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MADRAS RECORD OFFICE

GOVERNMENT OF MADRAS

Revenue DEPARTMENT

G.O. No. 980 Press
~~B.P. No.~~ Mis.

Dated 5-8-1874 ~~196~~.

Not to be folded or roughly handled

Proceedings of the Madras Go ernment, Revenue Department,
5th Augu t 1874.

No. 40. Read the following letter f J. R. COCKERELL, Esq., Commissioner
of the Nilgiris, to the Secretar Government, Revenue Department, dated
Ootacamund, 9th July 1874, N 6:—

I HAVE the honor to forward the rt of the Superintendent of the Govern-
ment Gardens for the year 1873-74, acc nied by the usual Statements.

2. The works which are remark upon by Mr. Jamieson were undertaken
under my instructions and with my conc nce.

3. The accounts of the gardens ar cted monthly at this Office. The state-
ment of receipts and expenditure appen this report was prepared in this Office.

Report on the Progress and Condition of the nment Botanical Gardens, Ootacamund, for the
year 74.

DURING the past year 2,588 timber-trees, fruit-trees, 6,877 flowering plants and shrubs,
and 4,475 packets of flower and vegetable see ave been distributed from the gardens. These
figures show a considerable increase on prev years, and prove that the garden is becoming
more useful to the public by the introductio ropagation, and distribution, of valuable plants
and seeds.

2. The re-modelling of the lower portio f the garden has been in progress for the past
three years, and is now nearly finished. A dec d improvement has been effected by the removal
of upwards of 100 large *Acacia Melanoxylon* es that were planted as a belt just within the
eastern boundary of the garden. These trees, ng nearly all of the same height formed a very
monotonous wall or screen, and, in a great mea , excluded the sunlight and air from the neigh-
boring trees, and considerably marred the vi f the surrounding country. But, perhaps, a
more cogent reason for their removal was th ey were infested with parasites, the seeds of
which were carried by birds and deposited on e valuable trees in the garden. The removal
of these trees has been a very laborious task, a was absolutely necessary to carefully eradicate
every rootlet, in order to prevent the troubles aftergrowth of suckers that would have caused
an endless amount of labor. The ground has en deeply trenched, and a long stretch of slop-
ing bank, which will be turfed during the rain nd planted exclusively with a variety of New
Holland trees and shrubs of different heights a habits, has been formed. By this means,—the
trees and shrubs being arranged with a view t al effect,—the fine natural scenery of the sur-
rounding country will be opened out. This w when completed will be the greatest improve-
ment that has been made in the garden for nu ears. The lower garden even now looks much
larger, lighter, and more pleasing than before. ny specimen trees can also be seen to greater
advantage.

3. The plots of ground recently enclosed ailings at the entrance gate have been levelled,
and are being turfed and planted with masses o namental hardy shrubs.

4. The box edging around the flower-beds the fountain parterre having grown too high
had become unsightly. It has been lifted and aid, the walks made of a uniform width, and
the beds filled with gay flowering plants.

5. For the large flower-beds in front of th Fern-house have been substituted turfed slopes,
in which have been planted specimen *Arbuta* , Heaths, *Phormium tenax variegata*, and other
new plants. The growth of the specimen Norfolk Island Pine near this spot has been wonder-
fully accelerated by the removal of several cart-loads of poor exhausted soil from around its roots
and the substitution of rich, vegetable mould.

6. Many new and valuable trees have been planted in different parts of the garden during the year, and old and decaying trees and shrubs replaced by healthy ones. This work will of necessity continue for many years, as many of the jungle trees, especially those in the upper garden, shew signs of decay, and require to be removed. I am constantly receiving new plants from almost every part of the world, which I purpose to plant in the place of jungle trees as the latter are removed or die out.

7. *Pinetum.*—The garden not being large enough to permit of collections of large-growing trees being arranged according to their natural orders, Government, in their Proceedings, No. 932, dated 4th July 1873, attached a portion of the adjacent grounds to the gardens for the purpose of forming a Pinetum. It was very desirable that a piece of land should be specially devoted to the cultivation of specimens of the choicest varieties of coniferous plants likely to succeed in the climate of the Nilgiris. The attached portion of [illegible] is proved to be a remarkably eligible site for a Pinetum, the soil being a deep, rich, [illegible] loam, well adapted to the growth of the Pine and Fir tribe. Collection of these trees will [illegible] to be both interesting and valuable, as it will enable us to distinguish the species and varieties that are suited to our climate, and to select the kinds that are best adapted for planting, either for ornament or shelter. When their true merits have been ascertained, the most valuable varieties can be propagated for distribution. Already many of these beautiful trees have been introduced and do thrive well at various elevations on the Nilgiris, and it is to be regretted that they have not been more extensively employed in planting avenues in the Hill Stations, as no plants are better adapted for ornamenting parks and avenues than Pines, Cedars, and other Conifers. During last season upwards of 400 young trees were planted in the Pinetum. The principal species were *Araucaria Bidwillii* (Bunya-Bunya Pine), *Araucaria excelsa* (Norfolk Island Pine), *Araucaria Cunninghamii*, *Cedrus Deodara*, *Cedrus Libani*, *Pinus longifolia*, *Pinus excelsa*, *Pinus Webbiana*, *Pinus maritima*, *Cupressus torulosa*, *Cupressus Lawsoniana*, *Cupressus Lusitanica*, *Cupressus macrocarpa*, and others; *Juniperus excelsa*, *Juniperus Bermudiana*, *Fitzroya Patagonica* (a handsome new Conifer, very similar to the [illegible]), several species of Thujas, Retinospora, Cunninghamia, and Thujopsis. These are all thoroughly established and growing well. A large number will be planted this year, amongst them several new varieties recently imported from Europe and Australia. Within the fence around the Pinetum upwards of 100 English Oaks and Spanish Chesnuts have been planted alternately, each plant being sixty feet apart. These last-named trees will be highly ornamental and form a pretty feature in the landscape when they attain their full height.

8. A block of waste land, about four acres in extent, on the north side of the garden, has been cleared, and will be planted during the season with Eucalypti. This will form a pretty back ground to the gardens, and will hide the Overseer's house and cooly lines, which at present are very unsightly as seen from Ootacamund.

