

#

TIMBER TREES

OF CEYLON.

BY MUDALIYAR MENDIS.

WITH NOTES ON THEM

BY

W. FERGUSON, F.L.S.

COLOMBO:
"CEYLON OBSERVER" PRESS.

1881.

TIMBER TREES OF CEYLON.



1. අළුවෙස්.—Alubō, *Eugenia Sylvestris*, Moon, Fl. Brit. Ind. 2, 493. No. 79, C. P. 2862. This is one of the largest trees of this order growing in Ceylon, and common in the Western Province, but it is not esteemed as a valuable timber, though used for house building. A cubic foot of it weighs about 50 lb., and is said to last about 20 years. It is well known by its Sinhalese name, under which Moon Cat. 39 gives it as *Calyptranthes Jambolana*, whilst the *Eugenia sylvestris*, Moon Cat. 38, is the Wal-jambu, and is therefore the *Eugenia aquea*, Burm. Wight, however, in his Illustrations, ii, 15, and Icones t. 532 quotes Moon's notes on the Herbarium specimens of the Alu-bō, misnamed *E. sylvestris*, but the blunder cannot now be corrected, and Moon's herbarium name must stand.

2. දෙඳ.—2, 21 and 67. Del, *Artocarpus nobilis*, Thw. En. 262, Ferg. 246. Bed. t. 309. All these apply to the same plant, and if the timber differs it must be accidental and caused by the soil in which the trees grow. This is the *A. pubescens*, Moon's Cat. 61, but not of Willd. It is confounded with this tree and therefore called by the same Malabar name, "Angeli," but the Del-gaha is peculiar to Ceylon. This is a magnificent tree common in the Western, Southern, and Central Provinces up to 2,000 feet, and found often with a diameter of 3 to 4 feet. Its timber is in great request for backs and shelves of almirahs, for common almirahs, and fishing canoes are made out of single trees hollowed out. Old specimens of this wood are easily mistaken for that of Nædun. 24 inch bars one inch in diameter took from 264 to 356 lb. to break them. A cubic foot of the wood weighs from 40 to 50 lb. The wood is valuable and durable, but not a strong one.

3. අඳුර.—Andara, *Dicrostachys cinerea*, W. and A. Fl. Brit. Ind. l. c. 288. Ferg. 231. Vudthal or Vuduthal or Vudutala-maram, Tamil. The dried specimen for No. 3 in Mendis's list, is certainly for this plant, and not for "*Vachelia farnesiana*." It is a small crooked tree most abundant in Jaffna. In cutting boundaries through jungles of it I have often nearly despaired of ever getting them finished. It is a hard, heavy, and dark colored wood, and Mudaliyar Mendis related to me the particulars of an old village game called "*Horn Pulling*," illustrative of the fact that this is perhaps without exception the toughest wood in Ceylon.—See "*Murraya exotica*," and "*Heritiera littoralis*."

4. අරමන.—Aramana, *Cassia Siamea*, Lam. Fl. Brit. Ind. l. c. 264. Ferg. 231. Bed Fl. Syl. t. 179. This tree is the Aramana or Waa, of the Sinhalese, and the Manje-konne, Tamil. It is confounded in Ceylon with the *Cassia Timorensis*, which is a mere shrub or very small tree, and produces no timber. The Aramana has been hitherto given as the *C. florida*, and *C. Sumatrana*, but Lamarck's is the oldest and has been therefore restored. As an ornamental avenue, and timber tree it is well known in Ceylon, and elsewhere in India, but its very great abundance along a large portion of the Railway route from Colombo to Rambukkana, and its caloric powers, have proved it one of the most useful fuel trees in Ceylon, as its use for fuel on the Railway greatly assisted in making our Ceylon Railway one of the best paying lines in the world. It is easily recognised along this route by its large terminal panicles of bright yellow flowers. The wood varies in color from dark brown and streaked to nearly ebony black, but it rarely exceeds one foot in diameter, and is apt to contract and expand with the weather, and after a time displays open joints. It is rather a coarse grained wood and is used for various purposes besides ornamental work. A cubic foot of it weighs unseasoned 68 to 70 lb. and when seasoned 58 lb., its specific gravity being .928.

5. බේරිය.—*Bēriya*, *Lumnitzera racemosa*, Willd. Fl. Brit. Ind. l. c. 452. Ferg. 232. Bed. Anal. Gen. 103. t. xxi. This is a small tree and affects the same places as the mangroves, such as the salt marshes and tidal backwaters, and is common to Ceylon, various parts of tropical Asia, and Australia. The wood, though of small size, is remarkably strong and durable and is in use for posts, house building, anchors for country vessels, and fuel. A cubic foot of it weighs about 60 lb.

6. බාදාදොඹා.—*Baḍa-doṃba*, *Eugenia operculata*, Rox. C. P. 2801 Fl. Brit. Ind. l. c. 498. Ferg. 233. This is a common tree in the Western Province and other parts of Ceylon up to an elevation of 3000 feet. It is widely distributed in various parts of Asia and under various forms and many different names. A cubic foot of its timber weighs about 45 lb. and is used for house building and agricultural purposes.

7. බෙලිපත්තා.—*Beli-pattā*, *Hibiscus tiliaceus*, Lin. Fl. Brit. Ind. l. c. 1, 343. Bed. Anal. Gen. xxix. Ferg. 226. A small much branched and spreading tree, very common in swampy places and on the banks of rivers in Ceylon and as fences, and in various parts of India, and the tropics of both hemispheres. It is one of the best protections against the floods which sweep along our Ceylon rivers, on the banks of which it grows in dense osier-like groves. Ropes, cords, and fine mats are made from the fibre of the bark; the tree abounds with mucilage, and in the West Indies the bark is sucked in times of famine. The timber is too small to be of much use, and is said to be soft and valueless. It is very commonly used for fences in damp places and cuttings of it grow with the greatest facility.

8 & 52. බුරුත.—Buruta, Chloroxylon Swietenia, D. C. Fl. Brit. Ind. l.c. 1, 569, Bed. Fl. Syl. t. 11. Satinwood, and Flowered Satinwood, Mutheri. Tamil in Ceylon. This is one of the best known and most abundant of the useful timbers and fancy woods of Ceylon. It is found chiefly in the North Western and Eastern Provinces especially at Trincomalee and Batticaloa, where very large logs of it can be procured, but owing to its weight and the small size of the vessels employed in the coasting trade, the large sized logs have to be cut up to enable their easy transport. From a list of the principal descriptions of timbers used in construction by the Public Works Department, shewing the results of experiments on their transverse strength, &c., made in 1863, the following results are given for two sets of specimens. The results were obtained in the first instance from 10 pieces one foot long by one inch square. The breaking weights were 485 lb. lowest, 818 lb. highest, 618 lb. mean, deflection before breaking .50 inch; weight per cubic foot 66 lb. These specimens were taken from trees grown in the Eastern Province. Some of them were defective. Mean breaking weight of the best, 710 lb.; and 700 lb. may be considered a safe average for good timber. Bears exposure well, and can be had in logs of 20 feet in length by 5 or 6 ft. in circumference. In the second set 12 pieces were used and the lowest broke with 840 lb., the highest 1,320 lb., mean 1,069, deflection .33 inch, taken from trees grown in the Northern Province. Only four of the twelve specimens broke with a strain under 1,000 lb.; they were generally free from defects; but were selected at random. Timber of large dimension not procurable from the North. Flowered Satin is purely accidental like Bird's Eye Maple, Birch, &c., and is rare compared with the ordinary variety.

