

(1) Number of Pages.....60(2) Date of repair 17-11-67(3) Initials of the Referencer 20-2-68**MADRAS RECORD OFFICE****GOVERNMENT OF MADRAS**Revenue DEPARTMENT

G.O. No.	1002	Press
B.P. No.		Mis.
Dated	3-7-1875-196	

Not to be folded or roughly handled

No. 39. Read the following letter from J. R. COCKERELL, Esq., Commissioner of the Nilgiris, to A. MACGREGOR, Esq., Acting Secretary to Government Revenue Department, dated Ootacamund, 3rd June 1875, No. 37:—

I HAVE the honor to submit the Annual Report of the Superintendent of the Botanical Gardens for 1874-75.

2. No remarks appear required, as I am cognizant of the work executed.

3. During the year 4 cwts. of potatoes were imported from England. They have been planted, and by the end of August will produce a crop of ten times the quantity of the seed available for distribution to native growers and others.

ENCLOSURE No. 1.

Report on the Progress and Condition of the Government Botanical Gardens, Ootacamund, for the year 1874-75.

THE most important new works undertaken and carried out during the year under report have been in the upper part of the gardens.

Many unsightly, dead, and decaying jungle-trees, masses of wattle (*Acacia Dealbata*) and *Brugmansia* that covered the slopes immediately under the Superintendent's bungalow have been removed, and will be replaced by a selection of handsome trees and masses of flowering shrubs. The removing of roots, *Acacia* suckers, and trenching of the ground, is now being rapidly pushed forward, and will be completed before the rains. When these steep banks have been sloped, grassed, and planted, this part of the gardens will wear a very different and improved appearance from what it has hitherto presented.

The hill-side (about ten acres), forming the northern boundary of the gardens, which was cleared, roaded, and partially planted, some twelve years ago, but was again allowed to run to jungle, has been cleared of scrub and partly pitted, and will be planted this season with specimens of the most valuable varieties of *Eucalypti*, *Conifers*, and other large-growing trees. The planting of specimens in this part of the gardens will be continuous, and will not fail to result, in the course of a few years, in a really good collection, which it will be my aim to have systematically arranged. Irrespective of the interest which such a collection of trees will naturally excite, the ground taken up by them will be an important extension of the gardens for the recreation of visitors.

The grassing and planting of the slope on the eastern boundary of the lower garden, alluded to in my last report, have been completed, wonderfully improving the appearance of this part of the garden, by giving greater apparent extent and breadth of lawn. I regret to add that several of the valuable young trees planted here were killed by the unusually severe frosts of last season. They will be replaced during the rains by larger specimens of hardier varieties of plants.

Preparations have been made, and work begun to effect a further improvement at the termination of the before-named slope by the construction of a large fernery in a shady, moist corner facing the rosary. This corner has hitherto been occupied by a mass of under-growth and weeds which has been removed. I purpose laying out the ground with walks and rock-work amongst which will be arranged a complete collection of all the hardy varieties of Nilgiri ferns which, I have no doubt, will prove highly attractive and interesting to visitors. I have found it very desirable that there should be an out-door fernery, as the present fern-house is much too small to accommodate our rapidly-increasing collection of these plants.

The lawns of the lower garden were twice top-dressed last year with rich vegetable soil taken from the bed of a tank. This has helped very much to improve the sole of the turf, as the natural soil is poor and exhausted. It is only by frequent top-dressings that a good lawn

can be maintained in this part of the garden, as the roots of the turf is annually destroyed by the grubs of the Cockchafer Beetle.

A large rustic arbour has been erected in a shady nook, midway between the fountain terrace and picnic-ground. This arbour is capable of seating sixteen people and giving shelter to many more, being picturesquely situated and commanding an excellent view of the lower garden. This arbour, I venture to think, is no slight addition to the convenience and comfort of the public.

During the present year the tanks in the gardens will be thoroughly cleansed of confervæ and weeds, and an attempt made to introduce all the hardy varieties of Nymphaeas and other showy aquatic plants, for specimens of which I have written.

Pinetum.—During the year the collection of pines, cypresses, and other coniferous trees at Stonehouse have been largely added to. The first-planted trees are making a very rapid growth. The larger specimens will be labelled this season.

The new Orchard-house.—Was completed in June last. I have fully realised my expectations regarding the suitability of such structures for the cultivation of fruit-trees in this climate. The patent rolled glass (with which the roof is glazed) has proved highly conducive to the growth of plants: under it the young vines, peaches, and figs, have made a remarkably healthy and vigorous growth. Hitherto the chief obstacle to the successful cultivation of these fruits on the hills has been the inability to regulate the season of growth by giving or withholding water. Now our plants are being grown in pots and borders, watered at pleasure, and their growth so regulated as to cause the fruit to ripen at the season when it will receive the full benefit of what is so essential to its perfection,—a dry atmosphere and sunlight. I have no doubt that in a few years we will have vines, &c., bearing fruit in abundance.

Fruit-trees.—Two dozen of the best varieties of vines have been introduced. A number of the finer kinds of French pears were also grafted and sent out last season. As an experiment the quince was adopted as a stock for the more tender varieties in preference to the China pear. So far I have every reason to be satisfied with the results of my experiment. The scientific cultivation of fruit-trees in this part of the country is still in its infancy, but will doubtless be carried to a greater extent, as our practical knowledge is increased by actual experiment.

Currants.—Several varieties have been introduced during the year and distributed.

Strawberries.—The new varieties have been propagated and distributed in large numbers. They have now become so favorably known that many persons who thought that good kinds could not be grown on the hills are now cultivating them profitably. E. G. C. Brace, Esq., of Kotagerry, who is an enthusiastic grower of fruit, sends me the following account of a few plants which were sent to him:—"Without exception, the Duc de Malakoff is the finest strawberry I have seen on the hills, though I have but comparatively few plants of this sort; they have given a great deal of fruit, many of them averaging 28 to 30 to the pound. It is the only strawberry I have seen grown to any size, and the fruit for flavor is equal to any that one would get at home. I find that, unlike the other strawberries, Duc de Malakoff seldom throws out runners." The Superintendent of the Farm at Lovedale also writes: "The strawberry plants you favored me with have done well. The Duc de Malakoff has shown itself an unusually good cropper; it is grown in a bed with Fragmore Late Pine and Cockscumb. The difference between the fruiting is very marked, being fully twenty to one, in favor of the Duc de Malakoff. The latter is unmistakably the best strawberry I have seen on the Hills."

Potatoes.—As directed by G. O., No. 980, of 5th August 1874, a quantity of the most approved and popular kinds of potatoes were introduced this season. A few sets of each kind have already been given to persons interested in the improvement of that tuber on these hills; the others are planted in the garden nurseries, and will be available for distribution in August next. The following are the new kinds now under cultivation in our nurseries:—

Hundredfold Fluke.—Those who have grown it in England for several years speak of it as a very superior kidney-potato. It has withstood the disease in districts where other varieties

have been entirely destroyed. It is an excellent cropper, and when cooked is mealy and good flavored.

Red Skin Flour-ball.—Described as the most productive and best-flavored potato in cultivation when grown in light, loamy soil.

Royal Ash-leaf Kidney.—Very productive; an excellent early potato.

Sutton's King of Potatoes.—A good-flavored, heavy-cropping potato which keeps well.

Early Giant King.—A very early variety, highly recommended.

Grafts Castle.—Very prolific, good-flavored, and succeeds in almost any soil.

York Regent.—An old and popular variety of good quality.

These potatoes, I have reason to believe when they become known, will be much sought after by European and Native cultivators, and will in time doubtless take the place of the old and worthless varieties now to be met with. The seedling potatoes noticed in last year's report have turned out remarkably well. Four distinct varieties and about 20 lbs. of tubers have been raised; these have been again planted, and, if they prove to be superior kinds, will be distributed in August next.

