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HAND-GUIDE
TO THE
ROYAL BOTANIC GARDENS,

PÉRÁDENIYA. —

BY
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Director.

With a Plan. .

FOURTH EDITION.



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REGULATIONS.

1. THE Gardens are open to the Public every day from 6 A.M. to 6 P.M.

2. The Clerk's Office is open every day (except Sundays and Public Holidays) from 6 to 11 A.M. and from 1 to 6 P.M.

3. The Museum is closed on Sundays.

4. It is strictly forbidden to gather flowers, fruits, or seeds, or to damage in any way the trees, shrubs, and other plants, or to deface the buildings and labels. Visitors should remember that the Gardens and their contents are for the enjoyment and instruction of all.

5. It is requested that carriages will proceed *slowly* through the Gardens. Loitering for hire about the gate is not permitted, but engaged carriages may wait there.

6. All cattle found in the Gardens will be impounded, and their owners proceeded against as the law provides.

7. No firearms are allowed in the Gardens, nor is fishing permitted in the pond.

Carriage Hire.—The Gardens and Railway Station being within the Kandy Municipal limits, hire is due merely in accordance with the usual rates by time.

PREFACE.



HIS short Descriptive Itinerary does not attempt to give a full account of the Gardens, but has been drawn up in order to assist visitors—with the aid of the Plan—in finding for themselves the principal objects of interest in these extensive grounds.

The route given can be followed almost throughout by carriages. It is of course not intended that it, or any other particular course, should be necessarily taken; but in a single visit of limited duration it is probably the best that can be followed. But to really see the Garden, enjoy its beauty and variety, and investigate its treasures, the visitor should leave his carriage at the gate and explore the narrower roads and paths on foot.

A Catalogue, containing considerably more than 3,000 species, being the ascertained contents of the Gardens at the end of 1886, was published in 1888, and can be obtained at the Lodge, price One Rupee.

January 1, 1894.

HAND-GUIDE

TO THE

ROYAL BOTANIC GARDENS, PÉRÁDENIYA.

INTRODUCTORY.



THE Royal Botanic Gardens at Pérádeniya were opened in December, 1821, six years after the final occupation of the Kandyan Kingdom by the English. The site is less than four miles from Kandy on the Colombo road, and occupies a loop of the river Mahawēli, which surrounds it on all sides except the south, where it is bounded by the high road. The area, nearly 150 acres in extent, is beautifully undulated ; its average elevation above sea-level is about 1,540 feet. The climate is hot, moist, and very equable : the mean annual temperature about 77° F., April and May being the hottest, and December and January the coolest months.¹ Rain falls on about 150 days in the year, the annual rainfall being about 87 inches ; it is pretty evenly spread through the year, but is usually heaviest in October and November and in June, at the full establishment of the N.E. and S.W. monsoons, respectively. January, February, and March are the driest months, but even then there are in most years showers at no distant intervals.

¹ In the early morning in January the temperature has been occasionally below 60° F.

Before its occupation as a Botanic Garden the greater part of the land was a royal demesne, occasionally occupied as a residence by the kings of Kandy. The earth-mound and ditch along the south boundary are still evident, and remains of stone buildings have been found.¹ On one part of the site stood a small temple or flower shrine and priest's house, abandoned, however, before the formation of the Garden.²

Pérádeniya, however, was not the first botanic garden in Ceylon. The Dutch possessed one in Slave Island, Colombo, which indeed took its name from the Company's slaves who worked and lived in it. This was neglected by the British and subsequently sold in lots ; but the first English Governor, the Hon. Fred. North (afterwards Lord Guilford), possessed a garden attached to his villa at Péliyagoda, on the Kēlani, near Colombo, and made some attempt to give it a botanical character by appointing (in 1799) one Joseph Jonville as superintendent.³ The Hon. East India Company's garden at Calcutta was at this time flourishing under the eminent botanist Roxburgh, and some exchanges appear to have been made with that establishment,

¹ Portions of carved stone pillars of a peculiar pattern have been placed at the Entrance Lodge, the Museum, and the Thwaites' Memorial.

² In 1823 a claim to this land and shrine was made by the Huhumpola Vihárá, and gave some trouble, which was however settled by the bestowal of another piece of land in its stead.

³ Jonville was taken out to Ceylon by North as "Clerk for Natural History and Agriculture," at £250 per annum. He was a versatile man and a good artist. In 1800 he accompanied the Embassy to Kandy, and made a collection of plants, now in the British Museum. Some of the plates in Cordiner's "Description of Ceylon" were drawn by him.

the Rev. Dr. John, Dr. Berry, and especially General Macdowall, sending plants from here.

But it was not till 1810 that Sir Joseph Banks, Pres. R. S., suggested and drew up a plan for a proper botanical garden in Ceylon. The site chosen was again in Slave Island, Colombo, and is still known as Kew. This powerful patron of botany also secured the transference from Canton of Mr. W. Kerr, who was appointed "Resident Superintendent and Chief Gardener." He arrived in 1812,¹ and was placed in charge of the private King's House Garden in Colombo, and of seven acres in Slave Island. The latter, however, was soon found to be liable to floods and too limited in extent, and in 1813 the Government, who had acquired possession of an unsuccessful sugar estate of 600 acres near Kalutara, removed thither the botanical establishment; the smaller garden in Colombo itself was, however, still maintained. The next year, in November, '1814, Mr. Kerr died.

Mr. Alexander Moon was selected by Sir J. Banks as Kerr's successor in 1816, and entered on his duties, at the very good salary of £512 per annum, in the following year. He was a capable and energetic man and devoted to his work. It was during his rule that the Gardens were, in 1821, moved to the present site at Pérádeniya, and to him we owe their first planning out, the making of roads, and the transference from Kalutara of such plants as could be moved. At first

¹ Kerr brought with him several plants from China. In 1813 he ascended Adam's Peak. His name is commemorated in the well-known Japanese shrub *Kerria*, which he was the first to send to England.

only the south-west portion of the ground was cleared and opened out ; it was mostly planted with coffee and cinnamon. Moon was also a diligent student of the flora of Ceylon, and with few opportunities, a scanty library, and no assistance, he compiled, and in 1824 published at Colombo, in English and Sinhalese, his "Catalogue of Ceylon Plants." This book contains the botanical and native names of 1,127 plants native to the Island—of which 164 were now first made known—as well as 366 introduced and cultivated species. He also formed a large herbarium of dried specimens (nearly all of which has unfortunately been lost to the Colony), commenced a library, and set on foot the series of coloured drawings of Ceylon plants which, steadily continued ever since, now forms a very valuable part of the treasures of the Garden. He was also a prominent member of the Ceylon Literary and Agricultural Society, founded in 1820,¹ the forerunner of the present Ceylon Branch of the Royal Asiatic Society.

