M.R.O. 14—10,000—21-4-22.

MADRAS RECORD OFFICE.

Government of Madras.

Revenue DEPARTMENT.

G.O. No. 1600 Press
~~Mis.~~

350 351

Dated 26 7 1862

Not to be folded or roughly handled

Proceedings of the Madras Government, Revenue Department, 26th July 1862.

No. 350. Read the following letter from G. BIDIE, Esq., M.B., Assistant Surgeon, H. M. Madras Army, to A. J. ARBUTHNOT, Esq., Acting Chief Secretary to Government, Fort Saint George, dated Hoonsoor, 18th July 1862 :—

SIR,

1. I have the honor this day to send to your address a small work on "The Timber Trees of India," and hope that you will kindly submit it to Government. It contains a notice of every Timber tree of any note, regarding which we have any trustworthy information; and has been prepared with the view of its becoming a book of reference for Officers and Subordinates of the Revenue and Public Works Departments. As brevity is not inconsistent with utility, I have endeavored to give the necessary information in the fewest possible words.

2. Trusting that it may meet with the approval and patronage of Government, and with apologies for troubling you.

No. 351. ORDER THEREON, 26th July 1862, No. 1,600.

1. The work referred to in the foregoing letter is calculated to be very useful.

2. The Governor in Council requests that Dr. Bidie will supply 100 copies for the use of Government accompanied by a Memorandum of their cost.

(Signed) A. J. ARBUTHNOT,
Acting Chief Secretary.

THE

TIMBER TREES

OF

INDIA,

ALPHABETICALLY ARRANGED;

WITH VERNACULAR NAMES, QUALITIES, &c.
OF WOOD, AND SOURCE OF SUPPLY:

BY

GEORGE BIDIE, M.B.
ASSISTANT SURGEON H. M. MADRAS ARMY.

"Explore the nature of each several tree,
And, known, improve with artful industry."
Dryd. Virg. GEORG. II. 47.

Madras:
GANTZ BROTHERS,
ADELPHI PRESS, 21, RUNDALL'S ROAD, VEPERY.
1862.

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PREFACE.

Although there are many works that treat of the vegetable productions of India, there are none solely devoted to the *Timber Trees;* and such as do contain information on the subject are, generally speaking, scarce, bulky, and expensive. The present small work has therefore been produced with a view to supply, within the smallest possible compass, all useful information on the subject worthy of trust. In preparing it the valuable works of Roxburgh, Ainslie, Wight, Royle, Drury, Cleghorn, &c., have been freely consulted, and I have also been able to supply various facts from personal observation. With the help of the Indices of vernacular names, any one may readily discover the botanical name of a tree and its economical value. Every effort has been made to secure accuracy in this part of the work, and it is hoped not without success.

USEFUL RECEIPTS, &c.

TO PRESERVE TIMBER FROM THE ATTACKS OF WHITE ANTS.

Dissolve 3 pints of Gambir in 12 of dammer oil over a slow fire; then stir in 1 part of lime, sprinkling it over the top to prevent its coagulating and settling in a mass at the bottom; it must be well and quickly stirred. It should then be taken out of the caldron and ground down like paint on a muller till it is smooth, and afterwards returned to the pot and heated. A little oil should be added to make it tractable, and the composition can then be laid on over the material with a brush.—*Cleghorn's Forests and Gardens, p.* 71.

PRESERVATION OF TIMBER.

Timber, if expected to endure, must be properly seasoned. Trees will not season well if cut down before arriving at maturity. Blackwood requires 3 years, and teak and sal 2 years to season. The process may be hastened by first immersing the timber in water, and then drying it in a current of air. Besides simple desiccation there are various artificial modes of preserving wood. That of Boucherie consists in impregnating the timber with a fluid containing metallic oxides, so as to displace the fermentable sap. In Sir Wm. Burnett's process the wood is charged with a solution of chloride of zinc. Mr. Bethel uses creosote, "with the view of coagulating the albumen, and preventing putrefactive decomposition."

OIL VARNISH FOR COMMON WORK.

Resin 1 lb., drying oil 27 ounces; melt together, and add, when removed from the fire, 27 ounces of warm oil of turpentine. Drying oil is made by boiling linseed oil, mixed with litharge (Murdar sang, *Hind.*), until it becomes thick.

CABINET VARNISH FOR FURNITURE, &c.

Piney-varnish, or Kundricum (like amber) 1 lb.; melt, and pour on it 12 ounces of hot clarified linseed oil; in 3 or 4 minutes, if it feels stringy, take it out of the building, away from fire, and when it has cooled to 150° mix in 68 ounces of turpentine, of same temperature, or sufficient to bring it to a due consistence.

WOODS FOR RAILWAY PURPOSES.

There is a want of reliable information as to the kinds of wood best adapted for sleepers and other railway work; but the following list contains the names of those trees at present most in demand for those purposes:—

Terminalia, (various species).
Conocarpus latifolius.
Pterocarpus marsupium.
Inga xylocarpa.
Bassia longifolia.
Acacia, (various species).
Dalbergia sissoo.
Shorea robusta.
Soymida febrifuga.
Artocarpus hirsuta.
Lagerstræmia microcarpa.
Chickrassia tabularis.
Tectona grandis.

AGE OF TREES.

In the working of a Forest it is of great moment to ascertain the ages of the trees, as after a certain age all (exogenous) stems diminish in their rate of growth. There is therefore a stage of maturity in the life of the tree, after which it becomes a cumberer of the ground, and ought to give place to a young one. Most trees grow by forming the new wood over the old beneath the bark, and all such are

called Exogens (ἔξω, outward, and γενάεω, to produce). Such stems have pith in the centre, their leaves have branching veins, and they deposit one circle or zone of wood annually. By counting therefore the number of zones in a transverse section of the tree we shall, pretty correctly, ascertain its age. In the case of standing trees, if the diameter be known, we may ascertain the age as follows. Make 2 notches and remove 2 small pieces of wood, of same thickness, from opposite sides of the tree, and having counted the number of zones in each, take the mean of the number. Then divide half the diameter of tree, divested of its bark, by the diameter of fragment, and multiply the quotient by the mean of concentric circles of fragments. Suppose 2 fragments each 2 inches thick, and that in one we have 8 and in the other 12 zones:—$12 + 8 = 20 \div 2 = 10$, the mean: let the half diameter of tree be equal 20 inches, then $20 \div 2 = 10 \times 10 = 100$ years, the age of tree. The result thus gained is pretty correct with regard to European trees, but in India it is not to be depended upon, as the zones vary much in thickness, and sometimes more than one zone may be formed in a single year. In another class of trees called Endogens (ἔνδον within, and γενάεω, to produce), the leaves have parallel veins, and the stems grow by the introduction of woody bundles into the interior, without any concentric circles. The only way of ascertaining, approximately, the age of such trees, is by noting their increase in height in one year, and dividing their entire height by the amount. Palms, &c., belong to this class.