9. During the past year I have had frequent applications from residents in Calcutta, Bombay, and other stations throughout India, for seeds of Australian trees more especially for the Blue Gum (*Eucalyptus globulus*). Through the kindness of H. E. Grigg, Esq., Assistant Commissioner of the Nilgiris, I obtained a valuable collection of seeds of the most valuable varieties from Messrs. Anderson, Hall, & Co. of Sydney. In the Spring of the year, portions of the seeds were sent to applicants and the remainder sown in the garden. Of late years the Timber-trees of Australia have engaged a deal of public attention [illegible] used for all purposes requiring strength and durability, few timbers in the world can equal [illegible] north coast of Australia. Their superiority over other timbers lies in their toughness and more closely-packed tissues. Other advantages possessed by such timbers as the different species [illegible] are their flame-resisting qualities. Lately the *Eucalyptus globulus* has attracted [illegible] attention not only for the value of its timber, but as possessing wonderful medicinal properties. The timber of these trees are valuable in this country from the fact of their remarkable adaptability to extremes of climate both as to heat and cold. Seeing that these trees thrive so well in our climate, it may be inferred that forests of them will be planted not only on the Nilgiris, but on the barren mountains in many other parts of India; and they will in time become exceedingly useful for building and other purposes

for which Teak is at present employed. The following are a few of the principal varieties that have been raised this season, and are now growing in the gardens:—

Eucalyptus resinifera, a very durable timber for all purposes in which hard woods are used.

Eucalyptus rostrata, used in ship-building; a durable timber for fences.

Eucalyptus goniocalyx, very durable; a good [illegible] for fellows in wheels.

Eucalyptus sideroxylon (broad-leaved Iron [illegible]), the strongest of all Australian timbers; valuable for railway sleepers, piles, shingles, and every purpose in which strength and durability are required.

Eucalyptus paniculata, a durable timber, [illegible] split into shingles and palings.

Eucalyptus pilularis, useful for flooring boards and rafters.

Eucalyptus marginata, a first class timber for house-carpentry.

Eucalyptus longifolia, a very durable timber, [illegible] is said to be less liable to the attacks of white ants than almost any other timber.

Syncarpia laurifolia (Turpentine), one of the largest timber-trees of Australia. It is remarkable as being a most difficult wood to consume by fire. The growing tree forms an admirable shelter, and affords a dense shade. Its dark green foliage and imposing form makes this one of the most handsome trees known when planted singly.

Melaleuca styphelioides, an easily-worked timber, imperishable in wet soils or in water.

Tristania conferta, a very close-grained, strong, elastic wood, useful in boat-building or for cogs in Mill-work. *Casuarina torulosa*, extensively used for shingles; an excellent fuel for domestic use.

10. Many new and valuable plants besides those already noticed have been added to the garden collections during the year, either by exchange or purchase. Some of the more important may be briefly noticed. An interesting collection of rare Australian tree-ferns, trees, and shrubs, purchased from Major Beddome, including some of the handsomest varieties of flowering Acacias.

11. *Camellias.*—Eight new varieties of these popular flowering shrubs were imported from England, including two plants of the beautiful double white variety, the non-introduction of which into the gardens long ago is matter of surprise. I have been very successful in propagating the Camellia from cuttings; several hundreds were struck in an open border during last season. It is remarkable that so few of these handsome plants are to be seen in private gardens, although this climate is quite as suitable to their growth as that of their native country. They are easily propagated, either by cuttings or layers, and require little care when once established.

12. *Oaks.*—A number of species that have been found to thrive well in Australia were introduced during the year, and are now growing in the gardens.

13. Plants with variegated foliage have become very popular of late years as decorative plants. They possess the advantage over flowering plants of being constant in their beauty, and are especially valuable here for keeping beds gay during the continuous rains of the monsoon. Having introduced a number of new varieties of these plants last season, a select assortment was planted in beds on each side of the main walk. They had a grand effect, and were much admired.

14. *Cyclamen persicum.*—Upwards of 60 of these showy flowering-bulbs have been added to our collection.

15. *Dahlias.*—Two dozen new varieties of these favorite English flowers were introduced this season, and have been propagated.

16. *Ixias.*—Many beautiful Cape species have been introduced.

17. *Richardia Æthiopica albo-maculata.*—A new variety of the Nile Lily, with variegated foliage, has been added.

18. *Potatoes.*—A large number of seedling potatoes have been raised this season from seeds received from America. It is to be hoped that some of them will prove to be good kinds, worth

cultivating on the Hills. The varieties noticed in last year's report have done well, especially Brown's "King of the Earlies," and "Prince Wales' Kidney." Several maunds of these two varieties were distributed, and have been found ch superior to the varieties commonly grown here. The native cultivators on the Hills will, few years, be forced to adopt a different system of cultivation than that which they follow at p ent. They continue planting the same seed in the same soil year after year. The consequen is disease has, to a great extent, destroyed their crops, and the quality and constitution of the p is rapidly degenerating. It is, therefore, desirable that a small quantity of new seed should procured annually from Australia or Europe.

19. *Strawberries.*—The success which attended the introduction of the Australian varieties has been very satisfactory. Several dred plants were distributed during the year, and have been spoken of in the most favorable ms as being superior, both in size and flavor, to any of the kinds previously grown on the H

20. Upwards of three hundred plants of Spanish Chestnut, Oak, and Beech, were supplied gratis to the new park at Coonoor. They are all growing well.

21. *Rhea.*—A quantity of plants and cuttings of this valuable fibre-yielding plant was supplied gratis to several planters in Wynaad and other parts of the country. There is still a large stock of plants in the garden nurseries.

22. *Vegetable Seeds.*—The vegetable seeds distributed from the gardens during the year have given general satisfaction. The testing also of a portion of newly-imported seeds has been carefully attended to; a portion of every kind of seed is sown in the garden previous to the seed being offered for sale; those that fail to germinate are thrown away, and nothing but seeds of the best quality are distributed. This year about Rs. 600 worth of seeds were purchased from Messrs. Sutton and Sons, which have given the greatest satisfaction. A small collection of seeds was also received from Messrs. Landreth and Sons, Philadelphia, for experiment. These seeds germinated very well, and some kinds grew more rapidly than the English seeds. A small quantity of acclimatized Cauliflower seed was sent to Bangalore, and several other low-country stations, and is said to have been found superior to that imported from England.

23. KALHATTY GARDEN.—During the year several interesting experiments have been more or less successfully carried on in the garden with flower and vegetable seeds. These were chiefly grown to save the seed [illegible] from remnants on the plants for acclimatised seeds.

24. *Cotton.*—Several kinds of cotton seeds have been tried during the year, but the only one found successful was the Sea Island variety.

25. *Fruit-trees.*—Many of the finer varieties of Pear, Apple, Orange, Loquat, Peach, and other fruit-trees have been propagated and sent out from this garden. The principal additions to the garden have been—

26. *Sweet Orange Pine.*—A plant of this valuable variety was received from the Hon. J. D. Sim. It is a free grower, with long leaves, without spines, and produces a dark, orange-colored fruit of excellent flavor, which, when well grown, averages from 6 to 7 lbs. weight.

27. *Musa Vittata.*—One of the most ornamental-leaved plantains, producing leaves variegated green and white.