After Moon's death from fever in May, 1825, a succession of more or less unqualified persons followed, and for nearly twenty years the Gardens made little or no progress,—being, indeed, chiefly used to grow coffee, jak fruits, and coconuts for sale by Government,—whilst botanical science was completely neglected. The salary was reduced to £300 in 1827 and to £200 in 1831. Mr. James Macrae, however, who was Superintendent from 1827 to 1830, collected largely and paid special attention to the native orchids.

¹ This Society established in 1824 a small experimental garden at Fort Macdonald for the growth of English vegetables.

The following is a list of the Superintendents from Moon's death to the arrival of Gardner :—

1825 Andrew Walker (acting)	1838 J. G. Lear (acting)
1827 James Macrae	1840 H. T. Normansell
1830 George Bird (acting)	1843 W. C. Ondaatje (acting)
1832 James George Watson	

With the appointment, in 1844, on the recommendation of Sir W. Hooker, of Mr. George Gardner, F.L.S., an energetic botanist and the well-known explorer of Brazil, the Gardens started on the more active, independent, and useful existence which they have since maintained. He found them in a very neglected state,¹ but under his care new roads were opened, much jungle cleared, and many new plants introduced. The entrance was improved, and a proper bungalow built for the Superintendent. Gardner, however, was a travelling botanist before all things, and his principal work was collecting and describing the native plants and publishing the novelties. He travelled over nearly the whole Colony, but his indefatigable energy was cut short by a fit of apoplexy at Nuwara Eliya in March, 1849.


Of the late Dr. Thwaites, F.R.S., C.M.G., who was (also at the late Sir W. Hooker's instance) selected to succeed Mr. Gardner, and whose name is inseparably connected with the Gardens, it is sufficient to say that for a period of more than thirty years he maintained Péradeniya in a high state of efficiency, and made it famous as a scientific as well as utilitarian institution. His great acquirements and steady devotion to science added a

¹ Only 40 acres of the land were at this time cultivated, and of this a large portion was a market garden where vegetables for sale in Kandy were grown.

prestige to the Gardens and gave them a world-wide reputation. Dr. Thwaites retired on pension in 1880, and died in Kandy in 1882, having never left the Island since his arrival in 1849.

The present Director succeeded Dr. Thwaites in February, 1880.

ITINERARY AND GUIDE.

[ Names of Plants with an asterisk prefixed are native to Ceylon.
The letters and numbers in the text refer to the Plan.]

The entrance to the Gardens stands back from the high road at an angle, and is approached from opposite directions by two short curved drives. Previously to 1832, when it was diverted to its present course to the newly-completed satinwood bridge over the Mahaweli, the high road passed close by the Garden gates to a ferry. The three trees on the triangular grass plot enclosed by the drives are the Honduras mahogany (*Swietenia Mahogani*), the West Indian Star apple (*Chrysophyllum Cainito*), and the Padouk of Burma (*Pterocarpus indicus*). On the left hand side the magnificent grove of Assam india-rubber trees (*Ficus elastica*)¹ cannot fail to attract attention. These were planted about 1833; their singular laterally flattened roots meandering over the surface of the ground suggest huge saurians. It is this tree in its young state which is so commonly grown in pots in European houses. The rubber forms a large export from Assam and Burma, where the trees are the subject of careful conservation by the Indian Forest Department. The

¹ Now unfortunately rapidly dropping their branches and decaying.

Garden gates (erected in 1867 in place of heavy wooden ones) are flanked on either side by African oil-palms (*Elæis guineensis*), and their posts are completely draped with the graceful *Bignonia Unguis-cati* of Brazil,—so named from the claw-like tendrils by which it climbs,—flowering profusely in April, but very rarely producing its long pods.

Immediately on entering, the visitor is confronted by a fine **group of palms** and allied plants (1) (planted in 1839, enlarged in 1863, and frequently added to subsequently), containing most of the native species and many foreign ones. Notice here the Arecanut palm or “Puwak” (**Areca Catechu*), the seed of which is used in enormous quantities throughout the East as an ingredient in the masticatory called betel, the other essentials being lime and the leaf of a pepper (*Piper Betle*). Here is also a large-fruited variety (var. *alba*), called in Malaya, whence it comes, “Pinang Putih,” or White arecanut, and in Ceylon “Raṭa-puwak.” The Jaggery palm or “Kitul” (**Caryota urens*), and the Coconut or “Pol” (**Cocos nucifera*), are familiar and very useful palms; whilst the very graceful tufted but spiny “Kaṭu kitul,” of which are here three large masses (**Oncosperma fasciculatum*), the sturdy “Dóṭalu” (**Loxococcus rupicola*), and the slender “Lénatēri” (**Areca concinna*), are interesting as being peculiar to Ceylon, a country which, with all its luxuriance, is not rich in palms. Of the exotic species may be noted the great Brazilian Inaja or Cocurito (*Maximiliana regia*), *Livistona australis*, *L. rotundifolia*, and *L. chinensis*, *Verschaffeltia splendida* from Seychelles, *Dypsis* from Madagascar, the royal palm of Cuba (*Oreodoxa regia*),

the Palmetto (*Sabal Palmetto*) of the S. United States, *Licuala grandis* of the Pacific Islands, and *L. peltata* of Burma, *Phoenix paludosa* of E. Bengal, *Rhopaloblaste hexandra*, the tallest palm in the grove, and many others. A date-palm (*Phoenix dactylifera*) is also here (but never flowers), and several specimens of the wild date-palm or "Indi" of Ceylon (**Phoenix zeylanica*), the black fruit of which is scarcely edible. Observe also here specimens of **Cycas circinalis* and **C. Rumphii*, "Madu" (often but incorrectly called Sago palm), the starchy seeds and pith of which are both articles of food ; and of *Carludovica palmata* of Central America, from the leaves of which the celebrated and expensive Panama hats are made.

The visitor may take the road to the left (**Lake road**), noticing at the corner (17) a specimen of the ornamental "Rata-goraka" or "Cochin-goraka" (*Garcinia Xanthochymus*), a native of South India and Malaya, grown in Ceylon for its pleasantly acid, bright yellow fruit ; and behind the opposite bed (16) the pyramidal form of the Durian (*Durio zibethinus*), originally from the Malay Archipelago. This tree produces abundance of its large nauseously-scented fruit in August and September. A very large specimen of the Durian will be found by the road to the Director's Office behind bed 3, and there are many others in the Garden.

Along the left hand side of the road (R) will be seen the curious *Napoleona imperialis* of Tropical Africa, with flowers more like a sea-anemone than an imperial crown ; *Amherstia nobilis* from British Burma (dedicated by Dr. Wallich to Lady Amherst and her daughter), one of the most strikingly beautiful of

flowering trees ; a handsome Fan-palm (*Latania Comersonii*) from Mauritius ; *Brownea coccinea* of Central America ; and the Brazil-nut tree (*Bertholletia excelsa*), the seeds of which are so well known in Europe. On the right hand (P) are specimens of "galis" (**Gardenia latifolia*), with large flowers which change from creamy-white through lemon-yellow to orange during the day ; the cajuput-oil tree of Moluccas (*Malaleuca minor*), with pendulous branchlets and a papery bark ; allspice from the West Indies (*Pimenta officinalis*) ; the once famous Upas tree of Java (*Antiaris toxicaria*) and its close ally the "riti" or sack tree (**Antiaris innoxia*) ; the Balsam of Tolu (*Toluifera Balsamum*) from New Grenada ; and the Malayan rambutan (*Nephelium lappaceum*), which affords one of the most pleasant fruits of the tropics. Behind these will be seen trees of the "kəkuna" (**Canarium zeylanicum*), which yields a balsamic resin, and the true camphor (*Cinnamomum Camphora*) of China and Japan.