ABBREVIATIONS.

N. O.....Natural Order.
Tam.....Tamil.
Tel.....Telugu.
Hind.....Hindustani.
Can.....Canarese.
Sans.....Sanscrit.

1. ACACIA ARABICA.

N. O. LEGUMINOSÆ.

Babul, *Eng.* Kar-vaila, *Tam.* Nalla tumma, *Tel.*
Babula, Kali-kikur, *Hind.*

A tree of from 30 to 40 feet in height, of rapid growth, and thriving in black soil and barren wastes, that would hardly produce any other tree. It yields a well known gum. The bark is used in making a kind of arrack and in dyeing leather red. The wood is small and often crooked, but very hard and tough, and makes excellent naves for wheels, &c. Common everywhere.

2. ACACIA CATECHU.

N. O. LEGUMINOSÆ.

Catechu, *Eng.* Wodahalle, *Tam.* Podala manu, *Tel.*
Kheir, *Hind.*

A tree of medium size, most common in the upper parts of the country. It yields timber inferior to that of any other Acacia. The well known *kut* or Catechu is obtained from it. Malabar, Mysore, Deccan, Bengal, Delhi.

3. ACACIA LEUCOPHLŒA.

N. O. LEGUMINOSÆ.

Velvaila, *Tam.* Tella tumma, *Tel.* Kikar, *Hind.*

A tree of no great size. Its whitish bark is used in making arrack. Its wood is dark coloured and hard. Coromandel Coast, &c.

4. ACACIA ODORATISSIMA.

N. O. LEGUMINOSÆ.

Karu-venge, *Tam.*

This handsome tree is very common. It attains a height of more than 30 feet, will thrive in almost any soil, and being of rapid growth, is well adapted for ornamental purposes. The wood is hard and strong, but rather open grained. Bellary, Malabar, and Coromandel.

5. ACACIA SPECIOSA.

N. O. LEGUMINOSÆ.

Vel-venge, *Tam.* Dirasana, *Tel.* Sirissa, *Hind.*

Tree of from 30 to 50 feet in height, with dense wide-spreading head. It is of rapid growth, puts out its leaves just before the hot season, flowers soon after, is very fragrant, and altogether one of the finest trees in India for lawn or avenue. The wood is of light colour, close grained, hard and durable, and makes good furniture. Coromandel, Guntoor, and Hyderabad.

6. ACACIA SUNDRA.

N. O. LEGUMINOSÆ.

Karangali, *Tam.*

This tree is of large size and yields a gum similar to Catechu. The wood is hard, heavy and durable, and in great request for the posts of houses, rice pestles, &c. It does not hold nails well, otherwise it makes excellent posts for fencing. Northern Circars, Mysore, Travancore, &c.

7. ADENANTHERA PAVONINA.

N. O. LEGUMINOSÆ.

Red-wood, *Eng.* Aunay Cundumany, *Tam.* Bandi gurivenda, *Tel.* Kuchunduna, *Hind.*

A large and handsome tree. Its heart-wood yields a red pigment used by Brahmins for marking their foreheads. The wood is solid, hard and durable. Northern Circars, Travancore, Mysore.

8. ÆGLE MARMELOS.

N. O. AURANTIACEÆ.

Bel tree, *Eng.* Vilva-maram, *Tam.* Maredu chettu, *Tel.* Bœl, *Hind.*

A handsome tree of middling size. The unripe fruit is a valuable astringent in cases of diarrhœa; while the ripe fruit is nutritious and not unpalatable, and has slight aperient properties. Wood light coloured and nicely variegated, but of no great value. Coromandel, Hyderabad, Malabar, Mysore, Bengal.

9. AILANTHUS EXCELSUS.

N. O. XANTHOXYLACEÆ.

Peru-marum, *Tam.* Pedda manu, *Tel.*

A large tree. Its wood is white and soft. It is made into sword handles, catamarans, &c. Northern Circars, Coimbatore, Malabar.

10. ALANGIUM DECAPETALUM.

N. O. ALANGIACEÆ.

Alangi-marum, *Tam.* Akola, *Hind.* Anisaruli-maram, *Can.*

This is a tree of middling size. Its wood is said to be very beautiful and strong. Assam, Malabar, Coromandel, Mysore, and Coimbatore.

11. ALANGIUM HEXAPETALUM.

N. O. ALANGIACEÆ.

Uduga, *Tel.* Akola, *Hind.*

The timber of this species also is considered valuable. Malabar, Allahabad.

12. ALSTONIA SCHOLARIS.

N. O. APOCYNACEÆ.

Chatiun, *Hind.*

A large and handsome tree. The wood is white and close grained, and makes good beams, boxes, &c. Assam, Coromandel, Travancore.

13. ANACARDIUM OCCIDENTALE.

N. O. ANACARDIACEÆ.

Cashew-nut tree, *Eng.* Jidi mamidi, *Tel.* Caju, *Hind.*

This small tree, a native of the West Indies, is cultivated everywhere for the sake of its fruit. It is not very productive however when away from the Coast. It yields a gum, and the wood is useful.

14. AQUILARIA AGALLOCHA.

N. O. AQUILARIACEÆ.

Aloes or Eagle-wood, *Eng.* Agar, *Hind.* Uguru, *Sans.*

This is a large tree, growing in Sylhet and the Malayan peninsula. Both Roxburgh and Royle agree in considering it as that which furnished the *Calambac*, or *Agallochum* of the ancients. The wood is heavy, yellowish white, shaded with green and resinous. It is very costly, being sold by weight; and is highly prized in Siam, China, India, &c. for burning as incense.

15. ARECA CATECHU.

N. O. PALMACEÆ.

Betel-nut palm, *Eng.* Camugu, *Tam.* Poka chettu, *Tel.* Supari, *Hind.*

A very common palm, elegant and tall. It yields the well known betel-nut, from which an inferior kind of *Catechu* is prepared. The wood is very elastic, and is used for making spear handles and bows. It is also used as the ridge-tree in building native houses.

16. ARTOCARPUS HIRSUTA.

N. O. ARTOCARPACEÆ.

Angeli-maram, *Tam.*

This is a large tree chiefly confined to the W. Coast, and most abundant at an elevation of 3,000 feet. It is highly prized for boats, and ship and house building; and in 1860 formed the subject of a correspondence between the Madras Government and H. M. Dockyard Authorities. In a Memorandum to Government Dr. Cleghorn says:—"Angili stands next to teak in the estimation of ship-builders." "No difficulty is anticipated in providing annually 3,000 tons along the Travancore coast." Travancore, Mysore, Coorg, Malabar.