28. *Cochineal.*—In December last were received from Colonel Boddam, Honorary Secretary, Mysore Agri-Horticultural Society, several Cactus plants (*Opuntia [illegible]*) upon which the Cochineal insects feed; these plants were sent to the Nilgiris with the view of introducing and naturalizing the Cochineal insect on the Hills. The experiment has been tried in Bangalore and failed. On arrival the plants when planted in the Kalhatty garden, and are now established and growing vigorously; the climate of Kalhatty being apparently well suited to them. Early in April, the Superintendent of the Lal Bagh sent two Cactus plants, upon which were a number of Cochineal insects, but the plants were so badly packed that when they arrived in Ooty there were no insects upon them. The insects must either have died or been rubbed off during the journey.

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hope to succeed in procuring a few insects, now that e have the plants established; it would be pity to abandon the experiment without giving fair trial.

29. BURLIAR GARDENS.—No alterations ha een made in this garden during the year. Only two gardeners are employed; their time bei ccupied in keeping the garden clear of weeds and under-growth and maintaining the fences an lks in good order.

30. Young plants of nearly all the valuabl t and spice trees have been propagated, and ents for these plants have been complied with as possible. The principal additions to the garden this year have been—

31. *Ipecacuanha.*—Eighty plants of this va e herb were received a few weeks ago from Dr. King, Superintendent of the Botanic Garden lcutta. They were immediately planted in a bed of rich leaf-mould under the shade of Pal s. The greatest care will be taken of the plants, so as to give the experiment a fair trial. T lder plants continue to make very satisfactory growth; a few of them flowered during the y ut did not produce seed. With judicious treatment and careful cultivation I have every on to believe that the introduction of the Ipecacuanha to Burliar will prove a decided su

32. *Moreton Bay Chestnut.*—Four plants o interesting and handsome flowered tree have been planted along the roadside between the and village of Burliar. These trees when covered with the large masses of their brilliant ge-colored blossoms are very attractive and pleasing objects; the fruit or bean is said to tritious, and is eaten by the aborigines in Australia.

33. *Carob tree* (*Ceratonia siliqua*).—Las a quantity of the seed of this tree was received, some of which was sown at Burliar, he remainder distributed to planters, who I thought likely to take an interest in its cultivat The seeds sown at Burliar germinated freely, and a number of young plants have been put he climate of Burliar seems adapted to the growth of the plant, and it may some day be useful in this country for cattle-food as it now is in Spain.

34. *Camphor tree* (*Camphora officinarum*).— rge plant of this tree has been planted.

35. *Durian* (*Durio Zibethinus*).—A tree the Malay Peninsula, producing an edible fruit, about the size of a Cocoanut. The fruit ripe has a very offensive odour, but is highly esteemed by those who have overcome the . Four of these plants were introduced by E. B. Thomas, Esq., and given to the gardens year.

36. *Amherstia nobilis.*—Four plants of this magnificent flowering-tree were also received from Mr. Thomas. They are planted by the road-side in the village of Burliar, and are growing well.

37. *Leechee* (*Nephelium Litchi*).—A tree cultivated in China and the West Indian Islands. It produces large clusters of fruit about the size of Walnuts. The fruit is very rich flavored and highly esteemed for dessert.

38. *Mangosteen.*—Upwards of a dozen trees of this well-known fruit have been planted in the garden during the year.

39. *Buildings.*—The Orchard-house, sa ned by Government in their Proceedings, No. 1,025, dated 22nd September 1873, was ced early in November; the work is now progressing, and, if the weather permits, the h will be completed by the end of June. The dimensions of the house are: length 82 feet, adth 15 feet, height to centre of span 10 feet 7 inches, side walls from basement to gutter 6½ The work is being done in a very substantial manner; the walls are brick and chunam, and roof Teakwood and glass of the best quality. The house is built in the style commonly kno s span-roofed, and can be ventilated from both roof and sides; span-roofed houses are the m vantageous for the growth of plants. When the rays of light fall chiefly on one side of a pla it grows most to that side, but in a span-roofed house, light being admitted on both sides, equality of growth is more easily maintained. The

[illegible]

Croton and Aralia; Nagappah and Co., Bangalore, *Grevillea robusta* seeds and a collection of new Roses.

OOTACAMUND,
13th June 1874.

(Signed) A. JAMIESON,
Superintendent, Government Botanical Gardens.

RETURN of Seeds and Plants, *etc.*, distribute m the Government Botanical Gardens, Ootacamund, for ear 1873-74.

Month.	Fruit-trees.	ur- s.	Flowers and Shrubs.	Packets of Seeds.	Value.		
					RS.	A.	P.
April 1873	....	..	240	256	134	6	9
May ,,	66	62	354	425	318	4	0
June ,,	24	48	1,273	404	420	13	0
July ,,	19	98	478	380	345	1	6
August ,,	246	54	1,270	636	524	1	9
September ,,	....	01	259	394	208	14	0
October ,,	....	67	620	437	282	6	11
November ,,	84	79	1,400	161	261	8	0
December ,,	62	..	72	245	50	2	0
January 1874	....	12	270	95	158	12	1
February ,,	....	6	404	73	147	11	0
March ,,	....	..	50	471	160	13	9
Total..	471	538	6,877	4,475	3,518	2	3

OOTACAMUND,
13th June 1874.

(Signed) A. JAMIESON,
Superintendent, Government Botanical Gardens.

Meteorological Observations from April 1873 to March 1874, made in the Government Botanical Gardens, Ootacamund.

Month.	Monthly Mean of Dry Bulb.				Monthly Mean of Wet Bulb.				Maximum observed during the Month.	Rainfall.		Days with Rain.	Days without Rain.
	7 a.m.	2 p.m.	5 p.m.	Daily.	7 a.m.	2 p.m.	5 p.m.	Daily.		Inches.	Cents.		
April 1873	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	70·33	7	31	11	19
May	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	70·17	8	80	12	19
June	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	68	7	23
July	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	31	17	14
August	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	23	8
September	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21	10
November	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2	47	5	25
December	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	74·13	0	29	2	29
January 1874	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	...	...	.....	31
February	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	73·15	1	21	2	26
March	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	74·30	0	42	5	26
Annual Mean	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			....	....
Total	....	....	....	....	....	....	....	....	....	[illegible]	[illegible]	113	252

Ootacamund,
13th June 1874.

(Signed) A. JAMIESON,
Superintendent, Government Botanical Gardens.

Statement of Receipts and Charges of the Government Botanical Gardens on the Nilgiris during the official year 1873-74.