A very striking feature of this road formerly was the "ruins"—tall old tree trunks completely covered up by dense masses of the great Burmese creeper, *Thunbergia laurifolia*, but these have now nearly all fallen. Though thus suggesting the ivy of northern Europe, its large pale violet-blue flowers are in great contrast with that homely plant. A pendulous curtain of this fine creeper is a prominent object opposite the Lodge at the entrance to the Garden.

Continuing straight on then may be noted on the left (R) *Magnolia sphenocarpa* of the Himalaya ; a native red-flowered shrub, **Woodfordia floribunda*, affording a red dye ; and two small trees of the gamboge of Ceylon,

or "gokatu" (**Garcinia Morella*). The gamboge is of excellent quality. Just beyond, with its thick sausage-like fruits pendulous on very long stalks, observe the curious tropical African tree, *Kigelia pinnata*.

Here the road to the left may be taken to visit the new South Garden (cleared in 1881). Skirting the pond the road first passes between two magnificent clumps of bamboos—that on the right from Java (*Gigantochloa aspera*), a very hard kind much used for building there; and that on the left the giant bamboo of Burma, &c. (*Dendrocalamus giganteus*). This, which was introduced to the Gardens in 1856, is the largest known bamboo. The culms, which attain a length of nearly 100 feet and a diameter of 9 inches, appear during the rains in June and July, and grow at the rate of fully a foot in 24 hours, thus soon reaching to their full height. At the other end of the pond is a still finer example of this species, and many will be seen along the river bank and in other parts of the Garden. Thence, passing the small rockery with succulent plants,—Agaves, Bromeliads, **Caralluma campanulata* with flowers like purple velvet, the "Neyada" (**Sansevieria zeylanica*) affording a first-rate fibre (bowstring hemp), &c.,—the new drive (crossing the line of the old Colombo-Kandy road, which here, before the construction of the satinwood bridge, passed to a ferry) continues near the river bank. In the hollow on the left are varieties, from Trinidad, of the cacao or chocolate tree (*Theobroma Cacao*). These are the kinds called in Trinidad "Forastero" (including "Cundeamar," "Verdilico," and "Cayenne"), and are different from the sort originally and usually grown in Ceylon, of which there are many

old trees in other parts of the Garden.¹ Near these may be observed trees of *Castilloa elastica*, the india-rubber of Panama, and of Para india-rubber (*Hevea brasiliensis*), which affords the most valuable kind. On the river bank are young trees of sandalwood (*Santalum album*) and of two kinds of gutta-percha from Perak (*Payena Leerii* and *Dichopsis pustulata*) affording "Gatah sundek" and "Gatah taban putih," respectively.

On the left hand of the drive (which is planted with Talipot palms to form an avenue in due time) has been laid out a systematic **herbaceous ground** for the accommodation of such annuals and herbaceous perennials of Ceylon and other countries as will grow here. The 48 beds are portioned out among those Natural Orders which are represented in the tropics by species of a herbaceous or dwarf shrubby character. Many pretty and interesting flowers are to be found here arranged under their different families,—perhaps the Order Acanthaceæ is most attractive usually. Here may be found in their places such useful plants as *Piper longum* (Long pepper), *Indigofera tinctoria* (Indigo), *Corchorus olitorius* (Jute), *Nopalea cochinellifer* (Cochineal cactus), **Andropogon Nardus* (Citronella grass), and many others. All are labelled. Passing a small **kitchen garden** arranged round a little **circular tank**, and a plantation of young kola-nut trees (*Cola acuminata*) planted in 1891, the drive terminates in a broad

¹ This goes by the name of the "Old Ceylon Red Cacao," and appears to be of the variety known as "Caracas," and most of that now grown on estates is descended from plants of this sort imported about 1834-35. But cacao was cultivated in the Gardens as long ago as 1819.

oval loop, and the enclosed space, 285 feet across, is devoted entirely to a systematic collection of palms. These are being frequently planted out, and the specimens are as yet mostly young. Some of the most interesting here are *Hyphæne thebaica* (Doum palm of Egypt), *Raphia Ruffia* of Madagascar, *Bactris minor*, *Didymosperma distichum*, *Hyophorbe amaricaulis*, and species of *Euterpe*, *Howea*, *Sabal*, *Thrinax*, &c. About 150 species have been planted in this piece of ground. Round the drive a series of cycads, screw-pines (*Pandanus*, amongst which the gigantic *P. andamanensium* is specially noticeable), agaves, aloes, and bamboos are planted.

At the southern end of the drive a view of the construction of the satinwood bridge on the high road to Colombo (opened for traffic in 1832) can be obtained ; its span is 205 feet.

Carriages must return by the same route to the pond, but a footpath passes to the same point along the upper portion of the garden.¹ This skirts part of the recently formed classified arboretum, and passes the orders *Verbenaceæ*, *Bignoniaceæ*, *Sapotaceæ*, *Araliaceæ*, *Bixaceæ*, *Rubiaceæ*, and *Leguminosæ*. A small tree of *Dichopsis Gutta*, the source of the best sort of gutta-percha ("Gatah taban merah"), is passed on the right. By ascending the hill to the right behind the Director's bungalow a picturesque view will be obtained. Here are planted trees of the orders *Coniferæ*, *Urticaceæ*, &c., and *Agathis alba* of Malaya, affording East

¹ From this footpath are branches, one leading to the high road at a point nearest to the Péradeniya Railway Station, the other a short path to the Director's residence.

India Dammar, and *Podocarpus cupressina* may be specially noticed, as well as several fine species of *Ficus* (*F. Benjamina*, *F. macrophylla*, *F. Vogelii*, &c.).