17. ARTOCARPUS INTEGRIFOLIA.

N. O. ARTOCARPACEÆ.

Jack-tree, *Eng.* Pila, *Tam.* Panasa chettu, *Tel.*
Phunus, *Hind.* Alasegana-mara, *Can.*

A very large tree much prized by natives for its fruit. It grows rapidly and is highly ornamental. Its wood when new is of a yellow colour, but it afterwards assumes a mahogany tint and is highly esteemed for making furniture. It is said not to stand alternations of dryness and moisture well. Bengal, Coromandel, Malabar, Dekhan, Mysore, &c.

18. ATALANTIA MONOPHYLLA.

N. O. AURANTIACEÆ.

Wild lime, *Eng.* Catyalu micha-maram, *Tam.*
Adavi-nimma, *Tel.*

Small tree. Wood hard, heavy, close grained, yellow and suitable for cabinet work. Malabar, Coromandel.

19. AZADIRACHTA INDICA.

N. O. MELIACEÆ.

Nim tree, *Eng.* Vepa-maram, *Tam.* Vepa manu, *Tel.*
Nim, *Hind.*

A common, large, quick growing, and very handsome tree; putting forth its leaves in the hot season. Its seeds yield a useful oil. The wood is finely mottled, hard, heavy and deserving of attention for ornamental work. Common everywhere.

20. BAMBUSA ARUNDINACEA.

N. O. GRAMINACEÆ.

Bamboo, *Eng.* Mungil, *Tam.* Veduru, *Tel.* Bhans, *Hind.*

One of the most handsome and useful of the many such plants, that India produces. The various purposes to which it is applied are too numerous, and too well known to require any notice here. Sub-Alpine forests of Peninsula.

21. BASSIA LONGIFOLIA.

N. O. SAPOTACEÆ.

Elupa-maram, *Tam.* Ippa chettu, *Tel.* Mohwa, *Hind.*

This tree reaches a height of 40 feet, and is pretty common in the W. jungles. A fatty oil, which forms an ingredient in country soap, is extracted from the ripe fruit. The wood is not liable to be deteriorated by immersion in water or to suffer from the attacks of the *Teredo navalis*, and is therefore much esteemed for planking ships below water line, and similar purposes. It is also used for making carts, spars, &c. It is smaller than Teak, but as hard and nearly as durable. Mysore, Nagpore, Travancore, Circar Mountains.

22. BASSIA LATIFOLIA.

N. O. SAPOTACEÆ.

Caat-elupa, *Tam.* Ippa chettu, *Tel.* Moola, *Hind.*

This is a tree of considerable size, producing an immense number of flowers from which a kind of arrack or spirit is distilled. In the Bombay Presidency the duty on this liquor is the source of an immense revenue. The seeds yield a useful concrete oil. The wood is hard and strong, and makes good naves for wheels, &c. Bengal, Guzerat, Rajpootana, Circar Mountains.

23. BERGERA KONIGII.

N. O. AURANTIACEÆ.

Curry-leaf tree, *Eng.* Carruva-pillay, *Tam.* Kari-vepa, *Tel.*
Karay-paak, *Hind.*

The leaf of this tree is well known as a seasoning for curry. The seeds yield an oil. It is a tree of small size, with hard, durable timber. Cultivated.—Malabar, Circar Mountains.

24. BERRYA AMMONILLA.

N. O. TILIACEÆ.

Trincomallee-wood, *Eng.* Tircanamalai-maram, *Tam.*

This tree was introduced from Ceylon, whence supplies of it are still procured. Its wood is highly esteemed, being light, pliant, strong, straight grained, easily worked, and little affected by water. It is used for making Massula boats, spokes of wheels, handles for tools, planes, &c. Cultivated.

25. BIGNONIA SUBEROSA.

N. O. BIGNONIACEÆ.

Indian Cork tree, *Eng.*

This tree thrives in the most arid parts of the country, rapidly attaining a great height. It is highly ornamental at all times, and when in flower superlatively so; at the same time loading the air with its fragrance. Its wood is firm, white and close grained. Bark yields an inferior sort of cork. Cultivated.

26. BORASSUS FLABELLIFORMIS.

N. O. PALMACEÆ.

Palmyra palm, *Eng.* Panna-maram, *Tam.* Tati chettu, *Tel.* Tarie, Talgachh, *Hind.*

This palm is most common along the coasts of India. It yields toddy, and its leaves afford a coarse fibre. The trunk is easily split in the direction of its length, making laths, rafters and joists of a very superior description, as the wood will support a greater cross strain than almost any other. Nails however rapidly decay from rust in it. Common.

27. BOSWELLIA GLABRA.

N. O. ANACARDIACEÆ.

Kundricum, *Tam.* Gugulupu chettu, *Tel.* Cundur, *Hind.*

This tree yields the fragrant resin *Gugul* of the Telingies, which boiled with oil may be used as a substitute for pitch. The wood is hard, heavy and durable. Dekkan, Coromandel Mountains.

28. BRIDELIA SPINOSA.

N. O. EUPHORBIACEÆ.

Mullu venge, *Tam.* Anem, *Tel.* Sun, *Hind.*

This tree attains considerable size. Wood dark coloured, hard and durable.

29. BUCHANANIA LATIFOLIA.

N. O. ANACARDIACEÆ.

Moræda, Mowda, *Tam.* Chara-pappu, *Tel.* Piyar Cherunjie, *Hind.*

Small tree, yielding a useful wood.

30. BUTEA FRONDOSA.

N. O. LEGUMINOSÆ.

Bastard Teak, *Eng.* Porasam, *Tam.* Moduga Chettu, *Tel.* Dhak, *Hind.* Thorusmara, *Can.* Palas, *Sans.*

A common tree, not, in general, of any great size, but very beautiful when in flower. Its scarlet flowers dye cotton yellow; lac is frequently found on the small branches, and the bark when cut into yields a substance called palas-kino. Wood of no great value. Common.

31. CÆSALPINIA SAPPAN.

N. O. LEGUMINOSÆ.

Sappan wood, *Eng.* Vatangi, *Tam.* Bukkapu chettu, *Tel.* Patange, *Hind.*

A tree 40 feet high. It is common in various parts of the country, and is cultivated on the West Coast for the sake of the red dye that is yielded by its wood. From its use in dyeing it is too costly to permit of its being used in carpentry. Malabar, Bengal, &c.