The interchange of living plants and seeds with other Botanic Gardens has been largely extended. During the past year 371 fruit-trees, 1,815 ornamental trees, 7,416 shrubs and flowering plants, and 4,642 packets of seeds, have been sent out. The receipts have been 690 living plants and 123 packets of seeds. The most noteworthy being—

New Coffee.—To the Hon. J. D. Sim, C.S.I., we are indebted for twenty-five healthy plants of a new variety of coffee from the West Coast of Africa, which he presented to the gardens in September last. The introduction of this coffee has of late excited a great deal of interest and speculation amongst planters. It is generally believed to be vastly superior to the *C. Arabica*, being more prolific and producing fruit of a larger size; but whether such is really the case remains to be proved. The plants have been distributed as follows:—Six were sent to the Planters' Association, South-East Wynaad; two to an estate at Hoolicul on the lower slopes of the Nilgiris; one to Manantoddy in North Wynaad; one to Munzerabad in Coorg; two to the Government Gardens at Burliar; nine to the Nursery Garden at Kalhutti; two were planted in the Orchard-house in the Ootacamund Gardens; and two plants were put out by Mr. Sim in a garden in Coonoor. The reports received from Wynaad regarding the growth of the coffee is most encouraging. A. B. Burnett, Esq., of Calicut, very kindly obtained and sent me a report on the plants sent to the Wynaad Planters' Association. E. S. S. Thompson, Esq., Velleramulla Estate, "reports that his plant has thriven uncommonly well; it is strong and healthy, and has thrown out several new leaves luxuriant and large in size. The plant has not grown much in height, but this I do not expect until the monsoon rains commence. As far as I can judge coffee of this species will thrive admirably in the Wynaad; and I think is likely to be of even stronger and more vigorous growth than the *C. Arabica*." The parties to whom the plants were sent in Munzerabad, Manantoddy, and Hoolicul, have sent me similar reports of the satisfactory growth their plants are making. The two plants put out in the gardens at Burliar have made a luxuriant and healthy growth, and seem to be quite at home in the climate of that place. Those in the Kalhutti garden, after having been there for two months, looked sickly and unhealthy; so they were taken up and transferred to the Burliar Garden where they are now doing well. The two plants at Coonoor died, but whether from neglect or cold I cannot say. It has not yet been ascertained at what elevation this new coffee will succeed best; but from the facts of its not thriving at Coonoor and Kalhutti, and growing so freely at Burliar, I conclude it is not so hardy as the *C. Arabica*, and will not succeed so well at the higher elevations as that variety. The plants under glass in the Ootacamund Gardens have produced six healthy cuttings which will be forwarded to Travancore early this season.

Rhœm officinale (Medicinal Rhubarb) from Western China.—A healthy plant of this familiar and important drug has been raised from seed received from Kew. This is, I believe, the first plant of the true variety raised in India. It will be increased by propagation as rapidly as possible.

*Proceedings of the Madras Government, Revenue Department,
3rd July 1875.*

Araucaria Bidwillii (Bunya-Bunya Pine).—Upwards of 200 plants of this magnificent conifer have been raised from seeds forwarded by the Superintendent, Agri-Horticultural Gardens, Madras, from the Queensland Acclimatisation Society.

Orchids.—Special attention has been paid to the improvement of the collection of these interesting plants. Upwards of 50 species, principally from Sikkim, Kassia Hills, Burmah, Travancore, and the Western slopes of the Nilgiris, have been added during the past year. They have been planted in baskets or fixed to blocks of wood and placed in the new Orchard-house, where they are making a most satisfactory growth.

Bulbs and Succulents.—The collection of bulbous and succulent plants have been largely augmented, both by purchase and contributions. A suitable piece of ground in the lower garden will this year be planted entirely with a collection of succulent plants, so as to readily exhibit the different species and varieties.

Camellias.—The new varieties introduced last year have made a healthy growth and will be increased this season by grafting.

Begonias.—Two elegant varieties of the tuberous-rooted section, *Begonia Sedani* and *Begonia Beloriensis*, have been introduced.

Roses.—Upwards of one hundred of the finest sorts have been budded and planted in different parts of the garden.

Indigenous Seeds.—Several pounds of *Dodonaea*, *Rhodomyrtus*, and other indigenous seeds were collected and forwarded to the Superintendent of the Botanic Gardens, Calcutta, and to several persons resident in the hill-stations of Northern India.

Fodder-plants.—Several of the finer kinds of fodder-grasses and clovers have been introduced and recently distributed, with a view to encouraging the cultivation of a superior class of hay and green fodder on these hills.

A number of ornamental trees and shrubs were supplied gratis to the cemeteries of Ootacamund and Coonoor; likewise to the Ootacamund Municipality for planting in the station.

Digitalis Leaves and Berberis Bark.—100 lbs. of *Berberis cortex* and 20 lbs. of dried *Digitalis leaves* indented for were supplied to the Medical Store-keeper, Madras.

COONOR GARDENS.—The new branch garden at Coonoor consists of the land formerly known as Hannington's tope, and is situated at the north corner of the "Figure-of-Eight." The garden has an area of about 30 acres, and was commenced in 1874 under the direction of the Hon. J. D. Sim, C.S.I. The roads were traced by Colonel Farewell, and the pitting and fencing of the land were superintended by Major Murray, then Acting Superintendent of Nilgiri Forests, from whom I took over charge in December 1874. Since that date I have visited the garden weekly. The garden is formed by the slopes of two hills which are united by a belt of forest forming a very pretty ravine or glen. The southern slope is partially covered with forest and scrub; the other was grass-land with a few jungle-trees.

The operations during the year have been confined chiefly to the widening of roads, trenching, laying out, and planting of that portion of the garden adjoining the public roads. I will here give a brief enumeration of the most important works carried out during the year.

2,034 running yards of road have been widened from 5 to 8 feet and gravelled; bridges and drains have been constructed where necessary. Five acres of land have been trenched, the surface levelled and planted with English grass; other three and a-half acres have been weeded and trenched and prepared for planting with grass; two acres have been cleared of scrub and undergrowth.

A new entrance has been made, and a terrace, 138×72 feet, formed and laid down in English grass with flower-beds and gravel-paths. The principal walks leading to the arbours, swings, &c., start from this terrace. Lower down the slope another terrace, 300×60 feet, has been made in the form of a crescent by excavating the face of the hill. This terrace is laid out in a different style from the other, the flower-beds and paths being edged with box instead of turf. A border, 8 feet wide, extends the entire length of the terrace, and is planted with standard roses and other showy flowering plants. The face of the excavation is covered with ivy and

*Proceedings of the Madras Government, Revenue Department,
3rd July 1875.*

a variety of creepers. Near the centre of the terrace a substantial rustic arbour has been erected, which will be a great convenience to visitors either as a shelter from rain or screen from the sun.

Near the bottom of the glen, in sheltered spots, a Badminton Ground, 84×51 feet, and a Croquet Ground, 75×42 feet, have been formed. Spaces have also been levelled, upon which swings are erected.

Three rustic arbours have been built: one (already mentioned) on the terrace; the other two adjacent to the Badminton and Croquet Grounds and Swings. Six wrought iron and twenty rustic seats have been placed on the terraces and paths in convenient and sheltered situations. A small tank has been constructed near the centre of the garden and planted with water-lilies and other aquatic plants.

During the year upwards of 1,000 ornamental trees and shrubs were planted out, comprising Spanish chesnut, walnuts, oaks, cupressus, pines, Eucalypti, &c. These are all established and growing more or less vigorously. About 5,000 flowering plants of different kinds have been planted on the terraces and in beds on the lawns; amongst them several large specimen Camellias.

30,000 bricks have been made and a space levelled in a secluded part of the garden, where I propose to erect lines to accommodate the overseer and coolies employed. At present there are no houses in the garden for them, and much of their time is wasted in going to and from Coonoor for their meals.

This garden will be most useful as a branch of the Ootacamund garden by affording greater scope for the cultivation and acclimatisation of those rare exotic trees and shrubs which will not succeed in the colder and more moist climate of Ootacamund. I would propose that a part of this garden should be devoted exclusively to the cultivation of certain families of plants indigenous to the Nilgiris. These should be arranged and labelled according to their natural orders in such a manner as to allow of easy and ready inspection by the public.

The space at command is too limited for a collection of forest trees. Shrubs and herbaceous plants could be fairly well represented. The swampy ground at the bottom of the garden would be an excellent place in which to grow our Nilgiri Melastomads, Balsams, Droseras, and terrestrial orchids, whilst the forest would afford a natural home for the greater portion of the pretty Nilgiri ferns and other shade-loving plants.

