for 1896-97 was only a middling one. Parrots and other birds, monkeys, pigs and dishonest persons seemed to have helped themselves freely to the produce, as only Rs. 145-4-10 was realized by the sale of it.

12. The annual grant for the upkeep of these gardens is Rs. 500.

13. His Excellency the Governor visited these gardens on the 31st July 1896, and made a thorough inspection of them.

Work done during the Year 1896

14. A beginning was made to dig the ground in both gardens with pitting machines, but owing to its hard stony state they were found to be of little use, and grub axes were found to answer better. I am, however, able to report that the surface of about three-fourths of the planted areas in both gardens has been broken and the soil loosened, and I intend that the work shall be continued, and repeated, during the present year.

In both gardens a good deal of jungle undergrowth was cut down and cleared away during the year. I have also commenced thinning out the commoner trees, which are abundantly represented in these already overcrowded gardens, such as the Jack-fruit tree for instance. It is not, I think, of much use to keep on growing more than two or three trees of such a species as the Jack fruit in a Government Experimental garden. The species is a native of the forests of the Western Ghats, is cultivated throughout the hotter parts of Eastern Asia, and is well known to, and is extensively cultivated by, the natives of India. The same may be said of the Betel-nut Palm and of the Cocoa nut Palm. It is such common and well known species as these just mentioned that I propose to reduce the numbers of in these gardens in order to make room for rarer and more valuable species, such as the Mangosteen, as well as for new products which may be procured in future.

The Soil in both gardens appears to be in rather a poor Condition, and would be greatly improved by a good application of farmyard manure. During the current year I hope to be able to arrange to get both gardens manured 16. The following is a list of the plants growing in the gardens at the present time, viz:-

Name	No of plants in cultivated part of lower garden	do - in uncultivated part	do - in upper garden	do - in road side between the two gardens	Seedlings in nursery beds in lower garden
<i>Areca catechu</i> (Betel Nut Palm)	15	-	9	-	-
<i>Alstonia scholaris</i>	-	-	1	-	-
<i>Artocarpus integrifolia</i> (Jack fruit tree)	23	14	1	-	-
<i>A. incisa</i> (Broad fruit tree)	2	-	-	-	-
<i>Ananas sativa</i> (Pine apple)	20	-	-	-	-
<i>Amherstia nobilis</i> (ornamental flowering tree)	1	-	-	-	-
<i>Avicennia Bilimbi</i> (Bilimbi fruit)	2	-	-	-	-
<i>Alcaecia violacea</i> (ornamental foliage plant)	12	-	-	-	-
<i>Bona reticulata</i> (Quadrant apple)	34	-	1	-	-
<i>" Cherimolia</i> (Cherimoya)	1	-	-	-	-
<i>" palustris</i> (alligator apple)	-	-	1	-	-
<i>Calophya marginata</i> (ornamental shrub)	2	-	-	-	-
<i>Cegle marmelos</i> (Bael fruit tree)	1	-	-	-	36
<i>Cecropia</i> (ornamental plant)	6	-	-	-	-
<i>Castanpermum australe</i> (Munro Bay Chestnut?)	-	-	-	3	-
<i>Castilloa elastica</i> (Panama Rubber Tree)	1	-	1	-	-
<i>Cephaelis Specuana</i> (Specuana)	372	-	-	-	-
<i>Citrus spp.</i> (Oranges & Lemons)	86	6	2	-	-
<i>" Decurana</i> (Pomelo)	21	4	-	-	-
<i>Calophyllum inophyllum</i> (Pom spin tree)	1	-	-	-	-