32. CALOPHYLLUM INOPHYLLUM.

N. O. GUTTIFERÆ.

Alexandrian laurel, *Eng.* Pinne-maram, *Tam.* Ponna chettu, *Tel.* Sultan-champa, *Hind.* Wuma-mara, *Can.*

A common tree of large size, very handsome and with highly fragrant flowers. It grows well in sandy tracts near the sea, where few other trees will thrive. Lamp oil is procured from the seeds. The wood is coarse grained, but strong, durable and ornamental.

33. CALOSANTHES INDICA.

N. O. BIGNONIACEÆ.

Vanga, *Tam.* Pampena, *Tel.* Shyona, *Hind.*

A tree of considerable size. Timber soft and spongy. Travancore, Coromandel.

34. CASUARINA MURICATA.

N. O. CASUARINACEÆ.

Casuarina or Beef-wood, *Eng.* Chowk-maram, *Tam.* Serva-chittu, *Tel.*

This tree, introduced from Chittagong, is now very common, and thrives best on sandy tracts along the Coast. It is somewhat like the larch in appearance, but more graceful; and a general favourite for avenues, lawns, &c. It grows very rapidly. The wood is of a red colour, very dense, heavy and capable of bearing a great cross strain.

35. CEDRELA TOONA.

N. O. CEDRELACEÆ.

Indian mahogany, *Eng.* Tun-maram, *Tam.* Tuna, *Hind.* Tundu, *Can.*

A tree of large size found in mountainous districts. Its timber is sometimes called *Chittagong-wood*, and is much used and highly prized for making furniture, being little inferior to mahogany. It is of a red colour like that wood, but lighter, and not so close in the grain. Mysore, Salem, Travancore, Bengal.

36. CHICKRASSIA TABULARIS.

N. O. CEDRELACEÆ.

Agle-maram, *Tam.*

A tree of large size. Its wood, as well as that of the preceding tree, is also called *Chittagong-wood.* It is light coloured, close grained and finely veined, making pretty furniture, but is apt to warp during the hot winds. It is by some thought to be identical with the *Agila* wood of Malabar, which enjoys considerable repute amongst Railway Engineers. Mysore, Travancore, Chittagong, &c.

37. CHLOROXYLON SWIETENIA.

N. O. CEDRELACEÆ.

Satinwood, *Eng.* Kodawa pursh, *Tam.* Billudu chettu, *Tel.*

This is a tree of small size. Its wood is of a light orange colour, beautifully marked, close grained, hard and durable. It takes a very fine polish, but loses its beauty by age, unless protected by a fine coat of varnish. It is much used in England as a veneer for fancy work, and is familiar to every one on the back of hair and other brushes. Circars, Mysore, Coimbatore, Coorg.

38. CLUYTIA COLLINA.

N. O. EUPHORBIACEÆ.

Wodugu-maram, *Tam.* Vodisa, *Tel.*

A small tree with wood of a red colour, which is exceedingly hard and durable.

39. COCOS NUCIFERA.

N. O. PALMACEÆ.

Cocoanut tree, *Eng.* Tenna-maram, *Tam.* Tenkaya chettu, *Tel.* Naril, *Hind.* Tingena, *Can.*

This tree thrives best on the Coast. The stem is used for rafters, &c., the leaves for thatch, the fibrous covering of the nut forms coir, and a well known and very valuable oil is extracted from the kernel of the nut. Common.

40. CONOCARPUS ACUMINATUS.

N. O. COMBRETACEÆ.

Pachi-man, *Tel.*

This is a tree of great size. For building and other purposes its wood is highly esteemed by the natives, being hard and durable. Circar Mountains.

41. CONOCARPUS LATIFOLIUS.

N. O. COMBRETACEÆ.

Valay-naga, *Tam.* Siri-manu, *Tel.*

One of the largest trees to be found amongst the Circar Mountains. Wood hard and durable, and highly esteemed for ship and house building.

42. CORDIA ANGUSTIFOLIA.

N. O. CORDIACEÆ.

Narrow-leaved Sepistan, *Eng.* Narruvalli, *Tam.* Nakkeru, *Tel.* Gund, *Hind.*

A tree of small size common in the Mysore country. Its bark yields a strong fibre, and the wood is tough and elastic, making good poles for carriages, &c. Bombay, Dekkan.

43. DALBERGIA FRONDOSA.

N. O. LEGUMINOSÆ.

A tree of middling size, handsome and quick growing. It yields an excellent timber. Mountains of South of Peninsula.

44. DALBERGIA LATIFOLIA.

N. O. LEGUMINOSÆ.

Blackwood, *Eng.* Erupottu, *Tam.* Irugudu chettu, *Tel.* Biti, *Can.*

A splendid tree of immense size. It yields the blackwood of commerce, of which planks 4 feet wide, after removing the outer white wood, are procurable. Blackwood is heavy and close-grained, and admits of a very fine polish. Travancore, Coorg, Mysore, Northern Circars.

45. DALBERGIA SISSOIDES.

N. O. LEGUMINOSÆ.

Blackwood, *Eng.* Biti-maram, *Tam.*

A tree of smaller size, but more common than the preceding. Its wood is of a dark colour, contains much oil, and is also called *Blackwood* or *Rosewood.* Travancore, Canara, Concans.

46. DALBERGIA SISSOO.

N. O. LEGUMINOSÆ.

Sissu, *Tel.* Sissu, *Hind.*

Introduced into Madras Presidency from Bengal. It thrives well on the plains, making a beautiful and valuable avenue tree. It soon attains a large size, yielding a light, hard, strong and highly durable timber, of light greyish brown colour. It is used for knees in ship building, gun carriages, mail carts, &c. Bengal, Goozerat.

47. DILLENIA PENTAGYNA.

N. O. DILLENIACEÆ.

Ravudana, *Tel.* Kanagalu, *Can.*

Tree of considerable size. The wood is close grained and durable. It splits easily, and is therefore much in request by fire-wood contractors. Malabar, Bombay.

48. DILLENIA SPECIOSA.

N. O. DILLENIACEÆ.

Uva-maram, *Tam.* Uvva, Pedda kalinga, *Tel.* Chalita, *Hind.*

This tree attains a height of 40 feet and is highly ornamental. It is s timber is tough, close-grained and very durable under water. It is to make good gun stocks. Leaves are used to polish wood. Ben Chittagong, Malabar.

49. DIOSPYROS CORDIFOLIA.

N. O. EBENACEÆ.

Vuckana-maram, *Tam.* Kaka ulimera, *Tel.*

This tree has wood of a dark brown colour, hard, heavy and difficult to work. Travancore, Tinnevelly, Bengal.