The garden has met with much public approbation; it is already a favorite resort of residents and visitors to Coonoor. When the trees and shrubs have grown up and the different slopes are planted with English grass, I feel convinced that this garden will have no equal in India in point of beauty.

The formation and laying out of the garden have made rapid progress during the past year, the planting of trees and shrubs, grassing of lawns, gravelling of walks, &c., are being rapidly pushed forward with a view to a speedy completion of the whole.

BURLIAR GARDEN.—The *Ipecacuanha* cultivation may now be considered as fairly established at Burliar. The plants are in a healthy and flourishing condition, but for want of a suitable propagating house and a skilled person to attend to their propagation, they have not been increased so rapidly as I should have wished. As it is very important that this valuable plant should be increased as rapidly as possible, with the permission of Government, I propose to erect early next month a temporary propagating-house, and send a trained gardener to live at Burliar, and employ every means to multiply the plants as fast as possible. The system of root-propagation will be adopted, and I have no doubt that by the autumn of the year there will be several thousands of plants established at Burliar. As the experiment proceeds, it will be necessary to put a responsible person in special charge of these plants.

During the year the mangosteen, clove, nutmeg, cacao, and other tropical fruits cultivated at Burliar, were extensively propagated. The demand for plants and seeds of these tropical

Proceedings of the Madras Government, Revenue Department,
3rd July 1875.

fruits has increased so rapidly that, in several instances, we were unable to supply the demand. Hitherto the produce of this garden has been leased by the year to a contractor, but this year the whole of the fruit produced will be retained and sown in the nurseries, so that plants may be raised in sufficient quantities to meet the demands of planters and others.

KALHUTTY GARDEN.—This garden has been thoroughly overhauled and extended. New nurseries have been made, which will be devoted this season to the raising of flower and vegetable seeds. Seeds of good quality can be raised in this garden in any quantity, and will cost less than half what it does to import them. These acclimatised seeds also succeed better on the plains than those imported.

Buildings.—The roof of the conservatory which was very leaky has been repaired and reglazed. The entire building will be painted and made water-tight before the monsoon. The propagating house in the upper nurseries has been reglazed, white-washed, and put in thorough repair.

The old propagating house and tool-store that stood near the centre of the garden has been pulled down. An excavation has been commenced for the foundation of the new-green-house, sanctioned in G. O., No. 130, dated 23rd January 1875, which will be erected as early as possible. The glass has been ordered from England, and may be expected shortly. A substantial cattle-shed has been built near the cooly-lines in the upper nurseries.

Herbarium.—No addition of importance has been made to the Herbarium collection during the year.

Library.—A complete copy of Dr. Wight's valuable work, "Iconis Plantarum Indice Orientalis," was presented by the Hon. J. D. Sim, C.S.I.; a Report on the production of Tobacco in India, by J. E. O'Connor; and Selections from the Records of Government, North-West Provinces, have been received from Government.

Contributions received.—The principal contributors to the gardens have been Hage and Schmidt, Prussia, a valuable collection of flower-seeds; A. Friend, Esq., three dozen walnut plants raised from nuts grown on the Nilgiris; Hon. J. D. Sim, tree and shrub seeds from Queensland; also a large collection of plants for the Coonoor Garden; W. Kirby, Esq., pine seeds; E. G. C. Brace, Esq., cucumber and flower-seeds; W. Davison, Esq., Burmese orchids; Superintendent Laul Bagh, Bangalore, Araucaria plants; Superintendent, Royal Botanic Gardens, Calcutta, seeds from Sikkim and a large collection of orchids from the Kasia Hills; Superintendent, Horticultural Gardens, Madras, Araucaria seeds, plants, and ferns; Superintendent, Botanical Gardens, Gunesh Khind, a collection of succulent plants.

Assistants.—M. Ramanjulu Naidu, Writer; Mr. McDonald, Overseer; and Mr. Burrows, Propagator, deserve commendations for the assistance they have given me in carrying out the work entrusted to them in their respective departments.

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

Proceedings of the Madras Government, Revenue Department,
3rd July 1875.

Dr. STATEMENT OF Receipts and Charges of the Government Botanical Gardens on the Nilgiris during the official year 1874-75. Cr.

Receipts.	Amount.	Total.	Charges.	Amount.	Total.
Amount realised by the sale of plants and seeds ...	Rs. A. P. 2,384 10 10	Rs. A. P. 2,384 10 10	Pay of Superintendent and allowance ...	Rs. A. P. 2,383 8 0	Rs. A. P. 2,383 8 0
Rent of Burtlar Gardens ...	120 0 0	120 0 0	Do. of Office Establishment ...	1,033 0 0	1,033 0 0
Do. of Stonehouse Ground ...	11 11 6	11 11 6	Working charges of Octacamund Gardens ...	2,435 3 2	2,435 3 2
Received on account of Superintendent and Establishments salary, &c., (Net) ...	4,993 8 0	4,993 8 0	Purchase of seeds and plants ...	657 8 3	6,419 10 3
Received from Commissioner amount sanctioned in G. O., No. 874, of 6th July 1873 ...	500 0 0	7,458 13 10	Amount spent in breaking old propagating-house, walls, purchase of brick, and chumam ...	500 0 0	657 8 3
Received from Commissioner amount sanctioned in G. O., No. 130, of 23rd January 1875, (in part) ...	500 0 0	500 0 0	Paid for Peons' clothing ...	44 0 0	500 0 0
Received from Commissioner on account of Peons' clothing ...	30 0 0	500 0 0	Amount spent on the improvement of the Kalhatty Gardens ...	673 3 10	44 0 0
Received from Commissioner on account of the improvements of the Kalhatty Gardens ...	673 3 10	673 3 10	Paid for erecting fence between gardens and Lushington Hall ...	175 0 0	673 3 10
Received from Commissioner on account of Contingencies ...	1,430 0 0	1,430 0 0	Do. for turning tiles, glazing, and white-washing propagating-house ...	90 0 0	175 0 0
			Do. for the purchase of a bandy and a pair of bullocks ...	150 0 0	90 0 0
			Do. for building a bullock-shed ...	100 0 0	150 0 0
			Do. for the feed of bullocks for one year ...	84 0 0	100 0 0
			Do. for cleaning walks and weeding Arboretum above gardens ...	137 6 0	84 0 0
			Do. for remodeling slopes and walks under Superintendent's house, forming fernery, and erecting fountain ...	450 0 0	137 6 0
			Paid for the purchase of tools ...	50 0 0	450 0 0
			Do. for repainting and glazing conservatory ...	204 0 0	50 0 0
			Purchase of watering cans ...	49 8 0	204 0 0
			Do. of flower-pots ...	45 0 0	49 8 0
			Do. of Gardener's Chronicle ...	20 8 0	45 0 0
			Paid for engraving badge on two Peons' belts ...	12 0 0	20 8 0
			Do. postage on baggies and letters ...	31 2 4	12 0 0
			Do. Carpenters worked in the gardens ...	193 6 0	31 2 4
			Do. Brick-layers worked in the gardens ...	243 10 7	193 6 0
			Do. carriage of plants ...	71 10 0	243 10 7
			Do. packing of plants ...	11 8 0	71 10 0
			Do. repair of tools ...	10 4 6	11 8 0
			Do. Exchange on cheques, &c. ...	47 4 0	10 4 6
			Do. sundries ...	47 4 0	47 4 0
Total ...	10,593 0 0	10,593 0 0	Total ...	10,593 0 0	10,593 0 0

(Signed) A. JAMIESON,
Supt., Govt. Botanical Gardens.

OCTACAMUND,
22nd April 1875.

Proceedings of the Madras Government, Revenue Department,
3rd July 1875.

Metereological Observations from April 1874 to March 1875, made on the Government Botanical Gardens, Cootacamund.