Wrought iron fence to English garden

	No of plants in cultivated part of lower garden	No of plants in uncultivated part of lower garden	No of plants in upper garden	No of plants in the road side between the two gardens	No of plants in the lower garden
<i>Coffea Arabica</i> (Arabian Coffee)	35	6	5	-	5
<i>C. Liberia</i> (Liberian "	19	"	52	-	415
<i>C. stenophylla</i>	1	-	-	-	-
<i>Cinnamomum Zeylanicum</i> (Cinnamon)	10	1	-	-	255
<i>Cocos nucifera</i> (Coconut Palm)	24	-	-	-	-
<i>Cola acuminata</i> (Kola nut)	-	-	-	-	6
<i>Couroupita guianensis</i> (Pavane Bell tree)	1	-	-	-	-
<i>Codiaeum</i> sp. (Crotons)	12	-	-	-	-
<i>Caryota urens</i> (Wine Palm)	13	6	-	-	-
<i>Cereus</i> sp.	1	-	-	-	-
<i>Caryophyllus aromaticus</i> (Clove tree)	53	-	3	-	2580
<i>Dalbergia laucolaria</i>	2	-	-	-	-
<i>Diffurbachia</i> sp. (ornamental branch plants)	30	-	-	-	-
<i>Eletharia Cardamomum</i> (Cardamom plant)	18	-	-	-	-
<i>Erythrina</i> sp.	6	-	-	-	-
<i>Eugenia jambos</i>	2	-	-	-	-
<i>E. "</i> sp.	2	-	3	-	-
<i>Erythronylon coca</i> (coca)	67	-	1	-	-
<i>Exanthemum</i> sp. (ornamental plant)	1	-	-	-	-
<i>Ficus</i> sp.	1	-	-	-	-
<i>Garcinia mangostana</i> (Mangosteen)	20	-	2	-	Seeds have just germinated.
<i>G. xanthochrymus</i>	1	-	-	-	29
<i>Hevea brasiliensis</i> (Para Rubber)	-	-	1	-	-
<i>Ilex paraguariensis</i> (Paraguay Tea plant or Mate)	1	-	-	-	-

	Moorea in culture at the Lampro Garden	do - in the cultured part	do - in the garden	do - in the garden	do - in the garden	do - in the garden	do - in the garden	do - in the garden	do - in the garden	do - in the garden
<i>Mangifera indica</i> (Mango)	18	3								
<i>Myristica moschata</i> (nutmeg tree)	48									
<i>Moringa pterygosperma</i> (Horse Radish tree)	1									
<i>Manihot glaziovii</i> (Cassava rubber tree)	26	5	40							
<i>Nephelium litchi</i> (Litchi)	5									
<i>N. " Lappaceum</i> (Rambutan)	5									
<i>N. " Longana</i> (?) (Longans)	3									
<i>Nephrolepis tuberosa</i> (Fern)	4									
<i>Orandra virgata</i> (Dancewood)	1									
<i>Pithecolobium saman</i> (Rain tree)								2	15	
<i>Psidium Guayana</i> (Guava)	13	4								
<i>Piper sp.</i> (Pepper)	1									
<i>Pimenta officinalis</i> (Allspice)	2									
<i>Pusa gratissima</i> (Aurcado Pear)	1									
<i>Punica granatum</i> (Pomegranate)	17									
<i>Stenulia guttata</i>	1									
<i>Swietenia mahagoni</i> (Mahogany)	1							4		
<i>Tamarindus indica</i> (Tamarind)	1									
<i>Theobroma Cacao</i> (Cocoa)	21								21	
<i>Vanilla sp.</i>	2									
<i>Vitio martinii</i>	1									
<i>Zingiber officinale</i> (Ginger)	3									
<i>Z. " sp.</i> (Chinese Ginger)	12									
	285									
	21	5	5	5	6	5				

18. As suggested by Dr King, in his Report on these gardens, I wrote to the Director of the Botanic Gardens, Singapore, in August last for seeds of the Durian Fruit Tree, and he very kindly sent me some; but I regret to have to state that every seed was rotten on arrival at Ootacamund - having been 10 weeks in transit from Singapore.

20. During the present year I intend to sow seeds, when available, in the nursery of as many of the more useful species as I can procure seeds of—

21. The following is a short account of a few of

more important species which have been received, planted, and sown in these gardens during the year. As there was only one Bael tree at Burliar I thought it advisable to have more plants of it, so I wrote to Dr George King, C. I. E., Director of the Botanical Survey of India and Burma, for seeds of it, and he very kindly sent me some. Half of them were sown in the glass house in the CoDACamund Gardens, and half at Burliar: both sowings have ^{A common country tree, India} germinated very well. It may be mentioned that the fruit of the Bael tree is, when prepared, very useful in cases of dysentery.

Seeds of Maragogipe Coffee, the Brazil Nut (*Bertholletia excelsa*), and the Sapucaia nut (*Leopoldia Latucaja*) were obtained by purchase.