50. DIOSPYROS MELANOXYLON.

N. O. EBENACEÆ.

Ebony tree, *Eng.* Tumballi, *Tam.* Tummedu chettu, *Tel.* Tindu, *Hind.*

This is a tree of large size. The inner parts of it are the ebony of commerce, the external wood being white and spongy. Ebony has been highly prized from remote ages, and is noticed by Virgil in his II. Georgic, thus ;—

> "All sorts of trees their several countries know,
> Blackebon only will in India grow."

It is remarkable for its exquisite black colour, extreme heaviness and close texture. It takes a beautiful polish, but being easily affected by changes of temperature, is liable to split. The true ebony of commerce is obtained from the *D. ebenaster*, but this and other species are equally good. Malabar, Coorg, Mysore, Coromandel, Orissa, Dekhan.

51. EMBLICA OFFICINALIS.

N. O. EUPHORBIACEÆ.

Nelli-maram, *Tam.* Usirika, *Tel.* Aonla, *Hind.* Nelli mara, *Can.*

A middle sized tree. Its fruit is about the size of a gooseberry, and much prized by natives. Wood hard and useful. Mysore, Dekhan, Malabar, Bengal, Coromandel.

52. EMBRYOPTERIS GLUTINIFERA.

N. O. EBENACEÆ.

Wild mangosteen, *Eng.* Kusharata-mara, *Tam.* Tumiki, *Tel.*

A tree of small size with wood of indifferent quality. The viscid juice of the fruit is used for paying boats' seams, and preparing nets and lines. Mysore, Travancore, Bengal.

53. ERIODENDRON AUFRACTUOSUM.

N. O. BOMBACEÆ.

White Cotton tree, *Eng.* Elavu-maram, *Tam.* Buruga, *Tel.* Huttian, *Hind.*

Large tree, growing rapidly and very ornamental, but wood soft and worthless. Common.

54. ERYTHRINA INDICA.

N. O. LEGUMINOSÆ.

Indian Coral tree, *Eng.* Murku-maram, *Tam.* Badapu chettu, *Tel.* Furrud, *Hind.*

A middling sized stiff looking tree, but with very pretty scarlet flowers. It yields the soft light *muchie wood*, used at Warungal, Condapillay, &c., for making toys, trays, &c. Mysore, Travancore, Dekhan, Northern Circars, Bengal, &c.

55. EUGENIA CARYOPHYLLIFOLIA.

N. O. MYRTACEÆ.

Naga-maram, *Tam.* Jamun, *Hind.*

A common tree of large size yielding an eatable fruit. Timber strong and close grained.

56. FERONIA ELEPHANTUM.

N. O. AURANTIACEÆ.

Wood-apple, *Eng.* Vela-maram, *Tam.* Velaga chettu, *Tel.* Khoet, *Hind.* Bilwar-mara, *Can.*

A tree of great size, and remarkably handsome. When the bark is wounded a useful transparent gum exudes. The wood is white, heavy, hard and strong, but not very durable. Coromandel, Bengal, Guzerat, Mysore, Travancore, &c.

57. FICUS BENGALENSIS.*

N. O. MORACEÆ.

Ala-maram, *Tam.* Marri chettu, *Tel.* Ala damara, *Can.*

A splendid tree for avenues,

"Branching so broad and long that in the ground,
The bending twigs take root and daughters grow."

Wood, soft and useless, drops sometimes used for tent poles. Common everywhere.

* All the species of Ficus are handsome and easily reared from cuttings, but their wood is soft and of no value.

58. FICUS RELIGIOSA.

N. O. MORACEÆ.

Pippul tree, *Eng.* Arasa-maram, *Tam.* Ravi chettu, *Tel.* Pippul, *Hind.* Raugi-mara, *Can.*

A handsome tree and easily propagated like the last, but wood quite worthless.

59. GARCINIA PICTORIA.

N. O. CLUSIACEÆ.

Mukki, *Tam.*

This is a tree of great size. It yields an excellent Gamboge, but little is known of its wood. Wynaad, Coorg, Mysore, West Ghats.

60. GMELINA ARBOREA.

N. O. VERBENACEÆ.

Cummy-maram, *Tam.* Gumudu chettu, *Tel.* Jugani-chukur, *Hind.*

A small tree. Wood of a light yellow colour, easily worked and not liable to shrink or warp. It is very durable under water. It is used for making carriage and palankeen pannels, venetian blinds, picture frames, &c. Goodavari, Concans, Oude, Coromandel.

61. GYROCARPUS ASIATICUS.

N. O. COMBRETACEÆ.

Tanuku, *Tel.*

A tree of large size, with a light tough wood, which is highly prized for making catamarans, &c. Banks of Kistnah, Coromandel.

62. HYMENODYCTION EXCELSUM.

N. O. CINCHONACEÆ.

Pundaru, *Tel.* Kala buchnal, *Hind.*

A tree of 40 or 50 feet. Its wood is fine, close-grained and of a pale mahogany colour. Northern Circars.

63. INGA XYLOCARPA.

N. O. LEGUMINOSÆ.

Tangedu-manu, *Tel.* Jambe, *Hind.*

This tree attains a considerable size. It may be obtained in 25 or 30 feet lengths and about 15 inches diameter. The timber is brownish towards the centre, and very strong, hard, tough and durable above or

below ground. When cut into planks it seasons in 12 months, shrinking about ⅛ inch per foot during the process. Density 5 lbs. 10 oz. per foot superficial. It takes paint or varnish well, and is not attacked by white ants. Coromandel, Mysore, Concans, Malabar.

64. ISONANDRA ACUMINATA.

N. O. SAPOTACEÆ.

Indian Gutta tree, *Eng.* Pauley or Pali, *Tam.*

This tree attains an immense height. When incisions are made in its bark, a substance exudes somewhat similar to Gutta percha, but of no practical value. Its wood is hard and takes a good polish. Anamalai Hills, Wynaad, Coorg, Travancore.

65. LAGERSTRÆMIA MICROCARPA.

N. O. LYTHRACEÆ.

Ben-teak, *Eng.* Cutcha catta-maram, *Tam.* Ventaku, *Can.*

This is a tree of large size. Wood straight grained and easily worked. It lasts well above ground, if kept free from moisture. If not properly stored, it will cast in seasoning. It shrinks about ¼ inch per foot during the process. Coorg, Tinnevelly, Cannanore, Travancore, Palghat.

66. LUMNITZERA RACEMOSA.

N. O. COMBRETACEÆ.

A small tree found in the salt marshes of Malabar, &c. Its timber is strong and durable.