Months.	MONTHLY MEAN OF DRY BULB.				MONTHLY MEAN OF WET BULB.				Maximum observed during the Month.	RAIN-FALL.		Days with Rain.	Days with out Rain.
	7 A.M.	2 P.M.	5 P.M.	Daily.	7 A.M.	2 P.M.	5 P.M.	Daily.		Inches.	Cents.		
April 1874...	61-01	72-10	60-02	64-05	51-16	58-06	54-06	54-11	74-08	2	05	6	24
May "	58-11	69-13	58-28	62-11	53-15	57-13	55-23	56-05	67-05	10	65	17	14
June "	56-02	55-25	56-11	58-21	54-23	59-17	55-11	56-16	64-28	7	54	21	9
July "	55-01	61-21	54-03	56-18	53-08	58-20	53-16	54-00	64-15	5	86	21	10
August "	55-05	63-11	56-09	57-30	54-12	57-29	55-04	55-17	65-19	3	63	19	12
September "	56-02	63-27	57-15	60-19	54-14	59-11	54-27	56-01	74-08	7	80	15	15
October "	56-04	66-14	58-02	59-09	55-20	59-23	55-02	56-22	67-09	10	83	19	12
November "	57-11	70-23	61-03	62-23	56-02	59-03	60-13	58-06	72-07	1	81	8	22
December "	61-17	70-12	58-11	63-05	56-01	60-24	56-26	57-18	72-09	...	84	3	28
January 1875...	57-20	70-06	57-25	61-19	55-13	60-30	55-16	56-29	72-02	...	15	2	29
February "	61-16	74-19	58-21	64-15	57-21	57-18	56-24	57-06	77-15	...	...	...	28
March "	58-00	72-15	58-16	62-19	57-10	59-13	56-29	57-18	74-03	...	49	2	29
Annual Mean ...	57-66	67-24	57-70	60-82	54-71	58-67	55-49	56-12	70-27	51	65	133	232
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...

COTACAMUND,
22nd April 1875.

(Signed) A. JAMIESON,
Supt., Govt. Botanical Gardens.

Proceedings of the Madras Government, Revenue Department,
3rd July 1875.

Return of Seeds and Plants distributed from the Government Botanical Gardens, Cootacamund,
for the year 1874-75.

Months.	Fruit-trees.	Ornamental Trees.	Shrubs and Flowering Plants.	Packets of Seeds.	Value.
					RS. A. P.
April .. 1874	19		160	471	119 10 6
May ... "	24	26	216	467	246 10 0
June .. "	24	45	607	685	267 6 0
July .. "	16	54	467	726	297 5 3
August "	72	170	385	539	281 4 6
September "	78	104	320	292	222 0 0
October "	138	120	1,930	481	599 12 10
November "		80	98	295	119 2 6
December "		204	81	53	145 0 11
January 1875		508	623	51	47 8 0
February "		504	814	63	31 14 0
March ... "			30	519	160 1 3
Total ..	371	1,815	7,416	4,642	2,537 11 9

COTACAMUND,
22nd April 1875.

(Signed) A. JAMIESON,
Supt., Govt. Botanical Gardens.

*Proceedings of the Madras Government, Revenue Department,
3rd July 1875.*

Dr. STATEMENT of Receipts and Charges of Sim's Park on the Nilgiris from December 1874 to March 1875. Cr.

Receipts.	Amount.	Total.	Charges.	Amount.	Total.
RS. A. P.	RS. A. P.			RS. A. P.	RS. A. P.
Amount received from Captain Murray ...	10 4 6	10 4 6	Allowance of Superintendent ...	540 0 0	
Amount received from the Commissioner on account of the charges.	5,186 3 3	5,186 3 3	Working charges of the Sim's Park ...	2,669 15 2	3,209 15 2
			Paid for fencing the Park ...	700 0 0	
			Paid for the construction and carriage of swings ...	365 5 1	
			Paid for erecting arbours ...	190 0 0	
			Paid for erecting Badminton Poles ...	36 11 0	
			Paid for the purchase of garden seats ...	130 6 1	1,422 6 2
			Paid for nails, screws, and tar, &c. ...	92 0 10	
			Paid for baskets ...	15 8 0	
			Paid for the purchase of tools ...	50 13 4	
			Paid for the purchase of tea and flower plants ...	34 0 0	
			Paid for the purchase of watering cans ...	12 0 0	
			Paid for the repair of tools ...	10 4 0	
			Paid for the carriage of grass to Coonoor..	70 0 0	
			Paid for the carriage of plants to Coonoor.	44 5 3	
			Paid for bricklayers worked in the Park.	27 0 0	
			Paid for carpenters worked in the Park..	172 3 0	
			Paid for sundries ...	36 0 0	564 2 5
Total ...		5,186 7 9	Total ...		5,196 7 9

OOTACAMUND,
22nd April 1875.

(Signed) A. JAMIESON,
Supt., Govt. Botanical Gardens.

No. 40.

ORDER THEREON, 3rd July 1875, No. 1,002.

Miscellaneous.

HIS EXCELLENCY the Governor in Council considers that satisfactory progress has been made with the improvements in the Ootacamund Garden and with the laying out of that at Coonoor, which should, in future, be styled Sim's Park.

*Proceedings of the Madras Government, Revenue Department,
3rd July 1875.*

2. The cultivation, under glass, of the more delicate European fruits is interesting as an experiment; but His Excellency looks chiefly to seeing the gardens made as generally useful as possible. The introduction of fresh and useful kinds of potatoes is a step in the right direction. Specimens of these should be gratuitously distributed as widely as possible among the more intelligent cultivators, native as well as European, and the necessity of using clean, well-manured land should be impressed upon all. The failure of the potato crop is more than a mere local misfortune, and it would be well if the Superintendent were to draw up some plain, practical hints to cultivators for publication in the District Gazette. The introduction of Australian varieties should not be lost sight of.

3. All the information, which the Superintendent is able to collect regarding the new kind of coffee from the West Coast of Africa, is likely to be useful. The plants in the Burliar Garden should be carefully watched, and their rate of growth and other particulars recorded from time to time. A further account of those given away to private parties should also be obtained.

4. His Excellency is glad to notice that the Superintendent has been able to comply with certain requisitions of the Medical Store-keeper, and hopes that the expectations formed as to the Ipecacuanha plants in the Burliar Gardens may be early realised. In G. O., 28th May 1875, No. 341, a temporary establishment has been sanctioned for employment in these gardens.

5. It is observed that nothing is said regarding any further attempts to introduce the cochineal insect at Kalhutti. It is hoped that the experiment has not been abandoned.

6. His Excellency notices, with approval, that it is intended to plant portions of the gardens systematically with specimens of exotic and indigenous trees and shrubs. These should all be labelled as proposed, and labels should be affixed much more generally throughout the gardens, so that the public may readily obtain that information which the Superintendent has not the leisure, nor the gardeners the knowledge, to afford. It would be well that the Commissioner should consult the Inspector of Forests in view to systematising the botanical arrangement.

7. The Commissioner should have countersigned the statement of receipts and disbursements, and certified to their having been duly supervised. He should also have called upon the Superintendent to number the paragraphs of his report before forwarding it to Government.

(True Extract.)

(Signed) A. MACGREGOR,
Acting Secretary to Government.

To the Commissioner of the Nilgiris.
„ the Officiating Inspector of Forests.
„ the Board of Revenue.
„ the Honorary Secretary, Agri-Horticultural Society.
„ the Financial Department.

Ed. F. R. Bantleman.

No. 37

COMMISSIONER'S OFFICE,

Ootacamund, 3rd June 1875.

FROM

J. R. Cockerell Esquire
COMMISSIONER NILGIRIS.

TO

The Secretary to Government
Revenue Department
Ootacamund

SIR,

I have the honor to submit the annual report of the Superintendent of the Potatocul Gardens for 1874-75.

2. No remarks appear required as I am cognizant of the work executed.

3. During the year 4 cwt. of Potatoes were imported from England. They have been planted and by the end of August will produce a crop of ten times the quantity of the seed, available for distribution to Native growers and others.

I have the honor to be
Sir

Your most Obedt servant

W. C. Cockerell
Commissioner

GOVT. OF INDIA

REVENUE.

THE COMMISSIONER OF THE

NILGIRIS.

NO. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

From July, 1874.

To

GO. and July 1875, No. 1000.

J. R. C.

No. 33-40.

Historical Gazette of Ootacamund. - Reviewing the work of the year 1874-75, and showing that the Commissioner of the Nilgiris should have strengthened the statement of receipts and disbursements, certified to their being true and correct, and had the particulars of the report numbered before forwarding it to Government.