On regaining the drive by the great bamboos the visitor will continue its course to the left. On the slope to the pond (Q) are fine trees of the Bunya-bunya pine of Queensland (*Araucaria Bidwillii*), and on the opposite side of the pond itself specimens of the Ambash or pith tree of the Nile (*Herminiera Elaphroxylon*), the light pith-like wood of which is used by the natives for floats in crossing that river. Observe also the curious shrubby compositous plant from Brazil, *Stiffia chrysantha*, and on the hill on the right (O) the sandalwood (*Santalum album*), a native of the drier elevated plains of South India, but not of Ceylon; *Grevillea robusta*, introduced from Queensland and now commonly planted in all parts of the Island; and the "Kahata" (*Careya arborea*), a common hard-wooded tree with astringent bark. At the turn of the road the **river bank** is reached. Here is a clump of the very useful "male" or solid bamboo (*Dendrocalamus strictus*), common in South India and Malaya, but not native to Ceylon, though frequently planted. The South American shrub *Petrea volubilis* is extremely beautiful when covered with its copious masses of flowers, the violet-like corolla set in the turquoise-blue calyx. The trees on the bank above the road are the Himalayan cypress (*Cupressus torulosa*), the cedar of Bermuda (*Juniperus bermudiana*), the Moreton Bay pine (*Araucaria Cunninghamii*), and the sacred Champak of India (*Michelia Champaca*) (called "Sapu" by the Sinhalese), the sweet yellow flowers of which

are common temple offerings, and scent the air of the Garden in May when in full blossom. The cactus-like "Daluk" (**Euphorbia antiquorum*), a very common tree in the drier parts of Ceylon, and a native screw-pine (**Pandanus zeylanicus*), will also be noticed here.

After passing between two large old jak trees (**Artocarpus integrifolia*) the carriage should turn off to the right and drive round, skirting the great lawn (G) on the left, and passing on the right (O) trees of Indian cork (*Millingtonia hortensis*) with sweet-scented white flowers, **Cerbera Odollam*, the "Goṇ-kaduru" of the Sinhalese, and cinnamon (**Cinnamomum zeylanicum*), of which there are many old trees about the Gardens. The modest **monument** erected as a cenotaph to Mr. G. Gardner, the Brazilian traveller, Superintendent of the Gardens from 1844 to 1849, may be now visited. A brass tablet bears a Latin inscription to his memory. The broad road leading up to the building is bordered by some magnificent trees, the "Golu-mora" (**Pometia eximia*) ; "Bulu" (**Terminalia Belerica*), with its remarkably buttressed trunk, the fruits (one of the sorts of myrobalans of commerce) valuable for tanning ; "koṭṭamba," or country almond (*Terminalia Catappa*), with grandly spreading branches, and much planted for shade and for its edible seeds ; "nuga" (**Ficus laccifera*), affording an inferior caoutchouc, &c. From the monument (erected 1855), where are seats, pretty views are obtained in several directions.

Before following the straight **monument road** leading hence, the visitor should first inspect (in P) a specimen of the Coco-de-mer, or double coconut

(*Lodoicea Sechellarum*).¹ This extraordinary palm—the fruit of which, found floating on the waves of the Indian Ocean or washed up on the shores of Ceylon and the Maldives, was known for centuries before the tree itself—grows in one or two small islands only of the Seychelles group, where it is now protected. Our plant, which is a male, is now nearly 44 years old; it first flowered in 1890. The growth is extremely slow, a single leaf being annually sent up, and the stem is scarcely yet visible: as this palm attains frequently a height of 100 feet, it must live to a vast age. The nut takes ten years to ripen, and the seed (which is the largest known) a year or longer to germinate.² Near this palm should also be observed trees of *Parkia biglandulosa*, of Malaya, with curious pendulous globes of crowded flowers; Balsam of Peru (*Toluiifera Pereiræ*), which, in spite of its name, comes from Central America; the mammee apple of the West Indies (*Mammea americana*); the calabash tree (*Crescentia Cujete*), the Moreton Bay chestnut (*Castanospermum australe*), and the curious *Inocarpus edulis*, the “ivi” or chestnut of the Pacific Islands.

On either side of the road are Singhalese and exotic trees and shrubs of interest. Attention may be specially called to some fine conifers; *Agathis (Dammara) robusta*, the kauri pine of Queensland, *Agathis obtusa* of the New Hebrides, and *Araucaria Cookii* from New Caledonia. There may be also noticed (in P) the “hal” (**Vateria acuminata*), which affords an excellent copal

¹ A second specimen on the opposite side of this road was unfortunately blown down in a gale in March, 1885.

² Specimens may be seen in the Museum

or white Dammar resin ; the “ Hora ” (**Dipterocarpus zeylanicus*), a characteristic tree of the lower forests of Ceylon, to which it is peculiar ; and the “ Dambu ” (**Eugenia Gardneri*), a handsome example of a very large genus of forest trees remarkable in Ceylon for the beautiful crimson and orange tints of their young foliage. On the left hand side (in G) may be observed a specimen of Paraguay tea (*Ilex paraguensis*), largely cultivated in S. America ;¹ and behind is a fine-foliaged tree, the “ wal-kəkuna ” (**Ostodes zeylanica*), covered in February with sweet-scented flowers.

At the end of this road the visitor finds himself in the main central drive of the Garden. Note the tall Sandbox tree of Tropical America (*Hura crepitans*) just opposite (bed 15), with its singular explosive fruit and very acrid milky juice ; and in the same bed, and completely arching over the road, the “ Divi-divi ” tree of the West Indies and Central America (*Cæsalpinia coriaria*), the pods of which have valuable tanning properties. The shady drive may now be followed on to the left. It is planted on either side with large trees and shrubs of many sorts. Conspicuous ones are *Schizolobium excelsum* of Brazil (12), a tree of singular appearance, very slightly branched, and completely deciduous—there is a very tall specimen of this in the arboretum (D) ; “ Nədun ” (**Pericopsis Mooniana*), a valuable timber tree (13); Yucatan logwood (*Hæmatoxyton campechianum*) (13) ; Surinam quassia (*Quassia*

¹ The other theine-containing plants, besides the coffees, are *Catha edulis* (the Kāt of Arabia), *Paullinia sorbilis* (the Guarana of Brazil), and *Cola acuminata* (the kola-nut of W. Tropical Africa), of all of which there are specimens in the Gardens.

amara) (13); *Posoqueria longiflora* (13) with very sweet flowers; Bolivian coca (*Erythroxylon Coca*) (11), a celebrated masticatory, and the source of an alkaloid with remarkable properties as a local anæsthetic; the teak (*Tectona grandis*) (11), a valuable timber; the Queensland nut (*Macadamia ternifolia*) (11); the velvet tamarind or "gal-siyambala" (**Dialium ovoideum*) (10), the fruit of which is sold in the bazaars; the Brazil cherry (*Eugenia Michellii*), with fruit like a miniature tomato (10); "atambara" (**Fagraea zeylanica*); "bóvitiyá" (**Melastoma malabathricum*), and many others. The beds are bordered by species of *Hippeastrum*, *Hymenocallis*, *Zephyranthes*, *Crinum*, and other tropical amaryllids, backed by numerous *Rubiaceæ*, *Acanthaceæ*, *Scitamineæ*, *Bromeliaceæ*, &c. The palms are chiefly the "Palmiste" of Mauritius (*Dictyosperma alba*) and *Livistona oliviformis* of Java. We next reach an open space with two semicircular flower beds (8 and 9); an extensive view of the great lawn is obtained on the left. The large solitary tree in the centre is the Guango, or Rain tree of South America (*Pithecolobium Saman*), only introduced about 1851, but a rapid grower, and now much planted as a shade tree. A little behind it is a very fine tree of the "Del" (**Artocarpus nobilis*), peculiar to Ceylon and with beautiful foliage.