Mr: E. C. Duff, Editor of "Planting Opinion", Coonoor, very kindly presented a plant of *Coffea stenophylla*. He also sent me 6 seeds (to be sown) and a specimen of "So called Nyassaland Wild Coffee" for identification. I forwarded the specimen, with 2 seeds, to the Director of the Royal Gardens, Kew, to be identified, and he very kindly named it for me. It proved to be *Cremanthidium Africana*, Benth. A botanical description of it is given in no: 109 of the Kew Bulletin for January 1896, and a general account is given of its geographical range in nos: 115-116 of the same publication for July-August, 1896. I have communicated the name of the species to Mr: Duff. The remaining 4 seeds have been sown at Burliar and their progress will be watched with interest. Mr: Duff

also very kindly presented to seeds of the Kola nut to the gardens and up to date six seedlings are the result. ^{7/2/97}
22. The gardens were visited by me on nine occasions during the year.

23. Concluding Remarks. - The gardens require
(1) a good digging regularly, and the larger stones removed from the soil.

(2) a good manuring.
(3) A judicious thinning out of the less valuable species, in order to make room for the more valuable species, as occasion requires.

(4) The nursery to be improved by sowing seeds of the more valuable species of Economic plants in order to have a larger number and greater variety of seedlings available for sale to the public.

(5) To be fenced in, after the boundaries have been properly re-demarcated.

With a trustworthy, industrious overseer, possessing a fair knowledge of gardening, (and who can keep his health at Burliar) to carry out the above requirements, these gardens can, without doubt, be much improved, and, as Dr. King remarks in his report on them "might be made a centre for much useful work" in future.

Gout. Botanic Garden, } R. L. Grandlock,
CoDACamund April 1897 } Curator.

No. 70

GOVERNMENT BOTANIC GARDENS,

OOTACAMUND, 23rd April 1897.

From

R. L. PROUDLOCK, Esq.,

CURATOR, GOVERNMENT BOTANIC GARDENS AND PARKS,

Nilgiris,

To

The Secretary to Government.

Revenue Department.

Through

The collector of the Nilgiris.

SIR,

In accordance with the instructions contained

in para 6 of G. O. No. 212 Revenue dated 23rd May 1896, I have the honor to submit herewith the report

GP
revenue 531/97

forwarded on the Barliar Gardens called for therein.

H. Tremblet.

H. C. 25.4.97.

I have the honor to be,

Sir,

Your most obedient Servant,

R. L. Proudlock
- Curator

1897.

From

THE CURATOR

OF THE GOVERNMENT BOTANIC

GARDENS AND PARKS,

NILGIRIS,

To

THE *Secretary to Government*
Revenue Department

Dated

23rd } April 1897.
Despatched 24th }

No. 70

ENCLOSURES. *one*

Subject.

Submitting Report on
Burliar Gardens

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Read C. No. 3491

*Q.O. No. 3438, 17th May 1897.**Permit*
17/5/97
Gen
for

The Curator's report read above gives a deplorable account of the state in which the gardens at Burliar are at present. His proposals for their improvement are approved. It is presumed that the proposed expenditure can be met from the sanctioned grant for the current year.

2. With reference to para 21 of his report the Curator is informed that, in future applications for botanical assistance should be made to the Officer in charge of the Herbarium at Madras ^{and not to} ~~before~~ ^{the Director of the Royal Botanic} ~~at Madras~~ ^{advising} Kew.

Des. 17-6-97

20th May 1897

24-20-5-97

11/7-5-97. *Me*
15/5/97

Government {1897} of Madras.
REVENUE.

Recd.

Regd.

} 1897.

Enclosures

Spare copies

G.O., No. 343, 17th May 1897.

MAY.

Government Experimental Gardens at Burliar.

Approving, with remarks, the proposals of the Curator of Government Gardens, Ootacamund, for the improvement of the —.

GOVERNMENT OF MADRAS.

REVENUE DEPARTMENT.

READ—the following letter from R. L. PROUDLOCK, Esq., Curator, Government Botanic Gardens and Parks, Nilgiris, to the Secretary to Government, Revenue Department (through the Collector of the Nilgiris), dated Ootacamund, 23rd April 1897, No. 70 :—

In accordance with the instructions contained in paragraph 6 of G.O., No. 212, Revenue, dated 23rd May 1896, I have the honour to submit herewith the report on the Burliar Gardens called for therein.

ENCLOSURE.

REPORT on the Government Experimental Gardens at Burliar.