Report on the Progress and Condition of the Government Botanical Gardens, Cotacuman, for the Year 1874-75

The most important new works undertaken and carried out during the year under report have been in the upper part of the Gardens.

Many unsightly dead and decaying jungle trees, masses of wattles (*Acacia Weatbata*) and *Brygnansia*, that covered the slopes immediately under the Superintendent's Bungalow have been removed and will be replaced by a selection of handsome trees and masses of flowering shrubs. The removing of roots, *Acacia* suckers and trenching of the ground is now being rapidly pushed forward and will be completed before the rains. When these steep banks have been sloped, grassed and planted, this part of the Gardens will wear a very different and improved appearance from what it has

2623-1-75-2623-64,
-5-8-74-60-41
-15-7-72-18-75-11

Rev: 1875: 84K
2108
1876

No. 37

Date—3rd March 1875

Recd 4th

Commissioner's Office,
Cotacuman.

To

The Secretary to Govt

Revenue Department

Cotacuman

Enclosure, one

Recd 1002. 6 July 1875

SUBJECT

Indemnifying the amount
of the Superintendent's
Botanical Gardens
for the year 1874-75

8-39

25 June 75 Recd 1875

has hitherto prevented.

The hill side (about 10 acres) forming the northern boundary of the Gardens, which was cleared, felled, and partially planted some 12 years ago, but was again allowed to run to jungle, has been cleared of scrub and partly felled, and will be planted this season with specimens of the most valuable varieties of Eucalypts, Acacias, and other large growing trees. The planting of specimens in this part of the Gardens will be continuous, and will not fail to result in the course of a few years in a really good collection which it will be my aim to have systematically arranged. In respect of the interest which such a collection of trees will naturally excite,

the

the ground taken up by them will be an important extension of the Gardens for the recreation of visitors. 9

The raising and planting of the slope on the eastern boundary of the lower garden, alluded to in my last report, have been completed, wonderfully improving the appearance of this part of the Gardens, by giving greater apparent extent and breadth of lawn. I regret to add that several of the valuable young trees planted here were killed by the unusually severe frosts of last season. They will be replaced during the rains by larger specimens of hardier varieties of plants.

Preparations have been made, and work begun to effect a further improvement at the termination of the before-named slope by the construction of a large fernery in a shady moist corner facing the river. This corner has hitherto been occupied by a mass of undergrowth and weeds, which has been removed. I purpose laying out

out

out the ground with paths and rockwork,
amongst which will be arranged a complete
collection of all the hardy varieties of Silene
ferns, which I have no doubt will prove
highly attractive and interesting to visitors.
I have found it very desirable that
there should be an out-door fernery, as
the present fern house is much too small
to accommodate our rapidly increasing
collection of these plants.

The Lawns of the lower garden were
twice topdressed last year with rich
vegetable soil taken from the bed of
a tank. This has helped very much
to improve the soil of the turf, as the
natural soil is poor and exhausted. It
is only by frequent topdressings that a
good lawn can be maintained in this
part of the garden, as the roots of the turf
is annually destroyed by the grubs
of the cockchafer beetle.

A

ix
A large rustic arbour has been erected
in a shady nook midway between the
fountain terrace and picnic ground. This
arbour is capable of seating 16 people,
and giving shelter to many more, being
picturesquely situated, and commanding an
excellent view of the lower garden, this arbour
I venture to think, is no slight addition to
the convenience and comfort of the public.

During the present year the Tanks in
the garden will be thoroughly cleaned of
loose ferns and weeds, and an attempt made
to introduce all the hardy varieties of
Nymphaeas and other showy aquatic plants,
for specimens of which I have written.
Pinstun. During the year the collection of
Pines, Cypressus and other Coniferous
trees at Stone house have been largely
added to. The first-planted trees are
making a very rapid growth, the
larger specimens will be labelled this
season.

The New Orchard house. Was completed
in

in June last. I have fully realized
my expectations regarding the suitability
of such structures for the cultivation of
Fruit trees in this climate. The patent
rolled glass (with which the roof is
glazed) has proved highly conducive
to the growth of plants under it. The young
Vines, Peaches, and Figs, have made a
remarkably healthy and vigorous
growth. Hitherto the chief obstacle to
the successful cultivation of these fruits
on the Hills has been the inability
to regulate the season of growth by
giving or withholding water. Now our
plants are being grown in pots and
borders, watered at pleasure, and their
growth so regulated as to cause the
fruit to ripen at the season, when it
will receive the full benefit of what
is so essential to its perfection, a dry
atmosphere and sunlight. I have no
doubt that in a few years we will
have

have Vines bearing fruit in abundance.
Fruit Trees. Two dozen of the best varieties
of Vines have been introduced. A number
of the finest kinds of French Pears were also
grafted and sent out last season. As an
experiment the quince was adopted as
a stock for the more tender varieties in
preference to the China Pear. So far
I have every reason to be satisfied with
the results of my experiment. The
scientific cultivation of fruit trees in this
part of the Country is still in its infancy,
but will doubtless be carried to a greater
extent, as our practical knowledge is
increased by actual experiment.
Currants. Several varieties have been
introduced during the year and distributed.
Strawberries. The new varieties have been
propagated and distributed in large
numbers. They have now become so favorably
known that many persons, who thought
that good kinds could not be grown on
the Hills are now cultivating them
profitably.

profitable. E. G. C. Brace Esq. of Chotaghem,
who is an enthusiastic grower of fruit, sends
me the following account of a few plants
which were sent to him. "Without exception
"the Que de Malakoff is the finest.

"Strawberry I have seen on the Hills, though
"I have but comparatively few plants of
"this sort, they have given a great deal
"of fruit, many of them averaging
"28 to 30 to the lb. It is the only

"Strawberry I have seen grown to any
"size, and the fruit for flavour is equal
"to any that one would get at home, I
"find that unlike the other strawberries
"Que de Malakoff seldom throws out
"runners. The Superintendent of the
Farm at Lourdale also writes.

"The Strawberry plants you favored
"me with have done well, the Que de
"Malakoff has shewn itself an
"unusually good cropper, it is grown
"in a bed with Fragmore Late Pine
and

6
"and lockcomb. The difference between
"the fruiting is very marked being fully
"twenty to one in favour of the Que de Mala-
"koff. The latter is unmistakably the
"best strawberry I have seen on the Hills."
Potatoes. As directed by G. C. 1878
of 5th August 1874, a quantity of the most
approved and popular kinds of Potatoes
were introduced this season, a few sets
of each kind have already been given
to persons interested in the improvement
of that tuber on these hills; the others
are planted in the Garden Nurseries,
and will be available for distribution
in August next. The following are
the new kinds now under cultivation
in our Nurseries.

Hundredfold fluke. Those who have
grown it in England for several years
speak of it as a very superior flowering
Potatoe. It has withstood the disease
in Districts where other varieties have
been entirely destroyed. It is an
Excellent

Excellent cropper, and when cooked is
mealy and good flavoured.

Red Skin flour ball. Ascribed as the
most productive and best flavoured
Potatoe in cultivation when grown in
light loamy soil.

Royal Ashleaf Kidney. Very productive
an excellent early Potatoe.

Sutton's King of Potatoes. A good flavoured
heavy cropping Potatoe which keeps well.

Early Giant King. A very early
variety highly recommended.

Grapple castle. Very prolific, good
flavoured and succeeds in almost any
soil.

York Regent. An old and popular
variety of good quality.

These Potatoes I have reason to
believe when they become known
will be much sought after by
European and Native cultivators,
and will in time doubtless take
the

7
place of the old and worthless varieties
now to be met with. The seedling potatoes
noticed in last year's report have turned
out remarkably well. Four distinct
varieties and about 20 lbs of Sauher's
have been raised, these have been again
planted, and if they prove to be
superior kinds will be distributed in
August next.