Both are used for doors, window frames, ceilings, and all parts of house building and for furniture, but are hard and heavy and very difficult to work. The color is a beautiful straw, but turns darker on exposure.

9. කෘමාල.—Kaḍol, Rhizophora Conjugata, L.in. C. P. 1968 FL Brit. Ind. 2, 436. This is one of our very common Mangroves and the following remarks from my list of Ceylon Timber trees contain nearly all that can be said about the uses of these trees. The timber is seldom or never used if any other can be had. Of this order, the genera Rhizophora, Bruguiera, Kanilla, and Ceriops form the chief plants composing the Mangroves which affect the sides of the salt marshes all round the island. The timber of some is used in common house building and the barks of others are the chief ingredients in tanning country leather.

10, 54 & 78. මිලිල.—Milila, (properly) Vitex Altissima, Lin. fil. Ferg. 243. Bed. Fl. Syl. t. 252. Katumanak, Tamil, in Ceylon V. alata, arborea, &c.? Kaatmilla, T. Mail eloa, Malayalam, Rheede 5 t. 1. A common tree up to an elevation of 3,000 feet. When growing separately or in low jungles, its timber is much curved. It is a common

forest tree and there its timber is straight. This is one of the best timber trees of Ceylon, and no one is better known and applied to more useful purposes, where a hard, tough and durable wood is required. The above Sinhalese, Tamil, Malayalam, and other native names like them in sound, go far to show that they had one origin; and though the tree is abundant in the forests of Southern India, and frequently alluded to in lists of timber trees, strange to say it is scarcely used for any economical purpose. The woods known in Ceylon as Kaha (yellow), Sapu (light), and Mi-an (buffalo's horn) Millila, are simply varieties of this timber having the colors and qualities indicated. The following are the results of experiments made with 10 specimens of 12 inch bars, one inch square, of this wood, by the Public Works Department in 1863: lowest breaking weight 680 lb., highest 765, lb. mean 714 lb, deflection .50 inch, weight per cubic foot 69 lb. specific gravity 1.008. It has all the advantages of Satinwood with the additional one of resisting decay longer underground. It belongs to the same family (Verbenaceae) as the famous Teak tree.

11. කඵයාල.—Kalukiyala, the specimen of leaf only is not that of *Butea*. The native name is evidently a mistaken one and the plant cannot be identified.

12. කඵඳ, දිසා.—*Kalu-mædiriya*, *Diospyros quaesita*, Thw. En. 180, C. P. 3010. Bed. Ic. t 128. Ferg. 237. "*D. hirsuta*," Moon, Cat. p. 74 as to the English and Sinhalese names. *Kalumædiriya*, S. Saffragam, Moon. Sinharaja and other forests between Ratnapura and Galle. This species produces the most valuable of the timber known as Calamander-wood so much esteemed for ornamental cabinet-work. I regret that my specimens are too imperfect to allow of my giving so full a description as would be desirable of this interesting plant, which is nearly allied to "*D. crumenata*," but its longer leaves and fruits, and its pentamerous flowers, will distinguish it. Thwaites.

N.B.—I recollect reading in 1849 a very interesting account by Mendis Mudaliyar of the mode of procuring Calamander-wood and the fact that the variegated part so much in request is an accidental product of the tree, some trees producing none of it, some near the lower part of the trunk, whilst in others it is found only near the middle of the trees, and generally not in luxuriant trees growing in rich soil, but in those growing in dry rocky ground. These remarks apply to several of the trees producing variegated or ornamental woods, such as the Tamarind, in which the beautiful Calamander-like wood is found only in very old trees, and generally in the heart of the lower part of the trunk, or in the roots; and the differences of soil, climate and situation have such an effect on the timber of the same species of tree, that unless these facts are taken into account respecting the specimens used as tests, the tables of strength, weight per cubic foot, specific

gravity, &c. &c. are not to be depended upon. Again, the times of felling, mode of seasoning, &c. should also be taken into account.

The following is taken from the "Library of Useful Knowledge":—"Calamander wood.—This is a very beautiful wood of this name growing in the Island of Ceylon, which, when wrought into furniture, surpasses, we think, in appearance any other we ever saw. We are surprised that it is not regularly imported into this country: all that is here has been brought over by private gentlemen, returning from that Colony, for their own use. The wood is very hard and heavy, and of singularly remarkable variety and admixture of colours. It is very difficult to describe this—nay, impossible to convey to those who have not seen it an idea of the manner in which the shades run into one another. The most prevailing of these is a fine chocolate colour, now deepening almost into absolute black, now fading into a medium between fawn and cream colours. In some places, however, the latter tint is placed in more striking, though never quite in sudden contrast with the richest shades of the brown. The variations are sometimes displayed in clustering mottles, sometimes in the most graceful streaks. There is not, however, anything in the least gaudy or fantastic in the general result. It certainly arrests the eye—but it is for the rich beauty of the intermingled colours, not from any undue shewiness. Thus illustrating the meaning of the Sinhalese name *Kalumædiriya*, *Kalu*—black, and *mædiriya* in the middle spotted or stripped. This wood takes a very high polish. It is wrought into chairs, and particularly into tables. Nay, we have seen large folding doors made of it. The late Governor of Ceylon, Sir Robert Brownrigg, brought over very large quantities of this remarkable product of that country; and, in some additions he has made to his house in Monmouthshire, he has had the doors of his dining-room constructed of Calamander. The effect is peculiarly happy."

13. කළුඳු.—*Kaluwara*, *Diospyros Ebenum*, Retz. Thw. En. 180 C. P. 1912. Bed. Fl. Syl. t. 65. Ferg. 237-8. This valuable tree is not uncommon in our mountain forests on both sides of the presidency of Madras and in Ceylon; it yields the best kind of ebony, generally jet-black but some times slightly streaked with yellow or brown it is very heavy, close and even grained, and stands a high polish; unseasoned it weighs 90 to 100 lb. the cubic foot, and 81 lb. when seasoned, and has a specific gravity of 1.296.

Acha-marum, *Karungaly*, and *Charamarum*, T. are the names given to this, or some of the other trees which produce Ebony. "Not uncommon up to an elevation of 5,000 feet. This tree yields the best kind of Ebony-Wood." Thwaites. Ebony like Ironwood of different kinds, is procured from several trees, and in several parts of the world. The late Dr. Roxburgh in writing about this tree remarked:—There are many species of this extensive genus, ("Diospyros,") which yield

a hard, black wood. I mean, pure intensely black (not variegated,) to all of which we give the general appellation Ebony; my "D. Melanoxylon" is one; this one a second; Ebenus of Rumphius, 1 t. 1, a third; from all of which I know that of the Mauritius differs essentially; whilst the mountains of Bengal &c. produce at least another very distinct species, viz. "D. tomentosum."—*Flora Indica*, 2. p. 530. The genera "Dombeya," "Dalbergia," "Bauhinia," and others produce different sorts of Ebony. No wood is better known in Ceylon than the Ebony produced by the "D. Ebenum," and the chairs, couches, book-cases &c. made of it at Caltura are famous, and expensive. I saw two armchairs of this wood, sent home by the late Mr. Kenneth Mackenzie, Assistant Colonial Secretary, to his father, for which £50 were offered in Scotland. The wood is so hard and difficult to work, except by those acquainted with it, that the local cabinet-maker who was employed to put castors on these two chairs, was said to give up the job after putting castors on one, and breaking all his ordinary tools in the undertaking. The wood is so heavy that nearly all the ships leaving Ceylon take in a quantity of it for the bottom of their holds, as ballast-beneath the lighter cargo of coffee, oil, &c.,

14. කොකිති.—Kokatiya, *Garcenia Terpnophylla*, Thw. Fl. Brit. Ind. l. c. 1, 268. Bed. An. Gen. 21. There are two varieties of this timber tree in Ceylon, to which it is confined, viz., one with lanceolate leaves, and the stamen disks 2-lobed, with the lobes bifid sulcate in the middle, which is found from 2,000 to 4,000 feet in the Central Province, and the other with lanceolate leaves with a long obtuse acumination, having the stamen disks 4-lobed; this latter is not uncommon in the Western Province at Ekelle and near Porey. The trees are very beautiful when in young bright red foliage. The timber weighs 58-60 lb. the cubic foot when seasoned, it is well adapted for bridge building and large framings, it is easily worked, but apt to split, and therefore is unfit for joiner's work. It seems so different from our other species of *Garcinia*, that it was originally described by Dr. Thwaites as *Terpnophyllum zeylanicum*.