67. MANGIFERA INDICA.

N. O. ANACARDIACEÆ.

Mango tree, *Eng.* Maa-maram, *Tam.* Mamidi chettu, *Tel.* Am, *Hind.* Mavena, *Can.*

A fine large tree, too well known to require any special notice. From wounds in the bark a reddish brown gum resin exudes. Wood of a dull grey colour and porous, but durable. Used for packing cases and other rough work.

68. MELIA AZEDARACH.

N. O. MELIACEÆ.

Margosa, or Persian Lilac, *Eng.* Malai vembu, *Tam.* Turaka vepa, *Tel.*

Tree of considerable size and very handsome. Seeds yield a valuable oil, and the wood is beautifully marked, hard and durable. Mysore, Dekhan, Concans, &c.

69. MICHELIA CHAMPACA.

N. O. MAGNOLIACEÆ.

Sempagi-maram, *Tam.* Chumpaka, *Hind.*

A tree of from 30 to 40 feet in height. Its flowers are highly prized by natives, and their beauty and smell have been spoken of in the most extravagant terms, for many flowers excel them in both these qualities. The wood is close-grained and finely mottled. Coorg, Mysore, Travancore.

70. MIMUSOPS HEXANDRUS.

N. O. APOTACEÆ.

Pala-maram, *Tam.* Pala chettu, *Tel.*

This tree yields a strong, heavy and tough wood. Northern Circars, Bombay.

71. MORINDA CITRIFOLIA.

N. O. CINCHONACEÆ.

Indian Mulberry tree, *Eng.* Nona-maram, *Tam.* Maddi chettu, *Tel.* Al, Atchy, *Hind.*

A tree of small size, with fragrant pretty flowers. A scarlet dye is procured from the roots. The wood is yellow and easily worked. Mysore, Travancore, Hyderabad.

72. NAUCLEA CORDIFOLIA.

N. O. CINCHONACEÆ.

Munja cadamba, *Tam.* Daduga, *Tel.* Kelikudum, *Hind.* Hedde, *Can.*

This tree attains a considerable size, growing in moist places. The wood is light, close-grained, yellow, easily worked and admits of a good polish. It makes pretty furniture, but is easily affected by alternations of wet and dry weather. Bengal, Concans, Travancore, Mysore, &c.

73. NAUCLEA PARVIFOLIA.

N. O. CINCHONACEÆ.

Nir cadambu, *Tam.* Bota kadami, *Tel.*

A tree from 20 to 30 feet, wood close-grained and of light chesnut colour. If exposed to wet it soon rots. Used for packing cases, flooring, &c. Malabar, Mysore, Bengal, Concans.

74. ODINA WODIER.

N. O. ANACARDIACEÆ.

Ude-maram, *Tam.* Gumpina, *Tel.* Jiwul, Cushmulla, *Hind.*

This tree grows readily from cuttings and very fast, and is therefore frequently planted in avenues. The central part of the tree is of a reddish colour and close-grained. It is difficult to season, but is used for sheaths of swords and knives, &c. Bengal, Coromandel, Mysore, Malabar, &c.

75. PENTAPTERA ARJUNA.

N. O. COMBRETACEÆ.

Cahua, *Hind.*

This tree attains a height of 40 or 50 feet. Its timber is of excellent quality. Bengal, Surat.

76. PONGAMIA GLABRA.

N. O. LEGUMINOSÆ.

Punga-maram, *Tam.* Kanaga chettu, *Tel.* Kurung, *Hind.*

This tree attains a considerable size, and delights in the moist sandy banks of rivers. It becomes covered with leaves early in March, and might therefore be planted in avenues, as most other trees are at that season bare. Its wood is white, light and firm. Coromandel, Malabar, Concans, Bengal, Mysore.

77. PRENMA TOMENTOSA.

N. O. VERBENACEÆ.

Kolkatte teak, *Tam.*

A small tree, wood brownish yellow, hard and close-grained, well suited for ornamental purposes. Northern Circars, Mysore, Travancore.

78. PROSOPIS SPICIGERA.

N. O. LEGUMINOSÆ.

Parambe, *Tam.* Chami, *Tel.* Shumi, *Hind.*

A large tree, thriving in black cotton soil. Its wood is hard, straight-grained, strong and easily worked. Mysore, Coromandel, Guzerat, Delhi.

79. PSIDIUM PYRIFERUM.

N. O. MYRTACEÆ.

Guava tree, *Eng.* Coaya-maram, *Tam.* Jam, *Hind.* Sebe-maram, *Can.*

A small fruit tree, common in gardens. The wood is very hard and close-grained, and is commonly used for handling tools, making mallets, &c.

80. PTEROCARPUS MARSUPIUM.

N. O. LEGUMINOSÆ.

Kino tree, *Eng.* Venge-maram, *Tam.* Yegisa, *Tel.* Pit-shola, *Hind.* Honi, *Can.*

This is a large and handsome tree, abundant in all the timber producing districts of Southern India. It yields the East Indian Kino. The wood is heavy, and difficult to work, but stands exposure better than any other almost. It is much used in house building, and is one of the most valuable woods produced in India. Mysore, Malabar, Niligiri.

81. PTEROCARPUS SANTALINUS.

N. O. LEGUMINOSÆ.

Red Sandal-wood, *Eng.* Sevapu sandanam, *Tam.* Erra chandanam, *Tel.* Rakta sandanam, *Hind.*

This is a fine large tree, it yields the Red Sandal wood of commerce, much used by dyers and colour makers. In consequence of the high price that it fetches for dycing, &c., the wood is rarely used for other purposes. It is dark red in colour with black veins, heavier than water, and takes a fine polish. Canara, Malabar, Mysore.

82. ROTTLERA TINCTORIA.

N. O. EUPHORBIACEÆ.

Samakasari-mara, *Tam.* Chendurapu chettu, *Tel.* Kapela, *Hind.*

A tree of medium size, generally growing near the banks of rivers The red powder which covers the seed capsules gives an orange dye called *Kapela-rung.* Its wood is soft and inferior. Mysore, Dekhan, Concans, Travancore, Coromandel, Bengal.

83. SALMALIA MALABARICA.

N. O. STERCULIACEÆ.

Red Cotton tree, *Eng.* Pula-maram, *Tam.* Buruga, *Tel.* Rukto shimul, *Hind.* Mullu-elavu, *Can.*

This tree attains an immense size, and is remarkably handsome in appearance. It grows very quickly, and its large waxy flowers are truly splendid; so that altogether it is well suited for a park or avenue, The wood is light, spongy and useless. Northern Circars, Mysore, Malabar, &c.