On the right (behind bed 9) notice a fine hanging creeper from the trees, *Solandra macrantha*, from Cuba; and beneath it plants of a striking species of the cardamom tribe, *Amomum magnificum* (*Nicolaia imperialis*), with large dahlia-like heads of bright pink bracts. Here is the entrance to the **Fernery**, the narrow paths

of which are accessible to pedestrians only. This was laid out in 1861, and though not extensive is well planned and of much beauty. The ground is shaded by lofty trees and watered by numerous little rivulets. Growing or climbing on the trunks of the trees are many plants of interest, *Monstera deliciosa* of Mexico, affording a pleasant fruit, **Raphidophora decursiva*, a great ornament of our jungles, and its near relative *Epipremnum mirabile*—the “Tonga” of Fiji, lately advocated as a remedy for neuralgia. These all belong to the Aroid Order, which is further represented here by many species of *Philodendron*, *Syngonium*, and other climbers, and by a gigantic terrestrial species, *Godwinia gigas*, from Central America, the flower-head of which appearing in December, has an extremely powerful and foetid odour. A climbing screw-pine (**Freycinetia*) is conspicuous, and two climbing ferns (**Acrostichum scandens* and **Lygodium circinatum*). Another climbing fern, **Nephrolepis exaltata*, is very common on the stems of palms in the Garden, especially on the oil-palm. The beds and borders of the water-courses are carpeted with many kinds of ferns, both native and exotic, and other shade-loving plants. Ceylon possesses five species of tree-ferns (**Cyathea*, two, both small, but peculiar to the Island; **Alsophila*, two fine species;¹ and **Amphicosmia Walkerae*), all of which are growing here. What are called “foliage plants” luxuriate in the warmth and moisture—species of *Caladium*, *Maranta*, and *Calathea*, *Heliconia*, *Dracæna*, and *Dieffenbachia*; shrubs like *Medinilla*, and smaller

¹ *Alsophila crinita*, the beautiful tree-fern of the higher elevations, makes however but poor growth at Pérádeniya.

plants belonging to the genera **Impatiens*, **Begonia*, *Fittonia*, **Gymnostachyum*, *Hoffmannia*, &c. Here, too, are many ground-orchids—mostly native species of **Calanthe*, **Acanthephippium*, **Phajus*, **Microstylis*, **Goodyera*, &c.—and several small palms, such as *Raphis flabelliformis* (the walking-stick palm of South China), and species of *Geonoma*, *Chamædorea*, &c.

In the lower part of the Fernery are a few old trees of red bark (*Cinchona succirubra*). These were planted here, among other trees, in 1863, and are from the original seed collected on Chimborazo by Messrs. Spruce and Cross. They made but poor growth in so unsuitable a locality. Pérádeniya is at too low an elevation for cinchona growing, and the bark of these trees has been found to be much inferior to that grown up-country. A small tree of the calamander (**Diospyros quæcita*) will be also found here: this gives a highly valued cabinet wood: the tree is peculiar to Ceylon, was never common, and has now become extremely scarce.

In the ground (I) to the north of the Fernery have been planted many palms and allied plants, and there are some of great size and beauty. Worthy of special notice are *Phœnicophorium seychellarum* of the Seychelles, and species of *Pinanga*, *Martinezia*, *Zalacca*, *Dypsis*, &c. There are specimens of several kinds of screw-pines, including the common sea-shore species, **Pandanus odoratissimus*, with its handsome scarlet-orange fruits, and the much taller *P. furcatus* of India with very long drooping leaves. The well-known traveller's tree of Madagascar (*Ravenala madagascariensis*) is not a "palm," but allied to the plantains.

Notice here, also, several fine Cycadeæ, especially a handsome specimen of *Macrozamia Peroffskiana* from Queensland, and many rattans (**Calamus*)—climbing palms which make their way up to the summits of the tallest trees by their long tendrils closely set with grappling hooks. Their stems may attain a length of several hundred feet, and are the canes of commerce; nine or ten species are found in Ceylon.

The carriage and main drive may now be resumed. The road to the left leads to the Museum and to the Herbarium and Library, which may be now visited.

The **Museum** consists of four rooms, of which I. and II. are principally occupied by a large series (about 300) of the woods of Ceylon, cut into blocks 15 in. high, and prepared so as to show vertical, transverse, and tangential sections, the bark being also retained. On or by the walls are a collection of planks showing the native woods of the Pasdun kóralé, Western Province, a number of bamboos, and large blocks of choice timbers, among which are to be specially noticed, ebony (*Diospyros Ebenum*), calamander (*Diospyros quæsitæ*), and satinwood (*Chloroxylon Swietenia*). Room III. contains various other vegetable products of Ceylon, both native and cultivated, consisting of food-products, drugs, and economic substances, such as gums, resins, oils, fibres, &c., also a series of botanical specimens, fruits, stems, &c. (dry or in spirit). Room IV. (at present only partially arranged) contains botanical specimens and products from other countries than Ceylon.

The office of the Director and the **Laboratory** for botanical research open out of the timber rooms.

The **Herbarium**, a necessary part of a Botanical Museum, contains the collections of dried plants, mounted, classified, and arranged in cabinets for reference, comprising : (1) the Ceylon Herbarium, very complete, containing specimens from all parts of the Colony, and a large series of duplicates for distribution ; (2) the General Herbarium, which contains specimens from other countries (mainly Indian and Malayan) for comparison ; (3) the Garden Herbarium of specimens cultivated in Pérádeniya or other places in Ceylon.

The **Library** is kept in the same building as the dried plants. It is extensive and valuable, containing many rare and costly botanical books, and a large series of original coloured drawings of Ceylon plants, the work of the draughtsmen attached to the Gardens.¹

The Herbarium and Library are open to students and others only on special application to the Director.

Returning to the main drive, the road to the right, called the **Bat Drive**, is a picturesque road through park-like woodland to the river bank. Keeping to the main centre road, on the right (bed 4) are trees of the "kóp," or Ceylon oak (**Schleichera trijuga*), *Parkia Roxburghii* of Assam, *Saraca declinata* from Sumatra, *Wendlandia paniculata* from Assam, &c. ; on the left may be seen (bed 3) the Nux-vomica tree, or "godakaduru" (**Strychnos Nux-vomica*), with globular orange fruits containing the flat poisonous seeds, the curious candle tree of Central America (*Parmentiera*

¹ Some of these are in course of publication as illustrations to the Director's "Handbook to the Flora of Ceylon" (London : Dulau & Co., Soho Square, W.).

cereifera), the pendulous fruits of which are precisely like an old-fashioned tallow candle, its near ally *Colea floribunda* from Madagascar, and a large tree, *Albizzia procera*, from India.