15. කොටු මුව.—Kottāmbā, *Terminalia Catappa*, Lin. Fl. Brit. Ind. l. c. 2, 444. Bed. Fl. Syl. t. 18. This is what is generally called the Country, St. Helena, or Indian Almond tree. It is wild in the lowlands of Malaya, and perhaps of the Transgangetic Peninsula; largely planted in all India from the North-West Provinces to Ceylon and Burma, mostly from the sea level to 1000 feet altitude. Planted in nearly all tropical countries. The tree attains a height of 80 feet in some parts of India with the branches in peculiar horizontal whorls. On the coast of Ceylon it is a common avenue tree, but cannot be recommended for its shade as it is deciduous in the hot dry weather. The outer parts of the drupes are greedily eaten by the Flying Foxes, *Pteropus medius*, and hence are sown broadcast. It is known in Ceylon only in this way and as a planted

tree. The wood is light but tolerably durable and is used for various purposes, and the levers of Pakottahs are often made of it; the kernels of the nuts are eaten and are very palatable; the oil expressed from the seeds is very like almond oil and the oil-cake is used to feed pigs. The bark and leaves yield a black pigment with which the natives color their teeth, and make into Indian ink; the juice of the leaves and milk of the nut are used medicinally; the Tussa silk-worms feed on the leaves.

16. කොස්.—Kos, *Artocarpus integrifolia*, Lin. Thw. En. 262 Ferg. 246. Pla or Pila, Tamil. No plant in Ceylon is better known as a timber or fruit tree than what is called by Europeans all over India and the Archipelago, the "*Jack tree*" and though this common name is variously derived from Sinhalese, Tellugu and Sanscrit, I cannot find anything in any one of these languages approaching this name, and I believe that the Malayalim name Tsjaca maram, given by Van Rheeде about 200 years ago, is more likely to be the origin of this name for the tree than any other. There are two marked varieties in Ceylon as regards the size of their fruits, one the Kuru, or small round fruited one having fruits from 3 to 4 inches in diameter, and the other of various sizes up to 50 lbs. in weight. Its timber, Jackwood, is perhaps the most valuable and the most extensively used for furniture, doors, window frames, beams and rafters, ceilings and in fact all other house building purposes than any other grown in the Island. The wood when old and well polished approaches mahogany in color very much. It is becoming scarce and expensive. A most common tree in Native gardens or where gardens have been, and often apparently in the forests, but Dr. Thwaites does not consider it indigenous. A cubic foot weighs unseasoned 50 lb, and 44 lb. when seasoned, and its specific gravity is .706. The fruit is a favorite article with the natives in curry or when ripe, and the seeds when roasted taste not unlike chestnuts; bird-lime is made of its tenacious white juice.

17. දමනියා.—Damaniya, *Grewia tilioefolia*, Vahl. Fl. Brit. Ind. 1, 386. This plant was collected in Ceylon in 1660 to 1670 by Paul Hermann, and is the *Microcos* No. 208 of the *Flora zeylanica*,—*M. lateriflora*, Linn. sp. 734. A very common tree throughout the Madras Presidency and all over India and Ceylon, it ascends the mountains to about 4,000 feet, and is often found of large size in favorable localities; the berries are eaten, having an agreeable acid flavour; the timber is highly prized for strength and elasticity and is used for building purposes, bows, buggy shafts, walking sticks, and a variety of other uses; it is much in use at Jubbulpore, where the tree is known by the name of Dhâman; it is light and rather soft, flexible and fibrous, coarse grained and durable, of a light pinkish color turning to light brown, and easily worked; unseasoned it weighs 45 to 50 lbs. the cubic foot, and 34 lbs. when seasoned, its specific gravity is .544. The tree is called

Tharrá or Thadá in Tamil, Charáchi in Telugu, Thadsal or Butale in Canarese. *The leaves make a good fodder, and the bark (like that of all the Grewias,) is used as cordage.*

18. ഏടാടാ.—Diya-dāngā, Spathodea Rheedii, Wall, En. 206. This in Ceylon is a small tree affecting swampy ground as its native name indicates. The wood is quite light and is used for floats for fishing nets, models for native vessels, &c., as that of the Mootchie wood, Erythrina Indica, is at Madras.

19. දාට.—Dawaṭa, Carallia integerrima, D. C. Fl. Brit. Ind. 2, 439. Ferg. 234. Bed. Fl. Syl. t. 193. One of the most common and remarkable trees in the Cinnamon Gardens near Colombo, and up to 3,000 feet elevation. Several of these are remarkable for the large masses of deer-horn-like aerial roots sent out from various parts of the trunks, thus proving that though often growing in very dry situations they are closely allied to the mangroves, to which family they belong. The trees when isolated have wide spreading heads and are densely covered with dark green foliage, and are one of the favorite shade trees in the various cinnamon gardens on the West coast of Ceylon, in the pure white sand of which they flourish as well as they do in the richer soil of the Central Province. It is indigenous in Southern India, Bengal, Burmah, China and tropical Australia. The timber is ornamental and of a reddish color and is used for furniture and fittings; it is tough and not easily worked, brittle and not durable, and has a pretty wavy appearance, and is peculiar in structure, having a great deal of cellular tissue, the end sections showing silver lines like the English beech wood. It is remarkable in Ceylon as the wood of which the furniture and other fittings of the Rathungodde bungalow were made, and then varnished with the resin of the Doon tree (*Doona zeylanica*) dissolved in turpentine, both wood and resin thus first employed by the late accomplished Mr. Clerihew. A cubic foot unseasoned weighs about 56 to 60 lbs. and 44 lbs. when seasoned, and its specific gravity is .684. It is the Mamoga of Burmah, where it is used for planks and rice pounders, and in Calcutta where it is used for house building it is known by the Bengali name Kierpa.

20. දවුලු.—Dawul-kuruṇḍu, *Litsœa Zeylanica*, N. ab E. Bed. Fl. Syl. t. 294. Its native name means drum Cinnamon. It is a common but small tree in Ceylon from the coast up to 4,000 feet, and is also indigenous to Southern India and Australia. Its timber is in use for house-building purposes, planks, rafters, &c., it is yellowish in color, straight-grained and tough, and when fresh is said to emit an odour of sweet brier.

21. Del.—See Nos. 2 and 67 *Artocarpus nobilis*. Thw.

22. දොර.—Diya Para, *Wormia triquetra*, Rottb. Fl. Brit. Ind. 1 p. 35. *Dillenia aquatica*, Moon. Remarkable for its large showy white flowers, and for growing in swampy ground in Ceylon from

the coast up to 2000 feet. A cubic foot of its wood weighs 44 lb. when seasoned, but is seldom used except for common house building.