The gardens are situated at Burliar on the Coonoor ghât close to the main road, and about half way from Méttupálaiyam to Coonoor at an elevation of about 2,500 feet. There are two gardens, the upper and the lower.

2. The upper garden is situated between the bridge and the toll-gate on the upper side of the main road, and is about half an acre in extent. It is steep in parts, the soil is hard and full of stones, and, so far as I am able to judge, no attempt seems ever to have been made, for many years past at least, to dig up, or to properly cultivate, the soil. I am not able to obtain any information as to whether it has ever been manured or not; but there is no indication of it ever having been manured. Almost the whole of it is thickly planted with plants, most of which are large trees, chiefly of economic value.

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4. *Boundaries*.—After repeated searches I regret that I have not been able to find all the boundary stones of the lower garden, and not even a single boundary stone of the upper garden. I have, however, written a letter No. 821, dated 31st March 1897, to G. P. Greene, Esq., Deputy Superintendent, Madras Survey, No. III Party, informing him about the matter, and requesting him to kindly have the boundaries properly demarcated.

5. *Fences*.—Neither of the gardens are fenced in except on the sides bordering on the public roads.

6. *Temperature*.—The average temperature from 10 A.M. to 4 P.M. from August to March is about 80 degrees.

7. *Rainfall*.—From June to December the rainfall is sufficient, but from January to June trees and plants in these gardens have to be watered artificially, as very little rain falls at Burliar during the first half of each year.

8. *Water-supply*.—This is obtained from the main stream that flows past Burliar. It is conveyed by an artificial open channel to, and through, both gardens, and is available in abundance throughout the year.

A natural water-course, which is quite dry during the dry season but which during heavy rains conveys a raging mountain torrent, runs straight down through the lower garden. This, no doubt, was found to be of no use in providing a regular supply of water to the garden, and so the artificial channel above referred to was made. It crosses the natural water-course at right angles, and no provision seems to have been made to allow the water of the latter course, during floods, to pass over, or beneath, the artificial channel, but the latter channel was apparently expected to be of sufficient capacity to carry off its own water as well as that brought into it by the natural water-course. The results have been unfavourable to the welfare of a portion of the garden for, during heavy rains, the great volume of water flowing down the natural water-course into the artificial channel overflowed the banks of the latter and has washed away

the fine surface soil leaving little behind except sand, gravel and large stones, over a certain area at the top of the garden. This denuding process seems to have been going on at recurring intervals during each rainy season ever since the artificial channel was made many years ago. Before the rains begin this year I hope to be able to do something to prevent further denudation, by providing some means for the flood water carried down by the natural water-course to pass through the garden without doing material damage to it.

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12. The annual grant for the upkeep of these gardens is Rs. 500.

13. His Excellency the Governor visited these gardens on the 31st July 1896, and made a thorough inspection of them.

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In both gardens a good deal of jungle undergrowth was cut down and cleared away during the year. I have also commenced thinning out the commoner trees, which are abundantly represented in these already overcrowded gardens, such as the jack-fruit tree for instance. It is not, I think, of much use to keep on growing more than two or three trees of such a species, as the jack fruit in a Government experimental garden. The species is a native of the forests of the Western ghats, is cultivated throughout the hotter parts of Eastern Asia, and is well known to, and is extensively cultivated by, the natives of India. The same may be said of the betel-nut palm and of the cocoanut palm. It is such common and well known species as these just mentioned that I propose to reduce the numbers of in these gardens in order to make room for rarer and more valuable species, such as the mangosteen, as well as for new products which may be received in future.

15. The soil in both gardens appears to be in rather a poor condition, and would be greatly improved by a good application of farmyard manure. During the current year I hope to be able to arrange to get both gardens manured.