Receipts.	Amount.	Total.	Charges.	Amount.	Total.
	RS. A. P.	RS. A. P.		RS. A. P.	RS. A. P.
Cash in hand on the 1st April 1873	....	13 10 8	Purchase of seeds	618 4 6	
Sale of plants and trees	2,714 5 0		Do. of tools	272 6 6	
Received from the Commissioner the amount sanctioned in G. O., No. 874, of 5th July 1872	600 0 0		Do. of furnitures	50 0 0	
Received from the Commissioner on account of Superintendent's and establishment's salary, etc. (Nov.)	4,603 4 2		Peons' clothing	23 0 0	
Received from the Commissioner, G. O., No. 1,035, dated 22nd September 1873	1,705 0 0		Postage on banghies and letter	46 7 4	
Received from the Commissioner, G. O., No. 602, dated 4th July 1873	662 0 0		Packing of seeds and plants	178 1 6	
Amount drawn for improvements, etc., in the gardens	650 13 0		Carriage of do.	225 15 1	
Do. for felling and removing trees in the gardens	300 0 0		Repair of Fern-house, etc.	24 0 0	
Amount drawn f[illegible]	[illegible]		Do. of buildings	179 12 5	
Do. [illegible] of plants	24 0 0		Do. of tools	31 4 0	
Lease of Burliar gardens	220 0 0		Municipal assessment	24 0 0	
Received from the Commissioner on account of Peons' clothing	50 0 0		Exchange on cheques, etc.	9 6 0	
Received from Commissioner on account of travelling charges incurred by the Superintendent	394 10 0		Sundries	73 0 7	
Carriage hire of almirah, boxes, etc.	80 7 0		Working charges of Ooty [illegible]	2,2[illegible] 14 8	
			Do. Coonoor do.	135 0 0	
			Do. Kalhatty do.	191 4 0	
			Fencing plants at Burliar do.	5 0 0	
			Felling and removing trees	300 0 0	
			Travelling allowance of Superintendent	394 10 0	
			Erecting orchard-house	1,705 0 0	
			Amount spent on Pinetum	662 0 0	
			Do. on improvements in garden	550 0 0	
			Garden labels	19 0 0	
			Hire of carpenters worked in the garden	57 8 0	
		11,904 7 9	Altering and repairing almirahs, seed cases, etc.	111 8 0	
			Carriage hire of almirah, boxes, etc.	80 0 0	
		11,918 2 5			11,918 2 5

Ootacamund,
30th July 1874.

(Signed) J. R. COCKERELL,
Commissioner.

Proceedings of the Madras [illegible], Revenue Department,

8th [illegible]

No. 51. Ootacamund, [illegible], No. 2083.

Miscellaneous.

[illegible] Government have perused with interest the report [illegible] the Commissioner of the Nilgiris [illegible] the experimental [illegible] were [illegible].

2. They notice with satisfaction [illegible] trees and plants, and desire that [illegible] attention be paid to their introduction and propagation.

3. The rapid destruction of [illegible] in the Hills is much to be regretted.

The Commissioner should [illegible] upon the growers a more intelligent system of cultivation, and should [illegible] obtaining from Australia supplies of the best kinds of potatoes. It is probable [illegible] this could be easily effected by means of the [illegible].

4. The Government will await [illegible] the result of the experimental cultivation of the Ipecacuanha plant [illegible] of the further attempts to introduce the Cochineal insect at Kallar[illegible].

(True [illegible])

(Signed) C. G. MASTER,
Acting Secretary to Government.

To the Commissioner of the Nilgiris.
,, the Inspector of Forests.
,, the Board of Revenue.
,, the Honorary Secretary, Agri-Horticultural [illegible] Madras.

[illegible]

14-8-17

Govt. of 1874 No.

REVENUE.

The Commissioner of the Nilgiris

Vide Clk 200 ff

No. 41

Ootacamund 7 July 187

From

J. R. Cockerell Esq.
COMMISSIONER, NILGIRIS.

To

The Secretary to Government
Revenue Department
Ootacamund.

Sir,

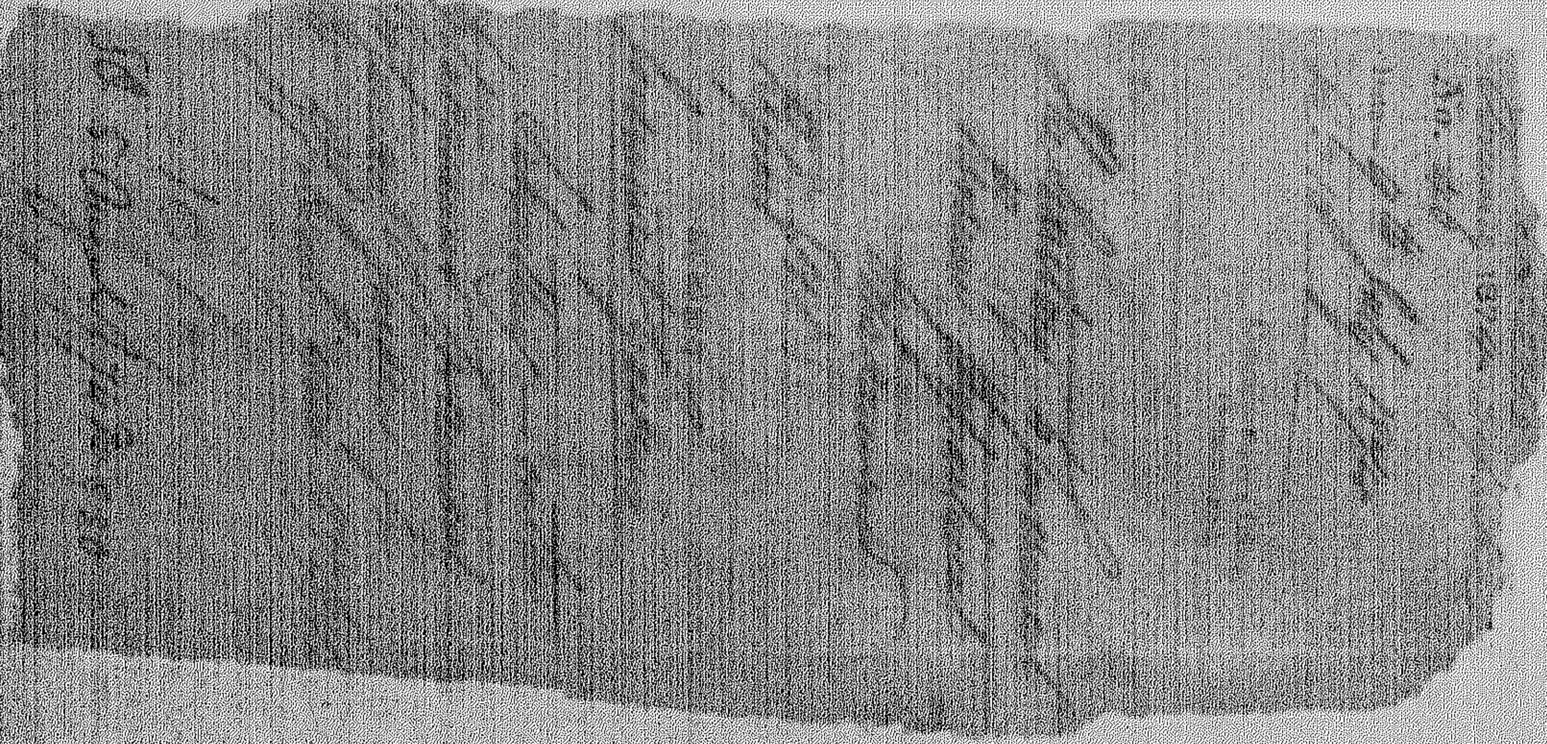
I have the honor to forward the Report of the Superintendent of the Government Gardens for the year 1873-74 accompanied by the usual statements.