23. දියරත්මල්.—Diya Ratmal. This is not *Saraca Indica*, Linn. (*Jonesia Asoca*, Rox) as its native name implies; the specimen is that of *Antidesma bunius*, Spreng, and the *Karawilla-Kœbilla*, Sinhalese, the timber of which does not seem to be applied to any useful purpose.

24 & 93. තෙල්දොඹ.—Doṃba or Tel-doṃba, Poonga, Tamil. *Colophyllum inophyllum*, Lin. Fl. Brit. Ind. 1, 273, Bed. Anal. Gen. 22, Ferg. 228. A very beautiful tree sometimes called the Alexandrian laurel. It is a common tree in avenues, and when in flower is a very fine tree, the flowers are white with yellow centres and delightfully fragrant. It is the Tamanu of the South Sea Islands, common to various parts of Asia, and found in Australia. Its wood is coarse grained, but valuable, and is used for the arms of outriggers for native canoes, masts and cross sticks of Yatha Dhonies, and fishing boats, and especially as about the best for poles for bullock carts, and for ship blocks.

25. දුනා.—Dūnā, Doona Zeylanica, Thw. Fl. Brit. Ind. 1, 131, Bed. Fl. Syl. t. 97; Ferg. 227. I say *D. affines*? But Thw. in M. S. says *Eugenia* sp. and C. P. 2623. *Eugenia terpnophylla*. The forests of Upper Hewahette some years ago had a peculiar appearance from the umbrella-like heads of this abundant and most excellent timber tree. Several varieties as regards the color or value of the timber, such as *sapu-doon*, &c., are known in Hewahette at least, if they are not the Sinhalese names of some of the following or other species. Mr. Clerihew was the first person to use the beautiful clear resin of this tree, to varnish the furniture and other fittings made for the Rathungodde Bungalow of the Dawatta-gaha (No. 19 above). The wood of the Doon is now much used for shingles for covering the roofs of buildings on Coffee Estates. It is sawn into junks of the required length, and is then easily split up by axes made for such purposes. Ferg. This is the famous Doon tree of Ceylon, called also shingle tree by the planters; it is very abundant in the Central Province, up to 4,000 feet, and the timber is highly prized for building purposes and for shingles; the tree yields a large quantity of colorless gum-resin from its trunks and branches, and when dissolved in sprits of wine or turpentine makes an excellent varnish. Beddome. The breaking weight of pieces one inch square and one foot in length were the following:—Lowest 168 lb.; highest 638 lb.; mean 426. A cubic foot weighs about 64 lb. The specimens tried did not differ very sensibly from each other in appearance though differing so widely in strength. It appears therefore to be difficult to select good logs and unsafe to rely upon their strength. The wood is said to be suitable for cisterns, beams, wall-plates, pillars, and rafters.

26. ඇට්ටේරියා.—*Ætteriya*, *Murraya exotica*, Lin. Fl. Brit. Ind. 1, 502, Bed. Anal. Gen. 44. Ferg. 228.—Of this plant the variety thus named is said to be found in Ceylon in gardens only, and is a shrubby plant with delightfully fragrant white flowers. Dr. Thwaites gives a variety of this which he calls *M. buxifolia* (*brevifolia* in Fl. Brit. Ind). The second variety *M. paniculata*, Jack. said to be arboreous is wild in Ceylon, and found up to 3,000 feet, but I never saw a large tree of it. A variety found at Trincomalie with a 4-5 celled ovary is called *M. Glenieii*. The wood is very close grained and hard, and has been used as a substitute for box, it is supposed to be the toughest wood in the Island excepting those of No. 3, and of *Heritiera littoralis*.

27, 32. මැන්දෝරා.—*Mændora* (and not *Gal Mendora*) *Vatica* (*Isauxis*) *Roxburghiana*, Bl. Fl. Brit. Ind. 1, 302. Ferg. 228. Same as 32. In Thw. M.S. he has *Heritiera littoralis* Ait? A well-known and justly valued timber tree common along canal and river banks in the Western Province. The timber is in such request for beams and rafters, that a forest called *Hickadabarawa*, near *Hangwelle*, composed chiefly of this tree was reserved for several years for the sake of this timber. It does not however last long when exposed to the atmosphere.

28. ගැල්මොරා.—*Galmora*. Thw. gives *Amanoa Indica*, W. Ic. t. 1911 and C. P. 2151 for this, En. 428. The leaf specimen is not *Cryptocarya Wightii*, nor for *Nephelium* sp. I once got "*Galmora*" for *Amanoa* sp.—It is very doubtful what tree *Mendis* meant.

29. ගොඳාපාරා.—*Goða-Para*, *Dillinia retusa*, Thunb. Fl. Brit. Ind. 1. 37. Ferg. 225. A common and useful wood, used chiefly for building purposes. The result of experiments on twelve specimens of one inch pieces, twelve inches in length, at the Government Factory, shewed that the lowest breaking weight was 406 lb., highest 714 lb., mean 620 lbs.; deflection 40, and the weight per cubic foot 45½ lb. The timber resembles No. 33, (*Halmilila*) closely in fibre and color, and is very durable. May be procured of scantling sufficient for girders, &c. of moderate sized bridges.

30. හින්කිනා.—*Hin-Kina*, or *Gæta-Keena*, *Calophyllum Burmanni*, Wight. Fl. Brit. Ind. 1. 272. A very common small tree in the cinnamon gardens, but a tolerably large tree in shaded forests of the Western Province. The wood is chiefly used for poles for bullock carts, and house buildings.

31. හැල්.—*Hal.* *Vateria acuminata*, Hayne, Fl. Brit. Ind. 1. 313. *V. indica*, Thw. En. 37, but not of others. This useful and ornamental tree has been hitherto confounded with the *V. indica*, which is found in the Western Peninsula of Southern India, from *Canara* to *Travancore*. "Linneus clearly intended his name *Vateria indica* to apply to *Rheede's* plant, Hort. Mal. iv. t. 15. He identified with this an imperfect specimen in the 4th vol. of *Hermann's Herbarium* now in the *British Museum*. What appears to be this specimen is perhaps indeterminable, but certainly does not belong to

Dipterocarpea. The evidence appears to show that *V. acuminata*, Hayne, was unknown to Linneus, and has therefore no claims to be identified with *V. indica*." Thistleton Dyer in Fl. Brit. Ind. 1. c. When in flower, the Hal is one of the most conspicuous of our large ornamental flowering trees, and is common near cultivation and along banks of rivers, and in damp places in the Western and Southern Provinces. It yields a green resin used in Sinhalese superstitious ceremonies. The fruits are rasped into a kind of meal by the thorny stems of a species of calamus and eaten by the natives. The wood of the tree is one of the commonest and is generally used for coffins and inferior purposes. Bits of the bark are put into the toddy of the coconut and jaggery palms to prevent its fermentation.

32. හල්මැන්දොර. Hal-Mændora, same as 27 *Vatica Roxburghiana*, Bl.

33. හල්මිලිල.—Hal-Milila. *Berrya Ammonilla*, Rox. Fl. Brit. Ind 1. 383. Ferg. 226. Bed. Fl. Syl. t. 58. Known at Trincomalee, Batticaloa, and other places where this tree is found, by the various names in Tamil, of Savandalai, Kaddamanakku, or Tiricunamalai, Perhaps next to the Jack the most valuable timber tree in the Island. Large quantities of it are exported from Batticaloa and Trincomalie to other parts of the island and Madras, at which last place it is known as Trincomalie wood, and of which the famous Masula boats are built. The wood is of a light red color fading to brown, and is highly esteemed for its lightness and strength, it is straight grained, slightly pliant and tough. It is used by coachmakers, coopers, and house builders for nearly every purpose to which a good wood can be applied. It answers well in framing when protected, but shrinks and cracks readily when sawn into planks, and when exposed. The result of experiments with 21 pieces of 1 inch bars, 12 inches in length is as follows:—Lowest breaking weight 504 lb., highest 883 lb., mean 699, deflexion 1.50, weight per cubic foot 61 lbs. Even in exposed places near Colombo and in the Western Province it grows tall with a beautiful straight, trunk free of branches to a height of 50 to 70 feet, and no tree can be more readily cultivated as a useful timber tree, but I am not aware that any great attempts have been made in this direction in Ceylon.