84. SANTALUM ALBUM.

N. O. SANTALACEÆ.

Sandal-wood, *Eng.* Sandanam, *Tam.* Chandanapu chettu, *Tel.* Sundul, *Hind.* Gandaga-mara, *Can.*

This small tree grows best on elevated dry slopes, just outside the *Mulnad* or rain country. The wood is close-grained and hard, and is well known and highly prized on account of its smell. It is sold by weight, and the heart-wood is the better. It is only employed for ornamental work such as carved boxes, paper cutters, &c. Coorg, Mysore, Coimbatore, &c.

85. SAPINDUS EMARGINATUS.*

N. O. SAPINDACEÆ.

Soapnut tree, *Eng.* Puchi kottay, *Tam.* Konkudu, *Tel.* Ritah, *Hind.*

A midling sized tree. Its fruit forms a substitute for soap. Wood of no value. Common.

86. SCHLEICHERA TRIJUGA.

N. O. SAPINDACEÆ.

Mayi, Roatangha, *Tel.* Pumarum, *Hind.*

This is a tree of small size. The wood is hard and is used for making sugar mills, &c. Coromandel, &c.

* There are several species of the Sapindus to be met with all over the country, but the wood of them all is very inferior.

87. SCHREBERA SWIETENIOIDES.

N. O. BIGNONIACEÆ.

Mogalinga marum, *Tam.* Mukodi, Makkam, *Tel.*

A tree of large size. The wood is grey, close-grained, hard, durable nd not liable to warp. It is used by weavers for making their beams, nd for many other purposes. Northern Circars.

88. SEMECARPUS ANACARDIUM.

N. O. ANACARDIACEÆ.

Marking-nut tree, *Eng.* Shengcotte, *Tam.* Jidi chettu, *Tel.* Bela, *Hind.*

This is a large and pretty tree, but the timber cannot be worked on account of the highly acrid juice that it contains. The nuts are used as a mordant. Bengal, Goozerat, Malabar, Dekhan, Coromandel, &c.

89. SETHIA INDICA.

N. O. ERYTHROXYLACEÆ.

Devadaru, *Tam.* Adavi goranta, *Tel.* Dewadar, *Hind.*

A small tree, often but a shrub. Wood fragrant, flesh coloured and hard. It is used as a substitute for sandal wood.

90. SHOREA ROBUSTA.

N. O. DIPTERACEÆ.

Gugilam, *Tel.* Sal, *Hind.*

One of the largest and most useful trees in India. It is said to reach the height of 150 feet. Considering all its qualities, its timber is next best to teak of any Indian wood. It is close-grained, heavy, and uncommonly strong. It is much used in Bengal for beams, rafters, gun carriages, &c. It is not suited for planks. It twists and warps after many years seasoning, should the surface happen to be removed, In Major Campbell' experiments seasoned sal broke with a weight of 1319 lbs., and teak with 1091 lbs. It yields a resin known as *Ral* or *Dhuma*, and used as a substitute for pitch. Bengal, Ganjam, Nagpore, Bombay, &c.

91. SOYMIDA FEBRIFUGA.

N. O. CEDRELACEÆ.

Red wood, *Eng.* Sem-maram, *Tam.* Somida manu, *Tel.* Rohana, Rohun, *Hind.*

This tree attains a height of 60 feet. Its wood is of a dark red colour, strong, very durable, light and easily worked. Malabar, Guzerat, Penang, Kadapa, Mergui, Maulmein, &c.

92. STERCULIA FŒTIDA.

N. O. STERCULIACEÆ.

Pinari-maram, *Tam.* Gurrapu badaur chettu, *Tel.* Jungle-badam, *Hind.*

A large and handsome tree, but unfortunately it has such an unpleasant smell as to render it unfit for avenues, &c. The wood is pale, not liable to split, and very durable. It is believed to furnish some of the smaller "poon spars." Bengal, Coromandel, Malabar.

93. STRYCHNOS NUX VOMICA.

N. O. LOGANIACEÆ.

Yetti-maram, *Tam.* Musidi, *Tel.* Kuchla, *Hind.*

This tree yields the poisonous fruit nux vomica, from which is prepared the virulent poison Strychnia. Its wood is white and very hard. Malabar, Mysore, Coromandel.

94. STRYCHNOS POTATORUM.

N. O. LOGANIACEÆ.

Clearing nut tree, *Eng.* Taita-maram, *Tam.* Indupu chettu, *Tel.* Ner mulie, *Hind.*

A small but very pretty tree, with sweet smelling flowers, and yielding a hard and durable wood. The fruit is the well known nut used for clearing muddy water. Common in mountainous districts.

95. SYZYGIUM JAMBOLANUM.

N. O. MYRTACEÆ.

Nawel-maram, *Tam.* Neredu, *Tel.* Jamun, *Hind.* Nerala-mara, *Can.*

A fine large and beautiful tree, well suited for and often seen in avenues. The wood is tough and close-grained, and much used for common purposes. The bark dyes various shades of brown according to the mordant. Mysore, Bengal, Coromandel, &c.

96. TAMARINDUS INDICA.

N. O. LEGUMINOSÆ.

Tamarind tree, *Eng.* Pulia-maram, *Tam.* Chinta chettu, *Tel.* Umble, *Hind.*

A common, highly prized, slow-growing and handsome tree, yielding the well known Tamarind fruit. The wood is hard, finely veined,

durable, and well suited for fancy work. Old trees are almost invariably faulty at the centre. Common all over India.*

97. TECTONA GRANDIS.

N. O. VERBENACEÆ.

Teak tree, *Eng.* Tek-maram, *Tam.* Teku-chettu, *Tel.* Segun, *Hind.*

One of the largest and most handsome trees in India. Although shooting up remarkably fast during the first years of its growth, it requires about 80 years to attain maturity. Its wood is very hard, never attacked by white ants, easily worked, soon seasoned, not liable to shrink, and probably the most durable in the world. It abounds in a fragrant oil which prevents it from injuring iron, and protects it from the attacks of insects. Mysore, Malabar, Canara, Banks of Godavery, Concans, Bundlecund, Coorg, Northern Circars, Birmah, &c.

98. TERMINALIA BELERICA.

N. O. COMBRETACEÆ.

Tanikoi, *Tam.* Tadi chettu, *Tel.* Bahura, *Hind.*

A tree of large size and very handsome, but the horribly fetid smell of its flowers renders it unfit for avenues. The wood is white and soft but durable, and is employed in house and ship building. Bengal, Mysore, Northern Circars, Coromandel, Malabar, &c.

99. TERMINALIA CATTAPA.

N. O. COMBRETACEÆ.

Indian almond tree, *Eng.* Natvadam-cotte, *Tam.* Badam chettu, *Tel.* Badamia-hindie, *Hind.*

A remarkably beautiful tree, much in favour with natives on account of its fruit; the kernel of which is the country almond. Wood light and durable. Cultivated everywhere.