The works which are remarked upon by Mr. Jamieson were undertaken under my instructions and with my concurrence.

The accounts of the Gardens are inspected monthly at this office. The statement of Receipts and Expenditure appended to the report was prepared in this office.

I have the honor etc.
Sir
Your most obedt. servant

J. R. Cockerell
Commissioner



1874

No. 44

Dated 9th July 1874

The Curator, Government Botanical Gardens, Ootacamund

Report

on the Government Gardens

[illegible]

10

B 5 August 1874 No. 920

Report on the Progress and Condition of the Government Botanical Gardens, Ootacamund, for the Year 1873/7

1 During the past year 2588 Timber trees 471 Fruit trees, 6,877 Flowering plants and Shrubs, and 4475 Packets of Flower and Vegetable Seeds have been distributed from the Gardens. These figures show a considerable increase on previous years, and prove that the Garden is becoming more useful to the public by the introduction, propagation, and distribution of valuable plants and Seeds.

2. The remodelling of the lower portion of the Garden has been in progress for the past 3 years and is now nearly finished. A decided improvement has been effected by the removal of upwards of 100 large

[illegible]

Acacia Melanoxylon trees that were planted as a belt just within the eastern boundary of the Garden. These trees being nearly all of the same height formed a very monotonous wall or screen, and in a great measure excluded the sunlight and air from the neighbouring trees and considerably marred the view of the surrounding Country. But, perhaps, a more urgent reason for their removal, was that they were infested with Parasites, the seeds of which were carried by Birds and deposited on some valuable trees in the Garden. The removal of these trees has been a very laborious task, as it was absolutely necessary to completely root out every rootlet, in order to

prevent

prevent the troublesome after growth of suckers, that would have caused an endless amount of labour. The ground has been deeply trenched and a long stretch of sloping bank, which will be turfed during the season and planted exclusively with a variety of New Holland trees and Shrubs of different heights and habits has been formed. By this means — the trees and Shrubs being arranged with a view to that effect — the fine natural scenery of the surrounding Country will be opened out. This work when completed will be the greatest improvement that has been made in the Garden for many years. The Lower Garden now looks much larger, lighter and more pleasing than before. The specimen trees can also be seen to greater advantage.

3. The plots of ground recently enclosed

by railings at the entrance gate have been levelled and are being turfed and planted with masses of ornamental hardy shrubs.

4. The box edging around the flower beds on the fountain parterre having grown too high had become unsightly. It has been lifted and relaid, the walks made of a uniform width and the beds filled with gay flowering plants.

5. For the large flower beds in front of the Fern House, have been substituted turfed slopes, in which have been planted specimen Arbutus, Heather, Rhododendrons, trees, variegated and other fine plants. The growth of the specimens [illegible] planted some years since has been wonderfully accelerated by the removal of [illegible] and [illegible] of [illegible] soil from around the roots and the substitution of rich vegetable mould.

6. Many new and valuable trees have been planted in different parts of the Garden during the year, and old and decaying trees and shrubs replaced by healthy ones. This work will of necessity continue for many years, as many of the jungle trees, especially those in the Upper Garden, show signs of decay and require to be removed. I am constantly receiving new plants from almost every part of the world which I purpose to plant in the place of jungle trees as the latter are removed, or die out.

7. Pinetum. The Garden not being large enough to permit of collections of large growing trees being arranged according to their natural affinities. [illegible] in this Proceeding

No 692 dated 4th July 1873, attached a portion of Stonehouse grounds to the Gardens for the purpose of forming a Pinetum. It was very desirable that a piece of land should be specially devoted to the cultivation of specimens of the different varieties of coniferous plants likely to succeed in the climate of the Neilgherries. The attached portion of Stonehouse is found to be a remarkably eligible site for a Pinetum. The soil being a deep rich yellow loam well adapted to the growth of the Pines and fir tribe. A collection of these trees cannot fail to be both interesting and valuable, as it will enable us to distinguish the species and varieties that are suited to our climate, and to select the kinds that are best adapted for planting either for ornament or shelter. When their true merits have been ascertained the most valuable varieties can be propagated for distribution. Already many of these beautiful trees have been found to thrive well at various elevations on the Neilgherries, and it is to be regretted that they have not been more extensively employed in planting avenues in the Hill Stations, as no plants are better adapted for ornamenting Parks and Avenues than Pines, Cedars, and other Conifers. During last season upwards of 800 young trees were planted in the Pinetum. The principal varieties are Araucaria Bidwilli (Bunya Bunya Pine), Araucaria excelsa (Norfolk Island Pine), Araucaria Cunninghamii, Cedrus Deodara, Cedrus Libani, Pinus longifolia, Pinus excelsa, Pinus Wallichiana, Pinus Maritima,

Cupressus Torulosa, Cupressus
Cashmeriana, Cupressus Lawson-
iana, Cupressus macrocarpa, and
other Junipers, Cryptomeria, Juniperus
Bermudiana, Fitzroya Patagonica
(a very handsome new Conifer, very sim-
ilar to the Larch), several species of
Thuja, Retinospora, Casuarina and
Thujopsis. These are all thoroughly
established and growing well. A good
number will be planted this year, amongst
them several new varieties recently
imported from Europe and Australia.
Within the fence around the Pinetum
upwards of 100 English oak and Spanish
Chesnuts have been planted alternately
and about twenty feet apart. These
last named trees will be highly orna-
mental and form a pretty feature
in the landscape when they attain
their

their full height.

8. A block of waste land, about 4 Acres
in extent, on the north side of the Garden,
has been cleared, and will be planted
during the monsoon with Eucalypti. This
will form a pretty back ground to the
Garden, and will hide the Overseer's
house and Cooly lines, which at present
are very unsightly, as seen from
Ootacamund.

9. During the past year I have had frequent
application from residents in Calcutta,
Bombay, and other Stations throughout
India, for seeds of Australian trees, more
especially for the blue gum (Eucalyptus
globulus). Through the kindness of W. B.
Greig Esqre Assistant Commissioner
of the Neilgherries, I obtained a collection
of seeds, of the most valuable varieties,
from

from Messrs Anderson Hall & Co of Sydney.
In the Spring of the year portions of the seed
were sent to applicants and the remainder
sown in the Garden. Of late years the
timber trees of Australia have engaged a
deal of public attention, and for all
purposes requiring strength and durability
few timbers in the world can compare with
those of Australia. Their superiority over
other timber lies in their toughness and more
closely grained texture. Other advantages
possessed by such timber are the different
species of Ironbark in their flame resist-
ing qualities. Lately the Eucalyptus globulus
has attracted much attention, not only
for the value of its timber but as possessing
wonderful [illegible] properties. In
many ways these trees are valuable

in

in this country from the fact of their remark-
-able adaptability to extremes of climate both
as to heat and cold. Seeing that these trees
thrive so well in our climate it may be
inferred that forests of them will be planted
not only on the Neilgherries, but on the
barren mountains in many other parts of
India; and they will in time become
extensively used for building and other
purposes, for which teak is at present
employed. The following are a few of
the principal varieties that have been
raised this season and are now growing
in the Garden.