34. හැදොක.—Hæðoka, *Chætocarpus castanocarpus*, Thw. Bed. Fl. Syl. t. 284, but the specimen of leaf is the *Boo Æmbilla*, the *Antidesma paniculata*, Rox. Thw. En. 289. The Hedewoka is a well-known timber tree with hard heavy wood, but is not much esteemed.

35. හැලැඹ.—Hælæmba, Thw. gives *Nauclea Cadamba* for this name, but for Mendis' specimen he puts *C. P. 1657*. which is *N. tubulosa*, Arn. En. 137, whilst Mendis follows Moon Cat. 14, and gives *N. parvifolia*, Rox. for this No. The Botanical name of this tree is finally given by Sir Joseph Hooker in Fl. Brit. Ind.

3. p. 25. as *Stephegyne tubulosa*. A small handsome tree along the banks of canals, rivers, and in wet places, and used as a common timber tree, but it scarcely deserves a place amongst the really useful timber trees of Ceylon.

36. හිරිකඳොල්.—Hiri-Kaḍol, Mendis's specimen shows it to be a species of *Bruguiera*, the unexpanded flower bud is certainly it. see *B. eripetala*, W. Ic. 239. *B. Fl. Brit. Ind.* 2. 438. It is not same as No. 9. I think. No. such native name in Moon. The plant whatever it may be is not a valuable timber tree.

37. හොර.—Hora, *Dipterocarpus Zeylanicus*, Thw. *Fl. Brit. Ind.* 1. 297. A gigantic very common forest tree, but its timber and that of the Hal are two of the most despised amongst those used by the natives. The result of experiments on 12 pieces, 1 inch square, and 12 inches in length, at the Government Factory showed the following:—Lowest breaking weight 567 lb., highest 735 lb., mean 626 lb., deflexion 50, weight per cubic foot 52 lb. The specimens tried were from trees grown in the hill districts (Ambagamuwa). The timber of the low-country is of lighter color and slightly less weight. Easily worked, but valuable only where very long spars are required, and adapted only to temporary works, being perishable. Very useful for centering, dam piling and large scaffolding.

38. හුලන්කික.—Hulanhik. This is the Sinhalese name for *Chickrassia tabularis*, Adr. Juss, and the specimen is for it also, but Thw. says it is *Pygeum Walkeri*, Gard, according to specimen of leaf sent by Mendis. *Fl. Brit. Ind.* 1. 568. *Ferg.* 229. *Bed. Fl. Syl.* t. 9. A tree of large size, often 8 to 10 feet in girth with a thick straight trunk 60 to 80 feet to first bough (in India); found though sparingly in most of the hill forests of the Madras Presidency, in Mysore, Bombay and the Eastern parts of Bengal. It is the true Chittagong wood of commerce, and is the Aglay or Agal in some parts of the Madras Presidency, Madagari Vembu in others, Ganti Malle in Salem, and Chickrassie in Bengal. The wood is of a light color and prettily veined and close in the grain, and is much used for furniture; it has a cedar-like smell and is one of the woods known as bastard cedars to Europeans. The wood of this tree used by one of the Kandyan Kings in the interior of his palace is known to have lasted some hundreds of years.

39. හුනුකිරිල.—Hunu-Kirilla, *Glochidion brachylobum*, Mul, in *D. C.* xv. p. 288. No. 28 for *C. P.* 3016. *Bed. Man.* 192-3. *G. coriaceum*, Thw. *En.* 285. I say in *M. S.* on this page that this is Mendis, No. 39. It is not a *Grewia*. *Phyllanthus brachylobus*. *D. C.* l.c. The Hunu-kirilla is a very common small, generally crooked spreading tree or large shrub in Ceylon, and its timber is scarcely ever used except for firewood. Why Mendis should have included it as a valuable timber tree is unknown.

40. කඳුමඩේරිය.—Kaḍumbēriya, I say that the specimen is not Kadumberiya, but the wood is like it, and Thw. says *Diospyros* sp. *C. P.* 2924 which is *Diospyros affinis*, Thw. *En.* 179, but *D. Gardneri*,

Thw. 181. is the Kadumberiya-Gaha. A beautiful striped wood not unlike some varieties of Calamander, and like it used for cabinet work.

41. කහඳ.—Kahaṭa, *Careya arborea*, Rox. Fl. Brit. Ind. 2. 511. Bed. Fl. Syl. t. 205. Ferg. 234. A common Ceylon tree from the coast up to an elevation of 5,000 feet where it is a very abundant and remarkable tree in the grassy open plains, called patnas. It is a native of India affecting the same kind of grassy plains as it does in Ceylon, of N. Australia, and Queensland. It is given in Thw. En. p. 119, and ought to be well-known as a Ceylon plant, but by a strange mistake in the Fl. Brit. Ind. it is stated that in the Kew Herbarium "no example from Ceylon" existed! Its bark, as its Sinhalese name indicates, is very astringent, and it furnishes a coarse cordage; the wood is tough, strong, and durable, close and even grained, but inferior to Teak in its direct cohesive strength, admits of a fine polish, red colored, resembling Mahogany. A cubic foot unseasoned weighs 60-63 lb., and 50 lb. when seasoned, and its specific gravity is .800. It is used for posts of houses and cart framing, and (as it stands water) for the edging of wells, and it is well adapted for furniture and cabinet purposes, and is a favorite wood in some parts for charcoal; cordage manufactured from its bark is used as a slow match. The tree flowers in April and generally when destitute of leaves. The above applies chiefly to its uses in India, its timber is not in great request in Ceylon. The genus was dedicated to the Revd. Dr. Carey.

42. කැබෙල්ල.—Kæbella, Thw. has *Scepa* sp. C. P. 2153. This is for *Aporosa Lindleyana*, Thw. En. 288. *Scepa Lindleyana*, W. Ic. t. 361. Fl. Zeyl. No. 629, Bed. Fl. Syl. t. 286 Man. 199. A common tree in Ceylon from the coast up to 3,000 feet. The wood is used for building purposes, but not considered a valuable one.

43. කැටකැල.—Kæta kæla, *Briedelia retusa*, Spreng. C. P. 2161. Thw. 279. Bed. Man. 201, Fl. Syl. t. 260. A common tree up to an elevation of 2,000 feet in Ceylon. The wood is of a dirty red or copper color, very stiff, strong, close-grained and durable, but not easily worked. A cubic foot unseasoned weighs 68-70 lb., and 60 lb., when seasoned, and its specific gravity is .960: it is used for house building, construction of carts, agricultural implements, railway sleepers and a variety of other purposes, in the Madras Presidency. The wood stands the action of water; the bark is a strong astringent. Cattle eat the leaves greedily and they are supposed to act as a vermifuge. The wood is not much used in Ceylon.

44. කිතුල්.—Kittul, *Caryota urens*, Linn. Ferg. 249. A common tree up to 3,000 feet elevation. The hard dark colored wood of old trees is so like that of the Palmyra Palm, that it is very difficult to distinguish the one from the other. Its wood is used

for rafters, window bars, handles of agricultural implements, pestles for paddy pounders, and is exceedingly hard and durable when old.