100. TERMINALIA CHEBULA.

N. O. COMBRETACEÆ.

Kadukai, Pilla marda, *Tam.* Karaka chettu, *Tel.* Hirda, Huldah, *Hind.* Alali-mara, *Can.*

A very common tree in mountainous parts of the Peninsula, where it sometimes attains a height of 40 feet. Galls are found on its leaves, and its fruit is extensively used as a substitute for *Gall-nuts* in dyeing, &c. Wood is hard and durable, and is used for common purposes. Mysore, Malabar, Bengal.

* To sleep under this tree is said by the Natives to be hurtful to health.

101. TERMINALIA CORIACEA.

N. O. COMBRETACEÆ.

Kara-maradu, *Tam.* Mutti, *Can.*

This is a large tree, yielding a strong, hard and very durable timber. It is used for making the solid wheels of stone carts, for Railway sleepers, &c. Mysore, Northern Circars, Coromandel.

102. TERMINALIA GLABRA.

N. O. COMBRETACEÆ.

Karamarda, *Tam.* Tella maddi, *Tel.*

This tree attains a large size and is generally sound and plentiful. The wood is dark coloured, very hard, heavy and durable under water. It is rather coarse in fibre and difficult to work. In seasoning it opens in the grain. It requires from 12 to 15 months for the process; and is not touched by white ants. Peninsula, Sylhet, Monghyr.

103. TERMINALIA TOMENTOSA.

N. O. COMBRETACEÆ.

Nella-madu, *Tam.* Aans, *Hind.*

A large tree with astringent bark and tough elastic wood, making good shafts for buggies, &c. Concan, Oude, &c.

104. THESPESIA POPULNEA.

Portia tree, *Eng.* Purasa, *Tam.* Ganga ravi, *Tel.*
Poresh, Parspippu, *Hind.*

A pretty tree of large size. It is easily reared from cuttings, and being of quick growth and yielding good shade, it is well adapted for avenues. The wood is close grained and tough, but frequently faulty towards the centre. It makes good gun-stocks, rollers, &c. Common.

105. ULMUS INTEGRIFOLIA.

N. O. ULMACEÆ.

Indian elm, *Eng.* Navili chettu, *Tel.*

A fine large tree with dense dark green foliage. Well adapted for avenues in the higher parts of the country. Wood hard and strong. Himalayahs, Arcot hills, Mysore, Northern Circar mountains.

106. VATERIA INDICA.

N. O. DIPTERACEÆ.

Piney varnish tree, *Eng.* Dupada-maram, *Tam.*

A very handsome tree, forming beautiful avenues in some parts of the country. It yields a gum resin known as *Piney*, which makes an excellent varnish when applied in its fluid state as it comes from the tree. When allowed to harden it must be melted with a slow heat, and mixed with boiling linseed oil; or it may be dissolved in spirit with the aid of camphor and heat. The wood is used in ship building, being proof against the attacks of the *Teredo navalis*. Malabar, Canara, Mysore, &c.

107. VITEX ALATA.

N. O. VERBENACEÆ.

A small very pretty tree, well suited for ornamental purposes. Its wood is said to be of good quality. Mysore, Malabar, Bombay, Chittagong.

108. VITEX ALTISSIMA.

N. O. VERBENACEÆ.

A fine large tree of great beauty when in flower. Wood hard and fit for Cabinet work, and turning. Malabar, Coromandel hills.

109. VITEX ARBOREA.

N. O. VERBENACEÆ.

Busi, *Tel.*

A tree of moderate size. Wood becomes chocolate coloured on exposure and is of fair quality. Malabar.

110. WRIGHTEA TINCTORIA.

N. O. APOCYNACEÆ.

Pala-maram, *Tam.*

A small tree with fragrant flowers. A sort of Indigo is prepared from the leaves. Wood white and close-grained, said to turn well. Mysore, Coromandel.

111. ZIZYPHUS JUJUBA.

N. O. RHAMNACEÆ.

Yellande-maram, *Tam.* Regu chettu, *Tel.* Bèr, *Hind.*
Guti-mara, *Can.*

A very common tree, but of small size and often crooked. Its wood is hard and makes good sandals, saddle trees, &c.

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Jidi mamidi 13

Kaka ulimera 49
Kanaga chettu 76
Kari veppa 23
Karaka chettu 100
Konkudu 85

Maddi chettu 71
Mamidi chettu 67
Mayi 86
Maredu chettu 8
Marri chettu 57
Moduga chettu 30
Mukodi 87
Musidi 93

Nalla tumma 1
Nakkeru 42
Navili chettu 105
Neredu 95

Pachi man 40
Pala chettu 70
Pampena 33
Panasa chettu 17
Pedda manu 9
Pedda kalinga 48
Podala manu 2
Poka chettu 8
Ponna chettu 32
Pundaru 62

Ravi chettu 58
Ravudana 47
Regu chettu 111

Serva chettu 34
Siri manu 41
Sissu 46
Somida manu 91

Tadi chettu 98
Tangedu manu 63
Tanuku 61
Tati chettu 26
Teku chettu 97
Tella tumma 3
Tenkaya chettu 39
Tumiki 52
Tummedu chettu 50
Turaka vepa 68

Usirika 51
Uvva 48

Vedum 20
Velaga chettu 56
Vepa manu 19
Vodisa 38

Yegisa 80

R 2081/62

Revenue Department

No 1609 Rec'd

Proceedings of the Madras Government
Under date the 26th July 1862

Read the following letter
from G. Bidie M. B. Asst
Surgeon H. M. Madras Army.

Submits for the approval and patronage of Govt a Small work titled "The Timber Trees of India".

Rec'd 18th July 1862

The work referred to in the foregoing letter is calculated to be very useful.

The Governor in Council requests that Dr Bidie will supply 100 Copies for the use of Government accompanied by a Memorandum of their cost.

1 Copy to G. Bidie M.B. Assistant Surgeon H.M. Madras Army } Desp. 29th

Dr Riddell's work "Wild Trees of India"

Revenue 1862 Dept.
Pro: of Govt. for July.

No 1600.

Pro: of the Madras Govt.
Dy 26th July 62.

From George Bedie Esqr.
Asst. Surgeon Hoonsoor.
Dy 9 Aug: 62 & No. 2644.
in Pro. 26 Augt 62 No 56 this

From Dr Bidie 10 Sep: C No. 257 8/62
in Pro 20:

Requesting Dr.
Bidie to supply Govt
100 Copies of the "Timber
Trees of India"

No 350 to 351.