Eucalyptus resinifera, a very durable
timber for all purposes in which hard
woods are used.

Eucalyptus pilularis, used in ship building

a

a valuable timber for fences
Eucalyptus goniocalyx very durable,
a good wood for felloes and wheels.
Eucalyptus siderophloia (Broad leaved
Iron bark) the strongest of all Australian
timbers, valuable for railway sleepers,
piles, shingles and for every purpose
in which strength and durability
are required.
Eucalyptus paniculata, a durable
timber, easily split into shingles
and palings.
Eucalyptus piluliaris, useful for
flooring boards, and rafters.
Eucalyptus Amygdalina, a good
clean timber for house carpentry.
Eucalyptus longifolia a very durable
timber and considered to be the most durable

to the attacks of white ants than
almost any other timber.
Syncarpia laurifolia (Turpentine) one
of the largest timber trees of Australia
It is remarkable as being a most
difficult wood to consume by fire. The
growing tree forms an admirable shelter
and affords a dense shade. Its dark
green foliage and imposing form makes
this one of the most handsome trees known
when planted singly.
Melaleuca styphelioides, an easily worked
timber, imperishable as hut sills or in
water.
Tristania Conferta, a very close grained
strong elastic wood, useful in boat
building, or for Cogs and Mill work.
Casuarina torulosa, extensively used
for shingles, an excellent fuel for domes-
tic use.

Many

10 Many new and valuable plants besides those already which have been added to the Garden Collection during the year either by exchange or purchase. Some of the more important may be briefly noticed. An interesting collection of rare Australian Tree ferns, Trees and shrubs purchased from Major Beddome, including some of the handsomest varieties of flowering Acacias.

11 Camellias. Eight new varieties of these popular flowering shrubs were imported from England, including two plants of the beautiful double white variety, the non-introduction of which into the Gardens was long a matter of surprise. I have been very

successful

successful in propagating the Camellia from cuttings, several hundreds were struck in an open border during last season. It is remarkable that so few of these handsome plants are to be seen in private gardens, although the climate is quite as suitable to their growth as that of their native country. They are easily propagated either by cuttings or layers and require little care when once established.

12. Oaks. A number of species that have been found to thrive well in the climate were introduced during the year and are now growing in the Gardens.

13. Plants with variegated foliage have become very popular of late years as decorative plants. They possess the advantage over flowering plants of being constant in their beauty and

are especially valuable here for keeping beds gay during the autumn rains of the Monsoon. Having introduced a number of new varieties of these plants last season, a select assortment was planted in beds on each side of the main walk. They had a grand effect, and were much admired.

Gladiolus Lemoinei, a quantity of these showy flowering bulbs have been added to our collection.

Dahlias. Two dozen new varieties of these favourite English flowers were introduced this season and have been propagated.

Ericas. Many beautiful Cape Ericas have been introduced.

Agapanthus umbellatus, the [illegible], a new variety of the Lily, with variegated foliage has been added.

18. Potatoes. A large number of seedling potatoes have been raised this season from seeds received from America. It is to be hoped that some of them will prove to be good kinds, worth cultivating on the Hills. The varieties noticed in last year's report have done well, especially Bresee's King of the Earlies and Prince of Wales Kidney. Several maunds of these two varieties were distributed, and have been found much superior to the varieties commonly grown here. The native cultivators on the Hills will in a few years be forced to adopt a different system of cultivation than that which they follow at present. They continue planting the same seed in the same soil year after year. The consequence is disease has to a great

extent

which destroyed their crops, and the quality and constitution of the plant is rapidly degenerating. It is therefore desirable that a small quantity of seed should be introduced annually from Australia or Europe.

19. Strawberries. The success which has attended the introduction of the Australian varieties has been very satisfactory. Several hundred plants were distributed during the year and have been spoken of in the most favorable terms as being superior, both in size and flavour, to any of the kind previously grown on the Hills.

20. Upwards of three hundred plants of Spanish Chestnut, Oak, and Beech were supplied gratis to the Sims Park at Coonoor. They are all growing well.

21. Rhea. A quantity of plants and cuttings of this valuable fibre yielding plant have

was supplied gratis to several planters in Wynaad, and other parts of the Country. There is still a large stock of plants in the Garden Nurseries.

22. Vegetable Seeds. The Vegetable Seeds distributed from the Gardens during the year have given general satisfaction. The testing the growth of newly imported seeds has been carefully attended to, a portion of every kind of seed is sown in the Gardens previous to the seeds being offered for sale, those that fail to germinate are thrown away, and nothing but seeds of the best quality are distributed. This spring about Rupees 600 worth of seeds were purchased from Messrs Sutton & Sons, which have given the greatest satisfaction. A small lot of seeds was also received from Messrs Landreth & Son Philadelphia for experiment. The seeds germinated very well, and some kinds grew more rapidly

than the English seeds. A small
quantity of acclimatized Cauliflower
Seed was sent to Bangalore, and
several other hill country stations, and
in each instance was found superior
to seed imported from England.

23 Kullhatty Garden. During the year
several interesting experiments have been
made and successfully carried on
in the nursery at Kullhatty with
Flower and Vegetable seeds. These
were chiefly grown to meet the
increasing demands from residents
on the plains for acclimatized seeds.

24 Cotton. Several kinds of Cotton seeds
have been tried during the year, but
though one found to succeed, and the
Sea Island variety.

25 Fruit trees. Many of the finer varieties
of Plums, Apples, Pears, Loquat,
Peach

Peach and other fruit trees, have
been propagated and sent out from
this Garden. The principal additions
to the Garden have been

26. Smooth Cayenne pine. A plant of this
valuable variety was received from
the Honorable I. D. Sim. It is a free
grower with long leaves, without spines
and produces a dark orange coloured
fruit of excellent flavour, which,
when well grown, averages from
6 to 7 lbs in weight.