45. කිරිපැල.—Kiripælla, *Ficus infectoria*, Willd. *Urostigma* do. Miq. Thw. En. p. 265. C. P. 3083. The bark of this tree is used by the natives for chewing with their beetle, but the timber of this tree and of most of the other species of *Ficus*, are scarcely ever used for any valuable purpose. They are all nearly worthless.

46. කිරිවැල.—Kiri-wallā, *Holarhena mitis*, R. Br. C. P. 756. Bed. Man. 161. Thw. En. 194. A not uncommon tree in Ceylon from the coast up to 1,500 feet elevation. The wood is light in weight and color, of a fine close grain, and is used for inlaying cabinet work.

47. කොළ.—Kon, Ceylon oak, *Schleichera trijuga*, Willd. Fl. Bri. Ind. 1. 681. Bed. Fl. Syl. t. 119. This handsome tree, so like the English Oak, is very abundant throughout the Madras Presidency, Bombay, Bengal, and Ceylon, ascending the mountains to 3,000 feet elevation. It is considered one of the most valuable of unreserved timbers in the Madras Presidency. The wood is much prized in some districts; it is reddish in color, very hard and heavy, and makes excellent crushers for sugar and oil mills, and is in use for building and a variety of purposes. The fruit ripens in May and the pulpy aril is a very agreeable acid. A quantity of lac is produced on the young branches.

48. ලාවුල.—Lāwulu. *Chrysophyllum Roxburghii*, G. Don. Thw. has C. P. 2689 for this one, but the specimens of this and 47 are so much alike, and so unlike Kong that I think they are in some way confounded and are both the produce of this tree. Bed. Man. 142, Fl. Syl. t. 236. A not uncommon tree in Ceylon. The fruit is eaten but is insipid and the pulp is very sticky. The wood is used for common house building but is not valuable.

49. මහුමිදෙල.—Lunu-midella, *Melia dubia*, Cav. Fl. Brit. Ind. 1. 545. Bed. Fl. Syl. t. 12. Mallay Vœmbu, Tamil. A very large quick growing tree. The wood is very light and cedar-like, and is very much used for ceilings in Ceylon. The outriggers of the native canoes are invariably made of this wood. It is said to resist the attacks of white ants. The tree is well-known as the *Melia composita*, Willd. but Mr. Hiern has proved that it was first described under the name given above, and it must therefore take the precedence of all others.

50. මදවිය.—Madatiya, *Adenanthera pavonina*, Linn. Fl. Brit. Ind. 2. 287. Bed. Fl. Syl. t. 46. A very common tree in Ceylon, but generally found near gardens and cultivation. The timber, when fresh cut, much resembles the red sanders, and has a pleasant smell; it is strong but not stiff, hard, durable, tolerably close and even grained, and takes a good polish. A cubic foot unseasoned

weighs 62 lb., and when seasoned 56 lb.; its specific gravity is '896; it is used for house building and cabinet making purposes. It is the Ani Kundamani of the Tamils. The wood yields a red dye used by Brahmans in marking their foreheads. The seeds weigh four grains each, and are used as weights by jewellers. A cement is made by beating them up with borax and water, and the pulp is used medicinally.

51. මාදන්.—Mādan, *Eugenia Jambolana*, Lam. Navel. Tamil. Fl. Brit. Ind. 2. 499. Bed. Fl. Syl. t. 167. A very common tree all round the Island and up to 3,000 feet. It grows in the dry sand of the Cinnamon Gardens near Colombo, and in the Northern Province, and yields an edible fruit about the size of a small damson. Its wood is much used in native house building, for cart framing, agricultural implements and a variety of purposes, it resists the action of water very well, and is used for well work. It is tolerably close and even grained not very strong or durable except in water. A cubic foot unseasoned weighs 60-62 lb., and when seasoned 48 lb., and its specific gravity is '768.

52. මල්බුරුත.—Mal Buruta, Flowered Satin wood, a var. of No. 8. The flowered wood is a mere accident, and a log thus flowered is seldom found, see description of No. 8.

53. මිගහ.—Mi Gaha, *Bassia longifolia*, Linn. Thw. En. 175. Bed. Fl. Syl. t. 42. Illupei, Tamil. This is a very common and handsome tree in Ceylon and various parts of India where it is also much cultivated for the oil yielded by its fruit. The timber is heavy, close and straight-grained, very flexible and durable, scarcely inferior to Teak in strength, and of a yellowish brown color. A cubic foot unseasoned weighs 70-75 lb., and when seasoned 60 lb. Its specific gravity is '960; it is valued for keels of ships, and for planking below the water line, and makes good trenails, it is also used in the construction of carts when great strength is required, for furniture, and in Ceylon for bridges. The flowers are dried in the sun and roasted and eaten by the poorer classes in India, they are also eaten by animals and birds.

54. 10 & 78. මිඳන්මිලිල.—Mian-Milila, *Vitex altissima*, Lin. fil. A variety of No. 10.

55. මැලිල.—Mælla, *Olax zeylanica*, Linn, En. 42. Why this should be included in a list of the timber trees of Ceylon I do not know. It is generally a shrub, and with a stem not more than 2 inches thick. The leaves are masticated by the Sinhalese.

56. මුනාමලි.—Mūnamal, *Mimusops Elengi*, Linn. En. 175. Bed. Fl. Syl. t. 40. A very common ornamental tree, with fragrant flowers, a good deal cultivated in Ceylon and India. The timber when unseasoned weighs from 72 to 82 lb. per cubic foot, and 61 lb. when seasoned: its specific gravity is '976, it is close and even grained, pinkish to redish brown in color, and takes a good polish.

It is used in house building, cart shafts and for cabinet purposes. The flowers are very fragrant and aromatic and the natives distil an odoreferous water from them, and use them for garlands, &c. The Sinhalese name means "face-flower," but why I do not know.

57. මොරා.—Mora, *Nephelium Longan*, Camb. Fl. Brit. Ind. 1. 688. Thw. En. 56. C. P. 1152. A large tree indigenous to various parts of India, Burma, China and Ceylon, and very often cultivated for its fruit. The wood is used for common house building, but not much in request. The succulent aril of the seed is an agreeable acid and something like the Litchi, to which it is closely related.

58. මුරුත.—Muruta, *Lagerstroemia Flos-Reginæ*, Retz. Fl. Brit. Ind. 2. 577. One of the most beautiful of our native flowering trees, but its timber is not much used in Ceylon. It is said to be reddish, &c., sometimes nearly white, tough and very durable under water, though it soon decays under ground; it is much used by the natives of the Madras Presidency for building purposes and in boat making; in the Madras gun carriage manufactory, it is used for light and heavy field cheeks, felloes, and cart naves, framing and boards of waggons, limbers, and platform carts, and ammunition box boards. In Burmah Dr. Brandis says it is more in use than any other timber except Teak, and is prized for fittings of boats, hulls of canoes, house posts, planking beams, scantling for roofs, carts and other purposes.

59. නාගාහ.—Nā-Gaha, *Messua ferrea*, Lin. Fl. Brit. Ind. 1. 277. Under this name this work includes several supposed species of this famous tree. Our Ceylon tree is remarkable as an ornamental flower tree grown invariably in the vicinity of Buddhist temples, and for having brilliant red leaves when young. The timber of this tree is the Iron-wood par excellence, and must not be confounded with that of Palu, No. 65. It is the best wood in the Island for piles and for the construction of bridges, and is very durable under water. It is straight grained, hard and difficult to work. A cubic foot of it when seasoned weighs about 75-76 lb. The result of trials with 9 pieces 1 inch in diameter, and 12 inches in length gave the following:—Lowest breaking weight 791 lb., highest 1,239 lb., mean 1,049 lb., deflection .15. Valuable for all purposes requiring strength and durability. The timber often breaks short and without warning.