16. The following is a list of the plants growing in the gardens at the present time, viz. :—

Names of plants.	Number of plants in cultivated part of lower garden.	Number of plants in uncultivated part of lower garden.	Number of plants in upper garden.	Number of plants on road side between the two gardens.	Seedlings in nursery beds in lower garden.
Arce catechu (betel-nut palm)	15	..	9	..	..
Alstonia scholaris	23	14	1	..	..
Artocarpus integrifolia (jack-fruit tree)	2	..	1	..	..
Artocarpus incisa (bread-fruit tree)	20	..	..	..	..
Ananas sativus (pine-apple)	1	..	..	..	..
Amherstia nobilis (ornamental flowering tree)	2	..	..	..	..
Averrhoa bilimbi (bilimbi fruit)	12	..	1	..	..
Alcacia violacea (ornamental foliage plant)	34	..	..	..	..
Anona reticulata (custard apple)	1	..	1	..	..
Anona cherimolia (cherimoyer)	..	..	..	..	..
Anona palustris (alligator apple)	2	..	..	..	36
Acalypha marginata (Bael ornamental shrub)	1	..	..	..	..
Egle marmelos (bell fruit tree)	6	..	..	3	..
Begonia sp. (ornamental plant)	..	..	1	..	..
Castanospermum australe (Moreton Bay chestnut)	1	..	..	..	..
Castilleja elastica (Panama rubber tree)	372	..	2	..	..
Capballia ipecacuanha (ipecacuanha)	66	6	..	..	..
Citrus spp. (oranges and limes)	21	4	..	..	..
Citrus decurana (pomelo)	1	..	..	..	..
Calophyllum inophyllum (poon spar tree)	..	..	..	..	..

Names of plants.	Number of plants in cultivated part of lower garden.	Number of plants in uncultivated part.	Number of plants in upper garden.	Number of plants on the road side between the two gardens.	Seedlings in nursery beds in lower garden.
Coffea Arabica (Arabian coffee)	35	6	5	..	..
Coffea Liberica (Liberian coffee)	19	..	52	..	..
Coffea Stenophylla	1	..	..	..	415
Cinnamomum zaylanicum (cinnamon)	10	1	..	..	..
Cocos nucifera (coconut palm)	24	..	..	..	255
Cola acuminata (kola nut)	..	..	..	..	..
Couroupita guianensis (common Ball tree)	1	..	..	..	6
Cordia sp. (orotous)	12	..	..	..	..
Caryota urens (wine palm)	13	6	..	..	..
Cereus sp.	1	..	..	..	..
Carvophyllis aromaticus (clove tree)	53	..	3	..	..
Dalbergia lanceolaria	2	..	..	..	2580
Dieffenbachia sp. (ornamental leaved plants)	30	..	..	..	..
Eleutheria cardamomum (cardamom plant)	18	..	..	..	..
Erythrina sp.	6	..	..	..	..
Eugenia jambos	2	..	..	..	..
Eugenia sp.	2	..	3	..	..
Erythroxylon coca (coca)	67	..	1	..	..
Eranthemum sp. (ornamental plant)	1	..	..	..	..
Ficus sp.	1	..	..	..	..
Garcinia mangostana (mangosteen)	20	..	2	..	..
Gracina xanthochymus	1	..	..	..	Seeds sown, just germinating.
Henea Braziliensis (Para rubber)	..	..	1	..	29
Ilex Paraguariensis (Paraguay tea plant or mate).	1	..	..	..	..
Jonesia Asoca	..	..	1	..	..
Mangifera Indica (mango)	18	3	..	..	..
Myristica moschata (nutmeg tree)	48	..	..	..	..
Moringa pterygosperma (horse radish tree)	1	..	1	..	..
Manihot glaziovii (Ceara rubber tree)	26	5	40	..	..
Nephelium litchi (litchi)	5	..	..	..	..
Nephelium lappaceum (rambutan)	5	..	..	..	..
Nephelium longana f (Longans)	3	..	..	..	..
Nephrolepis tuberosa (fern)	4	..	..	..	..
Oxandra virgata (lancewood)	1	..	..	..	..
Pithecolobium saman (rain tree)	..	..	..	..	..
Psidium Guayava (Guava)	13	4	..	2	15
Piper sp. (pepper)	1	..	..	..	..
Pimenta officinalis (allspice)	2	..	..	..	..
Persea gratissima (avocado pear)	1	..	..	..	..
Punica granatum (pomegranate)	17	..	..	..	..
Sterculia guttata	1	..	..	..	..
Swietenia mahagoni (mahogany)	1	..	..	..	..
Tamarindus Indica (tamarind)	1	..	..	4	..
Theobroma cacao (cocoa)	21	..	..	..	..
Vanilla sp.	2	..	..	..	21
Vitis Martini	1	..	..	..	..
Zingiber officinale (ginger)	3	..	..	..	..
Zingiber sp. (Chinese ginger)	12	..	..	..	..