The interchange of living plants and
seeds with other Botanic Gardens has
been largely extended. During the
past year 371 Fruit trees, 1815 Ornamen-
tal trees, 7416 Shrubs and flowering plants
and 4642 Packets of seeds have been
sent out. The receipts have been
690 Living plants 123 Packets of seeds
The most noteworthy being:
New Coffee. To the Honorable J. A. Sim-
ple S. J. we are indebted for 25 healthy
plants of a new variety of Coffee from
the West Coast of Africa which he
presented

presented to the Gardens in September last.
The introduction of this Coffee has of late
excited a great deal of interest and
speculation amongst planters; it is
generally believed to be really superior
to the *C. Arabica*, being more prolific
and producing fruit of a larger size,
but whether such is really the case
remains to be proved. The plants
have been distributed as follows.

Six were sent to the Planters
Association South East Wynaad;
Two to an Estate at Hoolikul, on the
lower slopes of the hills; one to
Manantally in North Wynaad, One
to Muzerabad in Coorg. Two to
the Government Gardens at Puthat,
Five to the Nursery Garden at
Puthattiy; Two were planted in the
Orchard house in the Ootacamund
Gardens; and two plants were put
out by Mr. Sim in a Garden in
Coonoor. The reports received
from

from Wynaad regarding the growth of the
Coffee is most encouraging. A B. Burnett Esq.
of Calicut very kindly obtained and sent
me a report on the plants sent to the
Wynaad Planters Association. C. St.
Thompson Esq. Valleramulla Estate,
" reports that his plant has thriven
" uncommonly well, it is strong and
" healthy and has thrown out several new
" leaves luxuriant and large in size.
" The plant has not grown much in height,
" but this I do not expect until the monsoon
" rains commence. As far as I can
" judge Coffee of this species will thrive
" admirably in the Wynaad, and I
" think is likely to be of even stronger
" and more vigorous growth than the *C.*
" *Arabica*." The parties to whom the plants
were sent in Muzerabad, Manantally
and Hoolikul, have sent me similar
reports of the satisfactory growth their
plants

plants are making. The two plants put out
in the Garden at Bursliar have made
a luxuriant and healthy growth and seem
to be quite at home in the climate of that
place. Those in the Kuthully garden, after
having been there for two months looked
sickly and unhealthy, so they were
taken up and transferred to the Bursliar
Garden, where they are now doing well.

The two plants at Coonoor died, but
whether from neglect or cold I cannot
say. It has not yet been ascertained
at what elevation this new *Officinalis* will
succeed best, but from the facts of its not
thriving at Coonoor and Kuthully, and
growing so freely at Bursliar I conclude
it is not so hardy as the *l. Arabica*,
and will not succeed so well at the
higher elevations as that variety. The
plants under glass in the Botanical
Garden have produced six healthy

Cuttings

9
Cuttings which will be forwarded to
Travancore early this season.

Rhus Officinalis (Medicinal Rhubarb)
From Western China. A healthy plant of
this familiar and important drug has been
raised from seed received from Kew. This
is, I believe, the first plant of the true
variety raised in India. It will be increased
by propagation as rapidly as possible.

Arucaria Bidwillii (Bunya Bunya Pine)
Upwards of 200 plants of this magnificent
Conifer have been raised from seeds
forwarded by the Superintendent Agri-
 Horticultural Gardens, Madras, from the
Durand acclimatization Society.

Orehi. Special attention has been paid
to the improvement of the collection of these
interesting plants. Upwards of 50 species,
principally from Sikkim, Khasia Hills,
Burmah, Travancore, and the Western
slopes of the Nilgiris have been added

During

during the past year. They have been planted in baskets or fixed to blocks of wood and placed in the new Orchard house, where they are making a most satisfactory growth.

Bulbs & Succulents. The collection of Bulbs and Succulent plants have been largely augmented, both by purchase and contributions. A suitable piece of ground in the lower garden will this year be planted entirely with a collection of Succulent plants, so as to readily exhibit the different species and varieties.

Camellias. The new varieties introduced last year have made a healthy growth and will be increased this season by grafting.

Begonias. Two elegant varieties of the tuberous rooted section Begonia Sedani and Begonia Balovianensis have been introduced.

Roses.

Roses. Upward of one hundred of the finest sorts have been budded and planted in different parts of the Garden.

Indigenous Seeds. Several lbs of Rhododendron, Rhodomystus, and other indigenous seeds were collected and forwarded to the Superintendent of the Botanic Garden, Calcutta, and to several persons resident in the Hill stations of Northern India.

Fodder plants. Several of the finer kinds of fodder grasses and clovers have been introduced and recently distributed, with a view to encouraging the cultivation of a superior class of Hay and green fodder on these Hills.

A number of Ornamental trees and shrubs were supplied gratis to the Cemeteries of Potacomund and Coonoo, likewise to the Potacomund Municipality for planting in the Station.

Digitalis leaves & Berberis bark. 100 lbs of Berberis Cortex and 20 lbs of dried Digitalis leaves indented for were supplied

supplied to the Medical Storekeeper
Madras.

Coonoor Garden. The new branch garden
at Coonoor consists of the land formerly
known as Hannington's topes and is
situated at the north corner of the
"Figure of Eight". The Garden has
an area of about 30 Acres, and was
commenced in 1874 under the direc-
tion of the Honorable J. H. Sim C.E.S.
The roads were traced by Colonel
Forsyth and the fitting and pruning
of the land were superintended by
Major Murray then Acting Superin-
tendent of Nilgiri Forests, from whom I
took over charge in December 1874. Since
that date I have visited the Garden
weekly. The Garden is formed
by the slopes of two hills which are
united by a belt of Forest forming a
very pretty ravine or glen. The southern
slope is partially covered with
Forest

Forest and scrub, the other was grass land
with a few jungle trees.

The operations during the year have been
confined chiefly to the widening of roads,
trenching, laying out and planting of that
portion of the Garden adjoining the public
roads. I will here give a brief enumeration
of the most important works carried out during
the year.

203 ft. punning / yards of road have
been widened from 5 to 8 feet, and gravelled;
Bridges and drains have been constructed
where necessary. Five acres of land
have been trenched, the surface levelled
and planted with English grass; other
three and half acres have been weeded
and trenched, and prepared for planting
with grass; two acres have been cleared of
scrub and undergrowth.

A new entrance has been made, and
a terrace 138 x 72 feet formed and laid
down in English grass with flower beds
and

and gravel paths. The principal
walks leading to the Arbours,
Swings &c. start from this terrace;
lower down the slope another terrace
300 x 60 feet has been made, in the
form of a crescent by excavating
the face of the hill. This terrace
is laid out in a different style
from the other. The flower-beds
and paths being edged with box
instead of turf; a border 8 feet wide
extends the entire length of the terrace
and is planted with Standard Roses
and other showy flowering plants. The
face of the excavation is covered with
Soy and a variety of creepers. Near
the centre of the terrace a substantial
rustic Arbour has been erected, which
will be a great convenience to visitors
either as a shelter from rain or screen
from the sun.

Near the bottom of the glen, in sheltered
spots

spots, a Badminton ground 86 x 51 feet, and a
Lacquet ground 75 x 42 feet have been formed.
Spaces have also been levelled upon which
Swings are erected.

Three rustic Arbours have been built, one
(already mentioned) on the terrace, the other
two adjacent to the Badminton and
Lacquet grounds and Swings. Six
wrought Iron and 20 rustic seats have
been placed on the terraces and paths,
in convenient and sheltered situations.
A small tank has been constructed near
the centre of the garden and planted with
water Lilies and other aquatic plants.

During the year upwards of 1000 ornamental
trees and shrubs were planted out comprising
Spanish Chestnut, Walnuts, Oaks, Cupressus,
Pines, Eucalypti &c. These are all esta-
blished and growing more or less vigorously.
About 5000 flowering plants of different
kinds have been planted on the terraces
and in beds on the lawns; amongst them
several large specimen Camellias.

3000 Bricks have been made and a
space

space levelled in a secluded part
of the Garden, where I propose
to erect hives to accommodate the
Queens and bees employed.
At present there are no houses in
the Garden for them, and much of
their time is wasted in going to and
from beehoot for their meals.

This Garden will be most useful
as a branch of the Botanical Garden
by affording greater scope for the cultivation
and acclimatization of those rare
exotic trees and shrubs, which will not
succeed in the colder and more moist
climate of Botanical. I would propose
that a part of this Garden should be
devoted exclusively to the cultivation
of certain families of plants indigenous
to the Nilgiri. These should be
arranged and labelled according to
their natural orders, in such a manner
as to allow of easy and ready inspection
by the public.