60. නැබැද්ද.—Næbædda, *Vitex leucoxylon*, Linn. fil. Bed. Man. 171. The wood is whitish and compact and is used for house building. The trees seen by me in Ceylon are small, and grow generally on the banks of canals, streams, or as fences in paddy fields.

61. නෙල්ලි.—Nelli, *Phyllanthus Emblica* (*Emblca officinalis* Linn. Bed. 190. t. 258. A very common small tree in the Patena)

in company with *Careya arborea*, and often cultivated for its fruit, but tho' Col. Beddome describes it as a valuable timber tree of the Madras Presidency, and much used for well rings in India and Ceylon, here at least the timber is not of a large size nor in much use.

62. **කැදුන්.**—*Nædun*. *Pericopsis Mooniana*, Thw. En. 413. *Dalbergia Mooniana*, Thw. 93. *D. lanceolaria*, Moon, Cat. 51. Peculiar to Ceylon, found in the Western Province and lower parts of the Central Province. The wood is of a chocolate color and is much used for all kinds of furniture in Ceylon.

63. **කෙරළු.**—*Nerlau*, No specimen of leaf. A species of *Elcœocarpus* growing in Pally Kelly, Dumbera, was so called and I think it is likely to be the tree meant.

64. **මකක.**—*Otta*. *Macaranga (Mappa) digyna*, Mull, Bed. Man. 211. and the synonymes, A worthless white-wood, and small tree or large shrub. It is No. 432 of *Flora Zeylanica*, and *Herb. Hermann*.

65. **පාළු.**—*Pālu*, *Mimusops hexandra*, Roxb. *M. Indica*. D. C. This is the Pali of the Tamils. A common and abundant tree in the Eastern and Northern Provinces, and the timber much used for piles in bridges &c. "The wood is very heavy, weighing 84 to 92 lb., per cubic foot when unseasoned. Its specific gravity is 1.120. It is close and even-grained, hard, compact and durable, of a purplish color when fresh turning to reddish-brown, and susceptible of a very high polish. It is used by natives for oil presses, building, and a variety of other purposes; it is excellent for rulers, handles of instruments, and all articles of turnery, and for cabinet purposes." Beddome.

66. **පඹුරු.**—*Pāmburu*, *Atalantia missionis*, Oliver; *Limonia citrifolia* Moon, Cat. 34. Thw. En. 45 and 405. *Fl. Brit. Ind. 1. 513*. A small bushy tree with dense foliage. The wood is generally of a light color, but when variegated is very handsome, and is used for furniture and cabinet work.

67. **පට්ටිදෙල්.**—*Paṭṭa Del*, 2 and 21. *Artocarpus nobilis*. Thw. see remarks on No. 2.

68. **පත්තැල.**—*Patkæla*, *Briedelia Moonii*, Thw. En. 279. *Bed. Man. 201*, and synonymes. In Thw. *M. S. on Mendis' list* he says this is the same as 43, but the leaves show them to be distinct, and the specimens of wood differ, 43 is dark grey, and not so heavy. 68 is a redder color and very like 63 as regards the specimens of wood, which is about all that can be said about it.

69. **පෙත.**—*Petan*, *Bauhinia tomentosa*, Lin. *Fl. Brit. Ind. 2. 275*. A very commonly cultivated shrub in Ceylon, but I have never seen it truly wild. Its flowers are yellow with a deep purple eye. Its wood is very tough, and the heart often quite black. It is called Mountain Ebony.

70. පිහෙඹියා.—Pihēmbiya, *Felicium decipiens*, Thw. En. 408 Fl. Brit. Ind. 1. 539. and synonymes. A small ornamental tree common in the Western and Central Provinces, and the leaves so like ferns that Burmann figured it as *Filix Zeylanica* &c. The wood is used for house building. It is No. 443 of the Flora Zeylanica and Herb. Hermann, collected in Ceylon in 1660 to 1667.
71. පිනිබරු.—Pinibaru, *Eugenia Mooniana*, Wight, Ill. ii. 13 Ic. t. 551. Fl. Brit. Ind. 2. 505, and syn. A large shrub or small tree. The wood is very tough, but too small for any useful purpose.
72. පොල්.—Pol, *Cocos-nucifera*. Lin. The well-known Coconut tree. Its timber is used for reepers and house building, and for ornamental work, and is sometimes called Porcupine quill wood.
73. පුඹුක්.—Puwak, *Areca Catechu*, Linn. The Arecanut Palm. The straight trunks are in great request for scaffolding, and the construction of pandals, and triumphal arches; but the timber is seldom used except for ornamental purposes. A very common tree in Ceylon. Its nuts sliced are used throughout India and Ceylon, by the natives, to chew with the beetle-leaf.
74. රාච්චුදල.—Rāwana Idala, *Wendlandia Notoniana*, Wall, specimen of flower good. Fl. Brit. Ind. 3. 40. A shrub or small tree conspicuous in the Ceylon jungles by its long pyramidal panicles of white flowers. Common in Ceylon from near the coast to 7,000 feet. Wood used for common house building, and most durable when used in fences.
75. රුක්ආත්තන.—Ruk attana, *Alstonia scholaris*, R. Br. Bed. FL Syl. t. 242. A common tree in Ceylon. Its timber white, light, and used for coffins, packing cases, &c. Its specific name is derived from the fact that slabs of it are used in the Malayan Peninsula for boards on which to write letters and figures.
76. සමෙරු.—Samadarā, *Samadera indica*, Goert. Fl. Brit. Ind. 1. 519. W's. Illus. t. 68. A common sombre looking shrub, or small tree, in Ceylon, with a bitter wood, said by Mendis to be used for Buoys, &c.
77. සපු.—Sapu, *Michelia Champaca*, Lin. Fl. Brit. Ind. 1. 42. A cultivated tree with yellow and delightfully fragrant flowers, but too rare for its wood to be used. The indogenous plant, the Wal-Sapu, *M. nillagerica*, Zenk, is evidently confounded with it, and it is the wood of the latter which is evidently used for shafts for carriages and other useful purposes. It is a very useful wood on Coffee Estates.
78. සපු මිලිලා.—Sapu Milila, 10 and 54. *Vitex altissima*, Lin. fil. A variety of No. 10.
79. සියාඹලා.—Siyāmbalā, *Tamarindus indica*, Lin, Fl. Brit. Ind. 2. 273. The famous Tamarind tree. The lower part of the

trunks of very old trees produce a variegated ornamental wood, a good deal like that of Calamander.

80. සූරියා.—*Sūriya*, *Thespesia populnea*, Corr. Fl. Brit. Ind. 1. 345 A famous avenue tree in Ceylon, and from the fact that the same plants have been propagated from cuttings for several hundred years, the trees are generally hollow hearted, and have ceased to bear proper fruits. Trees raised from fruits procured from Kalutara have a much more robust appearance, but the timber of these takes a much longer time to come to maturity. Its wood is one of the best and most commonly used for all parts of carriage building in Colombo. Its generic name is derived from the fact that the tree is used as avenues to churches and temples in India.