Here the visitor reaches the Great Circle, an extensive expanse of turf, the centre of which is occupied by a grove of palms (2) similar to that at the entrance to the Gardens. The tallest palm in this group is a well-grown tree of the Macaw palm of Brazil and the West Indies (*Acrocomia sclerocarpa*), with a very prickly stem, and nuts which afford abundance of oil. A plant of the vegetable ivory palm of Central America (*Phytelaphas macrocarpa*) will also be found here, and many other palms, as *Corypha Jenkinsiana*, &c. There are many beautiful and interesting trees by the drive round the circle. The native "muruta" (*Lagerstræmia Flos-reginæ*) is surpassed by few when profusely covered with its large mauve-pink blossoms; another indigenous tree, the "del" (*Artocarpus nobilis*), has strikingly handsome foliage; the "goraka" (*Garcinia Cambogia*) yields bright orange or yellow fruits usually grooved like a tomato, and often of very good flavour, though inferior to those of the mangosteen; and *Spathodea campanulata* from Western Tropical Africa is very showy when crowned with its brilliant orange-scarlet flowers. On the eastern side of the circle are several memorial trees which have been planted by royal personages who have visited Pérádeniya. In the centre is a "Bo" tree (*Ficus religiosa*), which was planted by the Prince of Wales during his visit to the Gardens in December, 1875. This is the sacred tree of the Buddhists, always planted near their

temples, and is the "Peepul" of India.¹ There are many in the Gardens. To the right of this is a "Ná," or iron-wood tree (**Mesua ferrea*), planted by the Tsarevitch of Russia, February, 1891, and to the left a "diya-ratmal" or "asoka" tree (**Saraca indica*), planted by Archduke Franz Ferdinand of Austria, January, 1893. Further off is a *Brownea grandiceps* planted by Prince George of Greece in February, 1891. On the elevation behind is a little memorial building with seats, containing a brass to Dr. Thwaites, Director of the Gardens from 1849 to 1880. It is in the Kandyan style of architecture, and was erected in 1885.

Our route follows the short straight road to the left from the circle, leading again direct to the river bank. Before reaching this, notice (G) two of the finest trees in the Gardens—one a noble specimen of **Ficus Trimeni* (a sort of banyan, and closely allied to *F. elastica*), which symmetrically covers a circle of ground over 200 feet in diameter; the other a magnificent example of the Indian and Malayan *Pterocarpus indicus*, which affords a fine timber, and is known in Burma as "Padowk." By the short road may be observed on the left the "mí" (**Bassia longifolia*), with edible flowers and remarkably oily seeds, and the "malabodde" or wild nutmeg (**Myristica laurifolia*); on the right are trees of the Assam magnolia (*Magnolia sphenocarpa*), the elegant "pihimbia" (**Filicium decipiens*), and further off an immense tree of *Ficus*

¹ The sacred Bó tree at Anurádhapura, the ancient capital of Ceylon, is the oldest historical tree in the world, having been planted 288 B.C.

altissima, the uppermost branches of which are sometimes occupied during the day by a number of the large fruit-eating bats or flying foxes (*Pteropus Edwardsii*). Another, perhaps, more striking specimen of a closely allied *Ficus* (**F. laccifera*) is seen on the left by the river road.

The **Outer Drive** thus again reached may be continued round the northern end of the Gardens for over half a mile. The road is shaded throughout by large trees, many very old, and either part of the original jungle or planted before the formation of the Gardens. The large number of "sapu" or "champak" (*Michelia Champaca*) and "kananga" (*Cananga odorata*), neither of which are native to Ceylon, is remarkable; the latter affords by distillation of its flowers the scent called "Ilang-ilang." Among these have been planted a very large number of other and rarer species. Along the river bank the visitor will notice several sorts of bamboo, the wild "una" (**Bambusa vulgaris*, var.), with its bright golden-yellow stems, being the most abundant; also species of *Pandanus* (*P. furcatus*, *P. dubius*, *P. labyrinthicus*, and others) and many palms both planted and self-sown. The festoons and ropes of vines, lianes, and creepers, often strangely knotted and twisted together, and stretched across from tree to tree, will also attract attention; these are mostly plants of the Natural Orders *Menispermaceæ*, *Ampelideæ*, *Apocynaceæ*, *Bignoniaceæ*, and *Leguminosæ*, the native "pus-wel" (**Entada scandens*) is one of the largest, and **Anodendron paniculatum*, the "dul" of the Sinhalese, the most abundant. In this part of the Garden much is left to Nature, whose luxuriance,

however, has to be somewhat pruned and kept in check. The smaller creepers growing round every tree are principally¹ Peppers (**Piper nigrum* and **P. argyrophyllum*) and the singular **Pothos scandens*; on the stems grow several parasitic species of *Ficus*, while pendulous from the branches of old mango and other trees may be observed tufts of the curious leafless **Rhipsalis Cassytha*, a plant of peculiar interest to the botanist, as being almost the only species of the great Cactus Order found in an indigenous wild state outside of the New World. A good many wild epiphytic orchids are also to be found on the trees, but they bear for the most part inconspicuous or small flowers, as is the case with the majority of the orchids of Ceylon.

At a short distance along the road a gap in the bamboos gives a pretty vignette view of the satinwood bridge and a long stretch of the river. The opposite shore is the estate of Gangarooka, of interest as being the first on which coffee was systematically planted and cultivated, about 1823.² The northern point of the Garden is soon reached, and the drive following the river bank is continued eastward for some distance. Advantage may be taken of the roads and footpaths which turn off from the right of the drive to explore the forest-like **arboretum** (A, B, C, D, E, F, on Plan), which includes a great variety of trees and shrubs, palms and climbers, from all parts of the tropics, planted, without order, amongst the old indigenous trees. The Bat Drive (see Plan) is especially pretty; it

¹ Not to be confounded with the so-called Pepper tree (*Schinus Molle*), so commonly cultivated in the Mediterranean region.

² Coffee was introduced to Ceylon by the Dutch about 1690.

conducts the visitor back to the central main drive, passing the Thwaites Memorial already noticed.

The river road at length reaches and passes through an avenue of royal palms (*Oreodoxa regia*), planted about thirty-nine years ago ; between their smooth column-like stems are seen on the left some old cacao or chocolate trees (*Theobroma Cacao*), and on the right (H) fine specimens of the Gomuti or sugar palm of Java (*Arenga saccharifera*) and other palms, the traveller's tree (*Ravenala*), &c. Further off is a small example of the Tropical African Baobab (*Adansonia digitata*), which thrives well in the dry north of the Island, but not here. Much the same may be said of the "Tal" or Palmyra (*Borassus flabelliformis*), of which a tall specimen stands close by.