17. I have read Dr. King's valuable report on these gardens, communicated to the Government Quinologist with G.O., No. 461, dated 22nd February 1896. In the present report I have purposely avoided traversing the points Dr. King has fully dealt with, and I have tried to make it supplemental to his. I, therefore, venture to suggest that Dr. King's report be read again along with the present one.

18. As suggested by Dr. King in his report on these gardens, I wrote to the Director of the Botanic Gardens, Singapore, in August last for seeds of the Durian fruit tree, and he very kindly sent me some; but I regret to have to state that every seed was rotten on arrival at Ootacamund, having been ten weeks in transit from Singapore.

19. From the list it will be observed that there are only eight species in the nursery, the most important being the germinating mangosteen plants, the kola nut and the young clove plants. The latter are fine healthy plants ready for planting out. If it were made known to the Nilgiri Coffee Planters that young clove trees can be obtained from these gardens at four annas per plant they might think it worth their while to purchase some to plant on the lower and warmer parts of their estates.

20. During the present year I intend to sow seeds, when available, in the nursery of as many of the more useful species as I can procure seeds of.

21. The following is a short account of a few of the more important species which have been received, planted, and sown in these gardens during the year. As there was only one Bael tree at Burliar I thought it advisable to have more plants of it, so I wrote to Dr. George King, c.i.e., Director of the Botanical Survey of India and Burma, for seeds of it, and he very kindly sent me some. Half of them were sown in the glass house in the Ootacamund

gardens, and half at Burliar, both sowings have germinated very well. It may be mentioned that the fruit of the Bael tree is, when prepared, very useful in cases of dysentery.

Seeds of Marogogipe coffee, the Brazil nut (*Bertholletia excelsa*), and the Sapucaia nut (*Leocythis zabucajo*) were obtained by purchase.

Mr. E. C. Duff, Editor of "Planting Opinion," Coonoor, very kindly presented a plant of *Coffea stenophylla*. He also sent me six seeds (to be sown) and a specimen of "so-called Nyassaland wild coffee" for identification. I forwarded the specimen, with two seeds, to the Director of the Royal Gardens, Kew, to be identified, and he very kindly named it for me. It proved to be *Oreomoma Africana*, Benth. A botanical description of it is given in No. 109 of the Kew Bulletin for January 1896, and a general account is given of its geographical range in numbers 115 and 116 of the same publication for July—August 1896. I have communicated the name of the species to Mr. Duff. The remaining four seeds have been sown at Burliar and their progress will be watched with interest. Mr. Duff also very kindly presented ten seeds of the Kola nut to the gardens, and up to date six seedlings are the result.

22. The gardens were visited by me on nine occasions during the year.

23. Concluding remarks.—The gardens require—

- (1) a good digging regularly, and the larger stones removed from the soil;
- (2) a good manuring;
- (3) a judicious thinning out of the less valuable species, in order to make room for the more valuable species, as occasion requires;
- (4) the nursery to be improved by sowing seeds of the more valuable species of economic plants in order to have a larger number and greater variety of seedlings available for sale to the public;
- (5) to be fenced in after the boundaries have been properly re-demarcated.

With a trustworthy, industrious overseer, possessing a fair knowledge of gardening (and who can keep his health at Burliar) to carry out the above requirements, these gardens can, without doubt, be much improved, and, as Dr. King remarks in his report on them "might be made a centre for much useful work" in future.

Endorsement Dis. on Cur. No. 531.

Forwarded.

(Signed) J. H. TREMENHEERE,
Ag. Collector.

26th April 1897.

ORDER—No. 343, Revenue, dated 17th May 1897.

Miscellaneous.

The Curator's report read above gives a deplorable account of the state in which the gardens at Burliar are at present. His proposals for their improvement are approved. It is presumed that the proposed expenditure can be met from the sanctioned grant for the current year.

2. With reference to paragraph 21 of his report the Curator is informed that, in future, applications for botanical assistance should be made to the officer in charge of the Herbarium at Madras and not to the Director of the Royal Botanical Gardens, Kew.

(True Extract.)

(Signed) G. STOKES,
Ag. Secretary to Government.

To the Curator, Government Gardens, Ootacamund,
through the Collector of the Nilgiris.
" the Superintendent, Government Central Museum.
Copy to the Board of Revenue (Revenue Settlement,
Land Records and Agriculture).

Exd. A. F. Eccleston.
50 Copies.