81. සූරියා මාරා.—*Sūriya mārā*, *Albizzia Lebbeck*, Benth, C. P. 3130 Thw. En. 99, Fl. Brit. Ind, 2. 298. A tall spreading tree generally near cultivation in the Western Province, where it grows well within the influence of the sea breeze. Native of tropical Himalayas to 5,000 feet, Khasia, India proper and Ceylon to Burma and Tenasserim, Malay isles, China, N. Australia, and tropical Africa. Its wood when seasoned weighs 50 lb. per cubic foot, and has a specific gravity of .800, it is hard and durable, of a light reddish brown colour, with dark veins and it is not liable to warp or crack. It is used for a great variety of purposes, naves of wheels, pestles and mortars, picture frames, furniture, parts of boats, &c., and the heart wood makes good charcoal. The leaves and twigs are good fodder. It is an avenue tree in Alexandria.

82. සූරියා.—*Suwañda*, *Kayea stylosa*, Thw. En. 50; C. P. 2708 for M.'s specimen; Bed. Fl. Syl. t. 102. Fl. Brit. Ind. 1. 276. All that can be said of this tree is that its timber is used in house building.

83. තාල.—*Tal*, *Borassus flabelliformis*, Lin. The famous Palmyra Palm, very abundant in the Northern Province, and in Southern India. Its timber is used for rafters and other purposes; its leaves for fans, baskets, and olas for native letters; the pulp of its fruits, punatoo, and the meal from the young germs (*kelingu*) used to a large extent as food by the natives of the Northern Province and Southern India. The result of experiments on 12 pieces, 1 inch square and 12 inches in length at the Government Factory indicated the following:—Lowest breaking weight 1,246 lb., highest 1,529 lb., mean 1,375 lb., deflection .30 of an inch, weight per cubic foot seasoned 61½. The specimens were taken from the average kind of timber used in the Northern Province, and which is superior to what is usually exported. Each piece yields to a strain of from 200 to 300 lb. less than the weight required to break it; the mean strain at which the finest fibres parted being 1,177 lb.

84. **රක.**—*Tarana*. *Webera*, *coymbosa*, Willd. Fl. Brit. Ind. 3, 102. *Stylcoryne* *Webera*. A. Rich. Thw. En. 158. A very common large shrub in Ceylon, and its wood very tough but it rarely exceeds two inches in diameter; not of much use except for handles and fences.

85. } **භේක්ක.** { Ceylon Teak { *Tectona grandis*, Lin. fil. Bed.
86. } —*Tēkka* { Cochinchina } Fl. Syl. t. 250, Kurz, Forest.
87. } —*Tēkka* { Maulmain } Fl. Brit. Burma. 2. 259. The famous Teak tree. A few patches planted in Ceylon, but too small and too rare to be of any consequence. The Moulmain Teak imported into Ceylon and elsewhere one of the finest woods in the world for nearly all purposes requiring a strong durable timber. The result of twelve specimens of one inch pieces tried at the Government Factory indicated the lowest breaking weight to be 541 lb., highest 751 lb., and the mean 658 lb., deflexion 40, and weight per cubic foot 45½ lb. The wood is of a light grey color, fine free grain, and most easily worked. It resists the attacks of white ants, and is very durable when protected from the weather.

88. **තෙලාඹු.**—*Telaṃbu*, *Sterculia foetida*, Lin. Fl. Brit. Ind. 1. 354., Bed. An. 31. *Peenari-maram*, Tamil. A tall handsome tree, but having abominably foetid flowers. A cubic foot of the wood unseasoned weighs 34 to 38 lb., and when seasoned 28 lb., and its specific gravity is .448. It is light, tough, and rather open grained, of a yellowish white color easily worked, and not liable to split or warp; it is used for house building and in the construction of canoes, and is adapted for making cases, &c. Every part of the tree has a disagreeable smell when bruised. Its seeds are roasted and eaten like chestnuts.

89. **තිබිරි.**—*Timbiri*, *Diospyros Embryopteris*, Pers. Bed. Fl. Syl. t. 69. Ferg. 237. A common tree in Ceylon. The timber is only of average quality and is used for building purposes. The very viscid juice of the young fruit is used for paying seams of fishing boats, and fishing nets and lines are steeped in it to preserve them. The unripe fruit contains a large portion of tannin. Masts and yards of country vessels were formerly made from this tree in Ceylon.

90. **උබ්බේරියා.**—*Ub-bēriya*, *Carallia calycina*, Thw. Fl. Brit. Ind. 2. 439. Moon Cat. part 2, p. 26, Bed. Fl. Syl. An. Gen. 101. The Sinhalese call this tree *Uk-beriya* or *Ub-beriya*, and it in some way got confounded with the *Kokatie*, *Garcinia terpnoplylla*.

The silver grain on an end section of this beautiful wood looks very like that in english Oak. Common in the Southern and Central Provinces. The following is the result of experiments on 12 pieces 1 inch in diameter, and 12 inches in length:—Lowest breaking weight 804 lb., highest 1,196 lb., mean 1,056 lb., deflection 40, and weight per cubic foot seasoned 58½ lb. The wood is

easily worked but apt to split and therefore unfit for joiners work. Well adopted for bridge building and large framing generally. Of the several specimens tried only those which were defective (as from flaws or sap) broke with a strain under 1,100 lb.

91. වෙලොංගා.—Velongā, *Pterospermum suberifolium*, Lam. Fl. Brit. Ind. 1. 367. A small tree common from the coast up to 2,000 feet. The wood is like that of Walnut, tough and useful for gun stocks and other purposes.

92. වෙලොංබු.—Wal-Bōmbu, but properly *Bombu*, *Symplocos spicata*, Rox. D. C. 8. 254. Thw. 184. The leaves are long lanceolate acuminate, and deeply serrated, and not like those of the common Colombo Bombu. A common tree from the coast up to 7000 feet, and when covered with its snow white flowers is very beautiful. The wood is close in grain, light, very deficient in fibre and not durable, it is used for common house building and firewood.

93. වෙලොංබු.—Wal-Dōmba. = 24, Domba or. Tæl-Domba, *Calophyllum inophyllum*, same as No. 24-

94. වෙලොංබු.—Walu Kīna, Thw. gives C. P. 1171 for the specimen, *Calophyllum tomentosum*, Wight Illus 1, 128. Ic. t. 110, C. elatum, Bed. Fl. Syl. t. 2, Man. 22, C. tomentosum and elatum. It may be *C. bracteatum*, Thw. En. 51, Fl. Brit. Ind. 1, 274. A large forest tree in the Central Province up to 5,000 feet elevation. The famous Poon-spars of Western India are now proved to be the produce of this tree. In Ceylon the seeds yield an abundance of oil.

95. වෙලොංබු.—Wēwarana, *Alsiodaphne semicarpi folia*, N ab Es. Bed. Man. 184. Ferguson's list in Ceylon Directory, 1863, for full particulars, Yaverne, at Trincomalie. Baane, at Batticalo. The result of experiments at the Government Factory on 10 pieces, 1 inch square, and 12 inches long, showed the lowest, highest and mean breaking weight to be 821 lb., deflection .50, and weight per cubic foot, seasoned, 64¾ lb. Each piece broke on the application of the last 7 lb. having sustained a weight of 814 lb. without injury. The wood is straight grained and easily worked, and well adapted for general purposes.

96. වෙලොංබු.—Wælipiyana, *Anisophyllea zeylanica*, Benth. Fl. Brit. Ind. 2, 442. The wood is singularly marked with white spots at the end of the grain, evidently composed of a soft substance which ultimately leaves small holes. This singular tree is peculiar to Ceylon, and not uncommon up to 1,500 feet. It bears no outward resemblance to the mangroves with which it is associated. It is used. for common house building.