Turning to the right at the end of this avenue will be seen a few plants of old China tea (*Camellia Thea*, var. *chinensis*).¹ This sort is but little cultivated, a cross (introduced here in 1868) between it and the larger-leaved kind native to Assam being much preferred ; of this, a plantation made in that year will be found in F, close to the Thwaites Memorial. On the left hand (in L), climbing over an orange tree, is a plant of *Strophanthus hispidus* from W. Trop. Africa, affording a valuable remedy for heart-disease. Further on (in H) is a tree of the mangosteen (*Garcinia Mangostana*), a Malayan fruit well known and much esteemed, and successfully cultivated in many parts of the

¹The tea plant was grown in the Gardens in 1824, but was not cultivated for use till fully twenty years later, and tea was not made for sale before 1872. The quantity exported in the year 1892 was over 71 million pounds.

south-west of the Island. The fruit is ripe here in August. Of the tamarind (*Tamarindus indica*), abundant and half-naturalized in Ceylon, there is a tree almost opposite. Near here, also, will be noticed three kinds of india-rubber trees, introduced from South America in 1876 at the expense of the Indian Government. The branched tree with papery bark (*Manihot Glaziovii*) affords the Ceara rubber, and is now common in Ceylon. The large-leaved trees next to them are *Castilloa elastica* (already mentioned), yielding Central American and Panama rubber. The other (*Hevea brasiliensis*), giving Para rubber (also already alluded to), and esteemed the best sort, is represented by the group of slender-stemmed unbranched trees with small heads at a little distance off. The climate of Pérádeniya is not quite hot enough for this last species, which grows better at a lower elevation. All these have afforded in Ceylon rubber of as good a quality as in their native countries. In the same ground some "Cassia lignea" trees from South China (*Cinnamomum Cassia*), received in 1882, are planted. The straight central path through this ground leads back to the Fernery; it has recently been planted on either side with Palmyra palms (*Borassus flabelliformis*), to form an avenue, but this palm does not flourish here.

Carriages should go back to the outer drive at the end of the *Oreodoxa* avenue, and continue to the right along the river bank. Some distance off, on the right, will be observed a fine row of tall trees, to which a footpath leads; these are the Java almond (*Cannarium commune*), with edible seeds, and affording also

an odorous resin ; the narrow buttresses to the stem are remarkable. Close to the road on the right are some trees of the pyramidal “ ná,” or Ceylon ironwood (**Mesua ferrea*), equally to be admired for its ornamental form, its useful timber, its beautiful and sweet-scented flowers, and the young leaves which, at first brilliant blood-red, gradually pass into the deep green above and white beneath of the adult foliage. On the river side is noticeable the red cotton tree or “katu-imbul” (**Bombax malabaricum*), one of our few deciduous trees : it is a striking object in January and February, when bare of leaves but covered with handsome scarlet flowers. The cotton covering its seeds is short, but is largely used as stuffing of pillows and cushions, and is exported to some small extent. Close to the river are trees of the candle-nut or Otaheite walnut (*Aleurites triloba*), a native of the Moluccas, &c., but much planted about Ceylon villages for the oil (“kəkuna-tel”) expressed from the seeds. The nettle-like plant, of which several beds will be noticed here and elsewhere, is the Rhee of India and China (*Boehmeria nivea*), affording the fibres known as Ramie and “China grass”; it has become a weed in the Gardens. On the right may be seen plants of the Cubebs pepper (*Piper Cubeba*) from Java, and further on, in a small artificial swamp, are a number of true sago palms (*Metroxylon Sagu*) from Borneo (sago is the food of the people in many of the Malayan Islands), and some plants of the vegetable ivory (*Phytelaphas macrocarpa*). A fine talipot palm (**Corypha umbraculifera*) stands behind these. This is the largest and handsomest of our native palms, and flowers but once

—after attaining its full height and at an age of between forty and fifty years. Beyond are nurseries. A row of cannon-ball trees (*Couroupita guianensis*) flanks the road on the right hand, and a large tree on the left of the drive is **Ficus asperrima*, called “sevanamediya,” the rough leaves of which are generally used by cabinet-makers for polishing, like sandpaper in Europe. A small plantation of vanilla (*Vanilla planifolia*) is close by, and another of Sisal hemp (*Agave rigida*, var.) from South Mexico—a valuable fibre plant.

The road now curves upwards away from the river to the right, passing under truly magnificent specimens of the South American Guango or Rain tree (*Pithecolobium Saman*), already noticed. In strange proximity to these, on the left hand (M), are some spindly gum trees from Queensland—one of them, *Eucalyptus citriodora*, with sweet-scented leaves. *E. alba*, from Timor, also here, is one of the very few species known to be native outside of Australia, and does well. Few of the Eucalypts can be induced to grow in the hot and humid climate of Pérádeniya; in the hills, however, numerous species have been introduced. Some way further on, on the right (L), the graceful “dún” (**Doona zeylanica*) should be noticed,—it yields a good resin,¹—and on the left a tree of *Hardwickia pinnata*

¹ There are eleven species of *Doona* known, all of which occur in Ceylon only; most of them are growing in the Gardens. The genus belongs to the Natural Order *Dipterocarpeæ*, especially characteristic of the Malayan region as separate from the Indian; and one of the most remarkable features of the Ceylon flora is the large number of species of this Order found here—46 in all, of which 45 are peculiar to the Island. Only 17 species occur in the whole of Peninsular India.

of South India, also yielding a gum-resin. The next objects of interest are two gigantic fig trees, *Ficus elastica*, the same species as at the entrance, and finer trees. The footpath to the right, with a magnificent specimen of *Pandanus Leram*, the "breadfruit" of the Nicobar Islands, at the corner, passes through an orchard where are old plants of several tropical fruit trees,—as the rambutan (*Nephelium lappaceum*) of the Malayan Islands; the sour-sop (*Anona muricata*); the Santol (*Sandoricum indicum*) of Malaya; the breadfruit (*Artocarpus incisa*); guavas of several kinds (*Psidium*); the sapodilla of Tropical America (*Achras Sapota*); the alligator pear (*Persea gratissima*); the Nam-nam (*Cynometra cauliflora*), &c. Notice here also one of the climbing india-rubbers of East Africa, *Landolphia florida*.

Close to the road on the right stands the **Conservatory**, constructed so as to allow free entrance to rain, but keeping out wind and admitting only chequered sunshine through a roof composed of wire and coir netting. A large collection of ornamental plants, especially orchids, is displayed here in pots and hanging baskets, the orchids being the principal attraction. We possess about 350 species, mostly obtained within the last few years from the European growers. The native Ceylon kinds are, with a few exceptions, inconspicuous, and little cared for by amateurs. Many sorts will be missed here, for our climate does not allow of the cultivation of "cool" orchids or of such as need a very high temperature. One path leading from this house goes down to the Fernery (see page 19), the other to the Octagon House (see below).

A small circular tank with a fountain in the centre (21) is next reached ; the road round it is shaded by large trees, among which are the "Liyan" (**Homalium zeylanicum*), an excellent timber, *Clusia rosea* of the West Indies, &c. A striking object here (in N) is a wide-climbing liana of India and Ceylon (**Bauhinia anguina*), its stems fashioned like a chain cable. Seats are placed here.