The space at command is too
limited

13
limited for a collection of forest trees.
Shrubs and herbaceous plants could
be fairly well represented. The
swampy ground at the bottom of the
Garden would be an excellent place
in which to grow our Nilgiri Melastomads,
Balans, Droseras, and terrestrial Orchids,
whilst the forest would afford a natural
home for the greater portion of the pretty
Nilgiri ferns and other shade-loving
plants.

The Garden has met with much public
approbation; it is already a favorite
resort of residents and visitors to Coonoor.
When the trees and shrubs have grown up
and the different slopes are planted
with English grass. I feel convinced that
this Garden will have no equal in India
in point of beauty.

The formation and laying out of the
Garden have made rapid progress
during the past year; the planting of
trees and shrubs, grassing of lawns,
graveling of walks &c. are being
rapidly

rapidly pushed forward with a
view to a speedy completion of the whole
Burlier Garden. The Speciosa and
cultivation may now be considered
as fairly established at Burlier.
The plants are in a healthy and
flourishing condition, but for want
of a suitable propagating house
and a skilled person to attend to their
propagation they have not been
increased so rapidly as I should
have wished. As it is very
important that this valuable
plant should be increased as
rapidly as possible. With the
permission of Government I propose
to erect early next month a temporary
propagating house, and send a trained
gardener to live at Burlier and
employ every means to multiply
the plants as fast as possible. The
system of root propagation will be
adopted and I have no doubt that
by the autumn of the year there
will

16
will be several thousands of plants
established at Burlier. As the experiment
proceeds it will be necessary to put a
responsible person in special charge
of these plants.

During the year the mango, guava,
nutmeg, cocoa, and other tropical fruits
cultivated at Burlier were extensively
propagated. The demand for plants and
seeds of these tropical fruits has increased
so rapidly that in several instances we
were unable to supply the demand. Hitherto
the produce of this garden has been leased
by the year to a contractor, but this year
the whole of the fruit produced will be
retained and sold in the nurseries,
so that plants may be raised in suffi-
cient quantities to meet the demands of
Planters and others.

Kulhuthy Garden. This garden has been
thoroughly overhauled and restored.
New nurseries have been made, which will
be devoted this season to the raising
of Flower and Vegetable seeds, seeds of
food

Good quality can be raised in this
Garden in any quantity, and will
cost less than half what it does to
import them. These acclimatized
seeds also succeed better on the plains
than those imported.

Buildings. The roof of the Conservatory,
which was very leaky, has been
repaired and reglazed. The entire
building will be painted and made
watertight before the monsoon. The
propagating house in the upper
nurseries has been reglazed, white-
washed and put in thorough repair.

The old propagating house and Soil
stone that stood near the centre of the
Garden has been pulled down. An
excavation has been commenced for
the foundation of ^{the} new green-house
sanctioned in G. O. No 130 dated 23rd
January 1875, which will be
erected as early as possible. The
glass has been ordered from
England

England, and may be expected shortly.
A substantial Cattle shed has been
built near the Coaly lines in the upper
nurseries.

Herbarium. No addition of importance
has been made to the Herbarium collection
during the year.

Library. A complete copy of Wright's
valuable work "Icones plantarum
Indiæ Orientalis" was presented
by the Honorable J. H. Sim. B. S. I.
A report on the production of Tobacco
in India by J. E. O'Connor, and
selections from the Records of Government
North West Provinces have been
received from Government.

Contributions received. The principal
Contributors to the Garden have been
Haezel Schmidt Russia. a valuable
Collection of Flower seeds. A. Friend Egypt
three dozen Walnut plants raised from
nuts grown on the Nile river. Honorable J.

J. H. Lim tree and Shrub seeds from
 Queensland; also a large collection
 of plants for the Governor's Garden.
 W. Kirby Esq: Pine seeds, E. G. C.
 Phace Esq: Cucumbers and Flower
 seeds, W. Harrison Esq: Bismarck Orchids,
 Superintendent Lamb Bugh, Bangalore,
 Braconia plants, Superintendent
 Rozyab Botanic Garden, Calcutta,
 seeds from Sikkim and a large
 collection of Orchids from the Khasia
 Hills; Superintendent Horticultural
 Garden Madras Braconia seeds,
 plants and ferns; Superintendent
 Botanical Garden Bunnah Rhind
 a collection of Succulent plants.
Assistants. M. Ramanujulu
 Vaidya Writer, Mr McDonald
 Oversee, and Mr Burrows Propa-
 gator, deserve commendations for
 the assistance they have given
 me in carrying out the work
 entrusted to them in their respective
 Departments.

W. J. Smith
 Superintendent
 Govt Bot Garden

17
 Statement of Receipts & Charges of the Govt. Bot. Garden in the Nilgiris during the official year 1874-75

Receipts	Amount	Total
Amount realized by the sale of Plants & Seeds	2334 10 10	
Rent of Busby's Gardens	120 ..	
Do of Stone house & Ground	11 ..	
Received on account of Superintendent and Establishment salary &c (Nett)	1,092 8	7,458 13 10
Do from Comptroller's amount sanctioned in G.O. No 871 of 5 th July 1872	500 ..	500 ..
Do Do Do in G.O. No 130 of 23 rd Aug 75 (in part)	500 ..	500 ..
Do Do on account of Peon's clothing	30 ..	30 ..
Do Do Do of the Improvements of the Mulhally Gardens	673 2 10	673 2 10
Do Do Do of contingencies	1,130 ..	1,130 ..

Total Rupees 10,592 .. 8

Charges	Amount	Total
Pay of Superintendent and allowance	2,952 8	
Do of Office Establishment	1032 ..	
Working charges of Ootacamund Gardens	2,135 2 2	6,119 10 2
Purchase of Seeds and Plants	657 8 3	657 8 3
Amount spent in breaking old Propagating house walls, purchase of Brick and Chunan	500 ..	500 ..
Paid for Peon's clothing	14 ..	14 ..
Amount spent on the Improvement of the Mulhally Gardens	673 2 10	673 2 10
Paid for erecting fence between Gardens & Lushington Hall	175 ..	
Do for turning tiles, glazing & whitewashing Propag. house	90 ..	
Do for the purchase of a bandy and a pair of bullocks	150 ..	
Do for building a bullock shed	100 ..	
Do for the pair of bullocks for one goat	84 ..	
Do for clearing walks & mending arborvitae along gardens	127 ..	
Do for remodelling slopes, and walks under Superintendent's house, forming terraces, and erecting fountain	150 ..	
Do for the purchase of Tools	50 ..	
Do for repainting & glazing Conservatory	264 ..	1,130 ..
Purchase of watering cans	17 8	
Do of flower pots	45 ..	
Do of Gardener's Chronicle	20 8	
Paid for engraving badge on 2 Peon's belts	12 ..	
Do postage on dispatches and letters	31 2 6	
Do Carpenters worked in the Gardens	198 6	
Do Bricklayers	127 11	
Do Carriage of Plants	212 10 7	
Do Packing of Do	71 10	
Do Repair of Tools	11 8	
Do Exchange on Cheques &c	10 4 6	
Do Sundries	17 11	867 11 5

Total Rupees 10,592 .. 8

Government Gardens
 Ootacamund
 22nd April 1875

J. J. J. J.
 Superintendent
 Govt. Bot. Garden

Meteorological Observations from April 1874 to March 1875, made on the Government Botanical Garden, Calcutta.