27. Musa Vittata. One of the most
ornamental leaved plantains pro-
ducing leaves variegated green and white

28. Cochineal. In December last were received
from Colonel Beddome Nursery Garden of
Agri Horticultural Society several
Cochineal plants (Opuntia Coccinellifera) upon
which the Cochineal insect feeds. These
plants

plants were sent to the Neilgherries with the view of introducing and naturalizing the Cochineal Insect on the Hills. The experiment has been tried in Bangalore and failed. On arrival the plants were planted in the Kalhutty Gardens and are now established and growing vigorously. The climate of Kalhutty being apparently well suited to them; early in April the Superintendent of the Lal Bagh sent two Cactus plants upon which were a number of Cochineal insects but the plants were so badly packed that when they arrived in Ooty there were no insects upon them. The insects must either have died or been rubbed off during the journey. I hope to succeed in procuring a few insects, now that we have the plants established, it would be a pity to abandon the experiment without giving it a fair trial.

Burliar

29. Burliar Garden. No alterations have been made in this Garden during the year. Only two gardeners are employed, their time being occupied in keeping the Garden clear of weeds and undergrowth, and maintaining the fences and walks in good order.

30. Young plants of nearly all the valuable fruit and spice trees have been propagated and orders for these plants have been complied with as far as possible. The principal additions to the Garden this year have been

31. Ipecacuanha. Eighty plants of this valuable Herb were received a few weeks ago from Dr King, Superintendent of the Botanic Gardens, Calcutta. They were immediately planted in a bed of rich leaf mould under the shade of Plantain trees. The greatest care will be taken of the plants, so as to give the experiment a fair trial. The older plants continue to make very satisfactory growth, a few of them flowered during

the year, but did not [illegible] fruit. With judicious treatment and careful cultivation I have every reason to believe that the introduction of the [illegible] to Berbice will prove a decided success.

32 Moreton Bay Chestnut. Four plants of this interesting and handsome flowered tree have been planted along the roadside between the bridge and the village of Berbice. These have made fine growth, and the large masses of their [illegible] blossoms, are very attractive and pleasing objects. The fruit or bean is [illegible] of the [illegible] and is eaten by the aborigines in Australia.

33 Locust tree (Ceratonia siliqua) which grows apparently [illegible] of the seeds [illegible] were planted [illegible]

sown at Berbice and the remainder distributed to Planters, who I thought likely to take an interest in its cultivation. The Seeds sown at Berbice germinated freely and a number of young plants have been put out. The climate of Berbice seems adapted to the growth of the plant, and it may some day be found useful in this country for cattle food, as it is in Spain.

34. Camphor tree (Camphora officinarum) A single plant of this tree has been planted.

35. Durian (Durio Zibethinus) A tree from the Malay Peninsula, producing an edible fruit, about the size of a Coconut. The fruit when ripe has a very offensive odour, but is highly esteemed by those who have overcome the smell. Four of these plants were introduced by C. B. Thomas Esqr, and given to the Gardens last year.

36. Amherstia Nobilis. Four plants of this

magnificent flowering tree [illegible] received from Dr. Thomson. They are planted by the roadside in the village of Burling[illegible] and are growing well.

57 Lantana ([illegible] Lilac) a tree [illegible] attracted my notice and that [illegible] Indian Lilac. It produces large clusters of pink [illegible] the days of [illegible] [illegible] admired and highly [illegible]

58 [illegible] of the [illegible] have been planted [illegible] during the year

59 Buildings. The orchid house sanctioned by Government in their Resolution No. 1055 dated 23 September 1875 was commenced early in November, the work is in progress, and if the weather permits the building will be completed by the end of June. The dimensions of the house are length 22 feet breadth 12 feet height

to centre of span 12 feet 9 inches, side walls from basement to gutter 4½ feet. The work is being done in a very substantial manner, the walls are brick and Chunam, and the roof Teak wood and glass of the best quality. The house is built in the style commonly known as Span roofed and can be ventilated from both roof and sides. Span roofed houses are the best adapted for the growth of plants. When the rays of light fall [illegible] considerably, a plant it grows most to that side, but in a Span roofed house, light being admitted on both sides, equality of growth is more easily maintained. The house is glazed with Pilkington's patent rolled plate glass which was obtained direct from the Manufacturers. The practical advantages of this glass over ordinary Crown or Sheet glass are very important. The plants being protected from the injurious expensive transportation caused by the direct rays of a scorching sun requires much less watering. Under this glass plants are scarcely drawn at all, in fact not more than if planted in the open ground. For plants whose leaves are liable to burn, it is invaluable. It also possesses the advantage of diffusing the light equally all over the house. The house would be devoted to the special culture of the various kinds of fruit, and the finer varieties of Peach, Pear, Vine, Plum and Cherry. The fruit trees would be chiefly grown in pots. This house will also be valuable in the Gardens for propagating, by budding or grafting, a stock of young fruit trees.

40. Seed Room and Herbarium. These buildings were completed and handed over by Captain Brandly, Executive Engineer, early in the year. I find

them

them very convenient and well adapted for keeping seeds and Botanical specimens, being dry and well ventilated. They are also very convenient for visitors calling for seeds or information, and are a great ornament to the entrance of the Garden.

41. Donations to Herbarium. An interesting collection of specimens of Himalayan ferns from Captain Henderson; a large collection of Indian and Ceylon ferns from Major Beddome. This latter collection contains many valuable specimens, but will take a deal of time and labour to name and mount them. A number of specimens of the more rare ferns of the Sisparah and Carcoor ghauts, collected by myself have been added.

42. Library. — No new books have been added, with the exception of a few Pamphlets presented by Government. As the

the

[illegible] and [illegible] for information on the subject of Botany and both other [illegible] subjects, it is very desirable that a Botanic Garden should possess a Library stocked with the best of the leading Botanical and Horticultural works and made accessible to visitors. [illegible] of the [illegible] and [illegible] and interest in plants it is well known has been stimulated by Botanic Gardens and Horticultural Societies. The next object can only be attained by affording means and facilities for acquaintance with the Science of Horticulture. It is wonderful how very ignorant many people are in regard of the Physiology of plants a point which may easily be acquired

by

by a little conversation with them, or by an inspection of the actual condition of their Gardens.

43. The demands on the Establishment from Botanic Gardens, Planters, and residents, in almost every part of this Country, for plants and seeds and for information, is annually increasing. These demands are of so miscellaneous a nature that it is often difficult to comply with them, but they have been met as far as possible.

44. In consequence of ill-health the Garden overseer (Mr Stevenson) was compelled to resign in September last. Mr McDonald who was appointed in his place has become acquainted with the work and deserves commendation for the assistance he has given me in the management of the Garden

The Writer ([illegible] Ramasamy Pillai) who has rendered valuable assistance in the Office, and in making up and despatching seeds. The Apprentice (C. A. Barron) continues to give satisfaction, he has entire charge of the Nurseries and propagating houses.