The footpath leading hence (through K) will take the visitor back to the Fernery, through the new **Octagon House**, erected in 1893, and intended, when finished, to accommodate large plants with ornamental foliage. It is constructed in the same manner as the smaller Conservatory. Notice also (in K) the date-plum of Jamaica (*Chrysophyllum oliviforme*), a poor fruit ; the ordeal plant of Madagascar (*Cerbera Tanghin*) ; the chaulmoogra of India (*Gynocardia odorata*), yielding a valuable remedy for leprosy ; *Styrax Benzoin* from Sumatra, which affords the fragrant gum-resin known as "Gum Benjamin," and much used in incense ; *Strychnos Ignatii*, "Ignatius' Bean," from Manila, one of the sources of strychnine, *Phœnix Sylvestris*, the common wild date of India, with a small barely edible yellow fruit, *Averrhoa Carambola*, with pendulous acid fruit ; and other useful species. Some beautiful palms will attract the attention here, of which the Alexandra palm of Queensland (*Archontophœnix Alexandræ*) is as specially graceful as befits its name. On the trellisses placed here are grown a number of the smaller climbing plants, several species of *Ipomœa*, *Aristolochia*, *Asclepiadeæ*, &c.

Taking the road from the circle by the large *Ficus*

elastica, a few yards bring us to a **glass-roofed Conservatory**, in which are kept such plants in pots as it is desirable to protect from much rain, seedlings, &c. The contents of this house vary from time to time, but there are usually some interesting plants recently received from other Botanic Gardens, orchids in flower, &c.

Close to this is an older **Fern-house**, devoted to ferns in pots, and another which contains pot-plants for sale. The **rockeries** (20) close by will reward examination, being filled with numerous ferns and foliage plants, bromeliads, aroids, ground-orchids, &c., and in the drier months the **Flower-beds** near are gay with showy annuals.

The **Clerk's Office**, where information can be obtained and purchases made, is also here. (See page 37.)

A short shady footpath (through N) takes the visitor back to the entrance gates (carriages must make a little round by the road). Observe at its entrance the "diyaratmal," or Asoka tree (**Saraca indica*), with its copious masses of sweet-scented orange-red flowers. The dark evergreen trees meeting overhead are old nutmegs (*Myristica fragrans*); the well-known fruits are produced here through nearly all the year, and few objects are prettier than a ripe one when the yellow leathery rind has split naturally and half exposed the dark brown seed enveloped in the brilliant scarlet meshes of the "mace": to get at the kernel or nutmeg itself the hard shell of the seed must be broken. The taller trees are cloves (*Eugenia caryophyllata*) and Jamaica allspice (*Pimenta officinalis*), and one tree of the less

known spice called the Madagascar clove (*Ravensara aromatica*).

The end of this footpath brings the visitor again to the palm grove at the entrance first described, thus completing the circuit of the Gardens. On the right should be specially noticed a fine specimen of the *Amherstia nobilis*. This species, already mentioned, was introduced in 1860, and is usually in blossom, but especially profuse of its pendulous racemes of great bright pink and yellow flowers from December to March. At the left corner of the path may be noticed a pretty palm, *Chrysalidocarpus lutescens*, from Mauritius, and towards the gate another—a well-known one—from Queensland, *Archontophoenix Cunninghamii* (the *Seaforthia elegans* of gardens).

BRANCH GARDENS.

THE Director has also under his charge, as adjuncts to the Pérádeniya Gardens, four smaller branch establishments in different climatic districts of Ceylon.

Hakgala Gardens are situated at an elevation of about 5,800 feet, six miles to the east of Nuwara Eliya on the road to Badulla. They were opened in 1860 as a cinchona nursery. The climate is rather wetter than Pérádeniya, the average rainfall being about 91 in., falling on about 204 days, but much cooler; the average mean temperature is about 61°, and very equable, frost being unknown, and admits of the cultivation of numerous European and Australian plants, and those of tropical mountain regions. The situation of these Gardens is extremely beautiful.

Henaratgoda Garden is a completely tropical one, scarcely above sea-level, and in a wet steaming climate which varies little. It is about three-quarters of a mile from the Railway Station of the same name on the Colombo-Kandy Railway. Many of the plants grown there flourish with far greater luxuriance than at Pérádeniya, and others can be cultivated there only. Here may be seen growing, pepper (*Piper nigrum*), gambir (*Uncaria Gambier*), kola-nut (*Cola acuminata*), a large plantation of Para rubber (*Hevea brasiliensis*), mangosteen (*Garcinia Mangostana*), a flourishing young coco-de-mer (*Lodoicea sechellarum*) planted in 1884, and many other interesting tropical species. It

was opened in 1876 for the accommodation of the newly-introduced india-rubbers from South America, and is thirty-nine acres in extent.

Anurádhapura Garden.—This small garden was established in 1883 at the ancient capital of Ceylon, 90 miles north of Kandy (74 from Mátalé), in a district which possesses a hot dry climate with a short rainy season, more like that of the Carnatic or Coromandel Coast. Only 54 in. of rain fall in the year, and of this more than half during the last quarter ; and the average mean temperature is over 80°. Here many tropical plants and crops which are intolerant of continuous and excessive atmospheric moisture can be cultivated with more success than at Pérádeniya.

Badulla Garden.—This was commenced only so recently as 1886, and is situated at the capital town of the Province of Uva, in the eastern part of the Island, at an elevation of 2,200 feet. The climate here is somewhat drier than on the western side of the hill region, the rainfall being less than 80 in. annually, and the average mean temperature about 73° F.

**PRICE LIST OF PLANTS AND SEEDS AT THE
ROYAL BOTANIC GARDENS, PERADENIYA.**

Applications for the purchase of Plants or Seeds (for cash only) should be made at the Clerk's Office in the Gardens, or by letter (accompanied by remittance) addressed to "The Director," to whom all orders and cheques are to be made payable.

PLANTS.

<i>(In Bamboo Pots; delivered at the Gardens or at Peradeniya Railway Station.)</i>		Per Dozen.
		Rs. c.
Palms, Ornamental Trees, Fruit Trees	...	2 40
Conifers	...	6 0
Flowering Shrubs, Pot Plants, Foliage Plants, Creepers, Ferns, &c.	...	2 0
Bulbs and Tubers	...	1 0

SEEDS.

<i>(Free by post in Ceylon.)</i>		Per Packet.
		Rs. c.
Palms—Packet of 24 sorts	...	6 0
Herbaceous Garden Plants—Packet of 24 sorts	...	1 0
Fern-spores—Packet of 48 sorts	...	4 0

WARDIAN CASES containing 40 assorted Plants, packed for export	...	40 0
CLOSED BOXES containing 20 different Ceylon Orchids, packed for export	...	12 50

The Gardens do not sell *English* Vegetable or Flower
Seeds or Cut Flowers.

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