Months	Monthly mean of Dry Bulb		Monthly mean of Wet Bulb		Maximum observed during the month	Rainfall		Days with torrent					
	7 A.M.	5 P.M.	7 A.M.	5 P.M.		Inches	Cents						
April	61.01	72.10	64.05	51.16	58.06	51.06	51.11	74.08	2	05	6	21	
May	58.11	69.13	58.28	62.11	53.15	57.13	53.23	56.05	67.05	10	65	17	14
June	56.02	55.25	56.11	58.21	51.23	59.17	53.11	56.16	64.28	7	54	21	9
July	55.01	61.21	51.03	56.18	53.08	58.20	53.16	51.00	61.15	5	86	21	10
August	55.05	63.11	56.09	57.30	54.12	57.29	53.04	55.17	65.19	3	63	19	12
September	56.02	63.27	57.15	60.19	54.14	59.11	51.27	56.01	71.06	7	80	15	15
October	56.04	66.14	58.02	59.09	55.20	59.23	55.02	56.22	67.09	10	83	17	12
November	57.11	70.23	60.03	62.23	56.02	59.03	60.13	55.06	72.07	1	51	8	22
December	61.17	70.12	58.11	63.05	56.01	60.21	56.26	57.18	72.09	-	54	3	28
January 1875	57.20	70.06	57.25	61.19	55.13	60.30	55.16	56.29	72.02	-	15	2	29
February	61.16	74.19	58.21	61.15	57.21	57.18	56.21	57.06	77.15	-	-	-	28
March	58.50	72.15	58.16	62.19	57.10	59.13	56.25	57.18	74.03	-	19	2	29

Government Botanical Garden
22 April 1875

Superintendent
Govt Botanical Garden

*Return of seeds and plants distributed from the Government Botanical Gardens,
Potacamund, for the year 1874-75.*

<i>Months</i>	<i>Small trees</i>	<i>Ornamental trees and shrubs</i>	<i>Shrubs and plants of Potacamund</i>	<i>Packets of seeds</i>	<i>Value</i>
<i>April</i> — 1874	19	"	160	171	119 10 6
<i>May</i> — "	24	26	216	167	266 10 -
<i>June</i> — "	24	15	607	685	267 6 -
<i>July</i> — "	16	54	467	726	297 5 3
<i>August</i> — "	72	170	385	537	281 4 6
<i>September</i> — "	78	104	320	292	222 - -
<i>October</i> — "	138	120	1930	481	599 12 10
<i>November</i> — "	"	80	983	295	119 2 6
<i>December</i> — "	"	204	881	53	145 - -
<i>January</i> — 1875	"	508	623	51	147 8 -
<i>February</i> — "	"	504	814	63	31 11 -
<i>March</i> — "	"	"	30	519	160 1 3
<i>Total</i> —	371	1815	7416	4642	2537 11 9

*Governor General
Potacamund
22 April 1875*

*Admiral
Superintendent
Potacamund*

Statement of Receipts & Charges of Lincoln's Park on the 1st day of December 1874 to March 1875

<i>Receipts</i>	<i>Amount</i>	<i>Total</i>	<i>Charges</i>	<i>Amount</i>	<i>Total</i>
<i>Amount received from</i>			<i>Allowance of Superintendent</i>		<i>510</i>
<i>Leapt Murray</i>	<i>10 16</i>	<i>10 16</i>	<i>Working charge of the Supt's Park</i>		<i>2669 15 2</i>
<i>Do from the Comptroller</i>			<i>Paid for fencing the Park</i>		<i>700</i>
<i>On account of the charge</i>	<i>5186 33</i>	<i>5186 33</i>	<i>Do the construction & carriage</i>		<i>365 51</i>
			<i>Do living</i>		<i>190</i>
			<i>Do erecting arbours</i>		<i>36 11</i>
			<i>Do No - Widdimton poles</i>		<i>130 61</i>
			<i>Do the purchase of Barrow Seals</i>		<i>92 10</i>
			<i>Do Nails, Screws & Tar &c</i>		<i>15 8</i>
			<i>Do Bunkers</i>		<i>50 13 4</i>
			<i>Do the purchase of Seals</i>		<i>34</i>
			<i>Do Do - of Sea & flower plants</i>		<i>12</i>
			<i>Do Do - of Watering land</i>		<i>10 4</i>
			<i>Do the repairs of Seals</i>		<i>70</i>
			<i>Do the carriage of Seals to Court</i>		<i>14 53</i>
			<i>Do Do - of plants to</i>		<i>27</i>
			<i>Do Bricklayers for the Park</i>		<i>172 3</i>
			<i>Do Carpenters</i>		<i>36</i>
			<i>Do Studio</i>		<i>56 12 3</i>
<i>Total Receipts</i>	<i>5196 79</i>		<i>Total Receipts</i>		<i>5196 79</i>

*For payment of Garden
Cottages and
22 April 1875*

*Superintendent
Robert Ball Garden*

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 3^d June 1875.

READ the following letter from the
Commissioner of the Nilgiris

Submitting the annual
report of the Superintendent of the
Botanical Gardens for 1874-75

H. E. 3^d June 1875 N. 37.

His Excellency
the Governor in Council
is pleased to record his
opinion that satisfactory
progress has been made
with the improvements in the
Botanical Garden, and
with the laying out of
that

I cannot help feeling that
more supervision is needed in
the N. B. for really some of us
knowing things about it. I am
in a position to say that the
same position - the
expenditure for the year has been
under Rs. 15,000. I am sorry

Dec-2108/75

that at Coonoor.
2. The cultivation, under glass, of the more delicate European fruits is interesting as an experiment, but its excellence looks chiefly to seeing the gardens made as generally useful as possible - The introduction of fresh and useful kinds of potatoes, is a step in the right direction. Specimens of these should be gratuitously distributed as widely as possible among the more intelligent cultivators, native as well as European, and the necessity of using clean well-manured land should be impressed upon all - The failure of the potato crop is more than a mere local misfortune

The vessel sanctioned
but I see that the P. & G.
for the current year is
N. 10000.

I incline to think that
these reports sh^d. be referred
forward to the Eng^l.
of Bristol before disband
the 5th generally know
at least know ab^t. the
matter than we do. The
Roh. Dep^t. is right
under Dr. Cleghorn
& Major Budden is a
competent & give any
opinion ab^t. much

I quite agree that some
supervision is required &
Major Reddome is probably
very competent for the
work. R.E.

6. This was entered last year in
Larkin's Journal. *Asplenium* *sp.*
Lark

[illegible]

I feel that there is something
 wanting - but can it be in a measure
 superseded by the Com. n. p.?
 I do prefer asking the
 W. do when we want
 money in
 course it will be obtained
 but I am not sure
 doubts as to the
 W. do. 2/0
 H.

misfortune), and it would be well if the Superintendent were to draw up some plain practical hints to cultivators for publication in the District Gazette - The introduction of Australian varieties should not be lost sight of.

3. All the information which the Superintendent is able to collect regarding the new kind of coffee from the West Coast of Africa is likely to be useful - The plants in the Botanic Garden should be carefully watched, and their rate of growth and other particulars recorded from time to time - A further account of those given away to private parties should also be obtained.

Wm 2/0
His

4. His Excellency is glad to notice that the Superintendent has been able to comply with certain requisitions of the Medical Storekeeper, and hopes that the expectations formed as to the Specimen plants in the Botanical Gardens may be early realized - Any suggestions for ensuring their successful propagation will be favourably considered, but all propositions involving additional expense should be submitted separately and in detail.

5. It is observed that nothing is said regarding any further attempts to introduce the cochineal insect at Kalkutty -

It

28 May 1841
The following list of plants has been forwarded to the Superintendent for his consideration.

The last year's order has not been received at the time of the Superintendent's visit to the Botanical Gardens - It is presumed by the Superintendent that the plants have been forwarded to the Superintendent.

The absence of labels has recently been noticed in the Botanical Gardens. It is suggested that one specimen of each variety of plants should be labelled with the name of the plant.

It would be well that the Superintendent should consult the Superintendant of the Botanical Gardens in view of systematizing the Botanical arrangements.

It is hoped that the experiment has not been abandoned.

6. His Excellency notices, with approval, that it is intended to plant portions of the Gardens systematically with specimens of exotic and indigenous trees and shrubs - These should all be labelled as proposed, and labels should be affixed much more generally throughout the Gardens so that the public may readily obtain that information which the

Superintendent has not the leisure, nor the Gardens the knowledge, to afford.

The

7. The Commission
should have countersigned
the statement of receipts
and disbursements, and
certified to their having
been duly supervised. He
should also have called
upon the Superintendent
to number the paragraphs
of his report before forwarding
it to Government.

J. C. [unclear]

- 3 To the Comptroller of the Treasury
- 3 To the Chief Inspector of Finance
- 14 The Board of Ordnance
- 1 The Ordnance Secretary, Royal Ordnance
- 5 The Finance Dept. 27 Sept 1875

recd 15 July
thurs

[Signature]