15. Many valuable donations have been made to the Gardens during the past year. The following are the most important. From Dr. J. D. Hooker C.B. a case of Cape Bulbs, and a large collection of Tree, shrub and Conifer seeds. Col. Beddome, Australian, Himalayan and African Tree seeds. Mr. [illegible] several hybrid Begonias and other plants. Col. Beddome, Bangalore plants of [illegible]. J. [illegible] plants of [illegible] and a many [illegible] Bulbs. Mr. B. [illegible] Esq. Spores

Spores of Australian ferns and tree ferns. Haage and Schmidt, Prussia, a large and valuable collection of flower seeds. The Superintendent Horticultural Gardens Madras, Palms, Ferns and many new and rare plants. Superintendent Botanic Gardens Calcutta, a case of Himalayan orchids. The Honorable J. D. Sim, plants of new Croton and Azalea. Superintendent [illegible] Bangalore, Grevillea robusta seeds and a collection of new Roses.

Government Gardens
Ootacamund
13th June 187[illegible]

W. Jamieson
Superintendent
Govt. Bot. Gardens

[illegible]
Commissioner

Return of Seeds and Plants &c distributed from the Government Botanical Gardens, Ootacamund, for the Year 1873-74.

Month	Fruit trees	Timber trees	Flowers and Shrubs	Packets of Seeds	Value
April 1873	-	-	249	256	134 4 9
May "	36	102	334	925	318 4
June "	24	218	1273	403	1,20[illegible]
July "	19	898	476	380	365 1 0
August "	246	554	1279	636	524 1 9
September "	-	101	255	393	204 4
October "	-	257	620	437	282 6
November "	84	79	449	181	261 8 0
December "	62	-	72	225	59 2
January 1874	-	243	276	95	168 12
February "	-	6	264	73	147 4
March "	-	-	34	471	100 13 9
Total	471	2588	4877	4475	3,918 2 3

Government Gardens,
Ootacamund,
13th [illegible]

Supdt. Govt. Gardens

[illegible]

Meteorological Observations from April 1873 to March 1874, made in the Government Botanical Gardens, Ootacamund.

Month	Monthly mean of Dry Bulb 7 A.M.	2 P.M.	5 P.M.	Daily	Monthly mean of Wet Bulb 7 A.M.	2 P.M.	5 P.M.	Daily	Maximum during the month	Rainfall Inches	Cents	Days on which rain fell	Days without rain
April 1873	57.72	62.21	59.20	61.22	53.15	60.11	55.12	56.05	70.20	7	51	11	19
May	59.17	62.05	64.19	64.07	55.28	62.03	56.28	58.01	70.17	8	39	12	19
June	54.25	64.57	56.27	58.27	52.24	61.09	54.23	51.05	66.10	2	08	7	23
July	54.26	62.16	58.12	57.07	51.07	59.11	53.26	53.21	63.27	7	21	17	14
August	56.06	62.24	56.21	58.20	53.26	62.03	55.28	57.20	65.23	7	03	[illegible]	8
September	56.21	61.20	58.16	59.17	55.25	61.19	57.11	58.10	66.08	5	63	10	20
October	56.27	62.15	57.21	57.20	53.16	57.29	56.14	57.29	68.09	11	32	21	10
November	59.04	72.10	62.21	61.09	55.26	65.18	58.01	59.18	70.21	2	47	5	25
December	57.44	73.24	61.19	63.28	53.00	63.11	54.09	56.16	74.12	-	22	2	29
January 1874	56.18	72.02	61.13	63.00	46.18	57.28	51.03	56.03	74.21	-	-	-	31
February	58.02	71.11	61.11	63.06	47.21	60.10	56.17	58.17	73.15	1	22	2	26
March	52.16	71.24	63.04	61.28	47.08	60.01	53.23	53.17	74.03	-	12	3	28
Annual Mean	56.32	68.20	59.56	60.66	52.34	61.29	55.22	55.95	69.57				
Total										63	30	113	252

Government Gardens
Ootacamund

Supt. Govt. Botl. Gardens

Statement of Receipts and Charges of the Government Botanical Gardens on the Nilgiris during the Official Year 1873-74

Receipts	Amount	Total
Cash in hand on the 1st April 1873		16 10 3
Sale of Plants & trees	3714 3 -	
Received from the Commissioner the amount sanctioned in G.O. No 874 75 July 1872	500 - -	
Do on a/c of Supdt's Establishment salary	1163 4 9	
Do from the Commissioner G.O. No [illegible] 3rd Sept 1873	1705 - -	
Do Do 692 74 July 1873	602 - -	
Amount drawn for improvements &c in the Gardens	580 0 -	
Do for felling & removing trees in Do	300 - -	
Do for purchase of furniture	50 - -	
Do Do Plants	24 - -	
Lease of Burliar Gardens	110 - -	
Received from the Commissioner on a/c of Peons Clothing	30 - -	
Do Do on a/c of Travelling Charges incurred by the Supdt	394 10 -	
Carriage hire of Almirah & Boxes	80 9 -	
		[illegible]
		11918 [illegible]

Charges	Amount	Total
Purchase of Seeds	618 4 6	
Do Tools	273 6 6	
Do Furniture	50 - -	
Peons Clothing	30 - -	
Postage on Parcels & letters	46 7 4	
Packing of seeds & plants	178 1 6	
Carriage of Do	225 4 -	
Repairs of Furniture	24 - -	
Do of Buildings	179 12 5	
Do of Tools	31 6 -	
Unsuccessful experiment	24 - -	
Exchange on Cheques &c	9 6 -	
Sundries	78 - 7	
Pay of Supdt and Allowances	3060 - -	
Do of Office Establishment	1180 4 9	
Working Charges of Ooty Gardens	2412 [illegible]	
Do Coonoor Do	166 - -	
Do Kalhatty Do	191 6 -	
Nursery of Burliar Do	5 - -	
Felling and removing trees	300 - -	
Travelling allowance of Superintendent	394 10 -	
Building Orchid House	1705 - -	
Amount spent on Purchase	602 - -	
Do on improvements in Gardens	580 - -	
Gardeners' Outfit	19 - -	
Hire of Carpenters worked in the Gardens	87 6 -	
Altering & repairing almirahs, seed cases &c	114 8 1	
Carriage hire of Almirah & Boxes	80 9 -	
		11918 [illegible]

Commissioner

[illegible] [illegible]

[illegible]

[illegible] Department

No. 980

Proceedings of the Madras Government

Under date the 5th July 1876

Read the following Letter from the Commissioner of the Neilg

Submitting Report on the Ootacamund Government Botanical Gardens for the official year 1875-76

(No. 9 July 1876, [illegible])

The Government have observed with gratification the result of the operations in the Gardens during the year on which the Superintendent reports.

They notice with satisfaction the continued demand for ornamental trees and plants, [illegible] shows that general attention

W.R. 30/7

be freed by their introduction
and propagation.

The possible establishment
of disease among the fish [illegible]
is much to be apprehended.

The Commission should be
required to pass upon the pro-
pose a more detailed system of
introduction and should arrange
the obtaining from abroad the
supplies of the best strains of
[illegible]. The probability that
this could be largely effected by
means of the establishment they
now desire.

The Commission should
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]

[illegible]
[illegible]
[illegible]